

Management measures in 4 study countries: Barbados, St. Kitts and Nevis, Belize and Honduras

THE BAY ISLANDS RESPONSIBLE SEAFOOD GUIDE

YOUR GUIDE TO MAKING INFORMED SEAFOOD CHOICES

FOR MORE INFORMATION, PLEASE CONTACT
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Best Choices	Choices with Cautions	Avoid Eating
Tuna (Skipjack, Blackfin & Little Tunny)	Lobster	All Other Grouper
Cero	Conch	Reef Snappers (Gray, Schoolmaster, Lane, Mahogany)
Kingfish	Barracuda	Parrotfish
Spanish Mackerel	Dog Snapper	Shark
Wahoo	Mutton Snapper	Triggerfish
Jacks & Trevallies	Deep Snappers (Black, Blackfin, Red Queen, Yelloweye)	Sea Turtle
Mahi Mahi	Red Hind Grouper	
Yellowtail Snapper	Rock Hind Grouper	
Lionfish		
Squid		

Best Choices include species that:

- Produce lots of eggs
- Have healthy populations in the wild
- Have a high rate of population increase
- Grow fast & reach sexual maturity at an early age
- Have minimal associated environmental concerns

NOTE: The bays species recommended in this guide are considered a viable seafood choice around the Bay Islands.

Choices with Cautions include species that have certain restrictions to consider such as:

- **Minimum Length Restrictions**
Lobster: Tail length > 5.5in/14cm - **LAW**
Barracuda: 36in/91cm - **LAW**
- **Closed Seasons**
Lobster: March to June - **LAW**
All Snappers: February to September - **RECOMMENDED**
Red / Rock Hind: Dec to April - **RECOMMENDED**

NOTE: Conch sold by restaurants must only be bought from legally registered exporting companies.

Avoid Eating includes species that:

- Have already been overfished and are listed as vulnerable or endangered (groupers and turtles)
- Are illegal to fish in Honduras (snappers)
- Are vital to the overall health of the reef (parrotfish and triggerfish)



<u>Barbados</u>	<u>St. Kitts and Nevis</u>	<u>Belize</u>	<u>Honduras</u>
<u>Technical measures</u>	<u>Technical measures</u>	<u>Technical measures</u>	<u>Technical measures</u>
<u>Temporal/Spatial measures</u>	<u>Temporal/Spatial measures</u>	<u>Temporal/Spatial measures</u>	<u>Temporal measures</u>
<u>Informing management</u>	<u>Ecological monitoring & research</u>	<u>Ecological monitoring & research</u>	<u>Spatial measures</u>
<u>Education & communication</u>	<u>Social surveys & research</u>	<u>Social surveys & research</u>	<u>Ecological monitoring & research</u>
<u>Manuals & guidelines</u>	<u>Alternative livelihoods</u>	<u>Alternative livelihoods</u>	<u>Social surveys & research</u>
			<u>Alternative livelihoods</u>
<u>Software support & decision-making tools</u>	<u>Management approaches</u>	<u>Management approaches</u>	<u>Management approaches</u>
<u>Participatory process</u>	<u>Environmental education</u>	<u>Environmental education</u>	<u>Environmental Education</u>
<u>Legislation/legal instruments</u>	<u>Communication & participatory process</u>	<u>Communication & participatory process</u>	<u>Communication & participatory process</u>
<u>Strategy documents</u>	<u>Manuals & guidelines</u>	<u>Manuals & guidelines</u>	<u>Manuals & guidelines</u>
<u>Policy</u>	<u>Software support & decision-making tools</u>	<u>Software support & decision-making tools</u>	<u>Software support & decision-making tools</u>
	<u>Legislation/legal instruments</u>	<u>Legislation/legal instruments</u>	<u>Legislation/legal instruments</u>
	<u>Policy & management plans</u>	<u>Policy & management plans</u>	<u>Policy & management plans</u>

Barbados

Category	Examples	Location
Technical measures	The Barbados Government constructed the South and West Coast Sewage Treatment Project to reduce pollution. ¹	South and West coast
	The Barbados Permanent Mooring Project aims to declare Barbados 'anchor free' through the installation of permanent moorings. ²	Barbados
	A shipwreck was sunk in Carlisle Bay to increase artificial reefs and divert diver pressures off natural reefs. ³	Carlisle Bay
	Fisheries gear restrictions: minimum trap mesh size, escape panels in traps, traps must carry identification, explosive and noxious substances, and trammel nets are prohibited. Seining and cast-netting near reefs is prohibited. Maximum gillnet length of 2.5km for use in flying fish fishery. Scuba diving prohibited for harvesting. ⁴	Barbados
	Catch restrictions: closed areas and seasons to fishing for shallow shelf reef fishes (e.g. parrotfish), spiny lobster, deep slope fishers (e.g. snappers), coastal pelagic species (e.g. herrings), and sea urchins. Harvest of berried lobsters and removal of eggs is prohibited. Landing all tunas less than 3.2kg prohibited. ⁴	Barbados
	Harvesting moratorium on sea urchins (e.g. white sea egg). ⁴	Barbados
	Chief fisheries officer permission is required for the collection of marine ornamentals. ⁴	Barbados
	Prohibition of harvesting and selling turtle eggs and animals. ⁴	Barbados
Category	Examples	Location
Temporal/spatial measures	Barbados Marine Reserve at Folkestone is the only legislated marine protected area on the island. It is a 2.2 km ² no-take zoned marine reserve. ⁵	Folkestone

Barbados

Category	Examples	Location
Informing management	Since 1982, the Coastal Zone Management Unit has monitored coral reefs at 5-year intervals on 21 west coast and 16 southwest coast fringing and patch reefs, and 6 west and southwest coast bank reefs. Reefs have been monitored for bleaching and coral disease at more frequent intervals. ^{1,5}	South & West coast
	The Coastal Zone Management Unit has started quarterly reef monitoring and water quality sampling to fill in gaps in available data. ³	Barbados
	Collaboration in international stock assessments for large pelagic species (e.g. tuna), and regional stock assessments for flying fish and sea urchins. ⁴	Barbados



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Barbados

Category	Examples	Location
Education and communication	Park naturalists have been trained to scuba dive and conduct several forms of reef monitoring and maintenance. ^c	Barbados
Category	Examples	Location
Manuals and guidelines		
Software support and decision-making tools		
Category	Examples	Location
Participatory processes	The Community-based Coral Reef Monitoring and Management Project was implemented in 2006. The project sought to build community capacity at the Folkestone Marine Reserve, to support identification of problems facing reefs and development of community-level strategies to combat existing impacts. ⁶	Folkestone
	Co-management promoted. ⁴	Barbados



