

ASSESSMENT OF SUSTAINABLE TOURISM IN MEXICO

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ABSTRACT

This study examines the sustainable tourism system in Mexico. We examine the norms and laws that regulate and sustain; the governmental organisms that impulses its development in terms of value chain. We also present a diagnosis of the situation by way of an extensive review of information in digital libraries and databases. The results show that sustainable tourism exists in the public politics nationwide but it is not a practice exercised by the industry in Baja California. The challenge is urgent and cannot wait. It corresponds to users demanding green products to pressure the actors to move towards the paradigm of sustainable tourism.

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KEYWORDS: Sustainable Tourism, Laws and Norms, Users and Actors

INTRODUCTION

Tourism is a complex activity that has been studied from different approaches. It has been highlighted by its conceptualization as a social phenomenon, system and industry. It is known as an industry without chimneys since for some time it was thought to be uncontaminated. Currently, it is recognized that its products impact the environment as every other industry, however in a different way (Serrano *et al.*, 2010). Man and his modern life style is the primary cause of unsustainable problems that exist in the world. This is reflected in climate change, which alters the attractiveness of various tourist destinations (Buckley, 2008 quoted by Buckley, 2011). In 2011, a Sustainable Tourism program in Mexico was created. It was an initiative that looks to generate sustainable development of touristic activity, and improve conditions in touristic destinations. This program is based on recognizing the Global Sustainable Tourism Criteria as the minimum to achieve sustainability (Razo, 2012). Sustainable development is a new paradigm that is permeating all productive activities. It is consolidated as a determining variable of competitiveness. This construct is no longer only an economic indicator to adopt a holistic approach. Applied to tourism, it is defined as the ability of a tourist destination to optimize its attractiveness toward residents and nonresidents; offering quality services, innovative and attractive to consumers gaining market share in the national and international context. It ensures that resources provided to tourism are used efficiently and sustainable (Federation Official Diary, 2013a). However, sustainability in tourism is one of the main challenges for management of the sector. Overcrowding leads managers to rethink not only the patterns of development of destinations but also consumption patterns that require cleaner, safer and environmentally responsible destinations (Federation Official Diary, 2013a).

The Worldwide Organization of Tourism (WOT) started the Global Observatories of Sustainable Tourism (GOST) in 2004 to provide policy makers and tourism managers a framework for monitoring environmental, social and economic impacts of tourism destinations. In response, the Ministry of Tourism designed a system of Sustainability Indicators for Tourism to measure the performance of tourism in

relation to the environment (water and solid waste), socio-economic environment (economic benefits of tourism and impact social), tourism (tourism supply and demand) and urban development (urban and environmental planning, urban development and urban comprehensive image). It is a framed measurement of sustainability, which fully conceived the current and future economic, social and environmental impact to meet the needs of visitors, industry, the environment and host communities (Federation Official Diary, 2013a). However, The Travel & Tourism Competitiveness Report 2015 places Mexico in 30th place (out of 141 economies evaluated) with a rating of 4.36. However on environmental sustainability it ranked 126th, which is strategically significant due to the importance of the country's natural resources. It is important to indicate that Pillar 9: Environmental Sustainability (10 indicators) the importance of the natural environment to provide an attractive tourist location cannot be overstated. No policies and factors enhancing environmental sustainability are an important competitive advantage ensuring a country's future attractiveness as a destination. This pillar consists of policy indicators such as the stringency and enforcement of the government's environmental regulations and variables assessing the status of water, forest resources and sea beds, proxied by coastal shelf fishing pressure (Crotti & Misrahi, 2015).

Tourism activities use resources, installations and services that affect in long term tourism sustainability (Cornejo, Chávez and Massam, 2013). Thus the importance of promoting effectively managed tourism should contribute to conservation. At the same time, it can be an engine of development for local communities and users. With this background, acknowledging the negative impact that tourism generates in the immediate environment is important. The objective of the present study is to illustrate, by systemic mapping, the instruments by which the government tries to appropriate a change in the whole value chain of the touristic activities. In addition, we present the status of research on the subject in Mexico through the studied articles.

