



## TOURISM AND LOCAL DEVELOPMENT: ANALYSIS OF ENVIRONMENTAL SUSTAINABILITY IN PORTO SEGURO, BAHIA, BRAZIL

\*Araújo, W. A. de and Pires, M. de M.

Development and Environment Program, State University of Santa Cruz, Ilhéus, Bahia, Brazil

### ARTICLE INFO

#### Article History:

Received 20<sup>th</sup> December, 2017  
Received in revised form  
16<sup>th</sup> January, 2018  
Accepted 23<sup>rd</sup> February, 2018  
Published online 30<sup>th</sup> March, 2018

#### Key Words:

Sustainable Tourism,  
Clusters, Competitiveness,  
Sustainability Indicators,  
Environment.

### ABSTRACT

The objective of this article is to analyze the environmental sustainability of the tourism in Bahia, Brazil, taking as reference the locality of Porto Seguro. The environmental aspect is inserted once the tourism developed in this destination is strongly associated with the natural landscape. For that, field survey was used and carried out from May 4 to 20, 2016, when 41 managers of the companies that operate in the hosting sector were interviewed. The research privileges two methodological cuts: a quantitative, called Locational Quotient (LQ) and an analytical cut, for the characterization of productive agglomerations in low and medium development regions, denominated Local Productive Arrangement (LPA). As a conclusion, the studied locality can be identified as LPA of tourism in consolidation phase. The results classify the LPA with Sustainable Locational Quotient (QLS) of Low Sustainability.

Copyright © 2018, Araújo, W. A. de and Pires, M. de M. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Citation: Araújo, W. A. de and Pires, M. de M. 2018. "Tourism and local development: analysis of environmental sustainability in porto seguro, bahia, brazil", *International Journal of Development Research*, 8, (03), 19310-19320.

## INTRODUCTION

The present work seeks to understand the systemic and dialectical relations of environmental processes, particularly, the impacts resulting from the economic activity carried out by the man on the natural environment inserted in the context of the tourist activity on the Discovery Coast, located in the south of Bahia, Brazil, specifically, in the city of Porto Seguro. In the last decades, tourism has experienced a continuous and relevant diversification. It is becoming one of the most dynamic and fast growing sectors in the world, accounting for: 10% of the global gross domestic product (GDP); 235 million jobs worldwide; 01 out of 11 direct jobs is offered by the tourism operating sector; \$ 1.5 trillion generated by tourists; 7% of world exports; and 1.8 billion international tourists expected by the middle of 2030 (WTO, 2016). Due to its potential for growth and development, and since it is a political, social, economic and cultural phenomenon in contemporary times, the United Nations General Assembly adopted the Resolution 70/193 on December 22, 2015,

establishing 2017 the International Year of Sustainable Tourism for Development. The resolution reaffirms the role of sustainable tourism in developing countries as "a positive tool for the eradication of poverty, environmental protection, the improvement of the quality of life and the economic empowerment of women and young people", as well as its contribution to the three dimensions of sustainable development: economic, social and environmental (UN, 2016: 3). In this sense, sustainable tourism is defined as "one that meets the needs of today's tourists and receiving regions, while protecting and expanding opportunities for the future" (WTO, 2003: 24). Tourism is by nature an activity that drives and at the same time depends on sustained regional and local development. Discussed and approached by several sciences, it is now being understood as a key element for the dynamization of regions with low level of development in the world, and especially in Brazil. In the last decades, the concept of local development has been pointed as a proposal of development for questions related to the compatibility between environment, communities and sustainability. In Brazil, several studies have been conducted with a theoretical-methodological basis for analysis of Local Productive Arrangement (LPA), using localization and specialization measures, such as the Locational Quotient (LQ).

\*Corresponding author: Araújo, W. A. de,  
Development and Environment Program, State University of Santa Cruz, Ilhéus, Bahia, Brazil.

This study is opportune in the sense of the emergence of clusters and LPAs, as productive clusters capable of promoting local development. The identification and analysis of the level of environmental sustainability in these agglomerations, with the use of sustainability indicators, may contribute to the mitigation of the environmental impacts caused by human activity. In this context, the interdependence and participation of local actors in the process of sustainable development attributes importance to LPAs as inductors of local development (Marini et al., 2016). The question that emerges from the concept of sustainable development is how to identify which factors and elements strengthen or weaken the tourist activity in a place, from the point of view of sustainability? The answer to this question has been the creation and application of evaluation systems or tools that seek to measure sustainability. For the World Tourism Organization (WTO), indicators can have a fundamental influence on the process of sustainable development of tourism through the information they generate from the interaction between the actors; of the mobilization they create; and the actions they promote. Therefore, this research focuses on the activities developed by the tourism sector organizations, consubstantiating them in the local economy (WTO, 2004). It is hoped, therefore, to increase scientific knowledge about the relationship between development and the environment. In this sense, the objective of this work is to analyze the environmental sustainability of the tourism in the locality of Porto Seguro, Bahia, Brazil, from the point of view of local development. This research seeks to understand and discuss sustainable development in order to contribute to the analysis of regional development policies, particularly in the locality studied, besides subsidizing the elaboration and development of public policies directed to sustainable tourism.

### **Local Productive Arrangement of Tourism: conceptual foundations**

The growing interest in productive clusters can be attributed to changes in the competitive environment of firms. Several concepts are found in the specialized literature, such as: industrial districts, clusters, local production systems, LPAs, among others, "which contain differences between them, but they have as a common link the understanding that agglomerations, in a broad sense, facilitate and contribute to the economic and innovative dynamics of a specific territorial space" (Tatsch et al., 2015: 194).

According to Crocco et al. (2006: 217), productive agglomerations are considered a "valuable way of promoting economic development. Hence the importance of developing methodologies to help development policy makers identify the emergence of these agglomerations". Albagli and Brito (. 2003, p 7) define some of the characteristics that typify productive agglomeration. For the authors, "the term agglomeration - productive, scientific, technological and/or innovative - has as its main aspect the territorial proximity of economic, political and social agents". These economic agents use the advantages derived from geographical proximity, including access to raw materials, equipment, labor and others, and form the so-called agglomeration economies. According to Parr (2002), it is observed that in the area of urban and regional policy the concept of agglomeration economies is at the center of development strategies.