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Barbados

Category	Examples	Location
Legislation/legal instruments	The Coastal Zone Management Unit's coastal management plan has sections devoted to coral reef protection. The plan outlines permitted coastal development and is enforced through the Coastal Zone Management Act, which protects corals from physical damage, and the Marine Pollution Control Act, which protects corals from land-based sources of pollution. ¹	Barbados
	Coastal Zone Management Act (1998) is in place to manage, protect and enhance the coastal and marine environment of Barbados. This Act includes coastal zone management, beach protection, preservation and enhancement of marine areas, and coral reef protection. Under this Act it is an offense to damage, harvest, or break coral; use explosives or poison for fishing or coral harvesting; anchor on coral; or fish within protected areas. This Act also required the drafting of Coastal Zone Management Plans for the island.	Barbados
	Marine Pollution Control Act (1998) is in place to prevent, reduce, and control pollution to the marine environment from all sources. Through this, corals would be protected through prevention and reduction of land, air and sea based pollution. The MPCA is enforced through the Environmental Protection Department of the Ministry of Environment, Water Resource Management and Drainage.	Barbados
	The Fisheries Act (1993, amended 2000) is the primary fisheries legislation in Barbados, in addition to fisheries specific measures, it specifies conservation measures such as prohibiting the use of any explosive, poison or other noxious substance; closed seasons, gear restrictions, creation of marine reserves.	Barbados
	The Fisheries (Management) Regulations (1998) set out specific gear regulations for the fisheries. The Regulations also include specific regulations and closures on reef related fisheries such as lobster, turtle, sea eggs; they also stipulate that corals may not be damaged, destroyed or fished without the written permission of the Chief Fisheries Officer.	Barbados

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Barbados

Category	Examples	Location
Legislation/legal instruments	Additional legislation has an indirect effect on reef resources and the implementation of other reef related legislation. These include: Town and Country Planning Act (1985) CAP. 240, Town and Country Planning Development Order (1972), Health Services Act, Markets and Slaughterhouses Act (1977), Barbados Territorial Waters Act (1977), Defence Act (1979), Marine Boundaries and Jurisdiction Act (1978), and Shipping Act (1994).	Barbados
	There are other legislative instruments that have been proposed and drafted, though have not been legalized. These include: Marine Pollution Control Regulations (1998), Draft Recreational Diving Operations Regulations 1998, and further fisheries regulations.	Barbados
Category	Examples	Location
Strategy documents	Coral reefs are recognized as being important to the Barbados economy. ¹	Barbados
	The National Biodiversity Strategy and Action Plan (2002) sets forth the commitment of Barbados to the Convention of Biological Diversity, the actions it has and will take towards the preservation of biodiversity. This includes reference to the legislation that is already in place.	Barbados
	The Fisheries Management Plan (2004-2006) (unknown at this time if there is a newer plan) outlines strategies to ensure the fishery's sustainable contribution to the nutritional, economic, and social well being of Barbados. The Fisheries Management Plan is implemented under the legal authority of the Fisheries Act.	Barbados
	The Coastal Zone Management unit has Coastal Zone Management Plans for the coasts of the island as required by the Coastal Zone Management Act.	Barbados
	The Beach Management Plan has been drafted by the National Conservation Commission.	Barbados
	The Folkestone Marine Park Management Plan has been drafted.	Folkestone
	A management plan has also been drafted for the proposed Carlisle Bay Marine Park.	Carlisle Bay



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Barbados

Category	Examples	Location
Policy	The Government recognises that healthy reefs are more resilient to coral bleaching and other climate change impacts than degraded reefs. Increasing efforts to reduce anthropogenic stress has become a management priority. ⁷	Barbados
	Establishment of a regional fisheries management organisation for large pelagic species (e.g. tuna) is promoted. ⁴	Barbados

Reefbase: Wilkinson, C., Souter, D. (eds), 2008, Status of Caribbean Coral Reefs After Bleaching and Hurricanes in 2005. Global Coral Reef Monitoring Network, and Reef and Rainforest Research Centre, Townsville, 152 p.

² <http://www.coastal.gov.bb/pageselect.cfm?page=35>

³ Hoetjes, P., A. L. Kong, R. Juman, A. Miller, M. Miller, K. De Meyer and A. Smith, 2002, Status of Coral Reefs in the Eastern Caribbean: The OECS, Trinidad and Tobago, Barbados, and the Netherlands Antilles. In: C.R. Wilkinson (ed.), Status of coral reefs of the world: 2002. GCRMN Report, Australian Institute of Marine Science, Townsville. Ch 17, pp 325-342

⁴ UNEP-WCMC: (2004) Fishery regulations in the wider Caribbean Region.

⁵ WRI Reefs at Risk country profile

⁶ Community-based Coral Reef Monitoring and Management Project, www.cavehill.uwi.edu/cermes/folkestone.html

⁷ Reefbase: Wilkinson, C., Souter, D. (eds), 2008, Status of Caribbean Coral Reefs After Bleaching and Hurricanes in 2005. Global Coral Reef Monitoring Network, and Reef and Rainforest Research Centre, Townsville, 152 p.

St. Kitts and Nevis

Category	Examples	Location
Technical measures e.g. mooring buoys and fisheries regulations	Fisheries gear regulations: restrictions on fishing gear (spearguns and SCUBA prohibited for spiny lobster); marking of lobster traps is required; dynamite, poisons and other noxious substances, and trammel nets prohibited for shallow shelf reef fishes (e.g. parrotfish); mesh size restriction for traps for deep slope fishes (e.g. snappers); minimum mesh size for beach seine and 'ballyhoo' nets (restricted use allowed), and prohibition of trammel nets for coastal pelagic fishes (e.g. herrings); use of SCUBA and hookah prohibited, consent of Chief Fisheries Officer needed to use spear gun. ¹	St Kitts and Nevis
	Catch regulations: minimum-size limits (spiny lobster (9.5cm carapace), queen conch (18cm shell length, 225g cleaned meat weight)), prohibition on taking berried females or moulting individuals (spiny lobster), harvesting of only 'flared lip' conchs permitted; minimum weight limit for Leatherback (158.18kg), Green (81.66kg), Hawksbill (38.6kg) and Loggerhead (72.59kg) turtles; setting nets for catching turtles within 300 yards from the shore. ¹	St Kitts and Nevis
	Prohibition of harvesting turtle eggs or disturbing turtle nests. ¹	St Kitts and Nevis
	Chief Fisheries Officer permission is required in order to collect corals, sponges, marine algae, seastars and aquarium fish. ¹	St Kitts and Nevis
Category	Examples	Location
Temporal measures e.g. seasonal closures	Closed season (spiny lobster, turtles: 28th Feb to 1st Oct). ¹	St Kitts and Nevis
Spatial measures	There are no MPAs in SKN. ^{2,3}	

St. Kitts and Nevis

Category	Examples	Location
Ecological monitoring and research	Currently there is no monitoring of reefs or fisheries in SKN. ⁴	
	St. Kitts Reef Ecology Watch Group (under St. Kitts Foundation, established 2006) was collecting ecological reef data for national database and reef.org database. Current status unknown. ⁵	St Kitts and Nevis
	A TNC (2010) project implemented monitoring to collect marine spatial data on ecological characteristics. This involved high resolution benthic habitat surveys for the two island's coastal waters (<30m deep) for 12 habitat classes using high-resolution satellite technology in combination with field measurements, and underwater video samples of the shelf surrounding SKN. Detailed benthic habitat maps showing the extent and distribution of each of the 12 habitat classes were produced. ⁶	St Kitts and Nevis
Category	Examples	Location
Social surveys and research	TNC (2010) project implemented expert interviews with local fishers to collect data on the locations, distributions and importance of commercial fisheries within the waters of SKN. ⁶	St Kitts and Nevis
	The OECS Protected Areas and Associated Livelihoods Project (OPAAL, 2004) implemented stakeholder consultation, social surveys (key informant and household surveys to collect information on existing livelihood opportunities related to protected areas (terrestrial, not MPA)), discussions with policy makers in government, local NGOs, civil society representatives. ⁷	St Kitts and Nevis
	CORAL conducted a preliminary study in 2006 collecting information about marine practices, perceptions and attitudes on conservation. The study was to assess SKN as a Coral Reef Sustainable Destination (a CORAL model used to assess stakeholder capacity for conservation). Those targeted included tourism operators, government officials in tourism and fisheries, and representatives from NGOs. ⁸	St Kitts and Nevis
	Poverty Assessment completed for 2007/08. Included was an assessment of macro social and economic environment, institutional analysis, survey of living conditions, and participatory poverty assessment. ⁹	St Kitts and Nevis