This document is built in five sections The second section focuses on the extant literature. Definitions are reflected in it and refers to studies in the world on the sustainability of tourism. The third section defines the research method, data source and treatment. The fourth section details the results, which are discussed at sight of other authors. Finally, the concluding considerations are presented.

LITERATURE REVIEW

Cortés and Peña (2015, p. 44) quoted Méndez (2012), to indicate that sustainability terms and sostenibilidad (in Spanish they are two different words) have no higher differentiation with respect to their application to development. The difference corresponds to its geographic location (place where the expression is used) or lexicon, but it does not change its main objective. However, from a linguistic criteria, the Royal Spanish Academy (RSA), defines sustainable as: "that can be sustain or defend with reasons"; and sostenible (in Spanish) as "said about a process that can maintain itself, as it does". It is important to highlight that in an art state the Spanish term is used as if it were synonymous. In English it is used as the same construct. Moo-Canu and Santander-Botello (2014) establish that the economic development model, where tourism practices are immersed, is the main reason for environmental degradation. Thus, they argue that the paradigm of sustainability is utopian and contradicts itself with the economic model. From this it infers that a true impulse of sustainability implies a change of the economic model.

The concern for environmental degradation is growing. In addition, the increase of natural areas in tourism has resulted in the application of indicators to determine whether these areas actually meet the objectives of sustainable development as measured by its four dimensions: economic, environmental, social and institutional (Gutiérrez-Fernández, Cloquell & Ballester, 2012). According to Alonso (2011), the massive tourism affecting beach and sun areas initiates a transformation process in the territorial, urban, ecologic and economic structures. This occurs mainly in the receiving coastal areas. According to Ortiz and Camargo (2010, p. 15) sustainable tourism is a different tourism. They argue it "impregnates in a philosophy to avoid undesirable consequences generated by its implementation, this imply to develop

another ethic of the activity that allows you to be productive from the economic point of view, socially responsible and conscious in the natural". Vasallo.

Cuétara and Frías (2011) point out that sustainable development of tourism must be promoted from acting responsibly with the environment, through promoting a balanced equilibrium that is conceived as a multi-dimensional and multi-process. In this sense the equity, sustainability and competitiveness trilogy is sustained in ethical, cultural, social, economic, patrimonial and institutional principles. Moo-Canu and Santander-Botello (2014) quote Bien (2012) to argue that sustainable tourism can be applied to any trip, including tourism masses. The goal is to try to reduce their environmental impacts and adverse sociocultural impact. The principal applies to hotels, resorts, community rural tourism, ecotourism, cruises, golf, marines and others. Rojas (2009, p. 150) refers to the WTO to define sustainable tourism as "...that led to management of all resources so that economic, social and aesthetic needs can be maintained while also maintaining cultural integrity, essential biological processes, ecological processes of biodiversity and the systems that support life on the planet".

This construct, involves a new vision of the activity. It presents a new paradigm that has emerged recognizing that various types and components of tourism produce different environmental impacts. Thus a different form of management according to the general differences between transport, accommodation, and components of the activity is required. Differences are need between the desert, rural and urban development levels of the earth; between different climates, soil types, and ecosystems (Buckley, 2011). Serrano *et al* (2010) quote Serrano-Barquín (2006:26), to suggest that "harmonious tourism" as a tourism perspective can impulse development processes locally in tourist destinations. This occurs from an intuitive-rational exploitation of the natural and cultural resources, the social and economic benefit of generations as well as the satisfaction of touristic flows needs. The question remains of how to determinate if a touristic practice is sustainable or not. There are several measurement proposals but no consensus. Highlights include the Global Sustainable Tourism Criteria, covering four areas: a) prove an effective administration and management for sustainability; b) maximize social and economic benefits for local communities; c) reduce negative effects over cultural patrimony, and d) reduce de damage to the local natural environment (WTTC, 2011 en Moo-Canu and Santander-Botello, 2014, p. 116).

