

**Healthy Reef Initiative  
Collection Sheet Eco-Audit 2011 - Belize**

**Indicator:**

	<b>Status:</b>	<b>Final</b>
<b>Name:</b>	Percent of a country's territorial sea included in gazetted MPAs	
<b>Description:</b>	Justification-In order to be effective, networks of MPAs must cover an adequate percentage of the sea. Globally scientists have estimated that between 10% and 40% of the sea should be protected.	
<b>Theme:</b>	Theme 1 – Marine Protected Areas	

**Ranking Criteria:**

- 5 – At least 20% of territorial sea is inside MPAs
- 4 – At least 15% of territorial sea is inside MPAs
- 3 – At least 10% of territorial sea is inside MPAs
- 2 – At least 5% of territorial sea is inside MPAs
- 1 – 0-4% of territorial sea is inside MPAs

**Responsible:**

<b>Organization:</b>	Healthy Reefs Initiative
<b>Contact:</b>	Roberto Pott (Belize HRI Coordinator)
<b>E-mail:</b>	pott@healthyreefs.org

**Grade:**

<b>Grade:</b>	<b>2016: 5-Very Good</b>	2014: 5-Very Good	2011: 3- Fair
<b>Result:</b>	<p><b>2016:-</b> Belize continues to expand its MPA network and expanded the area inside MPA to 4,013 km2 that represents 21% of Belize's territorial sea (BZ1a.4.) Belize maintains a rank of 5 for this indicator.</p> <p>2014 :- Through GIS overlays it was determined that 19.6% of Belize's territorial sea is inside MPAs. Belize has 18,768 km2 of territorial sea, and 3,670.9 km2 inside MPAs (Bz1a.6). The territorial sea is shown in the map (Bz1.a1) with MPAs, no-take zones, reef within no-take zone and in individual MPAs table (Bz1a.2) summary statistics table (Bz1.a2) and shape files (Bz1.a3). Further verification of the existence of the MPA boundaries and regulations are presented in the MPA Management plans under Indicator 1d (Bz1d.2 to Bz1d.14).</p> <p>2011: Using GIS overlays (Bz1.a.5) it was determined that 13.5% of Belize's territorial sea is inside MPAs. Belize has 18,768 km2 of territorial sea, and 2,525 km2 inside MPAs (Bz1a.6). The territorial sea is shown in the map (Bz1.a1) with MPAs in maps (Bz1a.2 and Bz1a.4) and in individual MPAs table (Bz1a.3) summary statistics table (Bz1.a6) and shape files (Bz1.a5). Further verification of the existence of the MPA boundaries and regulations are presented in the MPA Management plans under Indicator 1d (Bz1d.2 to Bz1d.14).</p>		

**Observations:**

**Observations:**

Data were compiled by HRI using national government data on MPAs (BZ1a.2). A full list of MPAs is found in BZ1a.4. GIS layers (BZ1a.3) contain all the spatial information used in this analysis. Please note that some numbers may slightly differ from those reported in individual management plans due to the fact that we only calculated the marine portion of each reserve. Several management plans and country reports include the total area of an MPA, which may include the area of marine waters, inland waters and land in its summary tables. Slight differences may also be the result of using different GIS layers (maps).

**Source:**

Document/File name	Date	Institution	Location
BZ1a.1-BZE_Territorial_Waters_withMPAs_Reef (JPEG map)	25-Oct-13	HRI/TNC/Belize Land Information Center	HRI
BZ1.a.2-Belize Statistics Table for MPAs2015	15-Dec-15	HRI/TNC/Belize Land Information Center	HRI
BZ1a.3- MPAs_NTZs_REEFS_in_the_MAR (KMZ files)	25-Oct-13	HRI/TNC/Belize Land Information Center	HRI
BZ1a.4-MAR MPAs List2015	Dec-15	HRI	HRI

**Approval:**

<b>Organization:</b>	Independent Consultant
<b>Contact:</b>	Benjamin Kushner
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<b>Organization:</b>	Healthy Reefs Initiative
<b>Contact:</b>	Ian Drysdale
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## Indicator:

	<b>Status:</b>	<b>Final</b>
<b>Name:</b>	Percent of a country's territorial sea included in fully protected zones	
<b>Description:</b>	While MPAs in general offer a variety of conservation measures, the fully-protected (non-extractive) zones or reserves provide the maximum benefits, allowing the replenishment of fisheries and restoration of ecosystem balance. Globally, scientists have called for between 10-40% of the ocean to be under full protection. The longer term target is 20% of territorial sea under full protection/ fisheries replenishment zones. This target represents a more realistic biennial approach to reach this target.	
<b>Theme:</b>	Theme 1 – Marine Protected Areas	

## Ranking Criteria:

- 5 – At least 5% of territorial sea is fully protected (fisheries replenishment zones)
- 4 – At least 4% of territorial sea is fully protected (fisheries replenishment zones)
- 3 – At least 3% of territorial sea is fully protected (fisheries replenishment zones)
- 2 – At least 2% of territorial sea is fully protected (fisheries replenishment zones)
- 1 – Less than 2% of territorial sea is fully protected (fisheries replenishment zones)

## Responsible:

<b>Organization:</b>	Healthy Reefs Initiative
<b>Contact:</b>	Roberto Pott (Belize HRI Coordinator)
<b>E-mail:</b>	pott@healthyreefs.org

## Grade:

<b>Grade:</b>	<b>2016: 3 - Fair</b>	2014: 3 - Fair	2011: 2-Poor
<b>Result:</b>	2016:- Based on calculations, fully protected areas represented 3% of territorial sea.		
	2014:-Using GIS overlays (BZ1a.3) based on official shape files from the Belize Land Information Center, it was determined that 2.7% of Belize's territorial sea is inside fully protected zones of MPAs (BZ1a.2 & BZ1a.3). Belize has 18,768 km <sup>2</sup> of territorial sea (BZ1a.2), and 399 km <sup>2</sup> inside fully-protected (no-fishing) zones of all MPAs (BZ1a.2). Data were compiled by HRI using national government data on all MPAs (BZ1a.1).		
	2011: Using GIS overlays based on official shape files from the Belize Land Information Center, it was determined that 2.1% of Belize's territorial sea is inside fully protected zones of MPAs. Belize has 18,768 km <sup>2</sup> of territorial sea, and 399 km <sup>2</sup> inside fully-protected (no-fishing) zones of all MPAs. Data were compiled by HRI using national government data on all MPAs.		

**Observations:****Observations:**

Data were compiled by HRI into GIS (BZ1a.3) using national government data on MPAs (official source was Land Information Center). A full list of MPAs is found in BZ1a.2. GIS layers (BZ1a.3) contain all the spatial information used in this analysis. Please note that some numbers may slightly differ from those reported in individual management plans due to the fact that we only calculated the marine portion of each reserve. Several management plans and country reports include the total area of an MPA, which may include the area of marine waters, inland waters and land in its summary tables. Slight differences may also be the result of using different GIS layers (maps). The specific Statutory Instruments creating each MPA and its zoning scheme, are contained within each of the Management Plans (BZ1d.2 - BZ1d.14 or in the BZ1b.2: Bacalar Chico- *p194-196 of BZ1b.2*; Hol Chan- *p189-191 of BZ1b.2 & p39-47 of BZ1d.*; Gladden Spit- *p.137-139 of BZ1d.5*; Glover's Reef-*p.103-104 of BZ1d.2*; Port Honduras-*p. 209-214 of BZ1b.2*; Sapodilla Cayes-*p.161-163 of BZ1d.7*; Southwater Caye-*p.116-118 of BZ1d.3*; Turneffe Atoll MR-*p.191-195 of BZ1d.17*). Caye Caulker Marine Reserve fully protected zones were added after the completion of the management plan and are described in the legal instrument that created the zoning (BZ1b.1). There are 3 Spawning aggregation (SPAG) sites, Caye Glory, Sandbore and South Point Lighthouse, found in legislation on *p4 of BZ2b.2*. National Parks Systems Act of 2000 defines natural monuments, national Parks and wildlife sanctuaries such as Blue Hole NM, Corozal Bay WS, Halfmoon Caye NM, Laughing Bird NM and Swallow Caye WS complete no take zones. However, in practice, Corozal Bay is not treated as a no-take and the park is being considered for re-zonation.

**Source:**

Document/File name	Date	Institution	Location
BZ1b.1-SI-115-2008-Caye Caulker	Dec-11	Government of Belize	Government of Belize
BZ1b.2-SubsidiaryLaws_Fisheries-2003	2003	Government of Belize	Government of Belize
BZ1b.3-NationalParksSystemAct	2000	Government of Belize	Government of Belize

**Approval:**

<b>Organization:</b>	Independent Consultant
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## Indicator:

	<b>Status:</b>	<b>Final</b>
<b>Name:</b>	Percent of mapped coral reef area included in fully protected zones	
<b>Description:</b>	Ideally, the amount of sea under full protection will be representative of each habitat or ecosystem type, including seagrass beds, mangroves, sand flats, etc. Given the historical conservation focus and high value of coral reefs, this indicator specifically measures efforts in fully protecting a portion of this critical ecosystem. The longer term target is 20% of coral reef under full protection/ fisheries replenishment zones .	
<b>Theme:</b>	Theme 1 – Marine Protected Areas	

## Ranking Criteria:

- 5 – At least 10% of coral reefs are inside full protection/fisheries replenishment zones
- 4 – At least 8% of coral reefs are inside full protection/fisheries replenishment zones
- 3 – At least 6% of coral reefs are inside full protection/fisheries replenishment zones
- 2 – At least 4% of coral reefs are inside full protection/fisheries replenishment zones
- 1 – Less than 4% of coral reefs are inside full protection/fisheries replenishment zones

## Responsible:

<b>Organization:</b>	Healthy Reefs Initiative
<b>Contact:</b>	Roberto Pott (Belize HRI Coordinator)
<b>E-mail:</b>	pott@healthyreefs.org

## Grade:

<b>Grade:</b>	<b>2016: 5 - Very Good</b>	2014: 5 - Very Good	2011: 3- Fair
<b>Result:</b>	<p><b>2016:-</b> Belize continues to expand its no-take areas and the area of coral reefs within fully protected increase from 311km<sup>2</sup> to to 315 km<sup>2</sup>. This represents 13% of Belize's territorial seas (BZ1a.2) and Belize maintains a rank of 5 for this indicator.</p> <p>2014:- Using GIS overlays (BZ1a.3), it was determined that Belize has 649 km<sup>2</sup> of coral reefs (BZ1a.4, BZ1a.1 and BZ1a.3) and 80.2 km<sup>2</sup> of coral reefs inside fully protected areas or zones (BZ1a.1-map). Thus, 12.0% of reefs are under full protection. This gives a score of 5. This is up 2 percent from 2011 assessment, 10.3%, and is related primarily to the declaration of new no-take areas Turneffe Atoll Marine Reserve.</p> <p>2011: Using GIS overlays it was determined that Belize has 649 km<sup>2</sup> of coral reefs and 66.8 km<sup>2</sup> of coral reefs inside fully protected areas or zones. Thus 10.3% of reefs are under full protection. This gave Belize a score of 5.</p>		

## Observations:

<b>Observations:</b>	Data were compiled by HRI using national government data on MPAs fully protected zones and using the Reefs at Risk coral reef layer. A full list of MPAs is found in BZ1a.4. GIS layers (BZ1a.2) contain all the spatial information used in this analysis. Please note that some numbers may slightly differ from those reported in individual management plans due to the fact that we only calculated the marine portion of each reserve. Several management plans and country reports include the total area of an MPA, which may include the area of marine waters, inland waters and land in its summary tables. Slight differences may also be the result of using different GIS layers (maps). The regional MPA map is provided for reference(BZ1a.1).
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**Source:**

Document/File name	Date	Institution	Location
BZ1a.1-BZE_Territorial_Waters_withMPAs_Reef (JPEG map)	25-Oct-13	HRI/TNC/Belize Land Information Center	HRI
BZ1a.2-Belize Statistics Table for MPAs	1-Nov-13	HRI/TNC/Belize Land	HRI
BZ1a.3- MPAs_NTZs_REEFS_in_the_MAR (KMZ files)	25-Oct-13	HRI/TNC/Belize Land	HRI
BZ1a.4-MAR MPAs List	Dec-12	HRI	HRI

**Approval:**

<b>Organization:</b>	Independent Consultant
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## Indicator:

	Status:	Final
Name:	Percent of MPAs with good management	
Description:	The legal establishment of MPAs is an important milestone, but the attainment of conservation and management goals is only achieved through sound management. This indicator measures management capacity, which serves as a proxy for the overall quality of management. Management capacity is evaluated based on the existence of management plans, staff and equipment.	
Theme:	Theme 1 – Marine Protected Areas	

## Ranking Criteria:

5 – At least 75% of MPAs must have a current management plan and adequate staff and equipment; and the remaining 25% should not be classified as having 'no current management plan' and 'no staff and equipment' or 'inadequate staff and equipment'

4 – At least 60% of MPAs have a current management plan and adequate staff and equipment; and from the remaining MPAs no more than 10% should be classified as having 'no current management plan' and 'no staff and equipment' or 'inadequate staff and equipment'

3 – At least 50% of MPAs have a current management plan and at least 50% have nearly adequate staff and equipment

2 – At least 25% of MPAs have a current management plan and at least 25% have nearly adequate staff and equipment

1 – Fewer than 25% of MPAs have a current management plan and fewer than 25% have nearly adequate staff and equipment

## Responsible:

Organization:	Healthy Reefs Initiative
Contact:	Roberto Pott (Belize HRI Coordinator)
E-mail:	pott@healthyreefs.org