According to Moreira, Fernandes and Dias Junior (2017: 59), "[...] From the concepts found in the literature, one can perceive and identify some characteristics for productive clusters, depending on their degree of development [...]". In this sense, with regard to the classification of Productive Arrangements concerning to the degree of development, the Science and Technology Ministry (STM), classifies them according to the following criteria:

**Elementary Arrangement** - It stands out for the existence in a given locality or region of a concentration of producing units with some characteristic in common, indicating the existence of a technical or productive tradition (including artisanal), but with a degree of specificity or originality just enough to ensure their own subsistence;

**Consolidation Phase Arrangement** - It stands out for the existence in the place or region of productive activities with common characteristics, for the existence of a significant technological infrastructure, as well as the existence of relationships of the productive agents between themselves and with the local institutional agents consolidating the generation of positive synergies and externalities, but also with the presence of conflicts of interests and/or imbalances denoting a low level of coordination and strategic vision; and,

**Consolidated Arrangement** - It has all the characteristics of the previous group, but with a high level of cohesion and organization among the agents. The Consolidated Productive Arrangements are represented by geographic concentrations of companies from a particular economic sector, thus creating a specialized and innovative productive infrastructure. Institutional articulations include government agencies and other institutions, such as universities, technical schools, development agencies and professional associations, which provide specialized training, education, information, research and technical support (Caliman, 2003).

Tourism is an economic activity, unlike the others because it is produced and consumed in the same place, causing the consumer to move in order to enjoy it (Beni, 2002). For this, a set of goods and services - tangible and intangible - are offered. According to Sebrae (2008), tourism activity interacts with 52 other productive activities of the economy, constituting, therefore, a broad and complex mesh of chaining. As a productive chain, tourism was organized into three large blocks. The set of activities directly linked to the touristic business expresses a connection that has as an anchor the activity defined by the Brazilian Institute of Geography and Statistics (IBGE) as "Accommodation and food" (CNAE 5510-8/01). This productive chain of tourism generates several input and service demands, upstream, and promotes different downstream developments. It is formed by a diversity of touristic segments, such as: beach and sun tourism, adventure, events and business, cultural and scientific, religious, senior citizens, ecotourism, among others.

### **Sustainability Indicators: in the context of local tourism development**

The identification and use of Sustainable Development Indicators (SDI) constitute important steps for the analysis and evaluation of the sustainability of economic activities. In this sense, identifying and analyzing the social and territorial changes resulting from the economic, social and environmental

impacts caused by the dynamics of the LPAs requires the use of systems or tools that evaluate the productive agglomeration and its sustainability. Therefore, Bruna et al. (2012:333) argue that "in order to evaluate these productive arrangements it is necessary to define a set of indicators that relate the negative impacts and the beneficial ways in the use and occupation of urban land". Thus, it is necessary to relate and evaluate the geographic concentration of productive activities with the sustainability of the environment, considering the regional and local aspects related to sustainable development. It is worth noting that good indicators require one or more measurement units, such as time, area, weight, distance, among others; and often patterns, which are values that express the limits at which the occurrence of an indicator should be harmful to man or to the environment.

According to Van Bellen (2006), the most important and therefore necessary indicators are those that simplify the meaningful information, making certain phenomena that happen in reality become more evident, aspect that is particularly important in the environmental problem. The main functions of the indicators can be summarized as follows: (i) Assessment of conditions and trends; (ii) Comparisons between places and situations; (iii) Evaluation of conditions and trends in relation to goals and objectives; (iv) Provide warning information; and (v) Anticipate future conditions and trends (Tunstallapud Van Bellen, 2006). Authors such as Van Bellen (2006), Hanai and Espindola (2011, 2012), Malheiros et al. (2012) conceive that several models of indicators and sustainability systems are designed to measure the impacts of human activity, especially focusing on economic activity. Economic activities that are directly related to the environment can also benefit from the development of new indicators that take into account the specificities of each sector.

#### **In this sense, Hanai and Spindola (2011:135) assert that**

"[...] sustainability indicators applied to the context of tourism development are practical instruments for the management and control of tourism activity in a locality, and its periodic selection and monitoring is a fundamental component for the planning and development of sustainable tourism."

In order to establish tools to analyze the sustainability of the tourism production chain, with a view to guiding the planning of this activity, some indicators were created or adapted and directed to this sector. Van Bellen (2006), Cordeiro (2008), Moreira (2013) highlight the most relevant ones:

#### **Indicators of Sustainability for Tourism Destinations (WTO)**

In 1992, the WTO began its works for development and preparation of indicators to provide support in the management and planning of the process of sustainable development of tourist destinations, resulting, in 2004, in the publication of the Indicators of sustainable development for tourism destinations: a guidebook. This Guide used the Pressure-State-Response (PSR) methodology, containing over 40 issues relevant to the sustainable development of tourism practice and provides more than 300 indicators covering the economic, socio-cultural and environmental (WTO, 2004, Cordeiro, 2008). The indicators proposed by the WTO in this Guide consider active stakeholder participation, including key indicators that are considered to be common to most tourism destinations, also addressing issues and indicators specific to various types of

tourism destinations (small islands, ecotourism, coastal zones, community-based tourism, historic sites) and presents content on the application of indicators in tourism planning and public policy-making for tourism (Santana, 2015).

#### **Barometer of Tourism Sustainability (BTS)**

Tool to measure and inform the well-being of a society and the progress towards sustainable development through the integration of biophysical and social health indicators. The BTS derives from the adaptation of the Sustainability Barometer method developed by researchers from the International Union for Conservation of Nature (IUCN) and the International Development Research Center (IDRC), which addresses two themes: human well-being and well-being environment (Santana, 2015). "For its creators, the focus of this rate is to provide subsidies to all actors involved in sustainable development to guide their development policies by aligning them with sustainability" (Pereira et al., 2016:332). The BTS was adapted to be applied in the evaluation of the sustainability of a tourist destination, since a tourist destination is a geographic space formed by people and ecosystems influenced by the tourist activities developed there (Ko, 2003). It is also necessary to add in the evaluation the political, economic, social, cultural and institutional dimensions.

#### **Tourism Ecological Footprint Method (TEFM)**

The Ecological Footprint is a tool that transforms the consumption of raw material and the assimilation of wastes, of an economic system or a human population, into a corresponding area of land or productive water (Van Bellen, 2006). Sustainability indicator based on ecological criteria, developed and proposed by Wackernagel and Rees in 1996 in the work "Our Ecological Footprint", TEFM is an adaptation of the method of calculation of the Ecological Footprint for the tourism context. It consists of estimating the area required to directly and indirectly support the activity of a population or an economic system (Malheiros et al., 2012, Moreira, 2013, Santana, 2015). According to Van Bellen (2006), the procedure for calculating the Ecological Footprint method is based on the idea that for each item of matter or energy consumed by society there is a certain area of land that is needed to provide the flow of these resources and absorb the wastes. Therefore, in the analysis applied to tourism

"[...] it concentrates on the consumption of resources and on the generation of wastes along the three areas covered by a tourist: the sending area (where he lives and from which he wishes to be away for some time), the transit zone (a place spatially traveled by him to reach his objective: the tourist destination) and the receiving area (the tourist destination itself)" (Cordeiro, 2008:86, emphasis added).

