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COMPLIANCE ANALYSIS REPORT ON THE RESOLUTION CIT-COP4-2009-R5 ADAPTATION OF SEA TURTLE HABITATS TO CLIMATE CHANGE

This report was prepared by Ms. Julia Horrocks (Caribbean Netherlands) Coordinator of the Climate Change Working Group with the support of the IAC Secretariat *Pro Tempore* and is based on the information of the IAC Parties Annual Reports.

The IAC Scientific Committee is requested to:

a) Review this report and the technical document Mitigation strategies to reduce the impact of climate change on nesting beaches (CIT-CC12-2015-Tec.10) link below, in order to establish if it is appropriate to propose a form for the Parties to report parameters with information on their compliance with the Climate Change Resolution to the Scientific Committee.

Documents to review:

Mitigation strategies to reduce the impact of climate change on nesting beaches (CIT-CC12-2015-Tec.10)

http://www.iacseaturtle.org/eng-docs/publicaciones/CIT-CC12-2015-Tec.10_Climate%20change%20parametres_WEB.pdf

RESOLUTION CIT-COP4-2009-R5: ADAPTATION OF SEA TURTLE HABITATS TO CLIMATE CHANGE

Report on Resolution Compliance Analysis

INTRODUCTION

This report was compiled to provide an overview of progress made by the parties of the convention towards compliance with the resolution CIT-COP4-2009-R5: Adaptation of sea turtle habitats to climate change. The report was prepared using the information gained from a revised compliance table that appeared in the 2014 Annual Report only; specifically data reported in Part II (c.1) on the IAC Resolution CIT-COP4-2009-R5. Information from Belize, Curaçao, Chile, Mexico, Uruguay and Venezuela is not included in this analysis, since these countries did not use the 2014 Annual Report template when preparing their Annual Reports. The report is therefore based on the responses from nine Parties (Argentina, Brazil, Caribbean Netherlands, Costa Rica, Ecuador, Honduras, Panama, Peru and United States).

The data in the compliance forms regarding Resolution CIT-COP4-2009-R5 were compiled by the IAC Secretariat (Luz Helena Rodríguez) at the request of the Chair of the Climate Change Working Group. The summary below is based on the responses to the tick boxes: Yes, No or Does Not Apply. If no box was ticked, it was considered to be a negative response for the purposes of this summary.

RESPONSES

Action 1: Has your country prepared a plan(s) for adaptation to climate change?

This was a general question aimed at discovering whether Parties have prepared national/regional plans for adaptation to climate change. Most of the nine Parties (n=6, 67%) reported having a plan for adaptation to climate change, and some Parties had several.

> **Action 1a Have the marine and coastal habitats on which sea turtles depend been included in plans on adaptation to climate change?**

Of the six Parties with plans, four Parties (67.7%) reported that beaches, mangroves and coral reefs were included in national plans, sometimes through the creation of marine protected areas, but only two Parties (33.3%) reported the specific protection of seagrasses.

Action 1b: Are components of the plan(s) important to the adaptation of critical sea turtle habitat being implemented?

Only two Parties (33.3%) responded affirmatively to this question.

Action 2a: **Environmental research/monitoring to evaluate climate change impacts on sea turtles**

When asked whether environmental research/monitoring to evaluate climate change impacts on sea turtles was being conducted, eight of the nine Parties (88.9%) reported that it was. Most Parties (n=6, 75%) are monitoring sand temperatures and beach geomorphology. Five Parties reported monitoring coral bleaching, four Parties reported monitoring sea temperature and three that they monitor storm intensity and frequency. One Party reported monitoring environmental characteristics of critical habitats for migratory species, including sea turtles, at risk of climate change.

Action 2b: **Biological research/monitoring to evaluate climate change impacts on sea turtles**

Seven of the nine Parties have nesting habitat within their jurisdictions and all reported monitoring hatching success. Six (85.7%) reported monitoring the duration of the nesting season, five (71.4%) reported monitoring sex ratio and mortality, and three (42.9%) reported monitoring recruitment.

Action 3a: **Are measures to adapt to climate change included in sea turtle conservation/management plans or programmes?**

This question was to discover whether a Party's sea turtle conservation/management plan(s) include corrective measures for adaptation to climate change. The possible responses listed were confined to those that might safeguard beaches or clutches from climate changes. Of seven Parties who responded affirmatively to the question, four (57.1%) reported protection of the areas landward of nesting sites from coastal development, two (28.6%) reported planting or protection of vegetation and one Party (14.3%) reported protection of cooler beaches. In terms of measures to protect clutches, of the seven Parties, five (71.4%) reported nest relocation, four (57.1%) reported use of hatcheries and one Party (14.3%) reported use of incubators. This indicates that *ex situ* measures to protect egg clutches are currently more widely incorporated into management/conservation among Parties than *in situ* measures of beach protection.

Action 3b: **Are any of the measures being implemented/evaluated?**

Only one Party (14.3%) responded that they were implementing and/or evaluating the measures, and six Parties either indicated that they were not or did not respond (85.7%).

Action 4: Have you identified expert groups to partner with?

Five Parties (55.6%) responded that they had identified experts. Aside from indigenous expertise other organisations mentioned included James Cook University, Conservation International, the Smithsonian Tropical Research Institute, and WWF.

Action 5: Have you hosted capacity-building workshops for monitoring/adaptation to climate change of sea turtles and their habitats?

Some Parties indicated that they had conducted capacity-building workshops for adaptation to climate change or capacity-building for monitoring sea turtle populations, but only one (11.1%) indicated that they had conducted a capacity-building workshop specifically for sea turtles and their habitats aimed at monitoring impacts of/ adaptation to climate change.

CONCLUSIONS

Most Parties with national climate change adaptation plans do include habitats that are critical for sea turtles, especially beaches, mangroves and coral reefs, but seagrass habitats are included less often. Most Parties are not yet implementing parts of climate change adaptation plans that are relevant to sea turtle habitats.

However, environmental monitoring is occurring that will be useful to evaluate impacts of climate change on sea turtle habitats, especially monitoring of nesting beaches (e.g. beach geomorphology, sand temperature). A smaller number of Parties are also monitoring parameters relevant to critical marine habitats (coral bleaching, sea temperature). All Parties with nesting sea turtle populations (this excludes Argentina and Peru) are monitoring hatching success and duration of the nesting season, with fewer Parties monitoring sex ratio of hatchlings, mortality and recruitment. At least one Party reported scientific research articles that have been published on impacts on climate change on sea turtle populations.

Most Parties have included management/conservation activities that can assist with adaptation to climate change within their sea turtle programs. Measures that involve manipulation of clutches were more commonly reported (relocation to other parts of beaches or to hatcheries) than measures to protect beaches from rising temperatures or erosion.

Most Parties have identified experts to work with on adaptation to climate change impacts on sea turtles and their habitats, but only one indicated that they had conducted a capacity-building workshop specifically for sea turtles and their habitats aimed at monitoring impacts of/ adaptation to climate change.