## Grade:

Grade:	2016: 3 - Fair	2014: 3 - Fair	2011: 3- Fair
Result:	<p><b>2016:-</b> Survey conducted in 2015 showed that 53% had management plans and 53% have nearly adequate staff and equipment (18% adequate + 35% nearly adequate staff and Equipment). The score for Good management of MPA's remains at 3.</p> <p style="text-align: center;">*</p> <p>Each MPA was ranked individually by its managing agency during the Belize Eco-Audit national workshop (BZ1d.1 &amp; BZ1d.15). Approximately 50 percent of Belize's MPAs have up-to-date management plans, 29% have a <i>partial</i> management plans and 18% have <i>no</i> management plan. Only 6 % have <i>adequate</i> staff and equipment a decrease from 11% in 2011, 47% have <i>nearly adequate</i> staff and equipment, 18 percent of Belize's MPAs have <i>inadequate</i>, and 24 % of MPAs (Caye Glory, Caye Bokel, Dog Flea Caye, Sanbore, South Point Lighthouse, Turneffe) have <i>no</i> staff and equipment at all. As a result, at least 56 % aprox.) of MPAs have <i>at least nearly adequate</i> staff and equipment (includes 11% <i>adequate</i> + 44% <i>nearly adequate</i> ). Thus over 50% of MPAs have a current management plan and at least nearly adequate staff and equipment; and no more than 22% of MPAs have no current management plan and 28% had incomplete management plans and 28% had inadequate staff and equipment , resulting in a grade of 3.</p> <p><b>2014:-</b> MPAs ranked during period was ranked individually by its managing agency during the HRI survey in 2013. Approximately 50 percent of Belize's MPAs have up-to-date management plans, 29% have a partial management plans and 18% have no management plan. Only 6 % have adequate staff and equipment a decrease from 11% in 2011. this is partly due to the new MPA. at Turneffe. 47% have nearly adequate staff and equipment, 18 percent of Belize's MPAs have inadequate, and 24 % of MPAs (Caye Glory, Caye Bokel, Dog Flea Caye, Sanbore, South Point Lighthouse, Turneffe) have no staff and equipment at all. As a result, at least 56 % aprox.) of MPAs have at least nearly adequate staff and equipment (includes 11% adequate + 44% nearly adequate). Thus over 50% of MPAs have a current management plan and at least nearly adequate staff and equipment; and no more than 22% of MPAs have no current management plan and 28% had incomplete management plans and 28% had inadequate staff and equipment , resulting in a grade of 3.</p> <p><b>2011:</b> Each MPA was ranked individually by its managing agency during the Belize Eco-Audit national workshop (Belize City at the HRI Office September 14, 2011-BZ1d.1 &amp; BZ1d.15). Approximately 50 percent of Belize's MPAs have up-to-date management plans, 28% have a partial management plans and 22% have no management plan. Only 11 % have adequate staff and equipment, 44% have nearly adequate staff and equipment, 17 percent of Belize's MPAs have inadequate, and 28 % of MPAs (Caye Glory, Caye Bokel, Dog Flea Caye, Sanbore, South Point Lighthouse) have no staff and equipment at all. As a result, at least 56 % aprox.) of MPAs have at least nearly adequate staff and equipment (includes 11% adequate + 44% nearly adequate). Thus over 50% of MPAs have a current management plan and at least nearly adequate staff and equipment; and no more than 22% of MPAs have no current management plan and 28% had incomplete management plans and 28% had inadequate staff and equipment , resulting in a grade of 3.</p>		

## Observations:

Observations:	2016: There were no new MPA's created in this period.
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<p>2014: It should be noted that the number of MPA's decreased with the declaration of Turneffe Atoll in December of 2012 that encompassed two MPA's/SPAG Sites Caye Bokel and Dog Flea, so there was loss in area under protection but an increase in MPA under protection and replenishment zones area increased (See result 1a for results.) The newly formed Turneffe Atoll Sustainability Association (TASA) recently signed a co-management agreement with The Ministry of Fisheries, so increased management activity is expected. While some management plans are technically out of date (BZ1d.9, BZ1d.10,BZ1d.11,BZ1d.12), Belize Fisheries Department representatives report that actions such as updating zoning for Bacalar Chico and Hol Chan have been taken, but these have not been officially incorporated into a revised management plan. So functionally the outdated management plan is still very relevant and in use, and an official updating exercise is planned or pending. Also Swallow Caye is still in the planning phase of developing it's management plan, as cultural norms within the Maya and traditional Mestizo communities of Swallow Caye are not accustomed to formal decision-making, and use informal channels (BZ1d.14/Paragraph 1). BZ1d.16/Summary of results p.76-78 provides a detailed assessment of the management effectiveness of Belize's protected areas and was presented as evidence to support survey results.</p>
<p>2011:- While some management plans are technically out of date (BZ1d.9, BZ1d.10,BZ1d.11,BZ1d.12), Belize Fisheries Department representatives report that actions such as updating zoning for Bacalar Chico and Hol Chan have been taken, but these have not been officially incorporated into a revised management plan. So functionally the outdated management plan is still very relevant and in use, and an official updating exercise is planned or pending. Also Swallow Caye is still in the planning phase of developing it's management plan, as cultural norms within the Maya and traditional Mestizo communities of Swallow Caye are not accustomed to formal decision-making, and use informal channels</p>

**Source:**

Document/File name	Date	Institution	Location
BZ1d.1-MPA Original Data Collection	17-Nov-15	HRI	HRI
BZ1d.2-Management Plan Glovers Reef Marine Reserve-World Heritage Site 2008-2013	2007	Glovers Reef Marine Reserve	Glovers Reef Marine Reserve
BZ1d.3-Management Plan-Southwater Caye Marine Reserve World Heritage Site 2010-15	2009	Belize Fisheries Department	South Water Caye Marine Reserve
BZ1d.4-A Management Plan for Caye Bokel Marine Reserve & Dog Flea Caye Marine Reserve	Sep-08	Turneffe Atoll Trust	Turneffe Atoll Trust
BZ1d.5-Gladden Spit and Silk Cayes Marine Reserve Management 2011-2016	2011	Sea Belize	Sea Belize
BZ1d.6-Half Moon Caye and Blue Hole Natural Monuments-Management Plan 2008-2013	2007	Belize Audubon Society	Belize Audubon Society
BZ1d.7-Sapodilla Cayes Marine Reserve-Management Plan 2011-2016	2010	Southern Environmental Association	Southern Environmental Association
BZ1d.8-Laughing Bird Caye National Park-Management Plan 2011-2016	2007	Southern Environmental Association	Southern Environmental Association
BZ1d.9-Hol Chan Marine Reserve Management Plan	2002	IUCN	IUCN
BZ1d.10-Bacalar Chico National Park & Marine Reserve Management Plan	2004	Green Reef Environmental Institute	Green Reef Environmental Institute
BZ1d.11-Caye Caulker Forest Marine Reserve-Integrated Management Plan 2004-2009	2004	Belize Fisheries Department	Belize Fisheries Department
BZ1d.12-Port Honduras Marine Reserve (Preliminary Draft Management Plan)	Jun-98	Belize Fisheries Department	Belize Fisheries Department
BZ1d.13-Corozal Bay Wildlife Sanctuary Management Plan 2010-14 (DRAFT)	Dec-09	Sarteneja Alliance for Conservation and Development	Sarteneja Alliance for Conservation and Development
BZ1d.14-Personal Communication Private Sector Support of Caye Caulker-Cultural norms	24/11/2011	HRI	HRI
BZ1d.15-Belize Eco-Audit national workshop Attendance Sheet	14/09/2011	HRI	HRI
BZ1e.16-The Status of Protected Areas in Belize-Report on Management Effectiveness, 2009	2009	Association of Protected Areas Management Organizations (APAMO)	Association of Protected Areas Management Organizations (APAMO)
BZd.17-Turneffe Atoll Management Plan final	2012	Turneffe Atoll Trust/Belize Fisheries Department	Turneffe Atoll Trust/Belize Fisheries Department
BZ1d.18-SL_Fisheries-regs2003	2003	Government of Belize	Government of Belize

**Approval:**

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Healthy Reef Initiative  
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## Indicator:

	<b>Status:</b>	<b>Final</b>
<b>Name:</b>	Percent of MPAs with good enforcement	
<b>Description:</b>	Sound management of MPAs requires both the capacity and political will to enforce regulations. This indicator measures the degree of enforcement in each MPA. We recognize that both enforcement and compliance are important issues and coming up with a system to track this in MPAs is a recognized data gap.	
<b>Theme:</b>	Theme 1 – Marine Protected Areas	

## Ranking Criteria:

- 5 – At least 75% of MPAs have good enforcement and the remaining 25% must have moderate enforcement
- 4 – At least 60% of MPAs have good enforcement and the remaining 40% must have moderate enforcement
- 3 – At least 50% of MPAs have at least moderate enforcement
- 2 – At least 25% of MPAs have at least moderate enforcement
- 1 – Fewer than 25% of MPAs have at least moderate enforcement

## Responsible:

<b>Organization:</b>	Healthy Reefs Initiative
<b>Contact:</b>	Roberto Pott (Belize HRI Coordinator)
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## Grade:

<b>Grade:</b>	<b>2016: 3-Fair</b>	<b>2014: 3- Fair</b>	<b>2011: 3- Fair</b>	
<b>Result:</b>	<p><b>2016:</b> Each MPA was ranked individually by its managing agency in 2015. 41% of Belize's MPAs receive good enforcement, 24% had moderate enforcement, while the remaining MPAs receive <i>inadequate</i>. As a result, Belize's MPAs have at least a <i>moderate</i> level of enforcement of 65% (includes 24% <i>moderate</i> + 41% <i>good</i>) and thus ranks 3.</p> <p><b>2014:</b> Each MPA manager were provided with a survey in 2013 and the reponses compiled reflected similar responses to surveys in 2011.</p> <p><b>2011:</b> Each MPA was ranked individually by its managing agency during the Belize Eco-Audit national workshop (Belize City at the HRI Office September 14, 2011-BZ1e.1). Half of Belize's MPAs receive <i>moderate</i> enforcement (50%), while the remaining MPAs receive 44% <i>inadequate</i>, 0% <i>none</i>, and 6% <i>good</i> level of enforcement. As a result, Belize's MPAs have at least a <i>moderate</i> level of enforcement of 56% (includes 50% <i>moderate</i> + 6% <i>good</i>) and thus ranks 3.</p>			

## Observations:

<b>Observations:</b>	<p>2016: MPA managers were provided with a survey in 2016 and the reponses compiled (BZ1e.1) reflected similar responses to surveys in 2011 and 2013. BZ1e.2/Summary of results p.76-78 provides a detailed assessment of the management effectiveness of Belize's protected areas and was presented as evidence to support survey results. BZ1e.3 (p.6-7), BZ1e.4 (p.3-4, 8), BZ1e.5 (p.4,9), &amp; BZ1e.6 (p.12,13+), BZ1e.7 (p.1) were also presented as evidence, highlighting enforcement actions, patrol efforts and ecological impact.</p>
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2011 Eco-Audit Results: Belize

**Observations  
(cont'd):**

<p>2014: MPA managers were provided with a survey in 2013 and the responses compiled (BZ1e.1) reflected similar responses to surveys in 2011. Patrols from the Belize Coast Guard have contributed to enforcement efforts of the Fisheries Department for several MPAs, including those that have no dedicated staff and equipment. BZ1e.2/Summary of results p.76-78 provides a detailed assessment of the management effectiveness of Belize's protected areas and was presented as evidence to support survey results. BZ1e.3 (p.6-7), BZ1e.4 (p.3-4, 8), BZ1e.5 (p.4,9), &amp; BZ1e.6 (p.12,13+), BZ1e.7 (p.1) were also presented as evidence, highlighting enforcement actions, patrol efforts and ecological impact.</p>
<p>2011: Participants from the Belize Eco-Audit national workshop highlighted the recent budgetary cuts for fuel within the Belize Fisheries Department as a significant impediment to their enforcement efforts. On the other hand, participants noted that patrols from the Belize Coast Guard have contributed to enforcement efforts of the Fisheries Department for several MPAs, including those that have no dedicated staff and equipment. BZ1e.2/Summary of results p.76-78 provides a detailed assessment of the management effectiveness of Belize's protected areas and was presented as evidence to support survey results. BZ1e.3 (p.6-7), BZ1e.4 (p.3-4, 8), BZ1e.5 (p.4,9), &amp; BZ1e.6 (p.12,13+), BZ1e.7 (p.1) were also presented as evidence, highlighting enforcement actions, patrol efforts and ecological impact.</p>

**Source:**

Document/File name	Date	Institution	Location
BZ1e.1- MPA Original Data Collection	17-Nov-15	HRI	HRI
BZ1e.2-The Status of Protected Areas in Belize- Report on Management Effectiveness, 2009	2009	Association of Protected Areas Management Organizations (APAMO)	Association of Protected Areas Management Organizations (APAMO)
BZ1e.3-Glover's Reef Marine Reserve-Annual Report (January-December 2010)	Dec-11	<a href="#">Belize Fisheries Department</a>	Glover's Reef Marine Reserve
BZ1e.4-Laughing Bird Caye National Park: Annual Report (December 2010)	2010	Southern Environmental Association (SEA)	Southern Environmental Association (SEA)
BZ1e.5-Gladden Spit and Silk Cayes Marine Reserve Annual Report December 2010	2010	Southern Environmental Association (SEA)	Southern Environmental Association (SEA)
BZ1e.6-Fisheries Dept. EMU Annual report 2010 ( For Bacalar Chico, Caye Caulker, Hol Chan, South Water Caye, Gladden Spit, Port Honduras, Sapodilla Cayes)	2010	Belize Fisheries Department	Belize Fisheries Department
BZ1e.7NewsLtr_HMC&BH_2010Enforcement_Report	2010	Belize Audubon Society	<a href="#">Belize Audubon Society</a>

**Approval:**

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<b>Organization:</b>	Healthy Reefs Initiative
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**Healthy Reef Initiative**  
**Collection Sheet Eco-Audit 2011 - Belize**

**Indicator:**

	<b>Status:</b>	<b>Final</b>
<b>Name:</b>	Generation of alternatives for fishers within the network of MPAs	
<b>Description:</b>	Fisheries management strategies should provide alternative livelihoods for fishers and other communities whose income may be affected by the establishment of "Fully Protected (Replenishment) Zones" which prohibit fishing. This Indicator measures the level of implementation of measures to achieve this objective.	
<b>Theme:</b>	Theme 1 – Marine Protected Areas	

**Ranking Criteria:**

<p>5– A national-level strategy to provide fishers with long-term economic alternatives generated by the recovery of ecosystems through productive activities and/or payment of ecosystem services exists and is being implemented in between 85-100% of MPAs</p> <p>4 – A national-level strategy to provide fishers with long-term economic alternatives generated by the recovery of ecosystems through productive activities and/or payment of ecosystem services exists with implementation in between 50-84% of MPAs</p> <p>3 – A national-level strategy to provide fishers with long-term economic alternatives generated by the recovery of ecosystems through productive activities and/or payment of ecosystem services is being developed, with some alternative or sustainable livelihoods programs being implemented in between 20-49% of MPAs</p> <p>2 – At least one program exists (in one MPA) that provides fishers in at least one locality with economic alternatives through productive activities and/or payment of ecosystem services</p> <p>1 – No documented action that meets the criteria to achieve a higher score is available</p>
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**Responsible:**

<b>Organization:</b>	Healthy Reefs Initiative
<b>Contact:</b>	Roberto Pott (Belize HRI Coordinator)
<b>E-mail:</b>	pott@healthyreefs.org

**Grade:**

<b>Grade:</b>	<b>2016: 3-Fair</b>	<b>2014: 2-Poor</b>	
<b>Result:</b>	<p><b>2016:</b> A national-level strategy has been drafted (BZ.1f.2) and more than 20% MPA's have ongoing Alternative and sustainable Livelihoods programs and projects include NGO such as TIDE, SEA and Belize Audubon Society (BZ1f.3, BZ1f.4, BZ1f.5.)</p> <p><b>2014:</b> The Nature Conservancy is spearheading a working group (1f.1) and had secured resources for the development of a plan in consultation with stakeholder. Consultants have been hired with the specific task of drafting a national . Several NGO have implemented economic alternatives projects but there was no national plan in existense.</p>		

**Observations:**

<b>Observations:</b>	<b>2016:-</b> A national Strategy exists and is being considered by the Ministry of Fisheries via the Belize Fisheries Department.
	2014: Consultations with fishers and other stakeholders and a technical team including The Belize Fisheries Department, WCS, TNC and HRI is also providing technical support as the steering committee for the consultancy. Regional consultations with stakeholders are ongoing and the draft of the Economic Alternatives and Fisheries Diversification strategy is expected late this year or early next year (BZ.1f.1).