For the purpose of this research, the proposed indicators focus on the analysis of local development, therefore, the receiving area is considered as the locus of tourism activity, encompassing the three dimensions of sustainable development: economic, social and environmental. For the WTO (2003), with respect to the development of measures related to sustainability in tourism, a set of relevant indicators for the sustainable management of local tourism is necessary, among them the following stand out: i) protection of the site; ii) stress; iii) intensity of use; iv) social impact; v) development control; vi) waste management; vii) critical

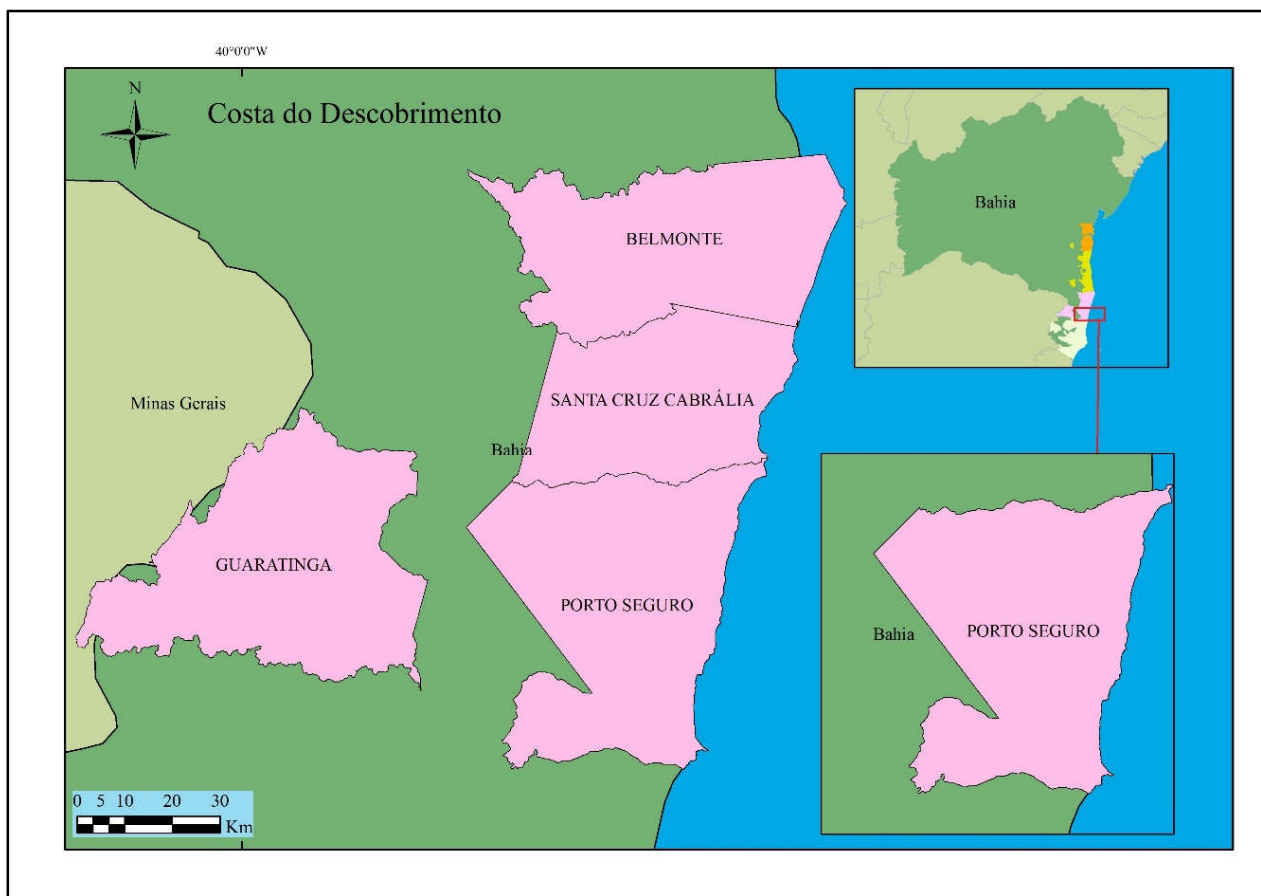
ecosystem planning processes; viii) tourist satisfaction; ix) satisfaction of the local community; and x) contribution of tourism to the local economy. There are many methods and indicators applied in the analysis of concentration, location and specialization of regional or local economic activities. In this study, the Locational Quotient (LQ) is used as a methodological procedure for the analysis of LPAs. In this context, the following is the method of identification and classification of productive agglomerations in low and medium development regions.

### Methodological Procedures

Regarding the area of study, the delimitation refers to the geographic and economic space of the tourist destination of Porto Seguro, located in the extreme south of Bahia, specifically in the touristic region called Discovery Coast (Figure 1).

(REDESIST) of the Institute of Economics of the Federal University of Rio de Janeiro (UFRJ) to support the analysis of intangible factors such as: cooperation, innovation and interaction, as well as it had adaptations from the Ministry of Tourism's Means of Lodging Classification System (SBClass/Mtur), in order to validate the analysis of environmental sustainability. These instruments were tested to the empirical reality, and then applied in the data collection and intended information.

In Porto Seguro, the interviews made it possible to capture qualitative and quantitative information on the sources of information for learning, degree of integration, level of cooperation, innovations, among others, and thus characterize the support institutions, the number of companies, the profile of entrepreneurs and the problems faced by the sector in the locality. Regarding the methodology, the work highlights two methodological cuts: (i) a quantitative approach, used for the identification of productive agglomerations, the Locational



**Fig. 1. Localization Map for Porto Seguro, Bahia**

In this work the characteristics of the LPA are presented, mainly, in the aspects of environmental sustainability. The survey of primary data was directed to the tourism companies operating in the lodging facilities, in Porto Seguro. The sampling procedure adopted was non-probabilistic sampling, using the criterion of accessibility or convenience. According to Dencker (1998), Vergara (2003) and Gil (2010), in the non-probabilistic sampling by accessibility the ease of access must be representative of the universe searched. A total of 41 interviews were conducted with the managers of companies operating in the lodging sector that are part of the tourism sector, from May 4 to 20, 2016. The set of information collected was used to characterize and analyze the Tourism LPA. The questionnaires used were adapted from the Research Network on Local Productive and Innovative Systems

Quotient (LQ), and; (ii) an analytical approach, used for the characterization of productive agglomerations in low and medium development regions, called Local Productive Arrangement (LPA) (Lastres and Cassiolato, 2003). Through this methodology it is possible to capture the conformation of local productive arrangements, and associated with the qualitative research, used to analyze intangible factors, it is possible to classify the LPAs in terms of complexity and degree of maturity, according to the classification typified by the STM, already specified previously. A tourism LPA is characterized by the existence of a core activity, specifically anchored in the hospitality sector (hotels, inns, resorts, among others) and also by a series of other integrated activities, responsible for the supply of inputs, products, equipment and support services to carry out or maintain the core activity

(Brito, 2002). The database refers only to the formal labor market, failing to capture information about activities carried out informally, but which are part of the activity analyzed here. Data from the Annual Social Information Ratio (ASIR) were therefore used, through the National Classification of Economic Activities (NCEA) for the year 2015, which provides information on the number of companies, employed personnel and salaries paid by the tourism companies, notably represented by the hosting means, in this specific case, hotels and lodges, combined or not with food service (NCEA 5510-8 / 01). According to Haddad (1989), Brito (2002), De Sordi and Meireles (2012), the calculation of the LQ applied to tourism was based on the total number of registered employees (EMP) in the municipalities informed by ASIR:

$$LQ = (\text{EMP sector } i / \text{EMP municipality } j) / (\text{total country EMP sector } i / \text{total country EMP})$$

Where:

LQ= Locational Quotient;

EMP sector  $i$  = employees of the tourism sector in the municipality;

EMP municipality  $j$  = total number of employees in the municipality;

Total country EMP sector  $i$  = total number of employees in the tourism sector in Brazil;

Total EMP country = total number of employees in Brazil.