The proposals for measuring the constant include indicators linked to the dimensions: environmental, economic and social. Arias and Olaya (2014) refer to indicators of the virtual encyclopedia Tourism Destination Management 2.0, in Traditional Tourism Planning Creation of Tourism Clusters and Destinations Networks (2013) to indicate those evaluating the level of safety and sustainability of the destination. These measures are used to define and quantify the impacts produced by tourist activity (Table 1, line 1). In the same sense Pérez *et al* (2009) define indicators classified along the same dimensions (Table 1, line 2). Arias and Olaya (2014) proposal includes eight indicators, while Pérez *et al* (2009) propose a robust scheme of 24 indicators. In a complementary manner Cabrera, Cabrera and Cuétara (2014) propose a model to assess the sustainability of the destination using only environmental indicators: water consumption, energy consumption, beach water quality, environmental management, impact control and enforcement of environmental legislation and liquid waste management. These resources are valued according to acceptable (yellow) and satisfactory (green) unsatisfactory scale (red). Considering tourism as a system, Brandão (2012, p. 48) points out that it is an open system, "designed on the model of cause and effect, that is the system is oriented teleological to adapt to the environment where it is inserted." It can also be defined as a smooth system for its high level of human content (De la Hoz, Carrillo and Gomez, 2013).

The difference between severe and gentle approaches is described as a shift from considering the external world as the system that can be engineered (severe systems approach) to considering a system of the observer's interaction with the complex real world. It is assumed that in a gentle systems approach the systems includes people that cannot be engineered toward some ideal condition (Cundill *et al.*, 2012).

Table 1: Touristic Sustainability: Measure Indicators

Environmental	Economic	Social
Waste quantity produce and its temporal evolution.	Per capita income derivate from service sector.	Quantity of Jobs created by the touristic sectors.
Changes in territory use.	Benefits permanency generated by destiny service sector companies.	Tourist proportion per inhabitant.
Seawater quality		Acoustic contamination levels.
Protected natural areas extension in kilometers.	Average duration in zone stay.	Number of public documentation centers per inhabitant.
Total energy consumption per capita (all sources).	Structure or site number that gather conditions that receive any designation type (historic site, monument, historic garden, among others) per square kilometer.	Number of sport installation per inhabitant.
Energy consumption percentage from renewable resources.	Global satisfaction level of the visitors.	Number of health center per inhabitant.
Consumed water volume (liters per tourist).	Most influx tourist arrival in the month.	Number of public use transportation per inhabitant.
Reutilized water volume.	Rate between number of tourist in the month of most and least influx.	
Total quantity of waste picked per person in a year tourism attributable.	Work rate in the high season respect to low season.	
Recycled glass quantity per person in a zone for a year.	Job quantity generate by touristic sector.	
Soil erosion.	Total number of tourist received.	
Tourist number for every square meter of site.	Spend per tourist.	
	Tourist services spectrum that are offer in the destiny.	
	Access routes percentage in good conditions for touristic use.	

The chart illustrates two measure indicators of touristic sustainability. In the first row Arias and Olaya (2014) establish eight indicators, in the environmental aspect they pursue negative aspects of the activity. From the economic standpoint they value the monetary terms. In the social context they have a balance in positive and negative aspects. Pérez et al (2009) proposal is illustrated in the second row, this proposal unites indicators to the 3R's strategy, Reduce, recycle, and reuse in the environmental dimension. In the economic area they highlight inclusion of tourist satisfaction. In the social area they link how local population benefits from infrastructure. Source: own elaboration with Arias and Olaya (2014) and Pérez et al (2009) information.