**Source:**

	Document/File name	Date	Institution	Location
2014	BZ.1f.1-TOR Economic alternatives sub committee_RZ Expansion Project_revised_June12	2012	TNC	TNC
2016	BZ.1f.2-Economic_Alternatives_&FisheriesDiversificationPlan_Rev 10-4-14	2014	TNC	TNC
	BZ.1f.3-BAS2014AnnualReportEXCERPTpg39	2014	Belize Audubon Society	<a href="#">Belize Audubon Society</a>
	BZ.1f.4-TIDE2014annual report_EXCERPT	2014	Toledo Institute for Development and Env.	<a href="#">Toledo Institute for Development and Env.</a>
	BZ.1f.5-SEA Report2013EXCERPT	2013	Southern Environmental Association	Southern Environmental Association

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Healthy Reef Initiative  
Collection Sheet Eco-Audit 2011 - Belize

## Indicator:

	<b>Status:</b>	Final
<b>Name:</b>	Harmonizing fisheries regulations among countries	
<b>Description:</b>	Over the past few years a number of regional initiatives have attempted to harmonize fisheries regulations for economically important fisheries (e.g. lobster and conch). This indicator measures the extent of harmonization of regulations on size limits and closed seasons, because differences in these two regulations across countries has been shown to lead to substantial trans-boundary illegal and unreported fishing.	
<b>Theme:</b>	Theme 2 – Ecosystem-based Fisheries Management	

## Ranking Criteria:

5 – Regulations for closed seasons and size limits are fully harmonized among the four countries and two commercial fisheries
4 – Regulations for closed seasons and size limits are fully harmonized among three countries and two commercial fisheries
3 – Regulations for closed seasons and size limits are fully harmonized among three countries and one commercial fishery
2 – There has been some effort at harmonizing regulations (draft regulations, project planning or joint research)
1 – No documented action that meets the criteria to achieve a higher score is available

## Responsible:

<b>Organization:</b>	Healthy Reefs Initiative
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<b>E-mail:</b>	pott@healthyreefs.org
<b>Organization:</b>	Belize Fisheries Department
<b>Contact:</b>	Ramon A. Carcamo Jr. (Assistant Fisheries Officer)
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## Grade:

<b>Grade:</b>	2016: 3- Fair	2014: 3- Fair	2011: 3- Fair
<b>Result:</b>	<p>2016: Resolution made by SICA in 2014, efforts are underway to regionally protect Whale Sharks, integrate the use of Turtle Exclusion Devices in fishing operations and to reduce Illegal, Unreported and Unregulated fishing in the region.</p> <p>2011 &amp; 2014:*Harmonization of the regulations (closed season and size limits) for the lobster fishery (Panulirus argus) exists for Belize, Guatemala and Honduras. Article 11 (p.19, BZ2a.1; GU2a.1; HN2a.1; MX2a.1)- explains the following measurements for lobster as: minimum length (140 mm tail length from the first section of the abdomen to the rear-most section of the tail fan) and minimum weight (5 oz per unit and between 5.5-5 oz for tails-not frozen). Other major fisheries (in terms of value and quantity) are conch (S. gigas), and over a dozen different grouper and snapper species. Although not considered a major commercial fishery in the MAR, shark finning has notably been prohibited in Mexico, Belize, Guatemala and Honduras.</p>		

## Observations:

<b>Observations:</b>	2016: Based on queries ( <a href="http://www.fao.org/fishery/psm/search/en">http://www.fao.org/fishery/psm/search/en</a> ) both Honduras and Belize have not ratified Port State Measures under the Food and Agriculture Organisation Agreement to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing (IUU). Over the last 2 years, Sea Cucumber has also emerged as a fishery in Belize. With existing Guatemala, Honduras, and illegal fishing of Sea Cucumber in the Yucatan region of Mexico, this species highlights the need for stronger coordination within OSPESCA and the MAR states to address issues of IUU.
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<p><b>Observations</b> (Cont'd)</p>	<p>The Regional Regulations for Caribbean Lobster Fishing OSP-02-09 made by OSPESCA (Organización del Sector Pesquero y Acuicola de Centroamérica) (GU2a.1; HN2a.1; BZ2a.1; MX2a.1) serves as a starting ground and benchmark for the countries of the SICA (Sistema de la Integración Centroamericana) to harmonize commercial fisheries. This regional regulation then requires national regulations be passed to ensure country-state compliance. Mexico, Guatemala and Honduras have a closed season for lobster from March 1-June 30 (Belize will maintain it's similar closed season from February 14-June 14). These dates were considered close enough to comply as being harmonized. See p. 10 for signatories (GU2a.1; HN2a.1; BZ2a.1; MX2a.1).</p> <p>OSPESCA established a working group in Central America to develop a working plan to regulate the <i>Strombus gigas</i> (Queen conch) fishery. The report "Mejoras de la situación y tendencias de la captura del caracol reina en la región del Caribe" (GU2a.2; MX2a.2; HN2a.2) represents the initial step towards harmonized regulations for the conch fishery. Another SICA OSPESCA document proposes harmonizing the fisheries regulations for lobster and conch in the entire Caribbean (GU2a.8; HN2a.6; MX2a.6; BZ2a.2). There is still work needed for the regulation of the conch fishery and for groupers and snappers in the MAR</p> <p>More recent efforts also include recommendations from the CFMC/OSPESCA/WECAFC/CRFM Working group for the development and adoption of sub-regional regulations for "conservation and management of Queen Conch". This has been supported by a CITES decision that expects nation-states to complete activities including standardized instruments for reporting, species management plans, and development of a product processing conversion factor.</p> <p>The Regional Action Plan for Central America on sharks talks about supporting the creation of a Regional Centre for Research and Training on Marine Resources. On January of 2012 the Regional Regulation OSP 05-11 bans the practice of Shark Finning in the countries of the SICA taking effect simultaneously across Central America, which aims to establish regional management measures for the sustainable use of shark resources that contribute to the eradication of finning (GU2a.3; GU2a.4; HN2a.7; HN2a.8; MX2a.7; MX2a.8; BZ2a.3; Bz2a.4). In Mexico, the NOM 029 PESC 2006 (MX2a.5, p. 2, 7 and 10) bans the practices of finning in all species of sharks and commercial fishing is prohibited in refugee zones for sharks and rays as well as drifting nets. Sharks are protected in critical periods such as reproduction and birth prohibiting fishing in specific zones and having closed seasons.</p> <p>The Regional Regulations for Caribbean Lobster Fishing OSP-02-09 made by OSPESCA (Organización del Sector Pesquero y Acuicola de Centroamérica) (GU2a.1; HN2a.1; BZ2a.1; MX2a.1) serves as a starting ground and benchmark for the countries of the SICA (Sistema de la Integración Centroamericana) to harmonize commercial fisheries. This regional regulation then requires national regulations be passed to ensure country-state compliance. Mexico, Guatemala and Honduras have a closed season for lobster from March 1-June 30 (Belize will maintain it's similar closed season from February 14-June 14). These dates were considered close enough to comply as being harmonized. See p. 10 for signatories (GU2a.1; HN2a.1; BZ2a.1; MX2a.1).</p> <p>OSPESCA established a working group in Central America to develop a working plan to regulate the <i>Strombus gigas</i> (Queen conch) fishery. The report "Mejoras de la situación y tendencias de la captura del caracol reina en la región del Caribe" (GU2a.2; MX2a.2; HN2a.2) represents the initial step towards harmonized regulations for the conch fishery. Another SICA OSPESCA document proposes harmonizing the fisheries regulations for lobster and conch in the entire Caribbean (GU2a.8; HN2a.6; MX2a.6; BZ2a.2). There is still work needed for the regulation of the conch fishery and for groupers and snappers in the MAR</p> <p>More recent efforts also include recommendations from the CFMC/OSPESCA/WECAFC/CRFM Working group for the development and adoption of sub-regional regulations for "conservation and management of Queen Conch". This has been supported by a CITES decision that expects nation-states to complete activities including standardized instruments for reporting, species management plans, and development of a product processing conversion factor.</p> <p>The Regional Action Plan for Central America on sharks talks about supporting the creation of a Regional Centre for Research and Training on Marine Resources. On January of 2012 the Regional Regulation OSP 05-11 bans the practice of Shark Finning in the countries of the SICA taking effect simultaneously across Central America, which aims to establish regional management measures for the sustainable use of shark resources that contribute to the eradication of finning (GU2a.3; GU2a.4; HN2a.7; HN2a.8; MX2a.7; MX2a.8; BZ2a.3; Bz2a.4). In Mexico, the NOM 029 PESC 2006 (MX2a.5, p. 2, 7 and 10) bans the practices of finning in all species of sharks and commercial fishing is prohibited in refugee zones for sharks and rays as well as drifting nets. Sharks are protected in critical periods such as reproduction and birth prohibiting fishing in specific zones and having closed seasons.</p>
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**Source:**

Document/File name	Date	Institution	Location
BZ2a.1-Regulation OSP-02-09-Regional Regulation of Caribbean Lobster Fishing	May-09	Organization of Fishing and Aquaculture in Central America (OSPESCA)	Regulation OSP-02-09
Bz2a.2- Reglamento OSP 05-11 para prohibir la práctica del aleteo del tiburón en los países parte del SICA	Jan-12	OSPESCA	OSPESCA
Bz2a.3-SI_78_of_2011_Nets&Sharkfins	Jul-11	Belize Fisheries Department	Belize Fisheries Department
Bz2a.4-Fisheries and Aquaculture Integration Policy for the Central American Isthmus	2005	SICA	SICA

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**Healthy Reef Initiative**  
**Collection Sheet Eco-Audit 2011 - Belize**

**Indicator:**

	<b>Status:</b>	<b>Final</b>
<b>Name:</b>	Special regulations for grouper / spawning sites	
<b>Description:</b>	The reef food web is highly complex. The removal of just one group of fish from the food web can have widespread effects throughout the reef ecosystem, ultimately weakening and destabilizing it. Groupers' reproductive behavior makes them particularly vulnerable during spawning, and many spawning aggregation sites (SPAGs) have already been overfished and depleted of grouper. This indicator measures efforts to protect these sites and species.	
<b>Theme:</b>	Theme 2 – Ecosystem-based Fisheries Management	

**Ranking Criteria:**

5 – At least 90% of known grouper SPAGs are fully protected (year-round in MPAs) with legal regulations and at least 50% of these have good enforcement
4 – At least 75% of known grouper SPAGs are fully protected (inside MPAs) and at least 20% have at least moderate enforcement
3 – There are closed seasons, size limits or catch limits specific for grouper
2 – There has been some effort at drafting regulations, research or a public campaign on the topic
1 – No documentation of actions that meet the criteria to achieve a higher score is available

**Responsible:**

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<b>Contact:</b>	Ramon A. Carcamo Jr. (Assistant Fisheries Officer)
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	BZ2b.1-SPAG Summary_Enforcement Table

**Grade:**

<b>Grade:</b>	<b>2016: 4 - Good</b>	2014: 4 - Good	2011: 4 - Good
<b>Result:</b>	2016:- There has been no increase in the number of SPAGs protected and level of enforcments within these. In Belize, 77% of known grouper SPAGS are legally fully protected, with 20% having moderate enforcement.		
	2011 & 2014: In Belize, 77% of known grouper SPAGS are legally fully protected, with 20% having moderate enforcement.		

**Observations:**

2011 Eco-Audit Results: Belize

**Observations:**

**2011-2016:** Thirteen grouper SPAGs have been identified (BZ2b.1), with 10 fully protected (77%) by SI 161-2003 (BZ2b.2/p.1) and SI 162-2003 (BZ2b.3/p.1). Two of these SPAGs have been incorporated into the Turneffe Atoll Marine REserve as no-take areas. Each SPAG was ranked by its managing agency during the Belize Eco-Audit national workshop (BZ1d.1). However, one site (Gladden Spit) is not fully protected because it is issuing special licenses to traditional fishers for the snapper spawning season (BZ2b.5/p21). These licenses, however, are not issued during the grouper spawning season. Of the 11 fully protected grouper SPAGs none have adequate enforcement (BZ2b.1). The majority of SPAG sites (80%) are inadequately enforced, and the remaining 20% are moderately enforced (BZ2b.1). BZ2b.4 does not specifically address the ranking of this indicator, but has been included as a resource that may be useful to promote future research and also to help identify management options.

**Source:**

Document/File name	Date	Institution	Location
BZ2b-1 SPAG Summary_Enforcement Table	Sep-11	HRI	HRI
BZ2b.2-SI-161-2003/Fisheries (Spawning Aggregation Site Reserves) Order	Oct-03	Minister of Agriculture, Fisheries & Cooperatives	WCS
BZ2b.3-SI-162-2003/ Fisheries (Nassau Grouper Protection) Regulations	Oct-03	Minister of Agriculture, Fisheries & Cooperatives	WCS
BZ2b.4-Critical Analysis of Information on Spawning Aggregation Sites in MBRS Project Countries and Recommendations for their Monitoring and Management	Nov-02	Green Reef Environmental Institute	Mar Fund
BZ2b.5-Gladden Spit and Silk Cayes Marine Reserve Management 2011-2016	Jul-05	<a href="#">Southern Environmental Association (SEA)</a>	Southern Environmental Association (SEA)

**Approval:**

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**Healthy Reef Initiative**  
**Collection Sheet Eco-Audit 2011 - Belize**

**Indicator:**

	<b>Status:</b>	<b>Final</b>
<b>Name:</b>	Protection of key grazers (parrotfish)	
<b>Description:</b>	As the number of large predatory species declines due to overfishing, fishers often target smaller herbivorous fish. The removal of herbivorous fish results in increased algal overgrowth, and ultimately decreased resilience of the reef ecosystem. This indicator measures the degree of protection for parrotfish among the four countries.	
<b>Theme:</b>	Theme 2 – Ecosystem-based Fisheries Management	

**Ranking Criteria:**

5 – Parrotfish are fully protected through regulations with at least good enforcement
4 – Parrotfish are fully protected through regulations with at least moderate enforcement
3 – There exist draft regulations or a public campaign on the topic
2 – There has been some effort (strategic plans or consultation reports) at drafting regulations and/or educational outreach (development of educational brochures or pamphlets)
1 – No documented action that meets the criteria to achieve a higher score is available

**Responsible:**

<b>Organization:</b>	Healthy Reefs Initiative
<b>Contact:</b>	Roberto Pott (Belize HRI Coordinator)
<b>E-mail:</b>	pott@healthyreefs.org

**Grade:**

<b>Grade:</b>	<b>2016: 5 - Very Good</b>	2014: 5 - Very Good	2011: 4 - Good
<b>Result:</b>	2016:- Belize continues to maintain Regulations for full protection of parrotfish exist and there is evidence of good enforcement (nearly 90% compliance) (Table 1/p.5 in BZ2c.2) and no parrotfish in catch (landings) data from Glovers Reef (BZ2c.3/p.1) and expert review based on MPA enforcement criteria (BZ1d.1).		