The Locational Quotient compares the relative weight of a given activity in a given municipality or locality with the relative weight of that activity at the national scale. When the Locational Quotient is greater than the unit ( $LQ > 1$ ) it reveals that the municipality or locality contributes more proportionally than the national average for the activity in question, that is, the specialization of the municipality  $j$  in activities of the sector  $i$  is superior to the specialization of the total of Brazil in the activities of this sector. Otherwise, when the Locational Quotient equals the unit ( $LQ = 1$ ), the specialization of the municipality  $j$  in activities of the sector  $i$  is identical to the specialization of the total of Brazil in the activities of that sector and, when the Locational Quotient is less than the unity ( $LQ < 1$ ), the specialization of the municipality  $j$  in activities of the sector  $i$  is inferior to the specialization of the total of Brazil in the activities of this sector (Brito, 2002).

The methodology designed to compose the Sustainable Development Index for LPAs, called in this study as Sustainable Locational Quotient (SLQ), was the one to evaluate sustainability levels, considering the criteria adopted worldwide for the identification and choice of sustainability indicators, in this case, focusing on local development. For the analysis of environmental sustainability, reference was made to the WTO's Indicators of Sustainability for Tourism Destinations, which provide support in the management and planning of the process of sustainable development of tourist destinations. For the purposes of this research, six key indicators proposed in the SBClass/Mtur were analyzed, namely: reduction of water consumption; reduction of energy consumption; use of rainwater; reduction, reuse and recycling of solid wastes; reduction on the emission of gases and odors; and; selective collection. Associated with 9 key indicators that form the set of externalities, referring to the environmental practices adopted by the companies of the arrangement, they represent the Environmental Sustainability Index (ESI) of tourism, based on the core activity of this sector (Table 1). According to Table 2, sustainability indices with values between 0.00 and 0.49 are characterized by the performance that reveals a *critical state* of sustainability; the indices with values between 0.50 and 0.79 were represented by the performance that reveals a state or *alert situation*; the indices with values between 0.80 and 0.89 were represented by the performance that reveals an *acceptable state* or situation and; lastly, the indices with values between 0.90 and 1,00 were represented by performance that reveals an ideal state or situation of sustainability (Rabelo and Lima, 2007, Frainer et al., 2017).

The choice of this group of indicators was due to the simplicity of the indicators, the period of analysis, the costs, the availability of the existing data, the materials needed for the transformation into quantitative data and the method of application. Each key indicator was composed of a set of information that was collected predominantly in a qualitative way, through an interview, with application of a structured questionnaire, and plotted on a quantitative scale ranging from 0 to 1. Totalized in the sequence by the mean of the indicators and classified as follows (Table 2). The final formula (1) of the ESI was generated by the aggregation through the simple arithmetic mean of its thematic indexes.

**Table 1. Key indicators for the development of ESI Tourism**

Issues	Index A – Key indicators
Actions the company adopts regarding environmental practices in LPA	1. Reduction of Water Consumption 2. Reduction of Electricity Consumption 3. Utilization of Rainwater 4. Reduction, Reuse and Recycling of Solid Wastes 5. Reduction on the emission of gases and odors 6. Selective Collection 7. Does not Adopt measures relating to these items
Issues	Index B – Externalities Indicators
Environmental practices adopted by the company in LPA	1. Training initiatives for the employees 2. Monitoring and treatment of community expectations 3. Measures for selection of suppliers, environmental criteria 4. Awareness of guests in relation to sustainability 5. Measures in partnership with the community, value culture 6. Measures to generate work and income for the community 7. Measures to promote tourism-related production 8. Measures to minimize noise emission from installations 9. What is the degree of difficulty in adhering to these environmental practices

Source: Adapted for research from Brazil (2011) and Frainer et al. (2017)

**Table 2. Classification of the level of environmental sustainability of LPA (ESI)**

Index (0-1)	Level of environmental sustainability
0,00 - 0,49	Unsustainable
0,50 - 0,79	Low Sustainability
0,80 - 0,89	Average Sustainability
0,90 - 1,00	Sustainable

Source: Adapted for the research from Frainer et al. (2017)

$$ESI = \frac{\text{index A} + \text{index B}}{2}$$

Where,

ESI = Environmental Sustainability Index;  
 Index A = Key indicators;  
 Index B = Externalities Indicators.

According to Van Bellen (2006), Rabelo and Lima (2007), and Frainer et al. (2017), the sustainable development of LPAs when considering such diverse aspects creates a variety of concepts and methodologies regarding their measurement and evaluation. Translating into several proposed instruments, different levels of numerical complexity adopted. This study aimed to develop a simple and contextualized methodology in the locality in which the economic activity under analysis is developed.

**In this way, the five categories of analysis were considered:**

**Scope** - economic, social and environmental;

**Sphere:** based on locality;

**Data:** quantitative (LQ), qualitative (ESI) and level of aggregation through index;

**Participation:** Top-down; and

**Interface:** characterized by the facility to absorb and interpret this tool. The methodological sequence presented was modulated from different studies on sustainability and consists of three stages:

- Calculation of Specialization Index (LQ);
- Calculation of the Environmental Sustainability Index (ESI);
- Aggregation of the Sustainable Development Index (SLQ).

The final conjunction (1) of the SLQ was generated through its indices of specialization and environmental sustainability.

$$SLQ: LQ \wedge ESI \quad (2)$$

Where:

SLQ= Sustainable Development Index;  
 LQ= Arrangement Specialization Index;  
 ESI= Environmental Sustainability Index.

The Sustainable Development Indices (SLQ) are characterized by the performance that reveals an *ideal state* or situation of sustainability, or in the opposite direction a *critical state* of sustainability, passing through the other intermediate states, as observed in Table 3. All indices generated for each dimension and the final SLQ index can be classified according to the level of activity and sustainability, generating a ranking of the

locations surveyed. In the studies that do not configure the presence of LPAs, only the agglomeration and its level of sustainability should be classified using the ESI for this classification.