DATA AND METHODOLOGY

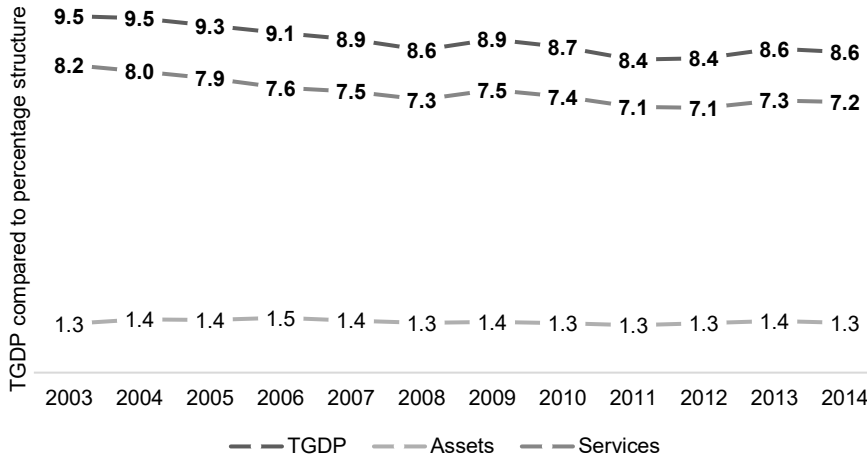
To establish the importance of tourism in Mexico the study examines economic indicators from the National Institute of Statistics and Geography (INEGI). We also conduct documentary research is used to determine the inventory of studies on sustainable tourism conducted in the Mexican territory. The query took place in the databases: Web of Science of Thomson Reuters, EBSCOhost, Emerald, Proquest, Google Scholar and Open Access. Official newspapers and the Official Journal of the Federation (DOF) were also reviewed to identify federal public policies that promote sustainable tourism. We examined the official newspaper of the state of Baja California to identify state policies. Data were analyzed with the soft systems methodology (SSM) and a logical historical approach, given that tourism is a phenomenon influenced by social, cultural and political factors whose development in sustainable niche depends on its momentum through public policies and a paradigm shift in the interests of tourists. With the data in hand, we seek to identifying the existence of public policies promoting sustainability in tourism as well as to present the situation of research on sustainable tourism in Mexico through the articles that study it.

RESULTS AND DISCUSSION

According to the Tourism Satellite Account of Mexico 2013, Tourism Gross Domestic Product (TGDP) held an 8.7% share in the total economy, at current prices for 2013. In the same year, the tourism sector generated around 2.3 million jobs, representing 5.9% of total posts in the country (Geographic and Statistic National Institute, 2015). Through the period 2003-2014 the average TGDP average is 8.9% of the national total. Some 7.5 correspond to services and 1.4 to assets. Figure 1 illustrates how tourism has suffered a 0.9% decline in the period. During the same period, places paid averaged 2.23 million which represents 6% of total capacity in the country. Although, in the period a loss of 0.4% is observed (Geographic and Statistic

National Institute, 2015a). Given this data, we can infer that tourism is an engine of development. But, in relation to other sustainability indicators the tourism satellite account in Mexico does not provide data.

Figure 1: Mexico’s TGDP



This figure shows TGDP behavior from 2003 to 2014. TGDP has been having loses that are linked to services, with loss in the ascendant period to a percentage point. In the assets case the behavior is practically constant. Source: own elaboration with INEGI data (2015a).

In the promotion and encouragement of sustainable tourism, public policies play a leading role. The government uses various mechanisms including laws, regulations and programs to bring about a change in the sector. We conducted a hierarchal review to characterize the public policy instruments the government is using so that all touristic practice becomes sustainable. These elements are part of a public policy subsystem, which is part of the same tourism system. Table 2 registers six federal laws regulating to the exercise of tourism. It is important to note that all were recently modified to include sustainability criteria and certification, environmental protection and other factors. In addition, a state law in Baja California should be a promoter of change, but does not specify on the issue of sustainable tourism.

Another tool of public policy are programs. Particularly relevant to this study is the Environmental Auditory National Program (PNAA, Spanish acronym) created in 1992 under the initiative of the Federal Attorney for Environmental Protection (Profepa), known as Clean Industry. This program, over time, diversified to include various industrial sectors (trade, services, tourism facilities, municipalities) and small and medium enterprises. This program currently issues three types of certificates: Clean Industry, Environmental Quality and Environmental Quality in Tourism (Profepa, 2013). To obtain the Quality in Tourism certificate, the following areas are checked: water, emissions to air, soil, non-hazardous solid waste, hazardous waste, noise, use of natural resources, environmental risk, environmental management systems and environmental indicators.

