



**Inter-American Convention for the Protection and Conservation of
Sea Turtles**

13th Scientific Committee Meeting

August 29th – September 1st, 2016 – Belize City, Belize

**Updated 7.21.2016
Original Spanish**

CIT-CC13-2016-Doc.3

**IAC Scientific Committee Analysis and Recommendations on the Implementation of the
Exception Resolution by Costa Rica, Guatemala and Panama**

These recommendations were prepared by the Exception Working Group from Brazil coordinator Maria Angela Marcovaldi, based on the analysis of the reports submitted by the Governments of Costa Rica, Guatemala and Panama. They are presented for consideration to the 13th SC meeting.

The IAC Scientific Committee is requested to: Careful review the recommendations proposed by the Exception working group and the Exceptions Report presented by the Government of Costa Rica, Guatemala and Panama (Annex I, II and III) and provide if necessary further recommendations/comments on their progress on the implementation of the Resolution as appropriate to the country and to the Consultative Committee, so that they can be conveyed to the IAC Conference of Parties.

Documents to Review:

Resolution Exceptions Costa Rica:

[CIT-COP7-2015-R.1: Exceptions for subsistence harvesting of *Lepidochelys olivacea* eggs in Costa Rica \(.pdf\)](#)

Resolution Exceptions Guatemala and Panama:

[CIT-COP6-2013-R1: Exceptions for Subsistence Harvesting of *L. olivacea* Eggs in Guatemala and Panama \(.pdf\)](#)

Annex I

PROGRESS REPORT ON COSTA RICA RESOLUTION REGARDING EXCEPTIONS CIT-COP7-2015-R1

Progress report on the implementation of the Resolution on the Exceptions under Article IV (3^a and 3b) for subsistence harvesting of *Lepidochelys olivacea* eggs in Costa Rica (CIT-COP7-2015-R1)

Submitting date: July 1st, 2016

Costa Rica focal point submitting date: June 24th, 2016.

Completed by: MSc. Rotney Piedra (SINAC-ACT); Licda. Norma Rodríguez (SINAC-ACT); Lic. Marco Solano, Waters and Seas Vice Ministry - IAC Focal Point.

It is requested to be concise filling up this report and that the information provided is a maximum of 3 pages.

According to the Resolution CIT-COP7-2015-R1 adopted by the Seventh Conference of the Parties of the Inter-American Convention for the Protection and Conservation of Sea turtles, the following measures are recommended to Costa Rica to meet the requirements of article iv (3) regarding exceptions:

- 1) The COP recommends that one standardized sampling method to quantify the nesting population at Ostional Beach be selected. Since currently there is not a standard method it is recommended that a study is conducted to assess the accuracy and precision of the two methods currently used (Chávez-Morera unpublished; Valverde & Gates, 2000) and to choose the most statistically robust method. Costa Rica should provide a report of this study to the IAC Scientific Committee and Consultative Committee by the end of 2017.
- 2) In the interim, Costa Rica should continue to manage its exception as described in its five-year plan.
- 3) To prevent illegal trade of eggs from other *L. olivacea* populations and from other sea turtle species, Costa Rica should develop and implement a system for traceability from the beach to the final distributor.
- 4) In order to determine the status of the nesting population of Ostional *L. olivacea* and the impact of the egg harvest on it, Costa Rica should monitor for additional indicators including the number of neonates (a recruitment index), and number/percentage of viable and non-viable clutches. Costa Rica should implement the monitoring of these indicators no later than the end of 2017. After this monitoring, there should be an evaluation to make adjustments to ensure the egg harvest is sustainable.

Costa Rica Relevant Activities (2015-2017)

Describe the activities according to the Resolution (numbers 1 – 4 above) and write an X in the corresponding column (yes, no, ongoing)