**Observations:**

<b>Observations:</b>	2016:- HRI in partnership with Courtney Cox of Smithsonian Institute (SI) collected tissues from retailers (Restaurants and resorts) at select sites, San Pedro, Placencia and Belize City with assistance from the Belize Fisheries Department and preliminary results suggest that there is good compliance with Parrotfish protection laws in Belize.(pers. communication Courtney Cox -SI/RobertoPott-HRI) .
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2011-2014

Restriction 6-No person shall take in the waters of Belize, or buy, sell or have in possession any grazers (defined as any fish of the scaridae family including the genus Scarus and Sparisoma; any fish of the Acanthuridae family)(BZ2c.1). During the Belize Eco Audit national workshop (Belize City at the HRI Office September 14, 2011-BZ1d.15) participants noted that protection of parrotfish was "good", based on their expert opinion and observations, as defined by the ranking criteria on overall compliance, patrolling, level of poaching, if ecological integrity is thought to be maintained or impacted or if local community feedback demonstrates a high level of concern (defined in the MPA worksheet - BZ1d.1). Results from the Glover's Reef Fisheries catch data (BZ2c.3) and the University of North Carolina of fish fillet sampling study (BZ2c.2) serves as independent supporting evidence. According to recent research by the University of North Carolina, 9% of fish fillet sampled from the primary fish markets and restaurants were identified as parrotfish (through genetic testing), indicating over 90% compliance (only 9% of the fish sampled were parrotfish) with the full protection of parrotfish (Table 1/p.5 in BZ2c.2). This study (2010) also indicate an increase in parrotfish fish abundance on the reef compared to the previous year. Additionally, a Glover's Reef Fisheries catch data survey also found no parrotfish in their catch data (BZ2c.3/p.1).

**Source:**

Document/File name	Date	Institution	Location
BZ2c.1-SI-49-2009/Fisheries (Nassau Grouper & Species Protection) Regulations, 2009	Oct-03	Minister of Agriculture, Fisheries & Cooperatives	<a href="#">Wildlife Conservation Society</a>
BZ2c.2-Tracking the effectiveness of a fishing ban in restoring grazer populations and coral reef resilience in Belize	Jul-05	University of North Carolina at Chapel Hill	University of North Carolina at Chapel Hill
BZ2c.3-Glover's Reef Marine Reserve Fisheries Catch Data Collection Program	Nov-10	Wildlife Conservation Society	Wildlife Conservation Society

**Approval:**

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**Healthy Reef Initiative**  
**Collection Sheet Ecoaudit 2013 - Honduras**

**Indicator:**

	<b>Status:</b>	<b>Final</b>
<b>Name:</b>	Transform all open-access fisheries to rights-based sustainable fisheries management systems	
<b>Description:</b>	Justification-Throughout the MAR region, fisheries management has not achieved sustainability, in large part due to reliance on open access and traditional management approaches and the inability to control illegal fishing, especially in remote areas. The lack of a clear allocation of fishing rights is a major factor contributing to overfishing, and tends to encourage unsustainable fishing practices such as the race-to-fish and illegal fishing. Open access also fuels conflict for fishing areas. Transforming fisheries management to a rights-based approach in the MAR region will promote better management of the fisheries stocks by fostering stewardship by fishers of designated fishing areas, facilitating the regulation of fishing through sustainable catch limits, and promoting community-based management of fisheries in the region.	
<b>Theme:</b>	Theme 2 – Ecosystem-based Fisheries Management	

**Ranking Criteria:**

5- More than 90% of total catch\* is under a form of regulated rights-based fisheries management (RBM) covering at least three of the most economically valuable species/taxonomic groups  
 4- 26-50% of total catch is under a form of regulated rights-based fisheries management, covering at least two of the most valuable species/taxonomic groups  
 3- At least two fisheries and/or 25% of fishing communities is under a form of regulated rights-based fisheries management, covering at least one of the most valuable species/taxonomic groups  
 2- At least one fishery and/or one community is implementing regulated rights-based fisheries management  
 1- No documented action that meets the criteria to achieve a higher score is available

**Responsible:**

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**Grade:**

<b>Grade:</b>	<b>2016: 2- Poor</b>		<b>2014: 2- Poor</b>		
<b>Result:</b>	2016:- Belize is on the verge of rolling out Manage Access nationall, but this happened after the deadline of Nov. 15, 2015 for actions to be taken for such actions to be considered in the 2016 Eco-Audit.				
	2014:- Although the pilot of the managed access project (2d.1) includes members of about 7 out of 25 fishing communities, it is not all the fishers from these communities that are currently participating. The pilot project is planned for roll out to a national program(2d.2)				

**Observations:**

<b>Observations:</b>	Under the legal mandate of Belize Fisheries Department special licenses issued for 2 pilot sites. Through collaboration with organizations: TIDE, WCS, and EDF in close consultation with Belize Fishermens Cooperative Association and Fisheries Advisory Board, a managed access project was initiated in 2011. There are plans to roll out the project into a national program.
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**Source:**

Document/File name	Date	Institution	Location
2d.1-ICRS2012_18A_2ManagedAccess	2012	TIDE	TIDE
2d.2-ManagedAccessExpansionWorkplan 2015	2013	WCS	WCS

**Approval:**

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**Healthy Reef Initiative**  
**Collection Sheet Eco-Audit 2011 - Belize**
**Indicator:**

	<b>Status:</b>	<b>Final</b>
<b>Name:</b>	Coastal zone planning regulations	
<b>Description:</b>	Effective, integrated coastal planning emphasizing sustainable development, alongside enforcement of coastal development regulations can greatly reduce the pressures of coastal development. Development and implementation of comprehensive coastal zone management plans can guide sustainable development. This indicator measures the extent and implementation of such plans or steps towards developing such plans. Having a well-designed coastal zone plan is only the first step toward achieving successful coastal zone management. Effective enforcement of these plans is also essential. Due to a lack of data and record-keeping on enforcement of zoning and other regulations it was not possible to define quantifiable ranges to assess the level and impact of enforcement efforts. This represents a gap that must be addressed in subsequent audits (See Full Eco-Audit for details on gaps.)	
<b>Theme:</b>	Theme 3 – Coastal Zone Management	

**Ranking Criteria:**

5 – A spatially comprehensive coastal zone plan or zoning regulations exist for the country (or state within the MAR area) and have been legally adopted
4 – There is a coastal zone plan or zoning regulations (not spatially comprehensive) and they have been legally adopted for some areas
3 – A spatially comprehensive coastal zone plan or zoning regulations have been completed (drafted) for the country (or MAR area) and submitted for approval
2 – There is work (drafts in progress, consultation reports, research or strategic plans) at drafting a spatially comprehensive coastal zone plan or zoning regulations.
1 – No documentation of actions that meet the criteria to achieve a higher score is available

**Responsible:**

<b>Organization:</b>	Healthy Reefs Initiative
<b>Contact:</b>	Roberto Pott (Belize HRI Coordinator)
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<b>Organization:</b>	Coastal Zone Management Authority and Institute
<b>Contact:</b>	Mrs. Chantalle Clarke-Samuels
<b>E-mail:</b>	ceo@coastalzonebelize.org

**Grade:**

<b>Grade:</b>	<b>2016: 3 - Fair</b>	2014: 2 - Poor	2011: 2-Poor
<b>Result:</b>	<p>2016- CZMA&amp;I reports that the revised plan (3a.1) has been presented to the CZMA&amp;I board who endorsed the plan, and this was submitted for approval in 2015 by Cabinet of the Government of Belize via the Minister of Sustainable Development . Based on this "submission for approval" , the score improved from 2 to 3.</p> <p>2011- 2013: There has been substantial effort and work in this sector over the last 13 years, and recent efforts over the last 2 years have updated this draft (3a.1), but there is still no plan in place. In 2003 a draft national plan was being assembled that included development guidelines from each of nine planning regions (MOV 3a.2; 3a.3; 3a.6; 3a.7, 3a.8; 3a.9, 3a.11; 3a.12; 3a.13; 3a.14., 3a.15) and an overarching policy (MOV 3a.10). There is a 2011 draft outline of the Belize Coastal Zone Management Plan (MOV 3a.1, Table of Content of revised draft plan, CZMAI has not released the latest draft of the full plan. )</p>		

**Observations:**

<b>Observations:</b>	2016- The plan was revised and the draft plan submitted to CZMA&I board in 2014 and it was endorsed. It was then submitted for approval via the Ministry of Sustainable Development for approval in 2015 (Pers. Communication CEO CZMA&I, Chantalle Clarke-Samuels.)
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2011 Eco-Audit Results: Belize

2014- "The Coastal Zone Management Act (1998) (MOV 3a.5) established the mandate of the Coastal Zone Management Authority and Institute (CZMAI) to develop a CZM Plan for Belize, as well as to implement needed monitoring programs and inter-institutional coordination. The CZM Strategy (2001) (MOV 3a.10) established Coastal Advisory Committees (CAC) (MOV 3a.4) in nine coastal regions. The committees provide a platform for collaboration between local stakeholders and the CZMAI, as well as to coordinate coastal management processes. This aim of this collaboration is to facilitate a participatory form of monitoring and resource management planning, while reflecting the needs and concerns of both local and national interests. Due to the loss of international funding support and a lack of political will the plan was never implemented. In 2008, the CZMAI was revived with staff and equipment and work is now actively underway. "

Source:

Document/File name	Date	Institution	Location
BZ3a.1- Draft National CZM plan March 2013 vers. (currently in process of adoption)	2013	Coastal Zone Management Institute	Coastal Zone Management Institute
BZ3a.2-Turneffe Isl_ Introduction Volume1	2003	Coastal Zone Management Institute	Coastal Zone Management Institute
BZ3a.3-Turneffe Islands Dev Guidelines	2003	Coastal Zone Management Institute	Coastal Zone Management Institute
BZ3a.4-Terms of Reference for Coastal Advisory Committees		Coastal Zone Management Institute	Coastal Zone Management Institute
BZ3a.5-Coastal Zone Management Act Ch 329	Dec-00	Government of Belize	Government of Belize
BZ3a.6-Southern Cayes Region Planning Guidelines Vol 10	Jan-04	Coastal Zone Management Institute	Coastal Zone Management Institute
BZ3a.7-Northern Cayes Region Planning Guideline Vol 2	Jan-04	Coastal Zone Management Institute	Coastal Zone Management Institute
BZ3a.8-Dangriga Cayes Region Planning Guidelines Volume 8	Jan-04	Coastal Zone Management Institute	Coastal Zone Management Institute
BZ3a.9-Belize City Cayes Region Planning Guidelines Vol 5	Jan-04	Coastal Zone Management Institute	Coastal Zone Management Institute
BZ3a.10-Cayes Development Policy	Apr-01	Coastal Zone Management Institute	Coastal Zone Management Institute
BZ3a.11-The National Integrated Coastal Zone Management Strategy	2001	Coastal Zone Management Institute	Coastal Zone Management Institute
BZ3a.12-Lighthouse Cayes Region Planning Guidelines Volume 7	Jan-04	Coastal Zone Management Institute	Coastal Zone Management Institute
BZ3a.13-The Placencia / Laughing Bird Caye Development Guidelines	Jun-05	Coastal Zone Management Institute	Coastal Zone Management Institute
BZ3a.14-Revised Master Development Plan for Ambergris Caye	Dec-09	Coastal Zone Management Institute	Coastal Zone Management Institute
BZ3a.15-Caye Caulker Development Guidelines	2004	Coastal Zone Management Institute	Coastal Zone Management Institute
BZ3a.16-Pers. Communication E-mail from CEO of CZMA&I	Nov. 2015	Coastal Zone Management Institute	Coastal Zone Management Institute

Approval:

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**Healthy Reef Initiative**  
**Collection Sheet Ecoaudit 2013 - Honduras**

**Indicator:**

	<b>Status:</b> <span style="border: 1px solid black; padding: 2px;">Final</span>
<b>Name:</b>	Watershed management plans related to coastal zone planning
<b>Description:</b>	<p>Justification: Effective, integrated land-use planning inside the watersheds of the MAR is essential to preventing erosion, sedimentation, and nutrient pollution into coastal and marine waters. In particular, nutrients are a major cause of the overgrowth of algae which can kill corals. Nutrients cause a major damage in reefs and benthic ecosystems. High water quality standards help to maintain coral reefs. Proper watersheds management includes appropriate land-use practices in erosion-prone areas and is essential for preserving water quality and ensuring that the transport of sediment, nutrients, and other pollutants to coral reefs is minimized. If sound watershed management plans are implemented, nutrient and sediment delivery are likely to be reduced, promoting recovery of degraded reefs.</p> <p>Watershed-based management plans foster sustainable development, and compliment similar coastal development plans along the coastline. This indicator measures the spatial extent and development of such plans or steps toward developing them.</p>
<b>Theme:</b>	Theme 3 – Coastal Zone Management

**Ranking Criteria:**

5 – A spatially comprehensive and integrated watershed management plan(s) that regulate the coastal and marine resources, exists for the country (or state within the MAR area) and have been legally adopted
4 – A spatially comprehensive and integrated watershed management plan(s) that regulate the coastal and marine resources management, exists for the country (or state within the MAR area) but has (have) not been legally adopted; or have at least 50% of watershed area within plan(s) or zoning regulations that are legally adopted
3 – There is work (monitoring water quality programs, drafts in progress, consultation reports, research or strategic plans) leading to an integrated watershed plan(s) in at least 50% of watershed area
2 – There is work (monitoring water quality programs, drafts in progress, consultation reports, research or strategic plans) leading to an integrated watershed management plan(s) in at least 10% of watershed area
1 – No documentation of actions that meet the criteria to achieve a higher score is available

**Responsible:**

<b>Organization:</b>	Healthy Reefs Initiative
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<b>Organization:</b>	Ministry of Natural Resources and Agriculture
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2011 Eco-Audit Results: Belize