The program is a support tool that ensures effective enforcement of legislation, efficiency of production processes, environmental performance and competitiveness. Participation in the program is voluntary. Perhaps because of this factor, only 65 economic units nationwide have agreed to this certificate (Profepa, 2016). This figure shows a corporate culture of sustainability that is detached, focusing on the short term. Sustainability is almost always linked to the generation of profits at the expense of environmental and social. In 2006 National Commission of Natural Protected Areas (CONANP, Spanish acronym) developed a National Strategy for Tourism Sustainable Development and Mexico’s Recreation of Protected Areas. The idea was to solicit the participation of all stakeholders in tourism for preserving the natural heritage of Mexico and promote tourism as an engine of development. However, the commission conservationist

approach worked contrary to development of economic activities such as tourism thereby inhibiting the progress of this strategy. On the another hand, Mexican Norms (NMX, Spanish acronym) are drawn up by a national standards body, the Ministry of Economy (SE), under the terms of the Federal Law on Metrology and Standardization. These standards provide for common and repeated use rules and specifications. In sustainable tourism SE has issued three norms as presented in Table 3. It's precise to indicate that the use of one NMX is only mandatory when referred to a Mexican Official Norm (NOM, Spanish acronym).

Table 2: Legislation and Sustainable Tourism

Name/Last Reform	Description
Tourism General Law (June 17 2009)	Looks to establish a political, planning and programing ground of touristic activity in the whole national land, under social, sustainability, competitiveness and balanced development benefits of States, Municipalities, and the Federal District, to short, medium and long term.
Tourism general law regulation (July 6 2015)	Among other establish Sustainable Touristic Development Areas creation, and set up Certification System as the distinctive set, seals and recognitions.
Ecologic balance general law and environmental protection (January 9 2015)	Focus in preservation and restoration of ecologic balance, as well as environmental protection, in land and propitiate sustainable development.
Wild life general law (January 26 2015)	Among other points addresses wild life and habitat conservation and sustainable exploitation in territory. Includes regulation of sport hunting.
Federal law for roads, bridges and motor transport (June 4 2014)	Among other regulates all relative to tourism motor transport.
Harbor law (January 23 2014)	Regulates construction, operation and exploitation work conditions that integrates harbor, as well as terminals, marine and harbor installations. That is to say touristic infrastructure.
Environmental responsibility federal law (June 7 2013)	Regulates environmental responsibility that comes from damages caused to environmental, like compensation and repair of such damages when it's demanded.
Tourism Law of Baja California State (April 3 2009)	Among other establish the promotion ground of Alternative Tourism like State Tourism with its segments and modes like Social Tourism, Health Tourism and Conventions and Business Tourism, establishing tourism practices that propitiate knowledge, preservation, protection, and natural, historic and cultural patrimony strengthening in each region in our State. Explicitly doesn't mention sustainability.

Illustrates Mexican laws related to tourism as an economic activity describing texts that allow to change to sustainable paradigm. Source: own elaboration with information of official publications of the law.

Table 3: NMX Linked to Sustainable Tourism

Mexican Norm (Nmx)	Description
NMX-AA-120-SCFI-2006 Beach quality sustainability requirements and specifications.	Presents two beach modalities: 1) Recreative use and 2) Conservation priority. Both cases establish that sea water quality, solid waste, shore infrastructure, biodiversity, safeness and services, environmental education, environmental management initiatives and contributions needs to be valued.
NMX-AA-133-SCFI-2013 Ecosystem sustainability requirements and specifications.	Proposes to promote ecotourism sustainable performance measures; local capacities and equipment investment strengthens to obtain destiny environmental benefits in favor of natural resources.
NMX-AA-171-SCFI-2014 Lodging establishment's environmental performance requirements and specifications.	Establishes requirements and specifications for environmental performance in subjects like habitat, water, waste, energy, air and better practices in acquisitions and material resources savings, among others.