St. Kitts and Nevis

Category	Examples	Location
Alternative livelihoods and economic incentives	OPAAL (2004), worked in SKN (in a terrestrial protected area, as there are no MPAs). The project is geared towards providing benefits for local people through the conservation of biodiversity. The project also aims to provide benefits to target groups associated with the project-supported protected area, in particular for people with a dependency on the resources for livelihood support, or where there is a displacement of the livelihoods because of a legal declaration of protection. ⁷	St Kitts and Nevis
	Training was provided for 50 SKN nationals as part of the OPAAL Sustainable Livelihood Project in areas including: arts and crafts, fishing, tour guiding and agro-processing. This training has also offered skills in setting up small businesses. ¹⁰	St Kitts and Nevis
Category	Examples	Location
Management approaches e.g. ecosystem-based and co-management	The Fisheries Department and dive operation are cooperating on conservation projects, including installing artificial reefs. ¹¹	SW St Kitts
	Moved to either Ecosystem Based Management approach or Ecosystem Approach to Fisheries approach around 2005	St Kitts and Nevis
Category	Examples	Location
Environmental education	Nevis Historical and Conservation Society has done environmental education programs. ¹²	Nevis
	St. Kitts Reef Ecology Watch Group (under St. Kitts Foundation) has done education on marine ecosystems. Current status unknown. ¹³	St Kitts

St. Kitts and Nevis

Category	Examples	Location
Communication and participatory processes e.g. workshops and forums, and stakeholder involvement	TNC (2010) project undertook a broad stakeholder engagement exercise. Meetings and interviews were held with a broad range of stakeholders and decision-makers from government, community groups, private business sector and fishers' associations. ⁶	St Kitts and Nevis
	A World Bank funded Education Development Project (2005) used a participatory approach in the implementation of project activities to increase stakeholder ownership in the process. ¹⁴	St Kitts and Nevis
	MarGov held workshops in 2008 in both St. Kitts and Nevis. Workshops were attended by members of Fisheries Division, fishers, and members of fishing cooperatives. ¹⁵	St Kitts and Nevis
Category	Examples	Location
Manuals and guidelines for reef managers		
Category	Examples	Location
Software support and decision-making tools e.g. computer mapping and modelling	TNC (2010) project used Open Ocean Map software to geo-reference data from fishers. ⁶	St Kitts and Nevis
	TNC (2001) project produced a number of decision support tools including: maps of fisheries uses and values, benthic habitats, and compatibility maps (for different marine resource uses). ⁶	St Kitts and Nevis
	'Marxan with Zones' software was used in the TNC (2010) project as a tool for allocating resources and optimizing the needs of multiple sectors across the marine environment in SKN. ⁶	St Kitts and Nevis

St. Kitts and Nevis

Category	Examples	Location
Legislation and legal instruments e.g. fisheries or pollution laws	Fisheries Act 1984, Amended 1992 and 1997.	St Kitts and Nevis
	Fisheries Regulations 1995.	St Kitts and Nevis
	Fishing Marketing Regulations 1990, Amended 1992 (under General Markets and Meat Act 1976).	St Kitts and Nevis
	Maritime Areas Act 1984.	St Kitts and Nevis
	National Conservation and Environment Protection Act 1987, Amended 1996 and 2001.	St Kitts and Nevis
	Queen Conch (Stamp) Order 1990.	St Kitts and Nevis
	Marine Life Order 1995.	St Kitts and Nevis
	Boat Licensing 1995.	St Kitts and Nevis
	Land planning and development.	St Kitts and Nevis
	Nevis Physical Planning and Development Control Ordinance 2005.	Nevis
	Nevis Zoning Plan Ordinance 1985, Amended 1991.	Nevis
	Nevis Coastal Protection Levy Ordinance 1995.	Nevis
	Development Control and Planning Act 2000.	St Kitts and Nevis



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St. Kitts and Nevis

Category	Examples	Location
Policy and management plans	National Biodiversity Strategy & Action Plan 2004.	St Kitts and Nevis
	National Environmental Management Strategy 2005-2009.	St Kitts and Nevis
	Medium Term Economic Strategy 2003-2005.	St Kitts and Nevis
	National Capacity Self Assessment – Cross-cutting Assessment Report and Capacity Development Action Plan.	St Kitts and Nevis

UNEP-WCMC: (2004) Fishery regulations in the wider Caribbean Region.

² WRI Reefs at Risk country profile <http://www.wri.org/publication/reefs-risk-caribbean>

³ MPA global database <http://www.mpaglobal.org/index.php?action=search>

⁴ Reefbase: Hoetjes, P., A. L. Kong, R. Juman, A. Miller, M. Miller, K. De Meyer and A. Smith , 2002 , Status of Coral Reefs in the Eastern Caribbean: The OECS, Trinidad and Tobago, Barbados, and the Netherlands Antilles. . In: C.R. Wilkinson (ed.), Status of coral reefs of the world: 2002. GCRMN Report, Australian Institute of Marine Science, Townsville. Ch 17, pp 325-342

⁵ St. Kitts Foundation, <http://www.stkittsfdn.org>.

⁶ Agostini, V. N., S. M. Margles, S. R. Schill, J. E. Knowles, and R. J. Blyther. 2010. Marine Zoning in Saint Kitts and Nevis: A Path Towards Sustainable Management of Marine Resources. The Nature Conservancy.

⁷ Protected Areas and Associated Livelihoods Project (OPAAL): <http://www.oecs.org/esdu>.

