

**INTERDISCIPLINARY DOCTORAL SCHOOL**

**Faculty of Food and Tourism**

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**” OPTIMIZATION OF MANAGEMENT AND  
TECHNICAL INDICATORS IN TOURISM  
INDUSTRY AND THEIR IMPACT ON  
SUSTAINABLE TOURISM IN THE AREA OF  
RIOBAMBA, CHIMBORAZO PROVINCE,  
ECUADOR”**

**SUMMARY**

**Scientific supervisor  
Prof.Dr. Romulus GRUIA**

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◆ **Doctoral field: ENGINEERING AND MANAGEMENT**

To Mrs/Mr .....

**Reviewing board of the doctoral thesis**

Enforced by the Decision of the Rector of the Transilvania University of Braşov

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Date, time and place of the public defence of the doctoral thesis:

Tuesday 6 June 2023, online, 15.00 (Romanian time; time difference 8 hours from Ecuador), at  
Transilvania University of Brasov / Corp R, room R.II.6

Please send us, in time, your eventual comments, appreciations or observations on the content of this  
thesis, by mail on the following address : [ecotec@unitbv.ro](mailto:ecotec@unitbv.ro)

Also, we would like to invite you to take part in the public session of the thesis' defense.

*Thank you!*

## Introduction

"For decades, tourism has experienced continuous rising and deep diversification, becoming one of the fastest growing economic sectors in the world. World tourism is closely linked to development and a increasing number of new destinations are entering it. This dynamic has made tourism a key driver of socioeconomic progress" (UNWTO, 2018)

Tourism is an activity that unquestionably moves various sectors of the world economy. International tourist arrivals in the world grew by 4.3% in 2014 to reach 1,133 million to date, speaking of a pre-COVID -19 reality (UNWTO, 2018). Therefore, it must be considered as a relevant and necessary industry when establishing policies will at a global and local level (Monfort Mir. 2000). In this sense, tourism will always be subject to market trends and that is why it has been developing various modalities over time, depending directly on the world situation and the preferences and motivations of demand (MINTUR, 2019)

That is why sustainability appears as an inescapable premise that has ceased to be voluntary as of the end of the 70's, where it began its heyday due to global concern about pollution (Sánchez, 2019), resource depletion, human overpopulation and climate change. Thanks to decades of research, it has been shown that sustainability, in every industry and at all levels, must necessarily be integral in its execution (Jiménez, 2010), since if only one of its areas is omitted, we would not be sincere with real sustainability for future generations. Traditionally, there was talk of three areas of sustainability which are the Economy (Spangenberg, 2005), the Environment and the Society; but the existence and complementarity of the Cultural, Political-Institutional (FAO, 2014) and Technological sectors have been verified, which incidentally for many is only a transversal axis.

All this current that, fortunately, has become a mandatory practice of its own free will, has developed in Latin America since the late 70's, consolidating itself with events of global relevance such as the Brundtland 1987 report, Ramsar 1991, the Summit de Rio 1992, The 1992 Convention on Biological Diversity, among others. As you can imagine, Ecuador, a follower of international guidelines, has faithfully reflected in its state policies some norms and strategies born of these global agreements for the protection of natural and cultural heritage (MAE, 2008). In addition, he definitely recognized the need to establish a conscious and responsible tourism through the application of sustainability in the industry (Monge & Yague, 2016)

Within this panorama, the availability of indicators in any field has demonstrated its effectiveness and proximity to solving problems in all fields (OMT – Spain, 2005). Therefore, its importance in decision-making at the level of tourism administration and operation is emphasized (Hernández et al. 2020), since it is proven that, without this information, the activity would be walking blindly and could not make a real diagnosis of its management and therefore there would be no certainty of the needs for improvement and of what elements to attack to optimize the use of resources in tourism. Despite having developed several academic studies on the system of indicators (Miller. 2001), the issue is still in force because it is able to consolidate a System of general and effective application that parameterizes Sustainability.

There are several institutions with a proven track record, which have created very valid indicator systems when measuring the real situation of tourism sustainability in different geographical areas.

This is the case of ECLAC, UNWTO, Indicators of the Spanish government, Indicators of the Bolivian government and those adapted by Ecuador through MINTUR. All have shown that when these variables and their values are considered, decisions at the national level can be directed towards an optimization strategy for tourism management. It is eminent to mention that they are indicators that are in a constant construction always in the search for integrality to guarantee a real sustainability of tourism management (Vásquez, 2017).