Recommended activities to comply with the requirements on the Exception. Be concise in the description of the activities.	YES	NO	Ongoing
Updates 2015-2016			
<p>1. In the last two National reports presented by Costa Rica to the IAC, specifically in annex “<i>Table 2. Index nesting sites or beaches for sea turtle conservation</i>”, since the data is available, the information reported has been recorded according to Valverde & Gattesse; in contrast with the situation that occurs with the access to information gathered with the other method.</p> <p>However, during the last meeting of the IAC Scientific Committee, Costa Rica proposed to analyze 7 criteria/indicators to assess the unpublished methods of Chávez-Morera vs. Valverde & Gates, 2000. The committee included two additional criteria. (The criteria are: Sample Type; Error; Variability; Sensitivity of the Method; Sampling Area; Background; Publication of the Method; Error; Ease of Enforcing the Method of Estimation; how these two methods are compared with those implemented in Escobilla <i>arribada</i> beaches in México).</p>	X		
<p>2. The Ministry of Environment and Energy, through its Vice Ministry of Waters and Seas, officially convey the Technical Advisory Group regarding exceptions for harvesting Ostional eggs. The official document VAMCH 115-2016 (Annex 1) is attached. The representative of <i>Universidad de Costa Rica</i> and the Regent Biologist of Ostional Association of Integral Development (<i>Asociación de Desarrollo Integral de Ostional-ADIO</i>) will be part of this technical group as well.</p>	X		
<p>3. The Advisory Group will hold a session in the last quarter of 2016, with the aim of rescheduling the dates and activities presented to the Scientific Committee as cited in CIT-CC12-2015-Doc.5; in addition to define the details on the procedure to use the assessment criteria to comply with the selection analysis of the sampling method most statistically robust. According to recommendation 1 in Resolution CIT-COP7-2015-R1</p>			X
<p>4. The Five Year Plan for Management and Conservation of the Olive Ridley Sea Turtles is evaluated annually. Currently, this Plan is being implemented. Attached is the document evaluated in 2015 (Annex 2) and the Plan’s Operational Matrix (Annex 3). The Vice Minister of Environment issues the guideline No VAMCH-275-2015, which indicates the prohibition to donate olive ridley turtle eggs to public institutions (Annex 4). Also, the National System of Conservation Areas, Conservation Area Tampique develops the Specific Plan for the attention of <i>Arribadas</i> in the National Wildlife Refuge Ostional, aiming to reduce the threats and impacts on olive ridley nesting populations through control and regulation of tourist activities, especially during the <i>arribadas</i> or massive nesting of this species. (Document attached in Annex 12)</p>	X		

<p>5. The document “Procedure of Traceability of Olive Ridley Sea Turtle Eggs from the National Wildlife Refuge Ostional” was developed and approved. Among its objectives, this interinstitutional protocol for packaging, distributing and controlling eggs includes: improving the current system for packaging and commercializing olive ridley turtle eggs in a way that the impact of human activities is minimized, guaranteeing the rationality in harvesting the eggs, and the integral sustainability of the Management and Conservation of the olive ridley in Ostional. Document attached (Annex 5).</p> <p>According to recommendation 3 in Resolution CIT-COP7-2015-R1</p>	X		
<p>6. In accordance with their responsibilities, INCOPECA, ADIO and MINAE implement the Traceability Procedure described in the document attached in Annex 5.</p> <p>According to recommendation 3 in Resolution CIT-COP7-2015-R1</p>			X
<p>7. During the last five years, Costa Rica has monitored indicators such as hatching success, and emergency in Ostional. Attached are: The <i>Final Report “Programa regional de monitoreo, marcaje y morfometría de tortuga lora (Lepidochelys olivacea) en el RNVS Camaronal y el RNVS Ostional, ACT, Costa Rica”, corresponding to 2014</i> (Annex 6); <i>Carlos M. Orrego 2014. Biology and Management of Olive Ridley Turtles (Lepidochelys olivacea) in Central America. Doctoral Thesis</i> (Annex 7); <i>Bezy et al. 2016. “Estimation of the Net Nesting Effort of Olive Ridley Arribada Sea Turtles Based on Nest Densities at Ostional Beach, Costa Rica”. Journal of Herpetology, proof pdf.</i> (Annex 8); <i>Bezy et al 2014. “Olive Ridley Sea Turtle Hatching Success as a Function of Microbial Abundance and the Microenvironment of In Situ Nest Sand at Ostional, Costa Rica”. Journal of Marine Biology. http://dx.doi.org/10.1155/2014/351921</i> (Annex 9). <i>Bezy et al 2015. Olive Ridley Sea Turtle Hatching Success as a Function of the Microbial Abundance in Nest Sand at Ostional, Costa Rica. PLOS ONE / DOI:10.1371/journal.pone.0118579</i> (Annex 10).</p> <p>According to recommendation 4 in Resolution CIT-COP7-2015-R1</p>	X		
Updates 2017			
<p>8. By July 2017, Costa Rica will have selected a sampling method. According to recommendation 1 in Resolution CIT-COP7-2015- R1</p>			X
<p>9. Once the sampling Method is selected the results Report will be sent to the SC and CCE. According to recommendation 1 in Resolution CIT-COP7-2015-R1</p>			X
Updates 2017- 2018			
<p>10. Costa Rica is developing an Ecological Monitoring protocol for each of the prioritized focal elements of management for the RNVS Ostional, where the indicators are defined. The memoirs of the first workshop of the process “Selection of Santa Rosa National Park, Las Baulas National Marine Park, the National Absolute Reserve Cabo Blanco and the RNVS Ostional” are attached (Annex 11).</p>			X