The chart presents Mexican Norms (NMX) related so sustainable tourism and describes in general its objective function. Source: own elaboration with information of each one NMX.

The NMX listed are for voluntary use. In this sense they are tools of social responsibility, providing a means by which companies show their customers they are a friendly entity with the environment. These NMX illustrate how sustainability it is closely linked to the environmental dimension. Leaving the social side, considering the economic dimension is implicit in companies since its purpose is profit. In this sense,

frequently local people do not obtain benefits from tourism. From the perspective of sustainable human development, the National Development Plan (NDP) 2007-2012, as well as many of the federal agencies, incorporated the issue of climate change through their sector programs. The Tourism Sectorial Program 2007-2012 added eight goals, presenting political concurrence with environmental sustainability, sustainability resources exploitation, environmental regulation strengthening and quality systems strengthening (Tourism Secretary, 2014). Unfortunately, in Mexico, these proposals have a life of six years. Neither the current PND (2013-2018) or the tourism sector have explicit proposals on sustainable tourism. This study has been weaving on the topic of sustainable tourism, according to definitions of various authors, but referred to the various elements of public policy in addressing the issue. In 2006 the NMX-AA-133-SCFI defines sustainable tourism as the tourism that fulfills the following guidelines:

Provide optimal use of environmental resources that are a key element in tourism development, maintaining essential ecological processes and helping to conserve natural resources and biodiversity. Respect socio-cultural authenticity of hosting communities, keep their architectural cultural active and traditional values, and contribute to intercultural understanding and tolerance. Ensure viable long-term economic activities, which report all agents, well distributed socio-economic benefits, including employment opportunities and income generation and social services to host communities, and contribute to reducing poverty.

As of 2009 the previous definition remains in the reforms made to the General Tourism Law. By 2013, in the tourism sectorial Program 2013-2018, the definition is slightly modified. Here it is defined as: sustainable tourism activity that gives an optimal fit to use natural resources for tourism development, helping to keep them in adherence to the laws on the subject; respect the socio-cultural authenticity of host communities, preserving its cultural attractions, traditional and architectural values, and ensures the development of viable economic activities to report socio-economic benefits, including employment opportunities, increased income and social services have for host communities, to help improve living conditions. This definition highlights an evolution in the concept by establishing a legal link explicitly stated and noted the impact on improving living conditions. However, by not referring to indicators it all remains a good intention. In Baja California, the government refers to sustainable tourism as the purpose of tourism activities development, balancing aspects of economic, social, cultural and ecological order in the present and future. It also suggests sustainable exploitation as the use of natural resources so that the functional integrity and load capacities of ecosystems that are part of these resources are respected, for indefinite periods (Baja California State's Congress, 2009).

On the other hand, as companies agree to a quality certification under the norm ISO 9001, Certification and Normalization Mexican Institute (IMNC, Spanish acronym) provides ecotourism certification to companies that practice a responsible tourism in natural areas, which preserve the environment and improve the local people wellbeing. The certification is obtained through NMX-AA-133-SCFI-013 evaluation, requirements and specifications for sustainability of ecotourism, which establishes requirements to tourist activities and facilities as presented in Table 4. In the same manner, quality is measured through metrics. Ecotourism sustainability is valued. Eight metrics measure touristic activities and five measure the installations. The first measures apply according to the services that the entity bid while the second should always be applied.

