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**Designing a Theoretical – Procedure-based Model to Identify, Classify and Assess the Impact of Climate Change on the Tourism Markets and Destinations located in the Marine-coastal Areas.
Case study: The Wider Caribbean Region**

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ABSTRACT

I. PRELIMINARY ISSUES

The basin of the “Wider Caribbean” has been identified by International Organizations specialized in the Environmental, Climatological and Meteorological matters as of an undeniable and immediate vulnerability level before the current and projected manifestations of Climate Change, as a result of particular combination of anthropogenic and natural factors given its specific geographical location. Studies and researches show that these geographic areas could be the coastal territorial spaces marked by a predisposition to natural disasters, which cause actual and potential effects on the environment, societies, and economies and cultures. In addition, Local and Regional Development Multilateral Organizations have emphatically determined that tourism is the second economic activity that will manifest a high risk to Climate Change-related disasters –after agriculture.

Against this background, a Model of Scale –or Normalized Index, has been undertaken for “Designing a Theoretical – Procedure-based Model to Identify, Classify and Assess the Impact of Climate Change on the Tourism Markets and Destinations located in the Marine-coastal Areas”, and taking as a Case Study, The Wider Caribbean Region.

The purpose is to make available a qualitative and quantitative tool that objectively establishes the degree of vulnerability to be submitted to the tourist destination using a set of systemic and comprehensive assessments related to the location, conditions, capacity and dynamics of the target, as territorial and functional market where it operates, in order to determine the specific, articulations and causing magnitudes of the effects of Climate Change on the tourism activity for the coastal area under study.

So far, there is not a technical scale with a specific focus for the development of indexes using a normalized method to help provide the Policy Makers and Local and Regional Planners a holistic understanding in quantifiable and weighted terms of the problem that relates tourism to Climate Change for the purpose of approaching organically to define, manage and apply the decisions and actions that facilitate

adaptation and / or mitigation. This is possible when measuring instruments are credited to delineate exactly the level, category and significance of the potential impact of Climate Change.

II.-THE MODEL: STRUCTURE AND FUNCTION

a. THEORETICAL COMPONENT.

Basically, the conceptual model is composed of the following areas, which when being identified, diagnosed, conducted and evaluated will convert the result of the matrix system in a representative index derived for each of the dimensions and their variables:

Dimensions

1.- Tourist Space and / or Destination

1.1 .- Boundary Index.

1.2 .- Location index.

1.3 .- Growth Index.

2.-Tourist System

2.1 .- Conditioning Index of the Host Community.

2.2 .- Index of attraction or Destination Value.

2.3 .- Index of Tourism Flow.

3 .- Tourism and Climate Change

3.1 .- Vulnerability Index.

3.2 .- Perception Index

3.3 .- Index of Potential Impact.

Methodology

For each of the dimensions under study, according to the field and / or subject, a handbook was developed, along with their respective methodologies in line with the following scheme:

1.- Summary

Compendium of the conceptual and referential focus and critical assumptions.

2 .- General and Specific Objectives

Establishment of the actions, strategies and results.

3 .- Procedure

Correlation of the research steps. Identifying and prioritizing each of the actions both in written format as flowcharts.

Additionally, it presents the data collection instruments and systems management matrix information for tabulation, processing and analysis will be obtained where mathematical and statistical results.

b. – MATHEMATICAL AND STATISTICAL COMPONENT

It designs, develops and applies mathematical and statistical methods in harmony to the calculation and result of each index.

Scale

Scale is the measurement instrument for the identification of potential impact or tendency of the area and / or destination considering an order of magnitude in degrees and percentages.

The results will be converted to percentages and then transferred to the scale in order to determine their equivalence to the extent appropriate so as to determine in a methodological and objective manner the magnitude of the potential impact of Climate Change on the area and / or tourist destination.

III .- RESULTS AND BENEFITS OF THE IMPLEMENTATION OF THE SCALE

1. Determine the vulnerability of the tourist destinations, tourist economy, natural attractions and cultural heritage to the impact of Climate Change on the Caribbean Basin.
2. Identify and assess the potential economic impact of Climate Change on tourism - recreational located in coastal areas of the Wider Caribbean.
3. Establish the degree of involvement on the corresponding scale in the area subject of study.
4. Anticipate a strategic decision and actions integral to the design of public policies and local plans and regional approaches to sustainability and adaptability.
5. Provide a specialized database (technical - statistics), normalized, centralized and multifactor on tourism and Climate Change in a specified and demarcated coastal areas.
6. Transfer the use of the scale methodology.
7. Training human resources for administrative and operational scale.
8. Provide technical information to public and private agencies of the results of applying the scale that could be integrated into a redefinition of tourism legislation, physical planning and economic management and marketing of tourist destinations located in coastal areas potentially vulnerable to Climate Change.
- 9.- Facilitate Regional Agreements between countries, states and territories for the purpose of making a consensus position based on normalized criteria that promote Adaptability and Sustainability.