Annex II

CONSEJO NACIONAL DE AREAS PROTEGIDAS
Departamento de Vida Silvestre
SECCION RECURSOS HIDROBIOLÓGICOS

GUATEMALA PROGRESS REPORT ON IMPLEMENTATION OF EXCEPTIONS RESOLUTION CIT-COP6-2013-R1

Guatemala report on implementation progress of the Resolution on Exceptions CIT-COP6-2013-R1 under Article IV (3a and b) for Subsistence Harvesting of *Lepidochelys olivacea* eggs in Guatemala and Panama

Deadline for report: 1 July 2016

Date handed in: 8 July 2016

Report prepared by: Consejo Nacional de Áreas Protegidas –CONAP-

In accordance to Resolution CIT-COP-2013-R1 adopted by the Inter-American Convention for the Protection and Conservation of Sea Turtles Sixth Conference of the Parties (COP6) the following protection measures are recommended to Guatemala and Panama to meet the requirements of Article IV(3) regarding exceptions:

- 1) The COP recommends that Panama and Guatemala apply the precautionary approach by implementing the Protection Measures below, in accordance with the national laws governing the exceptions, and to continue consulting with the IAC Committees while the countries gather the suggested technical information and implement actions in the recommendations below so that the exceptions meet the requirements of article IV (3) of the Convention.
- 2) The level of sea turtle eggs being harvested under an exception must be proven to be sustainable and therefore, monitoring protocols must be in place to assess the stability of the population in the long-term. These protocols must include nesting trends in order to support the sustainability of the harvesting proposed. The IAC Scientific and Consultative Committees can provide proper guidance on how to prepare or review a monitoring protocol, if requested by the Party.
- 3) Each country must continue to report on their exception in their annual reports as well as on the implementation of the measures described below. The Scientific and Consultative Committees will continue to review the progress of the implementation of this resolution and report to the Conference of Parties the progress of the implementation.
- 4) In addition to the recommendations below, specific to Guatemala and Panama, the CCE concurs with the guidance provided by the Scientific Committee to both countries contained in Annex I.

On the exception presented by Guatemala:

1) Immediate Actions (1-2 Years)

a. The Government of Guatemala promotes appropriate legislation to ensure that the harvesting of olive ridley sea turtle eggs is sustainable in the long term and conforms to the text of the Convention.

b. In the interim, increasing the percentage of eggs that must be deposited in hatcheries to at least 30%, preferably 40%, until more detailed data on population size is available.

c. The Government of Guatemala must ensure that the harvesting of olive ridley eggs (*Lepidochelys olivacea*) proposed in the exception does not impact other species, thus adopting appropriate legal measures and policies to avoid this.

Immediate Actions	Year 1	Yes/No/P	Year 2	Yes/No/P
Government promotes relevant legislation for sustainable harvesting (per 1 a)	The government of Guatemala through Resolution 01-21-2012, section II . It authorizes collecting Parlama (<i>Lepidochelys olivacea</i>) eggs, during five years from October 15 th , 2012 to October 15 th , 2017, as long as 20% of the eggs harvested are handed to CONAP registered hatchery as a <u>conservation quota</u> .	Yes		
Increased deposition of eggs in hatchery (per 1b)	Consultation about increasing the current <u>Conservation Quota</u> of 20% will take place, taking in to consideration the current socio-economic situation of the local egg collectors, and resource managers; with the goal to update Resolution 01-21-2012 in 2017.	P		
Government adopts legislation to protect other (non-olive ridley) sea turtle species (per 1c)	The Government of Guatemala through Resolution 01-21-2012, section I . Prohibits collecting or using sea turtle eggs of the species: <i>Dermochelys coriacea</i> , (Baula) <i>Eretmochelys imbricata</i> , (Carey) <i>Chelonia mydas</i> (Green) <i>Chelonia agassizii</i> , (Black from the Pacific) <i>Caretta caretta</i> (Loggerhead)	Yes		