⁸ CORAL (Coral Reef Alliance) 2006. St. Kitts & Nevis and the Coral Reef Sustainable Destination Model - An Analysis Prepared by The Coral Reef Alliance (CORAL). www.coral.org

⁹ Kairi Consultants Limited 2009. Country Poverty Assessment: St. Kitts And Nevis 2007/08. Living Conditions In A Caribbean Small Island Developing State

¹⁰ OECS OPAAL project: http://miyvue.com/index.php?option=com_content&view=article&id=3045:oece-protected-areas-and-associated-livelihood-opaal-project-has-ended&catid=42:rokstories

¹¹ St Kitts and Nevis OECS Education Development Project: [http://www-](http://www-wds.worldbank.org/external/default/main?pagePK=64193027&piPK=64187937&theSitePK=523679&menuPK=64187510&searchMenuPK=64187283&siteName=WDS&entityID=000350881_20100125101614)

[wds.worldbank.org/external/default/main?pagePK=64193027&piPK=64187937&theSitePK=523679&menuPK=64187510&searchMenuPK=64187283&siteName=WDS&entityID=000350881_20100125101614](http://www-wds.worldbank.org/external/default/main?pagePK=64193027&piPK=64187937&theSitePK=523679&menuPK=64187510&searchMenuPK=64187283&siteName=WDS&entityID=000350881_20100125101614)

¹² Nevis Historical and Conservation Society. <http://www.nevis-nhcs.org>. Last updated 2010

¹³ St. Kitts Reef Ecology Watch Group. <http://stkittsreefs.blogspot.com>. Last updated 2008

¹⁴ Bouchon, C., A. Miller, Y. Bouchon-Navaro, P. Portillo and M. Louis , 2004 , Status Of Coral Reefs In The French Caribbean Islands And Other Islands Of The Eastern Antilles. . p: 493-508. in C. Wilkinson (ed.). Status of coral reefs of the world: 2004. Volume 2. Australian Institute of Marine Science, Townsville, Queensland, Australia. 557 p

¹⁵ Haynes, C. 2008. Enhancing marine resource governance through developing capacity for communication in the Eastern Caribbean: Participants Report of Six Workshop. CERMES MarGov Project Document 9. 15pp.

Belize

Category	Examples	Location
Technical measures e.g. mooring buoys and fisheries regulations	Fisheries gear regulations: Use of spearguns, Hookah, and SCUBA is prohibited for catching spiny lobster; SCUBA and Hookah are prohibited for catching queen conch; ban on use of explosives or noxious substances; net construction and mesh size laws (and placement restrictions: 100 yards from the reef or the fore reef, at river mouths, a half mile in any community, in a channel, setting nets and traps in a spawning area); SCUBA equipment is prohibited in any type of fishery. ¹	Belize
	Catch regulations: minimum-size limits (spiny lobster: minimum carapace 3 inches, minimum tail weight 4 ounces; queen conch: shell length should not exceed 7 inches, market clean weight should exceed 3 ounces/85g); taking berried female spiny lobsters or moulting individuals is prohibited; ban on landing dead spiny lobsters. ¹	Belize
	Export of queen conch controlled by CITES. ¹	Belize
	Ban sale of 'out of season' and 'undersize' conch to hotels/restaurants. ¹	Belize
	Green and Loggerhead turtles with curved carapace length greater than 60cm should not be disturbed. ¹	Belize
	Buying, selling, or possessing any articles made of turtle shell; interfering with any turtle nest, or taking any turtle found on land is prohibited. ¹	Belize
	A license from the Fisheries Administrator is required to take a turtle for traditional use only. ²	Belize
	It is illegal to fish, sell purchase, or possess any article of the Hawksbill turtle. ¹	Belize
	It is illegal to take, buy, sell or have possession of any type of coral. An exception is made in the case of black coral, (<i>Antipatharia</i>), which may only be bought, sold, or exported with a license from the Fisheries Administrator). ^{1,2}	Belize
	Fishing licenses (personal and boat licenses for commercial fishing required). ¹	Belize



Belize

Category	Examples	Location
Technical measures e.g. mooring buoys and fisheries regulations	Penalties for infringements of national level interventions: infringements include fines (not more than \$1000, and a provision to fine by individual fish landed illegally), imprisonment (not more than 6 months) and gear confiscation. ¹	Belize
	Mooring buoys installed in Placencia (funded by a CORAL micro-grant, and dive operators, conservation groups and local restaurants and hotels in Placencia). Local stakeholders coordinate an ongoing maintenance programme for the buoys. ³	Placencia



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Belize

Category	Examples	Location
Temporal measures e.g. seasonal closures	Closed season for spiny lobster (Feb 15th to June 14th), queen conch (July 1st to Sept 30th), marine turtles (excluding Hawksbills) (Apr 1st to Oct 31st). ¹	Belize
	Provisions may be made for species (e.g. nursery area closures). ¹	Belize
Category	Examples	Location
Spatial measures e.g. MPAs	No fishing for spiny lobster or Queen Conch allowed in marine reserves. ¹	Belize
	No fishing for lobster in fore reef. ¹	Belize
	Areas for suitable fisheries of marine ornamentals have been defined, and provisions may also be made for species (e.g. nursery areas). ¹	Belize
	18 MPAs have been set up, with varying levels of protection and marine resource use prohibited. 15 of the 18 MPAs have all, or part of the area designated as no take zones. Zoning varies by park, to take account of different activities e.g. extractive (fishing and other living resource extraction); sport fishing and recreational areas; and research. A number of spawning aggregations are protected marine reserves. ⁴	Belize
	The network of MPAs includes areas within the offshore atolls, areas in the Northern, Central and Southern Province. Faro reef types and inshore reef areas are also protected. ⁵	Belize



Belize

Category	Examples	Location
Ecological monitoring and research	The Belize Fisheries Department permits and monitors all fisheries related research carried out by local and foreign researchers and institutions. The Department is the primary institution which carries out annual fisheries research and data collection on the main fisheries species in Belize. ²	Belize
	Ecological/biological indicators are used to monitor MPAs (Hol Chan Marine Reserve (HCMR) and Glover’s Reef). Catch and effort data in Glovers, and biological and positional data collected in Blue Hole. ¹	MPAs
	Coral reef monitoring has been conducted in several key areas by a combination of government agencies, NGOs and universities. Some monitoring activities have involved short and longer-term efforts, generating large amounts of information on the status of reefs and some of the key species in the area. In 2000, coral reef monitoring was undertaken as part of the Caribbean Planning for Adaptation to Global Climate Change Project (CPACC) and assessed the fore-reefs of the HCMR, South Water Caye and Glovers Reef Atoll marine reserves. Further coral reef monitoring was undertaken for the follow-up project, Mainstream Adaptation to Climate Change (MACC). ⁶	Various – Belize
	Regular monitoring of coral cover, algae, urchins and fish are conducted throughout Belize Barrier Reef Reserve System (BBRRS) (World Heritage Site). ⁵	BBRRS
	Ongoing monitoring and research on Glovers reefs by the Wildlife Conservation Society (WCS) on algal grazing and nutrients to determine possible restoration options for reefs dominated by macro-algae. ⁵	Glovers Reef
	The distribution and abundance of commercially valuable species (e.g. spiny lobsters, queen conch, Nassau grouper, black grouper, mutton snapper and queen triggerfish) are documented by the WCS. These data are used to assist management ⁵	



Belize

Category	Examples	Location
Ecological monitoring and research	Lobster and conch populations are monitored, and fish populations assessed using a visual census technique in HCMR. Corals are also monitored using CARICOMP methods. The monitoring programme in this MPA aims to show fishers the spill-over effect of increased fish, lobster and conch, as well as to convince visitors and locals of the benefits of the MPA in hopes of stimulating plans to extend the reserve. ⁵	Hol Chan
	Ecological monitoring of reef indicators ranging from ecosystem structure indicators (e.g. coral cover, fish abundance), ecosystem function (coral recruitment, herbivorous fish abundance) and drivers of change (development and bleaching indices) are collated by the NGO Healthy Reefs, which produces a 'reef report card' for reefs in Belize. ⁷	Belize
	Belize also participates in the research and monitoring activities of the Caribbean Regional Fisheries Mechanism and other regional programs such as those under the Mesoamerican Barrier Reef Systems Project. ²	Belize
	The Belize Audubon Society (BAS) runs a research programme that supports monitoring of spawning aggregations of groupers and snappers, queen conch and spiny lobster populations in Half Moon Caye Natural Monument. ⁸	Half Moon Caye
	The NGO Toledo Institute for Development and Environment (TIDE) undertakes a range of research and monitoring activities. ⁹	Southern Belize