<b>Grade:</b>	<b>2016: 3-Fair</b>	<b>2014: 2-Poor</b>	
<b>Result:</b>	<p><b>2016:-</b> Work assessing watershed across Belize were conducted in the last 2 years included more than 50% of watersheds. These are expected to inform the development of watersheds plans. With work underway to develop Management plans in more than 50% watersheds resulted in a score of 3.</p> <p><b>2014:-</b> With the passing of National Intergrated Water Resources Act (3b.1), Belize demonstrates a concerted effort to managed its watersheds. Additional steps are now underway operationalize the legislation including the formation of a dedicated national authority that will implement the development of national 'master plans" for watersheds in Belize (Pers.comms. Dr Paul Flowers.)</p> <p><b>2011:</b> Not applicable. This indicator incorporated in 2014 eco-Audit.</p>		

**Observations:**

<b>Observations:</b>	<p><b>2016:-</b> Results of watersheds assessment (3b.3) and land use change and impacts on water quality on most watersheds in Belize (3b.2) were shared during national watershed symposium in October 2015. These plans are expected to be used to develop an action plan for managing watersheds in Belize (Pers. Comm Nadia Bood/WWF).</p> <p><b>2014:-</b> In 2010, Belize passed legislation, National Intergrated Water Resources Act (3b.1), that includes legislation to support the formation of an authority with specific mandate for the management of Belize watersheds and the development and implementation of "Master plans" for all watershed in Belize nationally (p325-328, Sec.14), with the recent formation of a Water Resources Advisory Council, the development of Insitutional Architecture for the authority and the support of a national watershed assessment.</p>
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**Source:**

Document/File name	Date	Institution
3b1. National_Integrated_Water_Resources_Act	2010	Government of Belize
3b2.Managing land use change_Kay 2015	2015	ERI/Dr. Elmna Kay
3b3.RapidAssessment ofUpper Belize River Valley_Boles Oct2015 Presentation	2015	Galen University/Dr. Ed Boles

**Approval:**

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**Healthy Reef Initiative**  
**Collection Sheet Ecoaudit 2013 - Honduras**

**Indicator:**

	<b>Status:</b>	<b>Final</b>
<b>Name:</b>	3c. Mangrove extent as an indicator of the effectiveness of the coastal zone management plan implementation.	
<b>Description:</b>	Justification-Justification: Mangroves are regionally 'protected' on different levels through regulations requiring permits for their removal. However, even with the strictest regulations, many illegal clearings occur. Ultimately we need to track the remaining extent of mangroves in order to help protect their critical ecosystem functions, which include shoreline protection, provision of fisheries habitat, and biodiversity.	
<b>Theme:</b>	Theme 3 – Coastal Zone Management	

**Ranking Criteria:**

<p>5 – A spatially comprehensive and integrated plan or mangrove regulations, that contribute to the objectives of the coastal zone management plans, exist for the country (or state within the MAR area) and has been legally adopted, having mangrove coverage preserved in 90% from baseline status (probably 1990). Or more than 90% of the mangroves in the country or state are legally and effectively protected.</p> <p>4 – A spatially comprehensive and integrated plan or mangrove regulations that contributes to the objectives of the coastal zone management plans, exist for the country (or state within the MAR area) but have not been legally adopted, having mangrove coverage preserved in 70% from original status. Or more than 70% of the mangroves in the country or state are legally and effectively protected.</p> <p>3 – There is work (monitoring mangrove extent, drafts in progress, consultation reports, research or strategic plans) leading to a spatially comprehensive and integrated plan or mangrove regulations, or at least 50% of original mangrove cover is maintained or legally protected.</p> <p>2 – A plan or strong mangrove regulations exist, but doesn't contribute to the objectives of the coastal zone management plan or are poorly enforced, with many public records of illegal activity.</p> <p>1 – No documentation of actions that meet the criteria to achieve a higher score is available.</p>
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**Responsible:**

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**Grade:**

<b>Grade:</b>	<b>2016: 3-Fair</b>	2014: 3-Fair	
<b>Results:</b>	2016: Draft regulations for mangrove legislation continue to be considered but has not progress pass the draft stage. Belize maintains mangrove cover above 50% intact based on results from previous EA. There is no change in score for this indicator.		

## 2011 Eco-Audit Results: Belize

**Results  
(Conintued)**

2014:- An updated assessment of mangrove exists for Belize (3c.2), and stronger mangrove legislation has been drafted, but not legally adopted. The assessment showed that Belize still has the potential to effectively manage its mangrove and maintain over 70% of it's cover (3c.1).

**Observations:**

**Observations:**

2016:- Draft Mangrove regulations are currently being revisited under the MCCAP project and support has been secure to support the Solicitor General in reviewing the regulations for presentation to GoB (Pers. Communication- Wilbur Sabido; Chief Forest Officer.)

2011 & 2014: The Coastal Zone Management plan draft also provides close to 25% of Belize GDP, but noted that 58% of magrove are at medium threat and 11% are at high threat from human activities including coastal development, aquaculture and others (3a.1, pg. 35). This implies that, without an effective plan and strong legislation, mangrove ecosystems and the services they provide could be severely impacted.

**Source:**

Document/File name	Date	Institution	Location
3c.1-TECHNICALREPORT: Cherrington_etal2010BZ_Mangroves	2010	CATHALAC	<a href="http://www.cathalac.org">www.cathalac.org</a>
3c.2-Excerpt of Susidiary Laws of Belize Chapter 213 (Mangrove Regulations)	2000	Governement of Belize	Government of Belize

**Approval:**

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Healthy Reef Initiative  
Collection Sheet Eco-Audit 2011 - Belize

## Indicator:

	<b>Status:</b>	<b>Final</b>
<b>Name:</b>	Standards for wastewater management/sewage treatment	
<b>Description:</b>	International efforts to improve sanitation, particularly near sensitive ecosystems such as coral reefs and seagrass (e.g. Class I waters), have evolved, specifically through the creation of regional standards for sewage treatment. This indicator measures the extent of each country's adoption and implementation of these regional standards within the Cartagena Convention's Protocol Concerning Pollution from Land-Based Sources and Activities (LBSMP Protocol).	
<b>Theme:</b>	Theme 4 – Sanitation and Sewage Treatment	

## Ranking Criteria:

5 – LBSMP Protocol for Class I waters are legally adopted and there is good implementation by the country
4 – LBSMP standards for Class I waters are legally adopted but there is inadequate implementation by the country
3 – LBSMP standards for Class II waters have been legally adopted and there is good implementation by the country
2 – LBSMP standards for Class II waters are legally adopted, and there is inadequate implementation by the country
1 – No standards or standards below Class II

## Responsible:

<b>Organization:</b>	Healthy Reefs Initiative
<b>Contact:</b>	Roberto Pott (Belize HRI Coordinator)
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## Grade:

<b>Grade:</b>	<b>2016: 4-Good</b>	2014: 4 - Good	2011: 4 - Good
<b>Result:</b>	2016:- There is no evidence that Belize has improved its compliance with LBSMP standards by enforcing existing regulations and effluent standards that are consistent with LBSMP standards.		
	2014:- There is no evidence that Belize has improved its compliance with LBSMP standards by enforcing existing regulations and effluent standards that are consistent with LBSMP standards.		
	2011: Belize has ratified the Cartagena Convention's Protocol Concerning Pollution from Land-based Sources and Activities (MOV BZ4a.2) , and has passed national effluent regulations (MOV 4a.3) in order to meet these standards. However, based on readings for outfall in docs BZ4a.4 and BZ4a.5 discharge levels are below Class I standards (30 mg/L for BOD and suspended solids), which highlights that there has been a lack of implementation, resulting in a rank of 4.		

**Observations:****Observations:**

The Convention for the Protection and Development of the Marine Environment in the Wider Caribbean Region (WCR) is a comprehensive, umbrella agreement for the protection and development of the marine environment. This regional environmental convention is recognized as the paramount framework for cooperative regional and national actions in the WCR. In particular, the Convention's LBS Protocol (Protocol Concerning Pollution from Land-based sources and Activities) is considered an important framework for countries in the Wider Caribbean Region (WCR) to address land-based pollution (BZ4a.1 & BZ4a.2). A joint initiative by the Inter-American Development Bank, the United Nations Environment Programme, and the Global Environment Facility to finance wastewater treatment management projects throughout the Caribbean draws on the LBS Protocol as the legal framework to justify its efforts. Pilot projects are planned for Belize, Trinidad & Tobago, Guyana, and Jamaica (all signatories of the LBS Protocol). Each country in the MAR, excluding Honduras, has signed the Cartagena Convention's Protocol Concerning Pollution from Land-based Sources and Activities. Belize has passed national effluent regulations (p.11 in BZ4a.3) in order to meet international standards set by the LMSMP (Annex 3, Sec.1&2).

**Source:**

Document/File name	Date	Institution	Location
BZ4a.1-Protocol Concerning Pollution from Land-based Sources and Activities to the Convention for the Protection and Development of the Marine	Jun-05	Caribbean Environment Programme	Caribbean Environment Programme
BZ4a.2-Ratification of LBS Protocol-Map	(Downloaded) Oct-	Caribbean Environment Programme	Caribbean Environment Programme
BZ4a.3-Environmental Protection - Effluent Limitation Amendment Regulation 2009	Jul-05	Government of Belize, Dept. of Env.	Department of Env.
BZ4a.4-BWS_Water_QualityJan_2011	Jan-11	Belize Water and Sewage Ltd.	Belize Water and Sewage Ltd.
BZ4a.5-BWS_WaterqualityJuly2011	Jul-11	Belize Water and Sewage	Belize Water and Sewage

**Approval:**

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Healthy Reef Initiative  
Collection Sheet Eco-Audit 2011 - Belize

## Indicator:

	<b>Status:</b>	<b>Final</b>
<b>Name:</b>	New infrastructure for sewage treatment (in the last 5 years)	
<b>Description:</b>	In order to meet the LBSMP standards, new and improved sewage treatment facilities are typically required. Given the high cost of this infrastructure, change is likely to be incremental. This indicator measures progress (relative to population size) in installing such facilities. The target of 5% of the coastal population may seem low, but it refers to the additional population serviced by the installation of new infrastructure, and not the total population with sewage service.	
<b>Theme:</b>	Theme 4 – Sanitation and Sewage Treatment (in the last 5 years)	

## Ranking Criteria:

- 5 – New coastal municipal sewage treatment plant(s), which meets the LBSMP standards for Class I waters, exists (serving at least 5% of the coastal population)
- 4 – New coastal municipal sewage treatment plant (s) for coastal population, which meets the LBSMP standards for Class I waters, is under construction or approved (serving at least 5% of the coastal population)
- 3 – New coastal municipal sewage treatment plant (s), which meets LBSMP standards for Class I waters exists, is under construction or approved (serving less than 5% of the coastal population)
- 2 – New coastal municipal sewage treatment plant (s), which meets at least LBSMP standards for Class II waters exists, is under construction or approved
- 1– No documented action that meets the criteria to achieve a higher score is available

## Responsible:

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## Grade:

<b>Grade:</b>	<b>2016: 3-Fair</b>	<b>2014: 3-Fair</b>	<b>2011: 3- Fair</b>
<b>Result:</b>	2016: New construction remains in approval stage but construction may not occur until 2017 due to a shortfall in budgets or lack of investment (BZ4b.6).		
	2011:- New construction has been approved (BZ4b.4) for a municipal plant in Placencia and will fully meet LBS Class I standards (MOV BZ4b.1 pg. 8 or PDF pg.3) . However, adequate documentation has not been found to verify that it will serve almost 8,000 people ( 5% coastal population). Work continues including a feasibility study (BZ4b.5) and the government has agreed to hand over management of the water system and sewage system to BWS (pers.communication).		

## Observations:

2011 Eco-Audit Results: Belize

<p>2011:- New construction approved and Terms of Reference require design to "comply with target performance standards in effect in Belize" (which is EPA effluent limit.reg. 2009 - and meets Class I standards). According to the 2010 population census, there are 312,698 people in Belize ( see PDF page 43 of document BZ4b.2) with about 45% (or 140,714) along the coast (See page 17 of document BZ3a.11 for an official estimate of the percent of the Belize population that is coastal). Thus 5% of the coastal population is approximately 7,036 people (MOV BZ4b.3.) The feasibility study (BZ4b.5) is used to verify that work progress. Final plans scheduled to be completed by January 2014 were not realized and construction works did not commence.</p>
<p>2011:- Belize received IDB assistance (BZ4b.4 pg. ) to design and install a new sewage treatment facility in Placencia - one of the fastest growing tourist destinations. Funding has been set aside and bid is out for design of plant for Placencia. New construction approved and Terms of Reference require design to "comply with target performance standards in effect in Belize" (which is EPA effluent limit.reg. 2009 - and meets Class I standards)(BZ4b.1). According to the 2010 population census, there are 312,698 people in Belize ( see PDF page 43 of document BZ4b.2) with about 45% (or 140,714) along the coast (See page 17 of document BZ3a.11 for an official estimate of the percent of the Belize population that is coastal). Thus 5% of the coastal population is approximately 7,036 people (MOV BZ4b.3.) The feasibility study (BZ4b.5) is used to verify that work progress. Final plans are to be completed by January 2014 at which time construction works are to begin (pers. communication.)</p>

Source:

Document/File name	Date	Institution	Location
BZ4b.1-PLC Sewage Study TOR	Jul-05	Belize Water and Sewage Ltd.	Belize Water and Sewage Ltd.
BZ4b.2Belize 2010 Census Summary	May-11	Statistical Institute of Belize	Statistical Institute of Belize
BZ4b.3 Belize Coastal Population HRI Calculations	Nov-11	Healthy Reefs	Healthy Reefs
BZ4b.5 IDB BWS-Placencia Sewage Project Document	2010	<u>IDB</u>	<u>IDB BWS PLC</u>
BZ4b.5 plj-Sewage-systemFeasibility2-2012-01Jan	2012	<u>BWS</u>	<u>IDB BWS PLC</u>
BZ4b.6-Channel7_News_Contending_with_Coastal_Sewage_Sep-25-2016	Sep-05	Channel 7 News Belize	<a href="#">Channel 7 News Belize</a>

Approval:

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**Healthy Reef Initiative**  
**Collection Sheet Ecoaudit 2013 - Honduras**

**Indicator:**

	<b>Status:</b>	<b>Final</b>
<b>Name:</b>	Reduce upstream watershed pollution sources (agriculture, livestock, urban/tourism, industrial, rural, deforestation) through better management practices, action plans and regulations in each sector	
<b>Description:</b>	The high level of nutrients, pesticides and other agro-chemicals used can result in pollution downstream. Sewage also contains bacteria and viruses known to harm marine life, including corals. Wastewater(including sewage and industrial effluent) must be treated and controlled to reduce the nutrients and toxins that reach coral reefs.	
<b>Theme:</b>	Theme 4 – Sanitation and Sewage Treatment	

**Ranking Criteria:**

5 – “Better management practices”, action plans and/or regulations exist and are under implementation, addressing 80% of the pollution sources occurring in the watersheds (agriculture, livestock, urban/tourism, industrial, rural, deforestation - those which occur in an analyzed watershed- not all occur in all watersheds) covering at least 80% of watershed areas, with demonstrated water quality improvements