2) Midterm Activities (1-5 Years): the government of Guatemala develops a management plan that contains, among other items, the following:

- a. Using the best available information, identify the level of sustainable harvesting that does not negatively impact the exploited population, and that must be achieved in the medium term through a gradual reduction of the current level of harvesting.
- b. With technical guidance from the IAC, establish a program for long term monitoring of the population that includes goals and indicators.
- c. Considering that egg harvesting responds to an economic subsistence need of the coastal traditional communities, economic alternatives must be sought that address these subsistence needs in order to reduce the harvest to sustainable levels.
- d. Gather additional technical information
 - i. Data should be included on monthly nest activity, nest predation, and natural nest mortality and survivorship on the nesting beach.
 - ii. Information on the organizations participating in and the resources allocated to the management of the exception.
 - iii. Information should be provided on all hatcheries, with full descriptions of egg handling, nest density, and other hatchery procedures.
 - iv. Additional information on the economic aspects of turtle egg harvesting in Guatemala is requested with a socio-economic study of the beneficiaries of the egg harvest and justification for traditional use.
 - v. The effects of increased nearshore predation caused by hatchling release from hatcheries and ways to reduce this effect should be identified.
 - vi. An evaluation of the impact of illegal trade on the exception presented is recommended.

Year 1 Report (Place an X)

Guatemala Midterm Activities Update on the Management plan related to the following:	YES	NO	In Progress
Management Plan on Exceptions (per #2) <input type="checkbox"/> <i>Use of "receipts" provided to the collector in the hatcheries. To verify that Conservation Quota has been met, this receipts backup the hand in of 20% of the eggs to the hatchery, and the legal commercial authorization of the other 80% of the clutch.</i>	X		
Identification of a sustainable harvest level (per #2a) <input type="checkbox"/> <i>The hatcheries legally authorized provides a monthly report the "Hatchery Results Form" (Annex 1). These data are included in a digital database to obtain annual data to analyze and identify the level of harvest.</i>	X		
Establishment of a long-term program to monitor the population (per #2b) <input type="checkbox"/> <i>No programs have been defined. Research has been used to obtain a Bachelor's degree.</i>		X	
Identification of economic alternatives to address subsistence needs (per #2c) <input type="checkbox"/> <i>There are no current activities regarding the economic</i>		X	

<p><i>aspect of harvesting olive ridley sea turtle eggs.</i></p>			
<p>Acquisition of technical information (per #2d)</p> <ul style="list-style-type: none"> • Nest activity, including predation survival: <i>Use of the Hatchery Results Form (Annex 1)</i> <p><input type="checkbox"/> <input type="checkbox"/> Organizations and resources involved:</p> <p>A list of participant Organizations is presented below. However, there is no official information available regarding the funds allocated by them for sea turtle conservation activities.</p> <p>NGOs : ARCAS, Amigos del Bosque Academic: CECON/University San Carlos de Guatemala, Austrian School Governmental: Ministry of Agriculture, Livestock and Feeding –MAGA-, Taxisco Municipality Private industry: Guatemalan Exporters Association – AGEXPORT-</p> <p>And some other Communitarian Associations.</p> <ul style="list-style-type: none"> • Information on all hatcheries <i>There is a list of –CONAP- legally subscribed hatcheries. Every year those active are identified through the annual report. Following there is a list of the active hatcheries in the Pacific for the season 2015-2016.</i> <p><i>Tilapa, El Chico, Conservación Tulate, Conservación Barona, Sipacate, El Paredón, El Naranjo, Tahuesco, Sur Oriente, Conacaste, Garitón, La Candelaria, El Banco, Monterrico, Hawaii, Las Mañanitas, El Rosario, Las Lisas, Chapetón, Barra del Jiote y La Barrona</i></p> <ul style="list-style-type: none"> • Socio-economic study of egg harvest and justification for traditional use: <i>CONAP has a Form to identify the process of commercialization of the olive ridley, but this was not used for the 2015-2016 season. Therefore, updated data is not available for the socio-economic diagnosis. (See Annex No.2).</i> • Effects of increased predation caused by hatchling release from hatcheries and potential mitigation: <i>By personal communications with the staff in charge of releasing hatchlings to the ocean, it is known that releasing</i> 			<p>X</p>