## RESULTS AND DISCUSSION

### Tourism LPA in Porto Seguro, Bahia, Brazil


















In order to identify the tourism LPA in Porto Seguro, the calculation of the QL was used, relative to total formal employment, the number of establishments present in the economic activity and the total value of the remunerations generated, based on the ASIR data of 2015 (Brazil, 2017). In this case, the Specialization Coefficient referring to the means of accommodation of the municipality surveyed, in 2015, indicates a strong spatial concentration of this activity in the touristic production chain on the Discovery Coast, with  $LQ = 27.78$ . Another element that stands out, validating the registered LQ, refers to the behavior of formal jobs observed in the period of 2010 (3,949 jobs) to 2015 (5,396 jobs) in this Tourism LPA. The growth obtained 36,6% in Porto Seguro in the increase of formal jobs generated by the means of lodging, endorse the classification in Category A attributed by Mtur in the Map of the Brazilian Tourism.

It can be observed that in the Local Productive Arrangement of Tourism in Porto Seguro, the participation of micro and small companies predominates. It is verified that 41.5% of the participants in the survey are micro-enterprises, followed by 39.0% of small enterprises, making up a significant 80.5% of the companies operating in the sector. It was also verified the absence of large companies operating on the Discovery Coast. Another aspect concerns the constitution of the capital of these touristic enterprises, formed mainly with national capital (98%). In order to achieve greater insertion in the international market and, at the same time, increase the participation in the domestic market, competitiveness plays a central role in the consolidation strategy of the arrangement. The aim of this study was to describe the characteristics of the productive structure of the LPA of the Tourism in Porto Seguro, the research aimed at identifying which are the determining factors for a maintenance and, if possible, expansion of the productive capacity in the activity carried out by the researched lodging media.

In the questionnaire applied to managers of the companies, the competitive factors were classified according to the degree of importance assigned by each company. For Porter (1998), there is no consensus to define the concept of competitiveness. However, for companies, it means the ability to compete in globalized markets, using defined strategies. Strategies can rely on absolute cost advantage, product differentiation or economies of scale. According to the companies visited, there is practically unanimity regarding the high importance of the following determinant factors for the competitiveness of the companies, installed in Porto Seguro, according to research data, that is: (i) quality of the workforce; (ii) marketing strategy; (iii) product quality; and (iv) ability to attend. The research sought to identify the importance of the technological level of the equipment and the capacity to introduce new services and processes. The results converged in the indications as elements of considerable degree of importance as factors of competitiveness of the touristic companies, in particular, of the inns, hotels and resorts that composed the sample.



**Table 3. Ranking of the LPA Sustainable Development Index (SLQ)**

LQ		ESI	SLQ	
LPA Consolidated	Sustainable		Consolidated Sustainable	
			Consolidated Average Sustainability	
			Consolidated Low Sustainability	
			Consolidated Unsustainable	
LPA in phase of consolidation	Average Sustainability		In phase of Consolidation Sustainable	
	Low Sustainability		In phase of Consolidation Average Sustainability	
	Unsustainable		In phase of Consolidation Low Sustainability	
			In phase of Consolidation Unsustainable	
LPA Elementary	Unsustainable		Elementary Sustainable	
			Elementary Average Sustainability	
			Elementary Low Sustainability	
			Elementary Unsustainable	

**Table 4. Evaluation of the contribution of unions, associations, local cooperatives (%)**

Type of Contribution	Micro				Small				Medium			
	Null	Low	Average	High	Null	Low	Average	High	Null	Low	Average	High
1. Aid in the definition of common objectives for the productive arrangement	5,9	29,4	23,5	41,2	0,0	37,5	18,8	43,8	0,0	62,5	25,0	12,5
2. Stimulus in the perception of future visions for strategic action	5,9	64,7	23,5	5,9	0,0	31,3	50,0	18,8	0,0	50,0	37,5	12,5
3. Providing information on raw materials, equipment, technical assistance, consulting.	5,9	88,2	5,9	0,0	6,3	68,8	18,8	6,3	0,0	100,0	0,0	0,0
4. Identification of sources and forms of financing	5,9	76,5	17,6	0,0	12,5	37,5	43,8	6,3	12,5	75,0	12,5	0,0
5. Promotion of cooperative actions	5,9	64,7	29,4	0,0	18,8	56,3	18,8	6,3	0,0	37,5	50,0	12,5
6. Filing Common Claims	5,9	64,7	17,6	11,8	6,3	31,3	25,0	37,5	0,0	50,0	25,0	25,0
7. Creation of forums and environments for discussion	5,9	35,3	58,8	0,0	6,3	18,8	62,5	12,5	0,0	37,5	50,0	12,5
8. Promotion of actions aimed at technological qualification for companies	5,9	64,7	23,5	5,9	6,3	68,8	25,0	0,0	0,0	50,0	37,5	12,5
9. Encouraging the development of local education system and research	5,9	76,5	17,6	0,0	6,3	87,5	6,3	0,0	0,0	62,5	25,0	12,5
10. Organization of technical and commercial events	5,9	58,8	23,5	11,8	6,3	12,5	43,8	37,5	0,0	37,5	37,5	25,0

Source: Own elaboration based on the research data

**Table 5. Actions that the company adopts in relation to environmental practices**

Key indicators	Micro	Small	Medium
	Index*	Index*	Index*
1. Reduction of Water Consumption	0,73	0,78	0,69
2. Reduction of Electricity Consumption	0,93	0,96	1,00
3. Use of Rainwater	0,42	0,26	0,31
4. Reduction, Reuse and Recycling of Solid Wastes	0,31	0,61	0,51
5. Reduction on the emission of gases and odors	0,33	0,51	0,69
6. Selective collection	0,18	0,56	0,48
7. Does not Adopt measures related to these items	0,54	0,58	0,65
Average index	0,49	0,61	0,62
Index A			0,57

\*Index = (0\*N° Null + 0,3\*N° Low + 0,6\*N° Average + N° High) / (N° Companies in the Segment)

Source: Own elaboration based on the research data.