Belize

Category	Examples	Location
Social surveys and research	Socio-economic indicator data is collected and used in HCMR and Blue Hole. ¹	Hol Chan & Blue Hole
	Many MPAs have incorporated socioeconomic monitoring in their management plans. ⁵	MPAs
	Information on sector development, management systems and the socio-economic aspects of the fisheries industry is collected by the Belize Fisheries Department and other collaborating institutions. ²	Belize
Category	Examples	Location
Alternative livelihoods and economic incentives	BAS provides opportunities for stakeholders to participate in the management of the environment, to adopt sustainable practices and create alternative livelihoods. Communities have been trained in tourism-orientated services, including tour guiding, fly-fishing, scuba diving, snorkelling, and kayaking. Community members have also been trained in business management, environmental education, environmental stewardship, advocacy, arts and crafts, human resources management, and livestock management techniques. ⁸	Belize



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Belize

Category	Examples	Location
Management approaches e.g. ecosystem-based and co-management	Government (either the Fisheries Department or the Forest department) and NGOs are equally involved in the initiation of MPAs (together with local stakeholders). The management objectives for the MPAs are as follows: to conserve and sustain fisheries resources, promote tourism and conserve individual habitats. ^{1,10}	Belize
	The Belize Coastal Zone Management Authority and Institute is a model of integrated coastal management for the region, and the country's system of 13 MPAs is well established, with almost all under active management. ¹⁰	Belize
	Patrol vessels, vessel boarding, landing inspections are used in MPAs. This is delivered using 2-3 wardens, all year round. Penalties exist for infringements. ¹	MPAs
	The NGO Toledo Association for Sustainable Tourism and Empowerment (TASTE) was set up in 2000 to co-manage the Sapodilla Caye Marine Reserve. The mission of TASTE was to 'assist in the sustainable and appropriate development of the Toledo District and its citizens through empowerment'. ¹¹	Southern Belize
	TIDE conducts enforcement through a series of activities (patrols by TIDE rangers, joint patrols with the Belize Defence Force, and Department of Fisheries; signage and information regarding regulations; demarcation; and capacity building of TIDE rangers, community stewards and members of the general public). TIDE operates ranger and visitor stations on Abalone Caye, the Rio Grande River, West Snake Caye, at Payne's Creek National Park, and a liaison office in Monkey River village, to provide management of Port Honduras Marine Reserve (co-management with Fisheries Department). ⁹	Southern Belize

Belize

Category	Examples	Location
Environmental education	Classes/training, brochures and outreach programmes are undertaken to increase awareness and stakeholder involvement. ¹	Belize
	Hol Chan Marine Reserve (HCMR) is focused on environmental education outreach, and staff have participated in exchange programmes with other sites, strengthening networking and collaboration among MPAs. Two members of HCMR staff have received Dive Instructor training, and a volunteer programme is undertaken with school children and community members trained in marine life identification and coral reef monitoring. Educational programmes have been established in 8 elementary schools and 200 students have received information on MPAs, and conservation issues. ⁵	Hol Chan
	Local information has been gathered in and around HCMR and an underwater photo bank has been successfully developed. A number of public education materials (brochures/booklets) have been produced. ⁵	Hol Chan
	HCMR ran a 'Reef Week' in 2004 which consisted of a night lecture with MPA managers from other parts of the country, and an educational beach day, with posters and other presentations for school children. ⁵	Hol Chan
	Courses which focus on HCMR rules and regulations and reef etiquette are being conducted for dive shops and tour operators. ²	Belize
	Coral Reef Alliance (CORAL) in partnership with Conservation International have developed an environmental performance assessment programme for marine operators. Launched in 2007, the 'Sustainable Marine Recreation Environmental Walk-Through Program' advises marine recreation providers on improving environmental practices and reducing impacts on coral reefs. ³	Belize



Belize

Category	Examples	
Environmental education	CORAL facilitates partnerships between local communities, government leaders and marine recreation providers to develop locally designed initiatives such as improvements to marine park infrastructure, installation of mooring buoys, formation and support of marine park patrols, and outreach for environmental education and awareness programmes. ³	Belize
	CORAL's 'Kids in Action' programme, has engaged hundreds of school-aged children about coral reef conservation. ³	Belize
	BAS undertakes an environmental educational programme, educating communities bordering protected areas. This programme aims to build capacity among community members, enabling them to actively participate in protected areas management. BAS offers training in basic skills such as literacy, leadership, advocacy education for sustainability and planning, as well as training in sustainable resource management and business planning. ⁸	Belize
	TIDE runs an education and outreach programme that involves a variety of activities (focusing on both marine and terrestrial management priorities) including: twice monthly radio show; 'Freshwater Cup' (a football tournament with a strong emphasis on environmental projects by the competing teams; summer camp; TIDE weekend (over the holiday weekend of Pan-American day, and a 'Fish Fest' and 'Youth Competition'9.	Southern Belize
	TIDE also uses a range of social media (website, Facebook, blogs, twitter, e-news, newsletters). ⁹	Belize
	TIDE also runs outreach to schools and students (awareness days and events; science fairs; poster and essay contests; reports and research; special educational exhibits); and to communities (meetings and consultations; community involvement in ecosystems management; and development of materials that focus on marine issues). ⁹	Southern Belize



Main menu

Belize

Category	Examples	Location
Communication and participatory processes e.g. workshops and forums, and stakeholder involvement	Stakeholders are involved in the initiation, designation, evaluation and implementation of Glovers Reef in a consultative capacity. Stakeholders in Half Moon, Blue Hole and HCMR are involved in monitoring, enforcement, evaluation and implementation of management. ¹	Glovers Reef, Blue Hole, Half Moon, Hol Chan
	Several training workshops have been conducted on socio-economic monitoring and management effectiveness of MPAs. ⁵	Belize
	CORAL is working with the University of Belize National Tour Guide Training programme to create a network of local ‘leaders’ to conduct and sustain environmental outreach and disseminate best practices. The CORAL Reef Leadership Network identified and recruited respected and motivated local leaders to teach other community members and tourists about sustainable marine recreation. ³	Belize
	CORAL creates the opportunity for stakeholders (MPA managers, marine recreation providers, local community members and other NGOs) to initiate a ‘conservation dialogue’. In this forum, stakeholders share mandates and management plans, explore issues, and build relationships based on shared goals for improved reefs and community health. Opportunities for developing cooperative management plans that leverage the labour and resources of the tourism sector for management are investigated, for example; fundraising programmes like ‘adopt a reef’ or adopt a mooring’, and grant resources for conservation programmes. ³	Belize
	Coastal Zone Advisory Council is appointed to advise the CZMAI on technical matters, help draft policies, plans, and programmes related to coastal zone management, helps facilitate exchange of information. The council is made up of cross-sector government officials, the director of the University of Belize Marine Research Centre, and can also have two representatives from NGOs (one conservation and one tourism), and two representatives from private sector.	Belize