<p><i>times and places on the beach have changed to avoid predation in the sea.</i></p> <p>Evaluation of impact of illegal trade on the exception presented: <i>Currently, there isn't a mechanism to evaluate the impact of illegal trade. However, control and surveillance operations are carried out within the capacity of the institution CONAP.</i></p>			
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Annex I

Additional guidance suggested for Guatemala

Place an X in the guidelines implemented thus far

- Use published biological data on sea turtles to interpret abundance trends, thereby reducing the possibility that the changes in numbers observed nesting are being wrongly attributed to hatcheries.
- Consider the possibility that there might be mixing of animals with those from other nesting colonies in the Eastern Pacific and that increases in numbers of nesting turtles may result from conservation measures being implemented at other locations.
- Maintain the management of nests as close as possible to natural conditions.
- Handling of eggs must be avoided to the greatest extent possible. Time outside of the sand should be minimized, since prolonged exposure to elements outside of their natural incubation environment significantly reduces the embryos' chance of survival. Therefore, eggs must be buried within the shortest time possible and with the least amount of handling. Eggs received as donations or confiscated eggs that might be contaminated must be reported and managed outside of any hatcheries.
- Use existing technical manuals to manage the exception in order to implement the suggestions mentioned. A technical institution of the country requesting the exception should endorse these manuals. It is up to the Party country presenting the exception if they wish that the IAC SC review their manual.
- Establish the control, registration, and management of hatcheries, which must include a full survey and identification of all the nests collected.
- Develop and apply strict inspection, surveillance and control measures in order to ensure that all egg collectors comply with the required mandatory submission of eggs and try to get them to submit complete nests instead of only a fraction of them.
- Establish spatial or seasonal closures on exploited beaches to protect the rest of the turtle species from exploitation.

Annex II.2. Commercialization Form Season 20__ - 20__, monthly report conducted by hatcheries delivered to the Protected Areas National (Consejo Nacional de Areas Protegidas -CONAP-)

BOLETA DE COMERCIALIZADORES			
Nombre Técnico Aldea/Municipio	Fecha		
1. Sitios de venta			
Mercado	<input type="text"/>	Venta de Jugos	<input type="text"/>
Cevichería	<input type="text"/>	Venta de mariscos	<input type="text"/>
Otros			
2. Formas de Transporte			
Vehículo personal	<input type="text"/>	Transporte colectivo	<input type="text"/>
Otro			
3. Durante la temporada			
	Precio de Venta Q.	Número de Huevos	
Inicio	<input type="text"/>	<input type="text"/>	
Mitad	<input type="text"/>	<input type="text"/>	
Final	<input type="text"/>	<input type="text"/>	
4. Por qué motivo se dedica a la venta de huevos de parlama			

Annex 3

PANAMA PROGRESS REPORT ON IMPLEMENTATION RESOLUTION EXEPCIONS (CIT-COP6-2013-R1)

Panama report on implementation progress of the Resolution on Exceptions CIT-COP6-2013-R1 under Article IV (3a and b) for Subsistence Harvesting of *Lepidochelys olivacea* eggs in Guatemala and Panama.

Deadline for report: 1 July 2016

Date handed in: June 21st, 2016

Report prepared by: Ministry of Environment

People responsible: Marino Abrego / Scientific Committee Delegate.
Haydeé Medina / Consultative Committee Delegate.
Wilfredo Poveda / Chief of the Wildlife Refuge Isla de Cañas

The information presented should be concise.