The micro (58.8%), small (56.3%) and medium (87.5%) companies interviewed consigned as highly important the technological level of equipment. The local externalities that are observed in the LPA in Porto Seguro, according to the opinion of the companies interviewed, reinforced the analysis of the local competitiveness conditions in order to identify the potentialities and fragilities of development of the tourist activity on the Discovery Coast. In the evaluation of the main advantages and disadvantages related to the location of the companies in the tourism arrangement, two factors stood out as

very important for the location of the companies in the municipality of Porto Seguro: (i) Proximity with suppliers of raw materials and inputs (ii) Physical infrastructure (energy, transportation, communication). In relation to infrastructure (energy, transport and communication), in a general way the evaluation made by the companies surveyed considered the infrastructure to be good. Items such as energy, transport and communication obtained, respectively, the following evaluations: (i) Microenterprises 88.2%; (ii) small company 50.0%; and (iii) the medium company 75.0, classified as

**Table 6. Environmental practices adopted by the company**

Externalities Indicators	Micro	Small	Medium
	Index*	Index*	Index*
1. Does the Hotel adopt training initiatives for the employees regarding environmental awareness, to the point of promoting small changes in their behavior?	0,29	0,60	0,64
2. Does the hotel adopt measures to monitor and deal with the expectations and impressions of the community residents regarding the services offered, including ways to research opinions, complaints and suggestions?	0,15	0,21	0,35
3. Does the company adopt measures for the selection of suppliers, considering environmental, socio-cultural and economic criteria that seek to promote sustainability in the community?	0,39	0,55	0,48
4. Does the hotel adopt measures to sensitize guests to sustainability, such as waste reduction, preservation of the environment, enhancement of local culture and support for trade in products and services in the region?	0,78	0,80	0,73
5. Does the hotel adopt measures in partnership with the community, with the purpose of enhancing the local culture and supporting the development of socio-cultural activities in the region?	0,61	0,35	0,46
6. Does the hotel adopt measures for generating work and income for the local community?	0,95	1,00	0,83
7. Does the hotel adopt measures to promote tourism-related production, such as artisanal, agricultural or industrial production, with natural or cultural attributes of the region that are capable of adding value to the tourism product?	0,58	0,39	0,56
8. Does the hotel take measures to minimize the emission of noise from the facilities, machinery and equipment, leisure and entertainment activities so as not to disturb the natural environment, the comfort of the guests and the local community?	0,80	0,85	0,90
9. In your opinion, how do you rate the degree of difficulty to implement these environmental practices established by the Ministry of Tourism for Classification of Lodging?	0,79	0,66	0,85
Average index	0,59	0,60	0,64
Index B			0,61
Environmental Sustainability Index (ESI)			0,59

\*Index =  $(0 \cdot N^{\circ} \text{Null} + 0,3 \cdot N^{\circ} \text{Low} + 0,6 \cdot N^{\circ} \text{Average} + N^{\circ} \text{High}) / (N^{\circ} \text{Companies in the Segment})$

Source: Own elaboration based on the research data

highly important. The same score was obtained in the evaluation of the proximity with suppliers of inputs and raw material, denoting the existence of a considerable supply of goods and services in this municipality. According to Lemos et al. (2000: 13), "[...] Clearly, cooperation needs formal and informal institutions to stimulate and nourish a socioeconomic environment in which 'constructive forms' of cooperation and competition can prevail over 'destructive' forms." However, the research revealed that the interaction between companies and representative institutions such as trade unions, associations, local and regional cooperatives has been of little cooperation and also pointed out a certain dispersion. For example, in micro-enterprises, the item referring to aid in defining common objectives for the productive arrangement was considered of medium and high importance by 23.5% and 41.2%, respectively. In small companies, there is a small decline in this observation, standing at 18.8% of average and 43.8% of high importance. However, in the medium company the low importance prevailed with 62.5% (Table 4).

"The generic meaning of cooperation is to work in common, involving relations of mutual trust and coordination, at different levels, between agents" (Lastres and Cassiolato, 2003: 10). In local productive arrangements, different types of cooperation between companies and some actors of the productive arrangement are identified, including productive cooperation and innovative cooperation. The cooperation can occur, involving companies and other institutions, through training programs, events and fairs, courses and seminars, technical feasibility projects and development projects (Albagli and Brito, 2003). In this sense, two contributions endorse the perception of the small number of cooperation between the institutions and the companies that conform the arrangement: (i) Promotion of actions directed at the technological capacity of companies and (ii) Encouragement to the development of the education system and local research. Spotting the low importance assigned by companies participating in the research, even to the detriment of the size of the companies surveyed (Table 4). Special emphasis was given to professional qualification and technical training

programs, along with improvements in basic education. These programs had practically the unanimity of the companies participating in this research. Associated with support programs for technical consulting and technological services offerings, for the companies of the arrangement, they can form a framework that transform training and innovation in the companies, into competitive differential of the LPA itself.

### Environmental practices in Porto Seguro Tourism LPA

Building on the concept of sustainable tourism which, according to the World Tourism Organization (WTO), is an activity that meets the "needs of tourists and the socio-economic needs of the receiving regions, while cultural integrity, the integrity of natural environments, and biological diversity are maintained for the future" (Brazil, 2010: 30). In this sense, the research deepened the research carried out with the economic actors, who act in the tourism productive chain in the region and, in this way; the items that dialogue with the environmental preservation in this locality are presented in Table 5.

The results of the actions undertaken in the companies surveyed point to a significant lack of proactive actions that contribute to environmental sustainability in the arrangement. For example, in the description on the reduction of water consumption, microenterprises indicated that 41.2% was not relevant to their company, and 29.4% indicated low importance for this type of measure. In small and medium-sized enterprises, the implementation of these measures has been slightly increased. In small companies: 18.8%, average, and 37.5%, high importance; and in the medium-sized enterprises: 25.0%, average, and 37.5%, high importance. Another mitigating measure regarding the environment concerns the use of rainwater. This measure also has little adherence and effectiveness in its practice. It was noticed that the low adherence to these environmental practices is related to the cost of investments in the acquisition and installation of specific equipment for implementation, monitoring and control of these items.



In Table 5, it can be verified that three measures had a satisfactory performance in the actions developed by these companies: (i) reduction, reuse and recycling of solid wastes; (ii) reduction on the emission of gases and odors; and (iii) selective collection. In terms of reduction, reuse and recycling, microenterprises accounted for 41.2% of average and 52.9% of high importance (94.1% of effectiveness). The small companies surveyed indicated a 6.3% average and 68.8% high importance for this measure, and finally, medium companies responded with 25.0% and 50.0% of average and high importance, respectively. The analysis of this measure can be combined with the selective collection. Better performance in these two areas is attributed to the performance of several non-governmental organizations (NGOs), which work to protect the environment, removing these wastes and managing their reuse. It is worth mentioning, as far as the selective collection, that the municipality does not realize it. It is up to NGOs to remove this material.

The destination, especially of the organic matter, is the community gardens, and, it is also directed to the practice of agroecology. As for the reduction of the emission of gases and odors, this measure has a reasonable degree of effectiveness, due to the comfort that the means of lodging offer their clients. They avoid the discomfort of impregnating inns, hotels and resorts with unpleasant odors for their guests. Tourism can have positive impacts, such as: increasing production, consumption, employment and income in the private sphere, as well as improving public sector revenue and expenditure. However, there is also a series of harms caused by the tourist activity. The most expressive reflect the "scars in the landscape" caused by the installation of tourist equipment in natural areas. The flow and volume of visitors can negatively impact the ecosystems, especially the most fragile and vulnerable ones that are located in the region of the Discovery Coast. In this context, Table 6 shows the actions that the companies of the arrangement promote in relation to environmental practices.