The Tourism Secretary (2015) drives the distinctive S. This is a recognition of good sustainable practices in tourism businesses. The program began in 2012 and seeks to strengthen the performance of companies with the addition of two easy to use tools: a diagnosis and a system for measuring energy, water, waste and carbon for more than 25 sectors in the tourism industry. The business spins that are likely to obtain the distinctive S include: lodging establishments, restaurants, airports, convention centers, golf courses, touristic transports. Until June 30th 2015, in Mexico, 56 companies had the S designation, of which 29 were located in Quintana Roo (Tourism Secretary, 2015). It is important to note that the international certification Blue Flag, recognizes distinctive beaches and marinas that have achieved excellence. This excellence occurs in water quality, environmental management and education; security and services; has

standardized protocols and strict selection process, verification and monitoring, and has a significant presence in Mexico. There are 26 Mexican beaches which have Blue Flag designation, of which 11 are located in Quintana Roo (Pronatura Mexico, 2015). Since 2006, IMNC created a similar certification in Mexico, which is obtained through NMX-AA-120-SCFI-2006. This is an eco-label and is not well-known among tourism service providers. As illustrated, the government has created various public policy instruments to promote sustainable tourism. Nevertheless, the results are poor. Below are the findings presented in relation to studies in Mexico on sustainable tourism. The objective is to assess the interest of researchers and academics in the field, i.e. research findings concerning the sub system.

Table 4: Ecotourism Sustainability Requisites

Touristic Activities	Installations
Interpretation: provide personal and non-personal information to the visitor (characteristics, environmental and sociocultural aspects of the site).	Water: Pluvial catchment, efficient use, treatment, saving, and wet and dry latrine use, among other.
Trail: Guide walking or auto guide will be carried out in a trail system previously established.	Wild life: Restoration program, don't deteriorate the habitat.
Environmental education: Have a program that promotes community, visitants, and employee participation in the project.	Energy: Non-conventional energy sources, natural light exploitation, bio climate architectonic design.
Signaling: Have visible signs, clear, made with region materials, located strategically respecting the landscape.	Urban solid waste: Generation reduction plan, garbage separation and composting.
Wild life: Activities should not interrupt population or biologic processes of wildlife and fauna.	Purchasing products: biodegradable and regional products.
Aquatic ecosystem: Observe wild life activity without using products that alter the ecosystem.	
Conservation initiatives: Involve visitors to participate in conservation local plans.	
Cultural impact: Spread the values, demonstrations and local cultural history, always with respect.	

Requisites to access the certification is classified into two types: concerning the activities (includes eight metrics) and the concerning the installations (five metrics). Both are important to guarantee a responsible tourism praxis and a tourist quality experience. Source: Own elaboration with IMNC (2016) information.

Table 5 describes five studies. The first study was published in 2007 where San Martin and Salcedo reflect on the need to move towards sustainability in tourism activities and access to certification as a measure of transparency and credibility. Similarly, Ibáñez (2010) presents a historical analysis of the indicators of tourism sustainability, emphasizing the welfare of the territory's population and wellbeing of ecosystem that represents the tourism product. Meanwhile Madrid (2015, p 1310) argues that Mexico's tourism policy has paid increasing attention to sustainability (at least in theory). This author groups the progress into three phases: a) embryonic phase (1970 -1990) b) training phase (1990 -2000) and c) consolidation phase (2000 -2015). However, the author concludes that "the tangible results of the implementation of sustainability as part of tourism development model the country, are still to be seen".

Two items are derived from the studies examined. The Serrano et al. (2010) study performed a diagnosis in the locality of San Mateo Capulhuac with the aim of developing a proposal for harmonic tourism. The other case takes place in Banderas Bay, Cornejo Chavez & Massam (2013) determine the TEF through ecological costs. This is a quantitative study using indicators which were replicated in other territories where applicable. The results suggest both, public politics level, and studies realize, the state of embryonic development that exists in Mexico on the theme of sustainable tourism. Therefore, there exists an urgent challenge to adopt in businesses throughout the value chain of tourism to incorporate responsible practices with the environment and communities. The Mexican government should assess the development of elements of mandatory public policy. They should focus on hard law, since voluntary activities are soft law. It is a legal phenomenon that has no binding force, but it is not without legal effect or at least certain

legal relevance. Without hard laws, advances in the subject will be poor and negative impacts of tourism can cause irreversible effects.