4- “Better management practices”, action plans and/or regulations exist for at least 4 of the 6 pollution sources (agriculture, livestock, urban/tourism, industrial, rural, deforestation) covering 50% of watershed areas, with some demonstrated water quality improvements

3- “Better management practices”, action plans and regulations exist for at least 2 of the 6 pollution sources (agriculture, livestock, urban/tourism, industrial, rural, deforestation) covering 30% of watershed areas, with some demonstrated water quality monitoring

2- “Better management practices”, action plans and regulations for 1 of the 6 pollution sources (agriculture, livestock, urban/tourism, industrial, rural, deforestation) covering at least 10% of the watershed area

1 – No documentation of actions that meet the criteria to achieve a higher score is available

**Responsible:**

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2011 Eco-Audit Results: Belize

**Grade:**

<b>Grade:</b>	<b>2016: 2-Poor</b>	20:14: 2-Poor	
<b>Result:</b>	<p><b>2016:</b> No progress made in this indicator. WWF has been successful in working with the shrimp industry to reduce outflows and adopt Best Management practices. However, their location does not meet the 30% threshold that would result in a score increase.</p> <p><b>2014:-</b> Significant effort has been made in reducing pesticide use and the resulting run-off that likely occurs. All the shrimp farms (6) in 2012 and a large representation of the sugar cane area in northern Belize were involved in this effort using best management practices(4c.1). This watersheds impacted are the North Stann Creek, Stiiittee River, South Creek and the New River Watersheds and, this represents more than 10 % of the 16 major watersheds(4c.2, pg. 4) in Belize. Added to this are actions being taken to develop master plans for the management of water resources in Belize (3c.1.)</p>		

**Observations:**

<b>Observations:</b>	The geographic scope of impact of BMP activities is an estimation based on the watersheds associated with the approximated location of program activities known for sugar and banana agricultural location. Note that WWF BMP activities encompassed 51% of the MAR program area (4c.2, pg.2). And the Shrimp farm
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**Source:**

Document/File name	Date	Institution	Location
4c.1WWF MAR Ag and Env_Final report	2012	World Wildlife Fund	WWF-Belize
4c.2-Boles_E-BelizeWatershedstatus200X	2009*	The Nature Conservancy	TNC
4c.3-ASC-Shrimp Standard	2013	Aquaculture Stewardship Council	ASC

**Approval:**

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5a

Healthy Reef Initiative  
Collection Sheet Eco-Audit 2011 - Belize

## Indicator:

	<b>Status:</b> Final
<b>Name:</b>	Standardized monitoring of coral reef health and information management (regional indicator)
<b>Description:</b>	This indicator measures the efforts of researchers and managers to standardize monitoring methods, apply them in regular monitoring of representative sites (those selected based on non-biased sampling of different habitat types) and share the information in a publicly accessible and up-to-date database
<b>Theme:</b>	Theme 5 – Research, Education and Awareness

## Ranking Criteria:

5 – A regional standardized monitoring program of coral reef health and a database with routine, up-to-date and representative data both exist  
 4 – A regional standardized monitoring program exists, and assessments have been performed for representative sites (at least once)  
 3 – Representative data have been collected on coral reef health  
 2 – Plans to develop a regional standardized monitoring program and database are well underway (draft documents exist)  
 1 – No documentation of actions that meet the criteria to achieve a higher score is available

## Responsible:

<b>Organization:</b>	Healthy Reefs Initiative
<b>Contact:</b>	Roberto Pott (Belize HRI Coordinator)
<b>E-mail:</b>	pott@healthyreefs.org

## Grade:

<b>Grade:</b>	2016: 5 - Very Good	2014: 4 - Good	2011: 4 - Good
	<p>2016:- HRI conducted monitoring in 128 and complemented with partner data from another 124 sites. HRI continues to populate the regional database with data it collects and has incorporated data from some partners using MBRS-SMP methodology that is compatible with data collected using AGGRA methods that HRI uses. This data was used to produce the 2015 Report Card of the MAR. The region receives a rank of 5 bases on this.</p> <p>2013:- There are two widely used and officially adopted monitoring protocols in the region (AGRAA &amp; MBRS), these can be considered equivalent for basic monitoring purposes. AGRRRA has maintained an online database that has been widely used for over 10 years. However, all of the regions' data are not being shared in one widely available database. HRI's new Reef Health database was launched in August 2013 and is being designed to accept both AGRRRA and MBRS monitoring data. The total number of sites being monitored routinely is also less than half the approximately 320 sites needed to be fully representative on the regional scale (BZ5a.1, GU5a.1, MX5a.1, HN5a.1/Table 1/p.4). While we have demonstrated fairly consistent monitoring of some representative sites and some strategically selected sites, we have not yet achieved enough sites on a regular basis to be considered fully representative, thus this indicator ranks as a 4.</p>		

## Observations:

<b>Observations:</b>	<p>*</p> <p>2016:- HRI continues to make reef health data available online via it's geoportal (HN5a.8, BZ5a.8, GU5a.9, MX5a.11). this is facilitated by data is entered in the HRI database (BZ5a.11 ) that includes some compatible data from partners.</p> <p>2014:- The Atlantic and Gulf Rapid Reef Assessment program (AGRRRA) (www. agrra.org) maintains an active database of sites throughout the Caribbean, including the MAR, since 1999 (www.agrra.org). The 2012 Report Card can be found online at www.healthyreefs.org. There is also an online map that shows the sites under constant monitoring, for the complete MAR and their</p> <p>2011:- The Mesoamerican Barrier Reef System Project (MBRS) once had a functioning database, but this is no longer active. The two protocols are very similar and can be compared for key reef indicators. Conservation entities, as well as HRI have monitored sites using the AGRRRA in the MAR region since 2006, creating comparable data. The AGRRRA Manual includes a description of the process for selecting 'representative' sites and a suggested number of sites for each country / geomorphologic region in the Caribbean. This methodology was used by TNC to select 326 sites across the MAR, surveyed in 2006 and presented in an analyzed format in the 2008 Report Card, which shows all sites in the centerfold map. All of these sites were randomly selected using this methodology in order to assure representativeness.</p>
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## Source:

Document/File name	Date	Institution	Location
BZ5a.1- AGRRRA Protocols Version 5.5	Aug-12	AGRRRA	AGRRRA
BZ5a.2- Report Card for the Mesoamerican Reef 2008	Jun-08	HRI	HRI
BZ5a.3-Rapid reef assessment to identify resilient sites in the Mesoamerican reef (excerpt)	Jun-11	TNC	TNC
BZ5a.4- Report Card for the Mesoamerican Reef 2010	Jul-10	HRI	HRI

BZ5a.5-Data_Mar2012Report Card	Jul-12	HRI	HRI
BZ5a.6- MBRS Synoptic Monitoring Manual	Nov-02	Mesoamerican Barrier Reef System project	Mar Fund or World Bank website
BZ5a.7-AGRRA Database	Jul-13	AGRRA	AGRRA
BZ5a.8-Link_HRICREDIAdatabase	2013	CREDIA-HRI-AGRRA	CREDIA-HRI-AGRRA
BZ5a.9-HRI Interactive Map	2013	HRI	<a href="#">HRI</a>
BZ5a.10-Report Card For MesoamericanReef 2012	2012	HRI	<a href="#">HRI</a>
BZ5a.11- HRI Reef Health Database	2014	HRI	HRI
BZ5a.12-Report Card For MesoamericanReef 2015	2015	HRI	HRI

**Approval:**

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<b>Organization:</b>	Healthy Reefs Initiative
<b>Contact:</b>	Ian Drysdale
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Healthy Reef Initiative  
Collection Sheet Eco-Audit 2011 - Belize

## Indicator:

	<b>Status:</b>	<b>Final</b>
<b>Name:</b>	Economic valuation of coral reefs	
<b>Description:</b>	Economic valuation is a tool that can aid decision-making by quantifying ecosystem services provided by coral reefs in monetary terms. Valuation also provides a tool for evaluating the costs and benefits of management and economic development options, with an emphasis on long-term benefits, which can help avoid short-sighted development.	
<b>Theme:</b>	Theme 5 – Research, Education and Awareness	

## Ranking Criteria:

5 – A national valuation of coral reefs or valuation of selected ecosystem services associated with 50% of MPAs has been completed
4 – A valuation of 2 or more MPAs has been completed
3 – A valuation of 1 MPA has been completed
2 – Assessments of coral reef economic contributions are currently being implemented
1 – No documentation of actions that meet the criteria to achieve a higher score is available

## Responsible:

<b>Organization:</b>	Healthy Reefs Initiative
<b>Contact:</b>	Roberto Pott (Belize HRI Coordinator)
<b>E-mail:</b>	pott@healthyreefs.org

## Grade:

<b>Grade:</b>	<b>2016: 5 - Very good</b>	2014: 5 - Very good	2011: 5-Very Good
<b>Result:</b>	2016: Coral reef valuation was conducted in 2009 remains relevant in 2016.		
	2014: Coral reef valuation was conducted in 2009 remains relevant in 2014.		
	2011:- A national valuation of coral reef has been completed for Belize: "Coastal Capital: Belize-The Economic Contribution of Belize's Coral Reefs (2009)"		

## Observations:

<b>Observations:</b>	The World Resources Institute conducted a study "Coastal Capital: Belize-The Economic Contribution of Belize's Coral Reefs (2009)" (BZb.1/Methods/p.4) that evaluated the average annual contribution of reef- and mangrove-associated tourism, fisheries, and shoreline protection services to the economy of Belize. The Coastal Capital Belize valuation looked at all coral reefs and all mangroves in the country (BZb.1/Key Findings/pg.V and BZb.1/table/pg.7). In particular, WRI evaluated fisheries benefits from all coral reefs, the tourism visitation to all coastal resorts and dive sites, and the shoreline protection provided by any and all coral reefs in the country (BZ5b.1 & BZ5b.2) This was a national level valuation, looking at the current economic contribution of all coral reefs in Belize. This value has been cited extensively in the media by HRI, WRI, WWF and others to support marine conservation.
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## Source:

Document/File name	Date	Institution	Location
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2011 Eco-Audit Results: Belize

BZ5b.1-Working Paper-Coastal Capital: Belize-The Economic Contribution of Belize's Coral Reefs	Jan-09	World Resources Institute (WRI)	WRI
BZ5b.2-Summary of Results: Coastal Capital: Belize-The Economic Contribution of Belize's Coral Reefs	Jan-09	World Resources Institute (WRI)	WRI

**Approval:**

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**Healthy Reef Initiative**  
**Collection Sheet Eco-Audit 2011 - Belize**

**Indicator:**

	<b>Status:</b>	<b>Final</b>
<b>Name:</b>	Availability of understandable information on reef condition and threats	
<b>Description:</b>	<p>The public dissemination of information on reef condition and threats is essential to build an informed electorate that will support stronger reef protection regulations. This indicator measures the extent of these efforts through various media formats.</p> <p>Due to statistical limitations, we were unable to develop an indicator that specifically gauges impact. We encourage additional effort in this area. See "Data Gaps" on p. 31 (Full EcoAudit Document.)</p>	
<b>Theme:</b>	Theme 5 – Research, Education and Awareness	

**Ranking Criteria:**

<p>5 – Documents presenting scientific findings on coral reef condition and threats geared toward a general audience are widely available (print, television, social media, radio and online)</p> <p>4 – Documents presenting scientific findings on coral reef condition and threats geared toward a general audience are generally available (3 from the list above)</p> <p>3 – Documents presenting scientific findings on coral reef condition and threats geared toward a general audience are available (for at least 1 of the above) and more are being developed (strategic plans or outreach)</p> <p>2 –Scientific findings have been collated and there are plans to develop accessible products from this information</p> <p>1 – No documentation of actions that meet the criteria to achieve a higher score is available</p>
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**Responsible:**

<b>Organization:</b>	Healthy Reefs Initiative
<b>Contact:</b>	Roberto Pott (Belize HRI Coordinator)
<b>E-mail:</b>	pott@healthyreefs.org

**Grade:**

<b>Grade:</b>	<b>2016: 5 - Very good</b>	<b>2014: 5 - Very good</b>	<b>2011: 5-Very Good</b>
<b>Result:</b>	2016: During the last 2 year, NGO continues to engage media to share results of their studies, programs and reports.		
	2014: Studies and report card results publicized in print, on television, radio, online and through social media.		
	2011:- Studies and report card results publicized in print, on television, radio, online and through social media.		

**Observations:**

<b>Observations:</b>	<p>2016: Several NGO and HRI partners continue to use various media to present scientific findings and reef and information including Blue Ventures (BZ5c.9) and TIDE create enagement of communities through non-traditional, creative approaches continues to be successful in helping communities understand the threats to MPA's (BZ5c.10) HRI release of the 2015 Report Card this year also contributed to the effort.</p>
	<p>2014:- Work similar to 2011 continues.</p>
	<p>2011: The media in Belize is very open to reporting on reef related topics. The Reef Beat series (produced by Channel 7 and HRI) aired six episodes on the national news in 2010 (BZ5c.4). Several other examples of different media and publication types are noted below (BZ5c.1 (print), BZ5c.2 (television), BZ5c.3 (radio), BZ5c.4 (television), BZ5c.5 (print), BZ5c.6 9 (social media) and BZ5c.7(online/social media), including the 2011 environmental film of the year "Where have our sharks gone?" (5.c.8) but there are many readily more available. Most of this outreach is developed by NGOs, and opportunities also exist to have more government and private sector collaboration in media outreach. The Belize Fisheries Department's weekly radio program on fisheries issues (5c.9) is a noteworthy example of government outreach.</p>

**Source:**

Document/File name	Date	Institution	Location
BZ5c.1-Fish Fish Fillet-snapper of "kyato"	Jun-11	Amandala Newspaper	Anandala Online
BZ5c.2-Mesoamerican Reef 2010 report; Coral reefs in danger	Nov-10	Channel 5 NewsBelize	Channel5Belize.com
BZ5c.3-Healthy Reefs Initiative Kicks Off Today	Nov-11	LoveFM Radio News	LoveFM Radio News
BZ5c.4-Experts Discuss The State Of The Reef	Oct-10	Channel 7 NewsBelize	Channel7
BZ5c.5-Corals fail to recover at a Caribbean marine reserve (Published)	Oct-11	University of Miami	University of Miami
BZ5c.6-Healthy Reefs for Healthy People Facebook Page	NA	Facebook	Facebook
BZ5c.7-Healthy Reefs Channel	May-11	You Tube	You Tube
BZ5c.8-WCS Where Have Our Sharks Gone?	May-11	You Tube	You Tube
BZ5c.9 Belize Fisheries Department - Radio Program	May-11	LoveFM Radio News	Love FM
BZ5c.10_TIDE_Junior Freshwater_Cup	May-15	Toledo Insitute for Development and Technology	<a href="#">Amandala Newspaper</a>
BZ5c.11_BV_Lionfish_inBelize_LoveFm	Jun-15	Blue Ventures	<a href="#">Blue Ventures</a>

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Healthy Reef Initiative  
Collection Sheet Eco-Audit 2011 - Belize

## Indicator:

	<b>Status:</b>	Final
<b>Name:</b>	Interdisciplinary partnerships combine social and ecological research for management	
<b>Description:</b>	Humans are an integral part of an ecosystem, with social sciences being increasingly integrated into ecological research. This indicator measures the application of these social-ecological integrated studies to the improved management of coral reefs and coastal zones within the MAR region.	
<b>Theme:</b>	Theme 5 – Research, Education and Awareness	

## Ranking Criteria:

5 – Findings of integrated social/ecological research have resulted in significant management action (e.g. a change in legislation) (can include both formal and informal partnerships)
4 – Two or more formal interdisciplinary partnerships exist, which integrate social and ecological research, and have published results
3 – One or more informal interdisciplinary partnerships exist, and they are currently implementing joint integrated social/ecological research; or one formal interdisciplinary partnership exists and has published results
2 – Groups working on integrated social/ecological research have begun to plan joint work (work plans, research proposals or grant applications.)
1 – No documentation of actions that meets the criteria to achieve a higher score is available

## Responsible:

<b>Organization:</b>	Healthy Reefs Initiative
<b>Contact:</b>	Roberto Pott (Belize HRI Coordinator)
<b>E-mail:</b>	pott@healthyreefs.org

## Grade:

<b>Grade:</b>	<b>2016: 5-Very Good</b>	2014: 5-Very Good	2011: 5-Very Good	
<b>Result:</b>	2016:- WCS and researchers conducted various research work that looked at social as well as ecological aspect of marine resources (Bz5d.6).			
	2014: - Work initiated by WCS and EDF continues.			
	2011:- WCS/EDF and MMAS have established interdisciplinary partnerships that integrate social and ecological research, have published results and have lead to significant management action / changes which continues to be rolled out to the rest of Belize.			