When asked whether the hotel adopts training initiatives for the employees regarding environmental awareness, to the point of promoting small changes in their behavior, the responses produced by micro-enterprises depict the following perception: 41.2% consider this question irrelevant to their company, and 29.4%, of low importance. The answers obtained in both small and medium-sized companies are convergent and depict the following actions: (i) in the small one, the practices are in these magnitudes: 37.5%, low; 18.8%, average; 37.5%, high importance; (ii) in the medium-sized company, it is as follows: 37.5%, low; 25.0%, average, and 37.5%, high importance. In this company size, the irrelevance of this practice for environmental sustainability was not pointed out by any of the companies surveyed. However, because this is a central issue for the dissemination of good environmental practices in tourism, this awareness is of great importance for the interaction that may occur between the employees of the lodging facilities and the tourists. Another factor worth mentioning is the relationship of the companies in the sector with the surrounding community. In this description, listed in Table 6, there is no action to promote measures for the monitoring and treatment of the expectations and impressions of the community residents regarding the services offered, including means for searching opinions, complaints and suggestions. These measures could guide actions to mitigate the impacts generated by the equipment itself and also

generate the possibility of mediation in conflicts caused by visitors in the receiving community. Especially when associated with the previous question, which deals with the qualification and training of the employees with regard to environmental issues. Employees of the region's inns, hotels and resorts can become disseminators of good environmental practices, promoting local culture, and other proactive actions for the well-being of the host community and tourists. The chain of activities that make up the tourism production chain could contribute to the environment by acting and sharing positive actions that promote good environmental practices. In this regard, the companies surveyed have demonstrated an intermediate attitude towards supplier selection in the research, considering environmental, socio-cultural and economic criteria that seek to promote sustainability in the community. The most representative answers were low and medium importance, pointed out in the poll as follows: microenterprises, 64.7% low, and 23.5% of medium importance; small business, 25.0% and 37.5%, low and medium, respectively, and medium-sized company, 75.0% of low importance for this item. Two actions were well evaluated by the companies of the arrangement, specifically the one related to the guest's awareness regarding sustainability and the measures that aim at the partnership with the community, which has a strong appeal in the preservation of the environment, valorization of the local culture and support to the trade in goods and services in the region.

It is also highlighted in this research the actions promoted by hotel developments in Porto Seguro regarding the measures adopted to generate work and income for the local community. This result is positive, with a high importance percentage ranging from 75% to 100%, in the companies surveyed that composed the sample. As already mentioned, the results of the actions undertaken in the companies of the arrangement demonstrate a significant lack of proactive actions that contribute to the sustainability of the tourism in the researched area. This fact can be corroborated by the result obtained in item 9, Table 6, in which it was clear the degree of difficulty attributed by the managers of the lodging facilities in the adoption of these environmental practices. The Microenterprises showed a 94.1% effectiveness (41.2% average and 52.9% high difficulty) in the implementation of these mitigating actions. Likewise, small and medium-sized companies also mentioned this difficulty, with 87.5% and 100% effectiveness in this indication. Considering the results found for the LPA in Porto Seguro, with LQ = 27.78 and ESI 0.59, and applying the methodology that conforms this study, one can then classify this LPA in the consolidation phase with the Sustainable Development Index (SLQ) of Low Sustainability.

Although the Specialization Coefficient related to the lodging facilities of the LPA surveyed in 2015 indicated a strong spatial concentration of this activity in the tourist production chain on the Discovery Coast, the registered SLQ reveals a warning situation when the environmental question is observed in the arrangement. Thus, the concern with the impacts of the society *versus* nature relationship on the environment in the context of tourism has required the quest for means to eliminate or at least mitigate the negative impacts resulting from anthropic actions. This theme, already discussed in previous sections, refers to the need to control and plan the tourism activities developed in the Local Productive Arrangement of Tourism in Porto Seguro.

## Conclusion

It was verified the existence of a productive structure of tourism in the studied locality, and as such it could be identified as a LPA in the consolidation phase, with a significant increase in the activities that make up the tourism productive chain in Porto Seguro. The difficulties of cooperation and interaction in Porto Seguro's Tourism LPA should be overcome through articulation between the different actors involved in the LPA, for its effective development and sustainability. This articulation and the consequent formation of a consolidated productive arrangement will tend to minimize the negative impacts caused by the tourist activity, and maximize the economic and social benefits. It was verified that the impact is bigger in the qualitative than in the quantitative aspects, in the conformation of the local productive arrangement of tourism. Hence, it is important to raise the level of competitiveness of the firms, stimulate the innovative environment, implement new management processes, and a greater mobilization of the local forces for the development of this LPA is expected.

In the environmental dimension, there is a need for the implementation of public and private actions that direct and potentiate measures that increase tourism activity in a sustainable way. Particularly, considering the result found in the LPA surveyed, through the Sustainable Development Index (SLQ), which indicated low sustainability in this arrangement. Although the Specialization Coefficient related to the lodging sector indicated a strong spatial concentration of this activity, the registered SLQ represents an alert situation when the environmental question is observed in this LPA. It is expected as a result of this work: (i) improve understanding of the theoretical and practical aspects of sustainable development; (ii) contribute to the analysis of regional development policies, particularly in the locality surveyed; and, (iii) subsidize the development of public policies aimed at the sustainable development of tourism.

## REFERENCES

Albagli, S. and Brito, J. 2003. Glossário de arranjos e sistemas produtivos e inovativos locais. Rede de Pesquisa em Sistemas Produtivos e Inovativos Locais. Rio de Janeiro: RedeSist.

Beni, MC. 2002. "Análise estrutural do turismo". Senac. São Paulo.

Brasil. Ministério do Trabalho e Emprego 2017. Relação Anual de Informações Sociais (Rais) de 2015. Disponível em: <http://pdet.mte.gov.br/aceso-on-line-as-bases-dados/>. Consultado em: 14/02/2017.

Brasil. Ministério do Turismo 2010. Turismo e sustentabilidade, formação de redes e ação municipal para regionalização do Turismo. MTUR. Brasília; SEAD/UFSC Florianópolis.

Brasil. Ministério do Turismo 2011. Matriz de classificação de meios de hospedagem: sistema de classificação de meios de hospedagem – SBClass. MTUR. Brasília, DF.

Brasil. Ministério do Turismo 2015. Programa de regionalização do turismo: categorização dos municípios das regiões turísticas do mapa do turismo brasileiro". MTUR. Brasília, DF.

Brito, J 2002 Relevância de PMEs em arranjos produtivos na indústria brasileira: uma análise exploratória a partir de dados da RAIS. Redesist. I.E./UFRJ. Rio de Janeiro.

Disponível em: [www.ie.ufrj.br/redesist](http://www.ie.ufrj.br/redesist). Consultado em: 12/08/2006.

Bruna GC et al. 2012. Indicadores de sustentabilidade no planejamento de arranjos produtivos locais. Em: Philippi Jr, A. e Malheiros, T. F. Indicadores de sustentabilidade e gestão ambiental. Manole. Barueri, SP, pp 327-365.