Main menu

Belize

Category	Examples	Location
Manuals and guidelines for reef managers	Tourism and Recreation Best Practice for Coastal Areas in Belize, put out by CZMAI a has a lot of information covering everything from wastewater management, alternative technologies, best practices for building and development, and energy conservation. ¹²	Belize
Category	Examples	Location
Software support and decision-making tools e.g. computer mapping and modelling		



Belize

Category	Examples	Location	
Legislation and legal instruments e.g. fisheries or pollution laws	National level legislation for seasonal bans for lobster, conch and shrimp. There are bans on the use of E/NS1.	Belize	
	MPAs are designated under National Law, and the administration and ownership of the MPAs is either solely the responsibility of national government departments (Fisheries Department or the Forestry Department, both in the Ministry of Agriculture, Fisheries and Cooperatives), or shared between the core government department and a local NGO. ⁴	Belize	
	The Belize Fisheries Department has the legal mandate to declare and manage Marine Reserves (MRs), which are one category of MPAs in Belize (to date, there are 8 MRs in Belize). ²	Belize	
	Fisheries Advisory Board.	Belize	
	Fisheries resources are managed through the enactment of Fisheries Regulations, which utilize the principles of closed seasons, closed areas, prohibited methods, females and juvenile protection. ²	Belize	
	Institutions and legal frameworks for fisheries. ²	Belize	
	Specific Legislation:		
	Fish and Fishery Products Inspection Regulations 2001, Amended 2002.	Belize	
	Belize Fisheries Development Authority Act 2003.	Belize	
	Belize Port Authority Act (2000 Rev.).	Belize	
Belize Tourist Board Act 1990 Cap. 275.	Belize		
Coastal Zone Management Act Cap. 329 (2000 Rev.).	Belize		
Cruise Ship Port Development Project Act 2004.	Belize		
Disaster Preparedness and Response Act Cap. 145 (2000 Rev.), Amended 2008.	Belize		
Environmental Protection Act Cap. 328 (2000 Rev.), Amended 2007.	Belize		



Belize

Category	Examples	Location
Legislation and legal instruments e.g. fisheries or pollution laws	Specific Legislation:	
	Environmental Tax Act Cap. 64:01 (2000 Rev.).	Belize
	Maritime Areas Act 1992.	Belize
	National Lands Act Cap.191, (2000 Rev.).	Belize
	Non-Governmental Organisation Act Cap.315 (2000 Rev.).	Belize
	Protected Areas Conservation Trust Act Cap. 218 (2000 Rev.), Amended. 2002	Belize
	Sponge Fishery Act 1958, Amended 1987.	Belize
	Housing and Tourism Planning Act Cap. 182 (2000 Rev.).	Belize
	Wildlife Protection Act 1981.	Belize
	Additionally, there were specific orders for each protected area under the Fisheries Act. However, the Fisheries Act was repealed in 2003, it is currently unknown where the specific orders for the marine parks are.	Belize



Belize

Category	Examples	Location
Policy and management plans	The MPAs within the BBRRS all have management plans that include descriptions of permitted activities, monitoring and research programmes, surveillance and enforcement plans, environmental education, and public awareness programmes. ⁵	Various – Belize
	The guiding principle behind the declaration and management of MRs is to increase and sustain the productive service and integrity of the marine resources for the benefit of all Belizeans. The major goal of MRs is to conserve marine biodiversity by protecting important ecosystem, habitats, and species. This is realized through the implementation of the following activities: Implementing and supporting marine scientific research by providing a natural laboratory; enhancing capacity building through education, public awareness and collaboration; and mobilizing financial and technical resources for the institutions concerned.	Belize
	These objectives are realized through the following management actions: providing a refuge from harvesting activities; protecting habitats, especially those critical to lifecycle stages such as spawning, juvenile rearing and feeding; protecting spawning stock biomass, thus enhancing reproductive capacity; protective areas of species, habitats, and ecosystems restoration and recovery; enhancing local and regional fish stocks through increase recruitment and spill over of adults and juveniles into adjacent areas; assisting in conservation-based fisheries management regimes; providing opportunities for scientific research.	Belize
	The National Integrated Coastal Zone Management Strategy for Belize (approved by the Cabinet in February 2003) has the objectives of building alliances, supporting planned development, and having knowledge and sustainable use of coastal resources.	Belize

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Belize

Category	Examples	Location
Policy and management plans	<p>“In 2001 the Cayes Development Policy (CDP) and the Coastal Zone Management Strategy (CZMS) for Belize were developed by the CZMAI to address the continued and increasing stress on Belizean cayes and the need for strategic planning in the coastal areas of Belize. Both draft documents address, inter alia, the management of shoreline construction, infrastructure and setbacks in order to protect long-term investments and the very attractions those investments sought to capitalize on”.¹³</p>	Cayes
	<p>A draft National Policy for Aquaculture Development in Belize was prepared to guide the development of aquaculture over the period of 2002-2012.</p>	Belize
	<p>The National Food & Agriculture Policy (2002-2020) includes policy information on fisheries, aquaculture, conservation compliance, and MPAs.</p>	Belize

¹ UNEP-WCMC: (2004) Fishery regulations in the wider Caribbean Region.

² FAO <http://www.fao.org/fi/oldsite/FCP/en/BLZ/profile.htm>

³ Coral Reef Alliance: www.coral.org

⁴ MPA global database: <http://www.mpaglobal.org/index.php?action=search>

⁵ Reefbase: Arrivillaga, A. and M. A. Garcia , 2004 , Status Of Coral Reefs Of The Mesoamerican Barrier Reef Systems Project Region, And Reefs Of El Salvador, Nicaragua And The Pacific Coasts Of Mesoamerica. . p: 473-492. in C. Wilkinson (ed.). Status of coral reefs of the world: 2004. Volume 2. Australian Institute of Marine Science, Townsville, Queensland, Australia. 557 p.

⁶ Reefbase: Almada-Villela, P., M. Mcfield, P. Kramer, P. R. Kramer and E. Arias-Gonzalez , 2002 , Status of Coral Reefs of Mesoamerica - Mexico, Belize, Guatemala, Honduras, Nicaragua, and El Salvador. . In: C.R. Wilkinson (ed.), Status of coral reefs of the world:2002. GCRMN Report, Australian Institute of Marine Science, Townsville. Chapter 16, pp 303-324

⁷ Healthy Reefs for Healthy People: www.healthyreefs.org

⁸ Belize Audubon Society: <http://www.belizeaudubon.org>

⁹ Toledo Institute for Development and Environment (TIDE): <http://www.tidebelize.org/en/main/initiatives>

¹⁰ P. Almada-Villela et al., "Status of Coral Reefs of Mesoamerica," in Status of Coral Reefs of the World: 2002. C. Wilkinson, ed. (Townsville: Australian Institute of Marine Science, 2002), p. 314. WRI Reefs at Risk country profile <http://www.wri.org/publication/reefs-risk-caribbean>

¹¹ Toledo Association for Sustainable Tourism and Empowerment (TASTE):

http://sgp.undp.org/web/projects/7133/expanding_awareness_education_for_the_sapodilla_cayes_marine_reserve_and_the_belize_barrier_reef_sys.html

¹² Coastal Zone Management Authority and Institute 2001. Tourism and Recreation Best Practice for Coastal Areas in Belize. http://www.coastalzonebelize.org/wp-content/uploads/2010/04/best_practice.pdf