## Observations:

Observations:	2016: Through studies conducted by WCS (Pers.Communication- Alex Tewfik) and collaborative work lead by academic, research institutions (BZ5d.6) multidisciplinary work continues in Belize.
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**Observations:**

2014: Wildlife Conservation Society (WCS) and Environmental Defense Fund (EDF) developed the "Managed Access Socio Economic Form" (BZ5d.1) as a new socio-economic component of the new licensing process for the new managed access program at Glover's Reef Marine Reserve and the Port of Honduras Marine Reserve (BZ5d.4). The Ministry of Agriculture and Fisheries submitted the "Implementation of Managed Access in the Marine Reserves Network in Belize" to Cabinet (BZ5d.5) in order to approve the use of this new tool in Belize. The existing MPA legislation allows for restricted access, it only required the new managed access program to be designed and implemented. The government commitment is captured in media announcement (BZ5d.4.) which formally initiated the process in June 2011. There is no formal agreement among parties and the collaborative work persist without such agreement. CI's Marine Management Areas Science (MMAS) program includes formal partnership among social and ecological researchers. A list of publications and examples of management products is available at [www.sciencetoaction.org](http://www.sciencetoaction.org) (BZ5d.2). The document BZ5d.3 is the formal agreement that describes the work plan for a collaborative study (Marine Management Area Science Program, Center for Applied Biodiversity Science and Conservation International), and the results of these works described the human cultures, cultural contexts, cultural values and cultural roles related to human history, presence and activities in the communities of Placencia, Seine Bight and Sarteneja, as they relate to the use of the Laughing Bird Caye and Gladden Spit Marine Reserves. The results of this project have resulted in changes to marine managed areas (MMA's). First, this project brought the 'socio-cultural reality' of MMA processes to light in the context of the specific locations in Belize and aided the inclusion of the Pelican Cayes "fully-protected" zone within the South Water Caye Marine Reserve in 2009. This project set a precedent for the inclusion of socio-cultural factors into MMA design and implementation,

**Source:**

Document/File name	Date	Institution	Location
BZ5d.1 Managed Access Socio Economic Form	Jul-11	Fisheries Department/WCS	Fisheries Department/WCS
BZ5d.2 CI_MMAS_Science-to-Action_People_and_Oceans	Jul-05	CI-MMAS/Multi-Belize partners	People and Oceans Publication
BZ5d.3-Work Plan: Cultural Roles Related to Marine Management Areas in Belize	Jul-05	CI-MMAS/Multi-Belize partners	Marine Managed Areas: What, why...
BZ5d.4-Catch shares	Jul-11	Channel 7 News	Channel 7 News
Bz5d.5-CabinetPaperonManagedAccessMay 11 2011	May-11	Fisheries Department	Fisheries Department
Bz5d.-Granados-Dieseldorff, Pablo. The Mutton Snapper ( <i>Lutjanus analis</i> ) Spawning Aggregation Fishery	2013	Texas A&M University	Texas A&M University

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**Healthy Reef Initiative**  
**Collection Sheet Eco-Audit 2011 - Belize**

**Indicator:**

	<b>Status:</b>	<b>Final</b>
<b>Name:</b>	Voluntary eco-standards program for marine recreation providers	
<b>Description:</b>	Marine recreation providers depend on healthy marine ecosystems, especially reefs. Voluntary programs have been developed to help them be better stewards in their use of the reef for recreation. This indicator measures the degree of participation of marine recreation providers in programs that promote environmental sustainability.	
<b>Theme:</b>	Theme 6 – Sustainability in the Private Sector	

**Ranking Criteria:**

5 – A regional or national voluntary eco-standards program for marine recreation providers exists and more than 50% of all providers are participating
4 – A regional or national voluntary eco-standards program for marine recreation providers is developed and more than 25% all providers are fully participating
3 – A regional or national voluntary eco-standards program for marine recreation providers is developed and at least 10% of operators are participating
2 – There has been some effort to create standards and at least 3-4 marine recreation providers are participating in these efforts (data collection, improved practices or strategic plans)

**Responsible:**

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<b>Organization:</b>	Belize Tourism Board (BTB)
<b>Contact:</b>	Misael Canto
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**Grade:**

<b>Grade:</b>	<b>2016: 2-Poor</b>	<b>2014: 2-Poor</b>	2011: 3- Fair
<b>Result:</b>	2016:- Standards for SCUBA diver has been drafted but has not been adopted. This indicators remains at a score of 2.		
	2014: No Improvements were recorded over the last period, so Belize was downgraded to a score of 2.		
	2011: The Coral Reef Alliance (CORAL) has developed a regional voluntary eco-standards, "Voluntary Standards for Marine Recreation in the Mesoamerican Reef System" (BZ6a.1). In Belize, 26 marine recreation operators (BZ6a.2: PDF page 1 & pg.5) out of of 238 total tour operators that report doing marine activities (BZ6a.3)(or about 10.9%) are applying the standard and participating in the program in 2009. However, in 2013, there was no documentation that operators continue to comply and maintain those standard and some attrition is expected. As result a score of 2 is given.		

**Observations:****Observations:**

2016: The BTB has shared a draft SCUBA diver standards (BZ6a.4) that is expected to adopt many of the eco-standards listed in BZ6a.1 and be consistent with best practices from Certification Brands such as PADI. These standards are expected to be legislated. Diving is a significant part of marine recreation in Belize. Other important stakeholders include hotels ( that offer marine recreation packages) boaters, snorkelers and the tour operators and guides. These stakeholders could promote reef management by adopting voluntary eco-standards.

CORAL-Belize reports working with marine recreational providers in San Pedro Town and Placencia to implement their regional voluntary eco-standards (BZ6a.1). There are 26 participants in the CORAL program based on (BZ6a.2) CORALs records, and there are approximately 238 marine recreational providers in Belize (BZ6a.3 for list of recreational providers provided by the Belize Tourist Board - the official licensing agency). The BTB reports that they are in the process of making this voluntary standard, a national one and Belize may see a major improvement in grade soon (Pers. Com. Armeid Thompson, Director of Quality Assurance, BTB) .

**Source:**

Document/File name	Date	Institution	Location
BZ6a.1-Voluntary Standards for Marine Recreation in the Mesoamerican Reef System	May-07	Coral Reef Alliance (CORAL)	Coral Reef Alliance (CORAL)
BZ6a.2-Participants_in_CORALMarine_eco-recreationProviders_Results	Jul-05	Coral Reef Alliance (CORAL)	San Pedro Town Office, Belize
BZ6a.3-BTBMarineRecreational Operator Contact and Validity List (October-2011)withHRledits	Jul-05	CORAL Reef Alliance (CORAL)	San Pedro Town Office, Belize
BZ6a.4-BZ-CP-DPC-5-20XX-Recreational Scuba Diving Services	Aug-14	Belize Tourism Board	Belize Tourism Board

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**Healthy Reef Initiative**  
**Collection Sheet Eco-Audit 2011 - Belize**

**Indicator:**

	<b>Status:</b>	<b>Final</b>
<b>Name:</b>	Participation of coastal hotels in eco-certification schemes	
<b>Description:</b>	Several eco-certification programs for coastal hotels have been initiated in the MAR area. If designed and implemented well, these programs have the potential to reduce negative impacts on coastal ecosystems and promote environmental sustainability. This indicator measures the industry's extent of participation in these programs.	
<b>Theme:</b>	Theme 6 – Sustainability in the Private Sector	

**Ranking Criteria:**

5 – Over 25% of coastal hotels participate in one of the recognized eco-certification schemes
4 – 15 – 24% of hotels participate in eco-certification schemes
3 – 5 – 14% of hotels participate in eco-certification schemes
2 – Less than 5% of hotels participate in eco-certification schemes
1 – No documentation of actions that meet the criteria to achieve a higher score is available

**Responsible:**

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<b>Contact:</b>	Misael Canto
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**Grade:**

<b>Grade:</b>	<b>2016: 2- Poor</b>	2014: 2-Poor	2011: 2-Poor
<b>Result:</b>	2016:- 10 hotels and tourism organizations possess eco-certification under Green Globe (BZ6d.2) and Eco-Tropical Sustainable Tourism (BZ6d.4) Eco-certifications programs		
	2014: The only active certification scheme is Green Globe, which has certified 2 of Belize's 370 ((2/370) X 100) (0.5%) coastal hotels.		

**Observations:**

<b>Observations:</b>	2016: Draft of proposed eco-standard have been circulated but no standards have been adopted by Belize.
	2014:- The BTB reports that they are developing a national rating system for hotels and is considering including criteria that match eco-certification schemes, but this has not been developed as yet. (Pers. Com. Laura Esquivel-Frampton, Director, BTB) .
	2011:- The only active certification scheme is Green Globe, which has certified 2 of Belize's 370 ((2/370) X 100) (0.5%) coastal hotels.

**Source:**

Document/File name	Date	Institution	Location
BZ6b.1-GreenGlobeStandard Criteria and Indicators	2013	Green Globe	Green Globe
BZ6b.2-Green Globe Members (Nov2015)	2015	Green Globe	Green Globe
BZ6b.3-Coastal Hotels of Belize-August 2012	2012	Belize Tourism Board	Belize Tourism Board
BZ6b.4-Eco-tropicalREsortsDirectory-Belize2015	2015	Eco-Tropical Resort	<a href="#">Eco-Tropical Resort</a>
BZ6b.5-Eco Rating at Eco Tropical Resorts, Hotels, and Lodges	2011	Eco-Tropical Resort	<a href="#">Eco-Tropical Resort</a>

**Approval:**

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Healthy Reef Initiative  
Collection Sheet Eco-Audit 2011 - Belize

## Indicator:

	<b>Status:</b>	<b>Final</b>
<b>Name:</b>	Adoption of seafood eco labeling programs	
<b>Description:</b>	Several different seafood labeling programs that promote sustainability. The Marine Stewardship Council (MSC) is the most advanced and environmentally robust. Several local eco-labeling efforts also promote sustainable seafood. This indicator measures the effort to develop and adopt these programs in the MAR region.	
<b>Theme:</b>	Theme 6 – Sustainability in the Private Sector	

## Ranking Criteria:

5 – There exists a national seafood eco-labeling program, and at least one fishery in the country is certified by the MSC  
 4 – There exists a national seafood eco-labeling program (within the MAR region), and at least one fishery has completed a full MSC assessment  
 3 – Better management practices have been developed and agreed upon for the seafood industry, and a lead agency is developing the eco-labeling program  
 2 – Better management practices have been developed, but not agreed upon, or no national lead agency has been identified to develop the eco-labeling program  
 1 – No documentation of actions that meet the criteria to achieve a higher score is available

## Responsible:

<b>Organization:</b>	Healthy Reefs Initiative
<b>Contact:</b>	Roberto Pott (Belize HRI Coordinator)
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## Grade:

<b>Grade:</b>	<b>2016: 2-Poor</b>	2014: 2-Poor	2011: 2-Poor	
<b>Result:</b>	<p><b>2016:-</b> There has been eco-certification of wildcaught fisheries. The Shrimp Growers Association has been successful in certifying their Shrimp produced from aquaculture production by the Aquaculture Stewardship Council. A consortium including WCS, Belize Fisheries Department, Oceana and EDF launched an initiative with the name Fish Right, Eat Right that would see improvement under this indicator in the next Eco-Audit.</p> <p><b>2014:-</b> No improvements were recorded for this period.</p> <p><b>2011:-</b> No evidence has been presented that eco-labeling program exists, although Better Management Practices (BMPs) have been developed and incorporated into legislation in Belize (e.g. size limits, gear restrictions, complete ban on bottom trawling). There is no agreed upon lead agency to manage the eco-labeling program.</p>			

**Observations:****Observations:**

**2016:** The Shrimp Growers Association has been successful in certifying their shrimp produced from aquaculture production by the Aquaculture Stewardship Council (BZ6c.4). This includes 90% of shrimp produced in Belize and is a major achievement for Belize in reducing outputs into coastal waters. New programs were announced in 2016 and improvements are expected to be reported in 2014:- No improvements were recorded for this period.

2011:- No evidence has been presented that eco-labeling program exists, although Better Management Practices have been developed (BZ6c.1) and incorporated into legislation in Belize (e.g. size limits, gear restrictions, ban on trawling). See Section 7.0 (p.42) in BZ6c.3 for examples of fishery policy that has been informed by BMPs. MMAS/HRI produced a seafood guide pocket card for restaurants to promote adherence to closed seasons and size limits and protected marine life (BZ6c.2). The Belize Tourism Board reported an interest and was well-received as an official lead agency in developing such a scheme, but no program has formally been initiated.