Table 5: Sustainable Tourism Studies from Mexico

Author	Article	Description	Variables
San Martín and Salcedo (2007)	Tourism, sustainability and certification: a global challenge	Explains the need to apply sustainability in touristic practices, describes main initiatives to evaluate touristic practices and sustainability through Certification Programs.	Companies, services and destinies environmental performance. Product quality. Company's social responsibility.
Ibáñez (2010)	Sustainability and touristic development indicators in Mexico	Presents a state of the art revision about sustainability evaluation methods, acknowledging that sustainable development is obtain through human wellbeing and ecosystem wellbeing.	Human wellbeing Ecosystem wellbeing
Cornejo, Chávez & Massam (2013).	Sustainable Tourism: Whale Watching Footprint in the Bahía de Banderas, México	They develop a study about tourism ecologic footprint (TEF, English acronym) in Marietas island, Banderas Bay. They argue that environmental protection ecologic costs reflect TEF. They reveal that whale observation depends on area and touristic system. They question if tourism protects a species or ecosystem, and how big should TEF be to accomplish protection without affecting the resources.	Tourist origin and transportation Touristic stay durance and raw material consumption. Total tourists, lodging areas, restaurants, and energy consumption. Energy consumption of each vehicle and average calorific power of fossil gas.
Serrano et al (2010)	Harmonic tourism as a sustainable alternative to a community in State of Mexico	They study the San Mateo Capulhuac community with the purpose to propose harmonic touristic development. The goal is to boost the population improvement in life conditions, and the cultural and natural resources proper exploitation.	Community development aspirations and needs. Community identity. Cultural demonstration preservation. Natural resources intuitive-rational exploitation.
Madrid (2015)	Sustainability in Mexican touristic politic	Realizes the sustainability incorporation evolution in Mexican touristic politic in the last 45 years.	Official documents produced from different governmental agencies linked to tourism.

Only five studies about sustainable tourism in (or from) Mexico were found. Three with a general approach, as a country which authors reflect in the problem and design proposal. Two of the studies are applied cases, one in State of Mexico and other in Jalisco. Source: own elaboration with authors information

CONCLUDING COMMENTS

The bibliographic study provides a bleak picture of the model of sustainable tourism in Mexico. The findings allow us to infer the need to develop learning processes at the local level, to promote the development of sustainable capacity. The system of tourism in Mexico presents a duality that is exclusive to us in the country. In terms of sustainability, the economic dimension is very productive. It contributes to GDP and generates a large number of formal jobs. But environmental and social dimensions are invisible. The industry directly and indirectly contributes to pollution of the territories threatening ecosystems. Furthermore, the benefits of the activity do not permeate local communities, whose inhabitants only receive a salary derived from work on any of the links in the chain of tourism. Thus, as Rojas (2009) concludes in Colombia's case, the Mexican government public politic instruments doesn't seem to go beyond an inventory of good intentions. The government, through its agencies, doesn't count with institutional capacity to boost general application of sustainable strategies that are necessary and urgent to implement monitoring and tracking systems that you provide data for effective decision making and feedback systems.

Mexico has no formal environmental education. The education system, in an incipient and superficial way, approaches the subject at a basic level. Thus, it does not have clients that can demand green products and

services. So, the government should include in their strategies environmental education and preparation of all those involved. The main limitation of this study is derived from a literature search on electronic databases. There may be studies published in books or other sources that have not been examined. Future research might investigate eco-labels in tourism, which are promoted as mechanisms for customer choice as a sign of quality. It seems, for Mexican tourists, labels relating to the environment are not important. Certainly the international tourist leans toward a committed and participative tourism with respect to environmental and socio-cultural interests.

Finally, the government should create Sustainable Tourism Development Zones' encouraging investment, employment and land use planning, conserving natural resources for the benefit of the population. Promoting public policies from tourism to implement sustainability in society, sharing the economic benefits of the activity with the native population. Also economic entities, tourists and inhabitants of tourist sites, should recognize in nature a wealth for its scenery, its biodiversity, its flora and fauna. Although they have an economic value, these assets must be looked after, or over time they could disappear. Sustainable tourism guarantees tourism in the future with sites that retain its culture, its natural wealth and a population with quality of life.

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