In accordance to Resolution CIT-COP-2013-R1 adopted by the Inter-American Convention for the Protection and Conservation of Sea Turtles Sixth Conference of the Parties (COP6), the following protection measures are recommended to Guatemala and Panama to meet the requirements of Article IV(3) regarding exceptions

- 1) The COP recommends that Panama and Guatemala apply the precautionary approach by implementing the Protection Measures below, in accordance with the national laws governing the exceptions, and to continue consulting with the IAC Committees while the countries gather the suggested technical information and implement actions in the recommendations below so that the exceptions meet the requirements of article IV (3) of the Convention.
- 2) The level of sea turtle eggs being harvested under an exception must be proven to be sustainable and therefore, monitoring protocols must be in place to assess the stability of the population in the long-term. These protocols must include nesting trends in order to support the sustainability of the harvesting proposed. The IAC Scientific and Consultative Committees can provide proper guidance on how to prepare or review a monitoring protocol if requested by the Party.
- 3) Each country must continue to report on their exception in their annual reports as well as on the implementation of the measures described below. The Scientific and Consultative Committees will continue to review the progress of the implementation of this resolution and report to the Conference of Parties the progress of the implementation.
- 4) In addition to the recommendations below, specific to Guatemala and Panama, the CCE concurs with the guidance provided by the Scientific Committee to both countries contained in Annex I.

On the exception presented by Panama:

1) Immediate Actions (1-2 Years)

- a. Increase the size of the “natural hatchery” stretch of beach and/or move it to encompass more of the nesting while ensuring that this protected area fulfills the standard technical requirements of a hatchery. Quantify and report in real numbers of total nesting, how many nests are being protected by this method.
- b. Increase and document the control and protection of nests in the designated hatchery zone of Cañas Island.
- c. Strengthen co-management of the harvest with the Cañas Island community, including training of participants
- d. Promote protection efforts, non-consumptive use and operation of hatcheries in communities surrounding Cañas Island.
- e. Provide data on hatchlings that specifies whether they represent actual numbers of hatchlings released or estimated numbers of hatchlings from counting whole shells.

Indicate Yes/ No/ P= in progress

In this document RVS stands for the Wildlife Refuge Isla de Cañas

Immediate Actions – Panama	Year 1 (2014)	Yes/No/P	Year 2 (2015)	Yes/No/P
Increase the size of the “natural hatcheries” (Per 1a).	<ul style="list-style-type: none"> • The area of the natural hatchery is demarcated and with proper signs (800 m), but the size has not increased. 	No	<ul style="list-style-type: none"> • Nests by sector are recorded in the natural hatchery to determine the direction in which the size of the natural hatchery should increase. • The area of the natural hatchery keeps the ideal conditions to protect the nests. • The nests maintain their natural state. 	P
Quantify total nests (per #1a).	<ul style="list-style-type: none"> • A record of nesting within the natural hatchery was not available. • There was no protocol for monitoring sea turtles. 	Yes	<ul style="list-style-type: none"> • There are records of nesting within the natural hatchery by sector and in total. • 3552 nests of olive ridley turtle were protected. 	Yes

<p>Increase control / protection of Cañas Island nests in the area of the natural hatchery (per #1 b).</p>	<ul style="list-style-type: none"> • Staff from the National Environmental Authority (Ministry of Environment) is in charge of protecting the nests in the Natural Nesting area. 	<p>Yes</p>	<ul style="list-style-type: none"> • National Police Units support the monitoring of nests in the Natural Nesting Areas and collect information for the Sea Turtle Monitoring Program jointly with the staff from the Ministry of Environment. • A member of the Peace Corps provides technical support to collect information, as well as members of the community that have been trained and collaborate some nights a week. 	<p>Yes</p>
<p>Strengthen co-management of the harvest with the Cañas Island community (per #1c).</p>	<ul style="list-style-type: none"> • An important co-management experience was the Cooperation Agreement between ANAM (today Ministry of Environment) and the <i>Isleños Unidos</i> Cooperative R.L. for the sea turtle egg harvesting and protection of these species in the Wildlife Refuge Isla Cañas (RVS) between 2003 and 2009. After this date, the activities are focusing on training the community about biology, research techniques, management and monitoring of sea turtles. 	<p>P</p>	<ul style="list-style-type: none"> • There is a plan for establishing a continuous training program for the residents of the community and for volunteers. One of the main difficulties is funding availability. 	<p>P</p>
<p>Training the community of Cañas Island (per #1c).</p>	<ul style="list-style-type: none"> • Training was provided to the community on the conservation of sea turtles as an 	<p>Yes</p>	<ul style="list-style-type: none"> • Training has been planned but we are waiting for funding availability to implement it. 	<p>P</p>