¹³ Coastal Zone Management Authority and Institute 2001. State of the Coast Report 2000 (Belize) pp. 61



Honduras

Category	Examples	Location
Technical measures e.g. mooring buoys and fisheries regulations	Fisheries gear regulations: restrictions on fishing gear for taking spiny lobster and finfish (e.g. groupers and snappers); use of hookah prohibited for taking Queen Conch. ¹	Honduras
	The use of spear guns, harpoons, and gill, purse or seine nets is prohibited throughout the Bay Islands. Cast nets are legal for targeting shallow bait fish. ²	Bay Islands
	Line fishing is permitted throughout the RMP, and can be done from the shore, docks or boats. Line fishing is discouraged from shore. ²	Roatan Marine Park
	Catch regulations: minimum size limit (tail length greater than 14.5cm) and restrictions on taking berried females for spiny lobster; size restrictions for Queen Conch (shell length 22cm) and Reina Conch (shell length 15cm); quota limits for spiny lobster and Reina Conch (12,000 specimens per person per year registered in the fishery). ^{1,2}	
	A license is required to collect lobster. ²	
	Channel markers at primary channels providing yacht moorings for visiting vessels in Sandy Bay-West End Marine Reserve (SBWEMR). ²	Roatan Marine Park
	Fishing moorings throughout Cordelia Banks. ²	Cordelia Banks
	Harpooning of fish is illegal.	Roatan Marine Park
	Divers are not permitted to use gloves.	Roatan Marine Park
	Vessels that do not possess a holding tank are not allowed to have occupants live on board while within the marine reserve.	Roatan Marine Park
Anchoring of boats is prohibited on the coralline structure of the reef.	Bay Islands	



Honduras

Category	Examples	Location
Technical measures e.g. mooring buoys and fisheries regulations	The use of explosives, chemical products, and other materials that damage the coral system and that cause water contamination and general environmental contamination are prohibited.	Bay Islands
	The use of nets, traps, or any other object on the coral reef is prohibited, as is fishing with harpoons, capturing fish for aquaria, and the fishing of lobster and conchs in the Marine Reserve and in areas which have been declared a protected zone.	Bay Islands
	Artificial reefs established in Cayos Cochinos. ³	Cayos Cochinos
Category	Examples	Location
Temporal measures e.g. seasonal closures	Closed seasons for lobster on Roatan Banks (1 st July – 28 th Feb). ²	Roatan Banks
	Closed season for Queen Conch (15 May – 15 Sept), and Reina Conch (Sept - March). ¹	Honduras



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Honduras

Category	Examples	Location
Spatial measures e.g. MPAs	<p>There are a number of protected areas along the Caribbean coast and Bay Islands, however most do not have defined marine portions, or legislation associated with them. Cayos Cochinos (Natural Marine Monument) is a notable exception: 487km², with regulations and zoning. Specifically, fishing and other living resource extraction (industrial or commercial) is prohibited in the entire. Fishing and other living resource extraction for subsistence/traditional, or recreational/sport is allowed but regulated throughout the entire marine.⁴</p>	<p>Cayos Cochinos</p>
	<p>Limited entry and closed areas for Queen and Reina Conch fishery throughout Honduras.^{1,3}</p>	<p>Honduras</p>
	<p>Within the Bay Islands, it is prohibited to harvest conch (four boats have 'research license's to collect conch from the Roatan Banks).²</p>	<p>Bay Islands</p>
	<p>Removing lobster of any size within the SBWEMR on Roatan is prohibited.²</p>	<p>Roatan</p>
	<p>Only one diving vessel with its group of divers is permitted to moor at a buoy at a time and to dive there.</p>	<p>Roatan Marine Park</p>
	<p>No diving vessel should monopolize a diving site.</p>	<p>Roatan Marine Park</p>
	<p>The following sports are not permitted in West Bay: water-skiing, jet-skiing and other similar activities. Within the Marine Reserve, boats should maintain a cautious speed. Also, boats are not to drop anchor or tie up beyond the extension of the dock.</p>	<p>Roatan Marine Park</p>
	<p>Closed areas for shrimp fishery.¹</p>	<p>Honduras</p>
	<p>Closed areas for finfish fishery (e.g. groupers and snappers).¹</p>	<p>Honduras</p>



Honduras

Category	Examples	Location
Ecological monitoring and research	The NGO, Centre for Marine Ecology (CME), is involved in a number of monitoring projects, including: monitoring yellowtail snapper; monitoring the vulnerability of reef fish to different fishing gear; assessing fishing gear impacts; lobster stock dynamics and population connectivity; evaluating the status of conservation and exploitation of Queen Conch; a long term, coral reef monitoring programme collecting reef health indicators around the island of Utila; and a lionfish control programme. ⁵	Bay Islands, Northern Honduras
	The Roatan Marine Park (RMP) lionfish control program includes monitoring and tracking of lionfish populations in and around the marine park. ²	Roatan Marine Park
	Ecological monitoring of reef indicators ranging from ecosystem structure indicators (e.g. coral cover, fish abundance), ecosystem function (coral recruitment, herbivorous fish abundance) and drivers of change (development and bleaching indices) are collated by the NGO Healthy Reefs, which produces a 'reef report card' for Honduran reefs. ⁶	Honduras
	Ecological surveys are undertaken by Reef Check at Cayos Cochinos. ⁷	Cayos Cochinos

Honduras

Category	Examples	Location
Social surveys and research	CME undertakes socio-economic monitoring and household surveys, in various locations through mainland Honduras and the Bay Islands to inform the development of management plans. ⁵	Honduras
Category	Examples	Location
Alternative livelihoods and economic incentives	Beach clean-ups have created alternative jobs for local people on Roatan. ²	Roatan
	A micro-business was set up in RMP area, promoting recycling of plastic bottles on Roatan. Participants sell the bottles to a company in La Ceiba. ²	Roatan
	Alternative livelihoods supported through the promotion of locally made handicrafts in the RMP shop. The organisation also provides sponsorships for local community members to get involved in the dive industry. ²	Roatan
	The Nature Conservancy and the Cayos Cochinos Foundation identified a number of income-generating projects with the goal of increasing income for households that are heavily dependent on the reefs. ³	Cayos Cochinos
	USAID Management of Aquatic Resources and Alternative Development (MAREA) programme aims to foster incentives for the conservation and sustainable use of coastal and marine ecosystems.	Honduras



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Honduras

Category	Examples	Location
Management approaches e.g. ecosystem-based and co-management	CME is working on a project to develop new fisheries management initiatives. ⁵	Honduras
	Lionfish derbys have been run in the Bay Islands (on Roatan by the RMP, and on Utila), to assist in the control of this invasive species. ²	Bay Islands
	Co-management within SBWEMR: the organizations responsible are the Roatan Marine Park (a grassroots, community-based NGO in West End), the Bay Islands Conservation Association (BICA), and the National Institute of Conservation and Forestry Development, Protected Areas and Wildlife (ICF), which is the government institution responsible for the administration of all Honduran protected areas. ²	Roatan Marine Park
	Patrols (RMP rangers and National police) are used to enforce the park rules within the SBWEMR. ²	Roatan Marine Park
	Voluntary recreational diver 'user fee' introduced into the RMP, to raise funds to finance the purchase of a patrol boat and pay staff. ²	Roatan Marine Park