**Source:**

Document/File name	Date	Institution	Location
BZ6c.1-BMPmarine_guide_english (Pg 12 focuses on BMP's for Seafood consumption)	Jun-05	CORAL	CORAL
BZ6c.2-Science2Action_Seafood Guide	Jul-05	Science to Action (MMAS/CI/HRI)	Science to Action
BZ6c.3-The National Food and Agriculture Policy (2002-2020)	Apr-03	Ministry of Agriculture & Fisheries	Ministry of Agriculture & Fisheries
BZ6c.4-ASC Press_Belize-Shrimp-Grower-Association	Apr-15	Aquaculture Stewardship Council	<a href="#">Aquaculture Stewardship Council</a>
BZ6c.5-Sustainable-shrimp-gain-for--priority-reef(Webpage)	Nov-15	WWF	<a href="#">WWF</a>

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**Healthy Reef Initiative**  
**Collection Sheet Eco-Audit 2011 - Belize**

**Indicator:**

	<b>Status:</b>	<b>Final</b>
<b>Name:</b>	Government incentives for conservation and sustainable businesses	
<b>Description:</b>	Government tax and other incentives can provide an important stimulus for the private sector to adopt environmentally friendly practices and technologies. This indicator measures the degree to which each government in the MAR area has applied such incentives for conservation.	
<b>Theme:</b>	Theme 6 – Sustainability in the Private Sector	

**Ranking Criteria:**

5 –The national or provincial government provides incentives for four of the following: improvements in energy efficiency, improvements in the treatment of wastewater, reductions in waste production or recycling, alternative energy options, the adoption of four-stroke outboard engines, and land tax incentives for conservation  
 4 – Governments offer incentives for at least three of the above  
 3 – Governments offer incentives for at least two of the above  
 2 – Governments offer incentives for at least one of the above  
 1 – No government incentives were identified

**Responsible:**

<b>Organization:</b>	Healthy Reefs Initiative
<b>Contact:</b>	Roberto Pott (Belize HRI Coordinator)
<b>E-mail:</b>	pott@healthyreefs.org

**Grade:**

<b>Grade:</b>	<b>2016: 1-Very Poor</b>	2014: 1- Very Poor	2011: 1- Very Poor	
<b>Result:</b>	2016:- No documented action that meets the criteria to achieve a higher score. No evidence for any of the listed tax incentives for Belize.			
	No documented action that meets the criteria to achieve a higher score. No evidence for any of the listed tax incentives for Belize.			

**Observations:**

<b>Observations:</b>	2016:- Within National Energy Policy Framework for Belize (BZ6d.2) economic incentives along with technical and
	2014:- Key contact, Lejia M. Gideon, Deputy Executive Director, Belize Trade & Investment Development Service, was also asked to identify environmental incentives, but no incentives could be identified. These contacts included (in-person conversation on October 15, 2013).
	2011:- No documented action that meets the criteria to achieve a higher score. No evidence for any of the listed tax incentives for Belize.

**Source:**

Document/File name	Date	Institution	Location
BZ6d.1-Personal Communication-Fwd_ economic incentives2013	Oct-13	HRI	HRI
BZ6d.2EnergyPolicyFramework(Belize)	Jul-12	Government of Belize-	Government of Belize-

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**Healthy Reef Initiative**  
**Collection Sheet Eco-Audit 2011 - Belize**

**Indicator:**

	<b>Status:</b>	<b>Final</b>
<b>Name:</b>	Private sector assistance to MPAs	
<b>Description:</b>	Incorporating private sector assistance for local MPAs is an important component in their sustained success. This indicator assesses the degree of local business assistance as reported by MPA managers. Private sector assistance is evaluated based on the existence of financial, in-kind, or technical assistance.	
<b>Theme:</b>	Theme 6 – Sustainability in the Private Sector	

**Ranking Criteria:**

5 – At least 50% of marine protected areas have high levels of private sector support  
 4 – At least 50% of marine protected areas have at least moderate private sector support and at least 25% have high private sector support  
 3 – At least 50% of marine protected areas have at least moderate private sector support  
 2 – At least 50% of marine protected areas have at least low private sector support  
 1 – At least 50% of marine protected areas have at least no private sector support

**Responsible:**

<b>Organization:</b>	Healthy Reefs Initiative
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**Grade:**

<b>Grade:</b>	<b>2016: 2- Poor</b>	2014: 2-Poor	2011: 2-Poor	
<b>Result:</b>	2016:- Based on results from MPA management surveys(BZ6e.1), 29% of MPA's received at least moderate private sector support. This indicators score remains at 2.			
	2014: No change or improvements.			
	2014: Each MPA was ranked individually by its managing agency during the Belize Eco Audit national workshop (Belize City at the HRI Office September 14, 2010); . Based on results (BZ6e.1) overall, 72% of Belize's MPAs receive low private sector support (This includes 28% moderate + 44% low + 0% high) and thus, ranks 2. This has not changed since last data collection.			

**Observations:**

<b>Observations:</b>	2016:- Results from survey of MPA management organization showed that 29 % of MPA's received at least moderate support from the Private Sector. No MPA received high levels of support; 47 % received low level of support and 24 % received no assistance.
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## 2011 Eco-Audit Results: Belize

This information was taken from the Belize Eco Audit national workshop (Belize City at the HRI Office September 14, 2011) (BZ1d.15). The results of this workshop (BZ6e.1) showed that a majority of Belize's MPAs receive low private sector assistance (44%), while 28% MPAs receive moderate assistance, 28% reported receiving no private sector assistance, and 6% received high level of assistance. Several notable examples of private sector assistance include the Hol Chan Marine Reserve, which receives support from dive centers, including tanks and maintenance of moorings. Glover's Reef MPA receives logistical and enforcement support from private resorts. South Water Caye Reserve has an advisory committee, which is private sector based, and serves the role as management support for the Fisheries Department.

### Source:

Document/File name	Date	Institution	Location
BZ6e.1-MPA Original Data Collection	17-Nov-15	HRI	HRI

### Approval:

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**Healthy Reef Initiative**  
**Collection Sheet Eco-Audit 2011 - Belize**
**Indicator:**

	<b>Status:</b>	<b>Final</b>
<b>Name:</b>	Mapping of potentially resilient reefs to warming seas / coral bleaching (regional indicator)	
<b>Description:</b>	Corals are highly sensitive to changes in temperature, resulting in bleaching. However, some species appear to be more tolerant, and some individual corals appear better adapted as a result of past exposure to stresses. Reefs that are better suited to avoid or tolerate bleaching are termed "resistant." Reefs that are affected but then recover to their original state are termed "resilient." Factors that appear to improve the resilience of a coral reef include minimizing local stressors, maintaining good connectivity to unimpacted or resistant reef areas, and enabling coral larvae to move in and establish the coral population. This indicator measures the extent to which a regionally accepted map of potentially resilient reefs has been adopted and utilized in the region.	
<b>Theme:</b>	Theme 7 – Global Issues	

**Ranking Criteria:**

5 – Existence of an accepted regional map that identifies reefs most likely to be resilient and is integrated into two national level plans and into at least 50% of MPA plans in those countries  
 4 – Existence of an accepted regional map that identifies reefs most likely to be resilient and is integrated into at least one national level plan and into at least 25% of MPAs in that country  
 3 – Existence of a draft MAR regional map of reef resilience using a regionally accepted method and is under review  
 2 – National work to develop regionally standardized resilience indicators is underway (data have been collected to identify resilient sites) and has been applied to create a regional map  
 1 – No documented action that meets the criteria to achieve a higher score is available

**Responsible:**

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**Grade:**

<b>Grade:</b>	<b>2016: 2-Poor</b>	2014: 2-Poor	2011: 2-Poor	
<b>Result:</b>	2016:- No additional work has been done for the region.			
	2014: No additional work has been done for the region.			
	2011: A draft regional map has been developed by TNC (2008/09)			

**Observations:**

2011 Eco-Audit Results: Belize

**Observations:**

This work has stalled in last year or two. A map was produced from the same TNC/WWF/HRI data that was used in the 2008 HRI Report Card (BZ7a.1 & BZ7a.2/p.2). It combines several indicators into an index of resiliency, similar to the index of reef health - although the results were somewhat different. There were questions about the indicators and ranges used, but the discussion/review was never completed. The draft map exists, as does the DRAFT report (Rapid Reef Assessment to Identify Resilient Sites in the Mesoamerican Reef (2009) detailing the indicators, ranges and justifications (BZ7a.3, Only document front cover provided, since document not available for distribution). The report and map identify potentially bleaching resilient and resistant reefs in the region by examining factors such as live coral cover, coral colony size and age, abundance of bleaching resistant species, reefs that survived previous bleaching events, and areas with strong recruitment. The other elements of this project (connectivity and effective management) were not identified.

Additionally, there is the "Coral Bleaching Early Warning Alert System"(BZ7a.4), which solicits volunteers with the Coral Watch Program and Adopt A Reef to submit reports once a month for the sites they visit. These reports are monitored by ECOMAR and members of the Belize National Coral Reef Monitoring Network. When these reports indicate that there are partly bleached coral colonies, Coral Network members conduct scientific monitoring at more than 50 sites throughout

**Source:**

Document/File name	Date	Institution	Location
BZ7a.1-Map potential resilient sites_MAR	2008	TNC	TNC
BZ7a.2-Member's report on activities to ICRI Presented by The Nature Conservancy Reporting period January 2008 – December 2009	2008-9	TNC	TNC
BZ7a.3-Rapid Reef Assessment to identify resilient sites in the Mesoamerican reef (report cover only - draft document)	2009	TNC	TNC
BZ7a.4-ECOMAR-Coral Watch Program	NA	ECOMAR	ECOMAR

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**Healthy Reef Initiative**  
**Collection Sheet Eco-Audit 2011 - Belize**
**Indicator:**

	<b>Status:</b>	<b>Final</b>
<b>Name:</b>	Engagement in international/regional treaties that support conservation	
<b>Description:</b>	The following international treaties and conventions address solutions to issues relevant to marine conservation in the MAR area. This indicator measures the number of ratifications for these treaties.	
<b>Theme:</b>	Theme 7 – Global Issues	

**Ranking Criteria:**

5 – At least 95% and higher score  
 4 – Score of at least 85%  
 3 – Score of at least 75%  
 2 – Score of a least 65%  
 1 – Score less than 64%

**Responsible:**

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	BZ7b.1 Country Comparisons-International Treaties Most Relevant to Reef Management

**Grade:**

<b>Grade:</b>	<b>2016: 5-Very Good</b>	2015: 5-Very Good	2011: 5-Very Good	
<b>Result:</b>	Belize has ratified all nine treaties described in Table BZ7b.1, for a score of 9/9 x 100 = 100% = GRADE 5			

**Observations:**

**Observations:** Belize has fully Ratified all nine treaties listed as important to marine conservation. These are provided in Table BZ7b.1 and described in the documentation below for each convention. Belize has ratified the United Nations Convention on the Law of the Sea (BZ7b.2), Convention For The Protection And Development Of The Marine Environment Of The Wider Caribbean Region(BZ7b.3), Oil Spills Protocol (BZ7b.10), the SPAW Protocol (BZ7b.4), the LBS Protocol (BZ7b.5), the RAMSAR Convention (BZ7b.6), the UNFCCC (BZ7b.7), the Convention on Biological Diversity (BZ7b.8) & the CITES Convention (BZ7b.9).

**Source:**

Document/File name	Date	Institution	Location
BZ7b.1 Country Comparisons-International Treaties Most Relevant to Reef Management	Oct-11	Healthy Reefs Initiative	Healthy Reefs Initiative
BZ7b.2-Status of the United Nations Convention on the Law of the Sea	Sep-11	United Nations Convention on the Law of the Sea	United Nations Convention on the Law of the Sea
BZ7b.3-Convention For The Protection And Development Of The Marine Environment Of The Wider Caribbean Region	Jun-05	Caribbean Environment Programme	Caribbean Environment Programme
BZ7b.4-SPAW Ratification Map	Jun-00	Caribbean Environment Programme	Caribbean Environment Programme
BZ7b.5-LBS Protocol Ratification Map	Oct-10	Caribbean Environment Programme	Caribbean Environment Programme
BZ7b.6-RAMSAR Ratification List	Feb-71	Ramsar	Ramsar
BZ7b.7-UNFCC Ratification List	Mar-94	UNFCC	UNFCC

2011 Eco-Audit Results: Belize

BZ7b.8-Convention on Biological Diversity Ratification List	Sep-03	CBD	CBD
BZ7b.9- CITES Ratification List	Jul-74	CITES	CITES
BZ7b.10-Oil Spills Protocol	Jun-05	Caribbean Environment Programme	Caribbean Environment Programme

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**Healthy Reef Initiative**  
**Collection Sheet Ecoaudit 2013 - Honduras**

**Indicator:**

	<b>Status:</b>	<b>Final</b>
<b>Name:</b>	Adopt and expand a reward system for carbon sequestration and encourage a reduction in hydrocarbon extraction and dependency while promoting the use of alternative renewable energy sources.	
<b>Description:</b>	Justification-As human populations grow, so do the resource demands imposed on ecosystems. The environmental impacts of anthropogenic actions, which are processes or materials derived from human activities, are becoming more apparent. This indicator measures the application and progress of an incentive program of ecosystem services for carbon sequestration.	
<b>Theme:</b>	Theme 7 – Global Issues	

**Ranking Criteria:**

5 – An incentive program of ecosystem services for carbon sequestration exists with 10% of the MAR land area
4 – An incentive program of ecosystem services for carbon sequestration exists and it's being implemented within the MAR land area
3 – An incentive program of ecosystem services for carbon sequestration does exist but is not being applied
2 – There are plans to develop an incentive program of ecosystem services for carbon sequestration
1– No documented action that meets the criteria to achieve a higher score is available

**Responsible:**

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<b>Contact:</b>	Ramon Pacheco
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**Grade:**

<b>Grade:</b>	<b>2016: 4-Good</b>	2014: 4-Good	
<b>Result:</b>	2016: There has been no expansion in area of forest within the MAR eco-region of Belize is currently involved in a carbon sequestration program. Score remains at 4.		
	2014:- A total of 17,843 ha. of forest within the MAR eco-region of Belize is currently involved in a carbon sequestration program. This represents .000007 % of the area of Belize (22,960 Km sq.).		

**Observations:****Observations:**

2016: No new observations for this period.

There are 3 projects in Belize that are part of a Voluntary Carbon Standards Program including Bodden Creek Ecological Preserve Forest Carbon project (3,980 ha.), the Bull Run Project ( 567.3 ha.) and the Rio Bravo Project (6,296 ha). Rio Bravo also manages an additional 7,000 ha approx. that did not qualify under the VCS program but continues to be managed for GHG. emission reduction by Pfb

**Source:**

Document/File name	Date	Institution	Location
7.c.1-PROJ_DESC_647_15JUN2011BoddenCreek	2011	Voluntary Carbon Offsets	<a href="#">Voluntary Carbon Offsets</a>
7c.2-PROJ_DESC_812_14MAR2012BullRun	2011	Voluntary Carbon Offsets	<a href="#">Voluntary Carbon Offsets</a>
7c.3-PROJ_DESC_852_01DEC2011RioBravo	2010	Voluntary Carbon Offsets	<a href="#">Voluntary Carbon Offsets</a>
7c.4-belizeCarbonseq1995report2	17-Jun-05	Programme for Belize	<a href="#">Programme for Belize</a>

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