	<p>object of conservation in the area, and the importance of good fishing practices in the conservation of these species.</p> <ul style="list-style-type: none"> • Workshops for residents of the community in Research, management, and monitoring of sea turtles (2 workshops), Workshop on Fisheries and its Threats. Monitoring techniques and work with Sea Turtles, and Workshop about the Presentation and Consultation on the Sea Turtles eggs harvesting protocol. This protocol has not been approved, but it was discussed with the community. 			
<p>Promote protection efforts, non-consumptive use. (per #1d).</p>	<ul style="list-style-type: none"> • There were attempts to promote a partnership between the community, tourism, and government, to promote the conservation of sea turtles through hatching of hatchlings activities. However, due to the lack of 	<p>Yes and P</p>	<ul style="list-style-type: none"> • There is another Cooperative interested in the partnership, and we are waiting for them to obtain their legal status and then propose a new community/government/private partnership. 	<p>No</p>

	<p>integration of the Cooperative community members, the proposal could not be implemented. This group was potential to work with because they are the only ones with a legal figure.</p> <ul style="list-style-type: none">• In coordination with the Aquatic Resources Authority of Panama (ARAP), the project “Farming, Growth and Marketing of Oysters” took place in Isla Cañas. These activities are conducted jointly with Isla Cañas Aquatic, Fishing and Agritourism Association (ACPAT), and the oysters farming has been done since 2014, thanks to the knowledge and training received from the ARAP General Direction of Research and Development staff. Compared to other species such as shrimp or fish, farming mollusks is an attractive activity because feeding is not required, which reduces the costs. The members of the association			
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	<p>carry out periodic cleanings of the baskets hence the oysters reach an appropriate size to be sold. Farming oysters is an alternative that ARAP offers to the coastal population aiming to provide food and jobs improve their economy, and reduce the exploitation of other aquatic resources. This is an alternative to avoid sea turtle eggs trade off the protected area.</p>			
<p>Provide data on hatchlings (per #1e).</p>	<ul style="list-style-type: none"> • There is a record of nesting within the Natural Nesting Area. • There is a Sea Turtle Monitoring Protocol. 	<p>Yes</p>	<ul style="list-style-type: none"> • The artificial hatcheries produced a total of 33,382 hatchlings of the gulf ridley sea turtle. • 2,177 hatchlings were recorded within the Natural Nesting Area stretch. By counting of shells, there is an estimated production of 17,4299 hatchlings of the gulf ridley sea turtle. 	<p>Yes</p>

- 1) Midterm Activities (1-5 Years): the government of Panama together with the IAC develops a management plan for Cañas Island, including objectives and indicators.

Panama Midterm Activities

Midterm Activities (1-5 Years): the government of Panama together with the IAC develops a management plan for Cañas Island, including objectives and indicators.

Year 1 (2014)

- Using the outcomes of the consultancy: “*Development of the Situational Diagnosis of the RVS Isla de Cañas, Implementation of the Sea Turtle Monitoring Program and Adjustment of the Hatchery at the RVS Cañas Island* ” (from January to May 2015) the information was updated through a Rapid Ecological Assessment (REA) and through a Participative Rural Assessment (PAR), which will be used as inputs to develop the RVS Management Plan. A Sea Turtle Monitoring and Research Program started, with the support of the local community, Biology Students from the University of Panamá and staff from the Ministry of Environment working at the RVS.
- Monitoring and patrols have been carried out continuously until December 2014, with the support of the Ecologic Police and volunteer students from the University of Panama.
- The Sea Turtle Tagging Program started and tags were placed on 62 sea turtles.
- Definition and separation by sectors of the 14 km of beach, and of the Natural Nesting Area, separated every 100 m.
- Construction of artificial hatcheries located in two areas of the beach, with capacity for 156 nests each. Measures of 13 m long by 6 m wide. All the materials to build up the cylinders to protect the nests with mesh, and for the patrols, were provided.
- Relevant scientific information has been collected systematically, adding to the compliance of the IAC recommendations on the exception.

Year 2 (2015)

- There is technical input to be used in the development of the RVS Management Plan.
- Two hatcheries were adjusted to relocate the nest that could be exposed to predation.
- Collection and relocation of sea turtles nests in the hatcheries were carried out with the members of the community, volunteers of the Peace Corps, and the National Police.
- There is a Database where the information about relocated nesting and nests have been registered
- Monitoring and Patrolling continue until December 2015, with the participation of the RVS staff and the support of the Ecologic Police and volunteer students from the University of Panamá.
- The Sea Turtle Tagging Program continues, 118 tags have been placed between July and December 2016, for a total of 180 sea turtles tagged (between 2014 and 2015).