Caliman O 2003. Subsídio para a formulação de uma política de desenvolvimento regional para o Espírito Santo. Texto para discussão. Vitória. (Mimeografado).

Classificação Nacional de Atividades Econômicas (CNAE). 5510-8/2001.

Comisión Económica para América Latina y el Caribe 2001. "Indicadores de sostenibilidad ambiental y de desarrollo sostenible: estado del arte y perspectivas". Naciones Unidas. Santiago de Chile.

Cordeiro IJD 2008. Instrumentos de avaliação da sustentabilidade do turismo: uma análise crítica. Dissertação de mestrado, Programa de Pós-Graduação em Ordenamento do Território e Planejamento Ambiental, Universidade Nova de Lisboa.

Crocco MA et al. 2006. Metodologia de identificação de aglomerações produtivas locais. No Nova Economia: Revista do Departamento de Ciências Econômicas, UFMG, Belo Horizonte, MG, 16(2):211-241.

De Sordi JO, Meireles M 2012. Arranjo produtivo local ou aglomerado de empresas? Distinção por atributos associados à temática transferência de informação. Revista de Administração Pública, Rio de Janeiro, 46(3):775-794.

Dencker AdeFM 1998. Métodos e técnicas de pesquisa em turismo. Futura. São Paulo.

FrainerDMet al. 2017. Uma aplicação do Índice de Desenvolvimento Sustentável aos municípios do estado de Mato Grosso do Sul. Interações, Campo Grande, MS, 18(2):145-156.

Gil AC 2010. Como elaborar projetos de pesquisa. 5a ed. Atlas. São Paulo.

Haddad PR 1989. Medidas de Localização e de Especialização. Em: Haddad, P. R. (Org.). Economia regional: teorias e métodos de análise. BNB. Fortaleza.

Hanai FY, Espíndola ELG 2011. Indicadores de sustentabilidade: conceitos, tipologias e aplicação ao contexto do desenvolvimento turístico local. Revista de Gestão Social e Ambiental – RGSA, São Paulo, 5(3):135-149.

Hanai FY, Espíndola ELG 2012. Indicadores de sustentabilidade para desenvolvimento turístico. Em: Philippi Jr, A. e Malheiros, T. F. Indicadores de sustentabilidade e gestão ambiental. Manole. Barueri, SP, pp 294-326.

Instituto Brasileiro de Geografia e Estatística 2000. Indicadores de desenvolvimento sustentável. IBGE. Rio de Janeiro.

Instituto Brasileiro de Geografia e Estatística 2017. @Cidades. Histórico dos municípios. Disponível em: <http://www.cidades.ibge.gov.br/xtras/perfil.php?lang=&codmun=292530&search=bahia|porto-seguro>. Consultado em: 15/02/2017.

Lastres HMM, Cassiolato JE 2003. Novas políticas na era do conhecimento: o foco em arranjos produtivos e inovativos locais. Rede de Pesquisa em Sistema Produtivos Locais do Instituto de Economia da Universidade Federal do Rio de Janeiro (Redesist). Disponível em: [www.ie.ufrj.br/redesist](http://www.ie.ufrj.br/redesist). Consultado em: 06/04/2017.

Malheiros TF, Coutinho SMV, Philippi Jr A 2012. Indicadores de sustentabilidade: uma abordagem conceitual. Em:

- Philippi Jr, A., Malheiros, T. F. Indicadores de sustentabilidade e gestão ambiental. Manole. Barueri, SP, pp 31-76.
- Marini MJr, Silva CL, Nascimento DE 2016 . Políticas públicas e arranjos produtivos locais: uma análise baseada na participação das esferas públicas. Na Revista Brasileira de Gestão e Desenvolvimento Regional, Taubaté, SP, Brasil, 12(1):311-330.
- Moreira BCM, Fernandes DA, Dias Junior CM 2017 . Análise do aglomerado produtivo das indústrias têxteis do município de Formiga (MG . Na Revista Brasileira de Gestão e Desenvolvimento Regional, Taubaté, SP, Brasil, 13(2):3-25.
- Moreira SB 2013 . Sobre a medição da componente ambiental do desenvolvimento: principais abordagens e indicadores. Desenvolvimento e Meio Ambiente, UFPR, 27:121-132.
- Parr JB 2002 . Agglomeration economies: ambiguities and confusions. No Environment and Planning A, 34:717-731.
- Pereira MS, Sauer L, Fagundes MBB 2016 . Mensurando a sustentabilidade ambiental: uma proposta de índice para o Mato Grosso do Sul. Interações, Campo Grande, MS, 17(2):327-338.
- Porter ME 1998 . Clusters and the new economics of competition. No Harvard Business Review, Cambridge, 76(6):77-90.
- Reed MS, Fraser EDG, Dougill AJ 2006 . An adaptive learning process for developing and applying sustainability indicators with local communities. No Ecological Economics, 59:406-418.
- Santana MPL 2015 . Instrumentos de avaliação da sustentabilidade do turismo: uma análise crítica de indicadores propostos para destinos turísticos de diferentes regiões do Brasil. Dissertação de mestrado em Metrologia para a Qualidade e Inovação, Pontifícia Universidade Católica do Rio de Janeiro.
- Serviço Brasileiro de Apoio às Micro e Pequenas Empresas 2008 . Cadeia produtiva do turismo: cenários econômicos e estudos setoriais. SEBRAE. Recife, PE.
- Tatsch AL, Ruffoni J, Batisti VS, Roxo LAT 2015 . Análise de políticas para aglomerações no Brasil e em países europeus selecionados. Planejamento e Políticas Públicas PPP, (44):189-228.
- United Nations 2016 . Resolution adopted by the General Assembly on 22 December 2015 - A/RES/70/193. International Year of Sustainable Tourism for Development, 2017. NY, 9.
- Van Bellen HM 2002 . Indicadores de sustentabilidade: uma análise comparativa. Tese (Doutorado em Engenharia de Produção) - Universidade Federal de Santa Catarina, Santa Catarina, 235p.
- Van Bellen HM 2006 . Indicadores de sustentabilidade: uma análise comparativa. 2a ed. Ed. FGV. Rio de Janeiro.
- Vergara SC 2003 . Projetos e relatórios de pesquisa em administração. 4a ed. Atlas. São Paulo.
- World Tourism Organization 2004 . Indicators of sustainable development for tourism destinations: a guidebook. UNWTO. Madrid.
- World Tourism Organization 2016 . Tourism highlights. eISBN: 978-92-844-1814-5. Disponível em: <http://www.e-unwto.org/doi/book/10.18111/9789284418145>. Consultado em: 25/09/2016.
- World Tourism Organization 2003 . Guia de desenvolvimento do turismo sustentável. Bookman. Porto Alegre.

\*\*\*\*\*