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Honduras

Category	Examples	Location
Environmental education	RMP runs an education programme with schools in its proximity, this has involved teaching >4000 school age children about being environmentally aware (e.g. recycling, mangrove and reef protection). This schools outreach also involves a mangrove re-plantation programme, showing practical conservation and teaching about the benefits, function and threats to mangroves. School children are also taken to a marine research and education facility, which provide introductory courses on the ecology of coral reefs in the Caribbean, and snorkelling trips, glass bottom boats and diving courses to give them direct experience of reefs. ²	Roatan
	Beach clean-ups and the establishment of recycling bins with community members in and around the SBWEMR. ²	Roatan Marine Park
	RMP runs a lionfish control program, which includes the dissemination of information through educational workshops. ²	Roatan Marine Park
	NGO Coral Reef Alliance run various awareness raising activities in the Bay Islands, including newsletters and training local conservation 'leaders'. ⁸	Bay Islands
	Coral Cay Conservation undertakes awareness raising on the Bay Islands. ⁹	Bay Islands
	Sustainable Seafood Campaign on the Bay Islands (RMP, UCME and others), to promote the sustainable consumption of seafood in restaurants in Roatan and Utila. ²	Bay Islands



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Honduras

Category	Examples	Location
Communication and participatory processes e.g. workshops and forums, and stakeholder involvement	RMP uses a variety of methods to communicate their work, including informative brochures and signs installed through the protected area and at different points of entry to the island (airport and ferry terminals). Signs display park rules and regulations. Posters are also displayed in some hotels, restaurants and dive shops in the area, and the park website and local radio adverts communicate information about the park. ²	Roatan
	Workshops are held in the community to enable local stakeholders to voice opinions, and communicate between different sectors. ²	Roatan
	Local people are trained to become ‘RMP leaders’ to communicate to the broader community about conservation, sustainable tourism and good environmental marine recreational practices, through collaboration with the NGO, Coral Reef Alliance (CORAL). ^{2,8}	Roatan
	Development of stakeholder alliances (e.g. Fisherman’s Alliance and West End Water Taxi Association), to support community development in and around the RMP. ²	Roatan

Category	Examples	Location
Manuals and guidelines for reef managers		
Software support and decision-making tools		



Honduras

Category	Examples	Location
Legislation and legal instruments e.g. fisheries or pollution laws	Bans on taking conch, shrimp and lobster, quotas and other fishing restrictions (e.g. minimum size) covered by National level restriction. ¹	Honduras
	June 2011, the Government of Honduras declared its maritime waters as a shark sanctuary, providing legal protection to sharks from fishing and also prohibits trade in their parts or derivatives. ⁵	Honduras
	Spiny Lobster Initiative (SLI) working group are working to amend the Fisheries Law, to extend the lobster diving closure period. The SLI are also trying to delay the fishing season for lobster by one month, to August 1 st 2011. ¹⁰	Honduras
	It is forbidden to hunt and/or trade any flora or fauna species that are endangered, especially black coral and sea turtles; this includes every sub-product or handcraft made out of them.	Bay Islands
	CITES prohibits the international trade of threatened or endangered specimens, unless it is done with non commercial purposes, including sea turtles, syngnathiforms (seahorses), <i>Strombus gigas</i> (queen conch), and cnidarians (corals and marine anemones).	Honduras
	All vessels that operate in the marine reserve must have a logbook.	Roatan Marine Park
	It is not permitted to touch, stand on, take or remove marine organisms which are alive or dead, including: soft or hard shelled snails, conchs, fish or any other forms of life.	Roatan Marine Park
	It is not permitted to throw garbage into the ocean or on the beaches.	Roatan Marine Park
	Cutting down of mangroves is prohibited.	Roatan Marine Park



Honduras

Category	Examples	Location
Legislation and legal instruments e.g. fisheries or pollution laws	The exploitation, extraction, or use of the coral and similar elements of the ocean and beach is prohibited.	Roatan
	It is forbidden to extract living coral matter from the reef, including hard and soft coral, and any other organisms living on or around the reef, including marine conchs.	Bay Islands
	Wastes are not to be disposed of within a three mile distance of the Marine Reserve.	Roatan Marine Park
	Plastics are totally prohibited.	Roatan Marine Park
	Marine vessels driven without following proper precautions in public areas may be fined Lps200.00.	Roatan
	All marine vessels that park at dive sites without displaying proper signs for danger and precaution may be fined Lps200.00.	Roatan
	All medium sized ships and boats, sailing boats, and motorboats that do not respect the orders of those people in charge of the marine reserve may be fined Lps500.00.	Roatan
	All divers and those in charge of diving groups that neglect the established and approved regulations set by this municipality in all coastal areas, open seas, and in the marine reserve may be fined Lps500.00.	Roatan
	The extraction of dead coralline stone is strictly prohibited, as is the removal of sand and other reef material found adjacent to the reef and on the beach.	Bay Islands
	All proprietors of fishing vessels, commercial vessels, and all water vessels which are present in the seas are strictly prohibited from dumping combustibles, oil, grease, and all types of debris.	Bay Islands



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Honduras

Category	Examples	Location
Policy and management plans	<p>Bay Islands' Environmental Management Project (Programa Manejo Ambiental de las Islas de la Bahia (PMAIB)), a multi-million project funded by the Inter-American Development Bank undertook extensive baseline studies of coastal resources and formulated management plans for protected areas. The project anticipates that an estimated 210km² of marine ecosystems (coral reefs, coastal lagoons, mangroves) will be brought under a comprehensive management regime.¹¹</p>	<p>Bay Islands</p>
	<p>TNC and Cayos Cochinos Foundation have worked with local communities to establish management plans that encourage no-take zones and the construction of artificial reefs³. The official management plan was published in 2004 and highlights the following objectives: to establish and maintain an annual biodiversity monitoring programme, and a fish monitoring programme to be used to determine appropriate management actions; undertake research to assess reef ecosystem function; assess the potential for developing alternative sustainable incomes for local communities, cultural and environmental impacts of development in and around the protected area; and assist in the preparation of funding applications to support the research and community development.⁹</p>	<p>Cayos Cochinos</p>

¹ UNEP-WCMC: (2004) Fishery regulations in the wider Caribbean Region.

² Roatan Marine Park: www.roatanmarinepark.com

³ The Nature Conservancy: <http://www.nature.org/ourinitiatives/regions/centralamerica/honduras/placesweprotect/cayos-cochinos.xml>

⁴ MPA global database: <http://www.mpaglobal.org/index.php?action=search>

⁵ Centre for Marine Ecology: <http://www.utilaecology.org/eng/>

⁶ Healthy Reefs for Healthy People: www.healthyreefs.org

⁷ Reef Check: www.reefcheck.org

⁸ Coral Reef Alliance: www.coral.org

⁹ Coral Cay Conservation: www.coralcay.org

¹⁰ Spiny Lobster Initiative: <http://www.globalfishalliance.org/spiny/honduras.html>

¹¹ WRI Reefs at Risk country profile <http://www.wri.org/publication/reefs-risk-caribbean>

¹² Honduras Coral Reef Fund: http://www.cayoscochinos.org/index.php?page=management_plan&lang=eng