Annex I

Additional guidance suggested for Guatemala and Panama

Place an X in what has been implemented thus far

- Use published biological data on sea turtles to interpret abundance trends, thereby reducing the possibility that the changes in numbers observed nesting are being wrongly attributed to hatcheries.
Observations: There is not enough data to interpret trends.
- Consider the possibility that there might be mixing of animals with those from other nesting colonies in the Eastern Pacific and that increases in numbers of nesting turtles may result from conservation measures being implemented at other locations.
Observations: Females at the RVS have been tagged since January 2015 and nesting females have been monitored throughout the program. However, only females tagged in the previous season at the RVS Isla de Cañas have been found so far. Years ago a tagging program was implemented when the diagnosis to declare the protected area started, but there was no continuity and there are no reports of sea turtles tagged back then.
- Maintain the management of nests as close as possible to natural conditions.
- Handling of eggs must be avoided to the greatest extent possible. Time outside of the sand should be minimized, since prolonged exposure to elements outside of their natural incubation environment significantly reduces the embryos' chance of survival. Therefore, eggs must be buried within the shortest time possible and with the least amount of handling. Eggs received as donations or confiscated eggs that might be contaminated must be reported and managed outside of any hatcheries.
Observations: Results about nesting show that the methods used in the two artificial hatcheries have been successful.
- Use existing technical manuals to manage the exception in order to implement the suggestions mentioned. A technical institution of the country requesting the exception should endorse these manuals. It is up to the Party country presenting the exception if they wish that the IAC SC review their manual.
- Establish the control, registration, and management of hatcheries, which must include a full survey and identification of all the nests collected.
- Develop and apply strict inspection, surveillance and control measures in order to ensure that all egg collectors comply with the required mandatory submission of eggs and try to get them to submit complete nests instead of only a fraction of them.
Observations: Staffs from the Ministry of Environment, with the support of the Ecologic Police, patrol the beach. Although there is a Protocol for the use of eggs, it is not implemented at the RVS. The eggs are collected only for the use of the community. There are two additional policemen (members of the Ecologic Police), who participate and reinforce the Control and Surveillance Program.

- Establish spatial or seasonal closures on exploited beaches to protect the rest of the turtle species from exploitation.
Observations: Hawksbill sea turtles have been observed in the mangrove area. *Chelonia mydas* has been observed in the beach, a nest was relocated in the summer of 2015.
- Establish partnerships with other organizations, institutions, and NGOs in order to guarantee sea turtle conservation and research.
Observations: There is a group within the Community that carries out conservation activities and jointly with the Ministry of Environment has taken place in sea turtles research and conservation activities. There is a plan to formalize this kind of support through a collaboration agreement.
- Implement training and education campaigns in order to better manage and reduce egg consumption.
Observations: There is no official training or education campaign to improve the management or reduce the consumption of eggs. Workshops have been conducted with the community, where they have been trained in biology, sea turtle monitoring and research techniques, and about the importance of sea turtles and their conservation.
- Propose alternative economic activities, including those that use sea turtles in a non-consumptive manner. Countries with exceptions should strive to present at least one model community where this is being done successfully and is technically appropriate.
Observations: In the community of Mata Oscura, Mariato District, Veraguas Province, the Foundation Agua y Tierra develops a co-management model, in which the community actively participates in activities regarding sea turtles protection, conservation, and research. Also, there is an Eco-Tourism Program involving the Fish and Ecotourism Agriculture Association from Quebro (AAPEQ), an organization that started in 2007, product of nine people concern about sea turtles. The AAPEQ managed to create the Flora and Fauna Educational Center, and in 2012 created a path inside Rusia mangrove for visitor walking or kayaking. The visitors can relax in nature, see the different species of mangrove and observe the howling monkeys, white faced monkeys and the birds that live in this wetland. The Ministry of Environment is planning to develop similar activities at the RVS, due to its potential for tourism.
- Designate or allocate sufficient human resources and funds to succeed in correctly managing the exception.
Observations: It is an institutional commitment to allocate and seek for human and financial resources to succeed in managing the exception. There are efforts to seek funding to buy equipment, pay Per Diem and a Chief for the Wildlife Refuge Isla de Cañas has been appointed.

Photos Description: See the original Spanish file.