Despite this dynamic, it can be mentioned that, at a global, regional and local level, relevant planning activity through identifying technical factors as work with a system of indicators to optimize the management and operation since public, private and communitarian sectors, have been carried out. The latter especially in Latin America and Ecuador due to their geographical and cultural reality (Mullo & Padilla, 2010)

In this context, the reality and characteristics of Riobamba make it a city of paso (Rosero, 2019), but with a lot of potential to develop, diversifying the offer is necessary by incorporating all the 11 parishes of the canton possessing natural and cultural tourist attractions. Several actions have been taking place in these local governments (GADMR, 2006), however, at a slow pace and often constitute isolated efforts without coordination at the cantonal level. That is why the present study first proposes to develop this system of indicators at the level of the city of Riobamba as a cantonal head so that efforts can be coordinated from here that can integrate the studies carried out in all the cantons of Riobamba.

Riobamba is not the exception in this slow dynamic of tourism management, for them the prompt coordination of the three sectors is necessary to understand that the tourism industry is a business that must be taken seriously and therefore requires that its human capital be trained and train in technical tools that achieve continuous improvement, especially in the quality of service provision and, if possible, constant innovation not only at the technological level but also in the application of good tourism practices that lead to the sustainability of the activity to ensure effective asset management. To achieve the aforementioned, it is proposed to institutionalize a Tourism Observatory (Godínez, 2014) at the provincial level and update it periodically with data that is eminently necessary on Supply and Demand that guide improvement strategies (Molina & Báez, 2017), investment and generation of inclusive public policies for tourism in Riobamba.

### **The purpose and objectives of the research**

**The general purpose** of this thesis refers to the optimization of quantified management through specific indicators and factors of sustainable tourism, based on the acquisition of versatile and integrated skills in the tourism industry (Ritter, 2004). **The main objective** is to study the Riobamba tourist destination, proposing an objectified analysis by highlighting and quantifying some sustainability parameters in relation to the applied management. **An adjacent objective** is to highlight the managerial framework needed to implement and implement optimized programs and strategies such as economic efficiency and systemic effectiveness. The studies take into account the principles and specificity of sustainable tourism, being essentially the cumulative result of the research carried out, according to the following scheme:



*This pillars are explained in section Methodological approach of thesis research.*

To achieve the general purpose of the paper, the following major objectives were identified:

OM.1: Know the theoretical basis to highlight the relationship between sustainability and tourism activity that support the methods and techniques for optimizing management in sustainable tourism;

OM.2: Diagnoses the sustainable management in the case of tour-operators and tourism agents - premises, problems, responsibilities in relation to activity quality and environment;

OM.3: Describe the principles and concrete approach of sustainable management, with highlight of optimization methods and application possibilities in Ecuador;

OM.4: Analyze the components of sustainable tourism in relation to the economic-social, environmental, political and cultural reality of Riobamba to identify the indicators which allow the development of a management strategy that generates sustainable tourism in the area;

OM.5: Analyze cultural and political indicators in order to highlight the opinion of social groups such as tourism service providers, tourists and authorities to develop a management strategy which generates sustainable tourism in the Riobamba area.

OM. 6: Propose the implementation of some policies that ensure compliance with a responsible tourism activity (Krippendorf, 1991) within a sustainable model in all areas and that as a consequence can boost the local economy and, in the future, improve the quality of life of its inhabitants

OM. 7: Achieve the action strategy to implement the sustainable tourism policy in the Riobamba tourist destination, through generalizing the application of optimized management methods.

## **Structure of the thesys**

**Optimization of management and technical indicators in tourism industry and their impact on sustainable tourism in the area of Riobamba, Chimborazo province, ECUADOR™**

**Legend**  
 S.T. = Sustainable Tourism  
 S.D. = Sustainable Development  
 T.I. = Tourism Industry  
 C = Chapters (the title of the research performed)

**Keywords:**  
 tourism, management, sustainability

**Part I :**  
 THE GENERAL FRAMEWORK OF SUSTAINABLE TOURISM  
 - THEORETICAL FOUNDATION AND ELABORATED STUDIES  
 (C1+C2+C3)

**Chapter 1 -** Study concerning the application of S.D. concepts in T.I.

**Chapter 2 -** The current state of the T.I. and related management techniques, in relation to the challenges of the 21st century

**Chapter 3 -** Aspects of applying sustainability principles in tourism techniques and management in Ecuador

**BASE Pillar**

Theoretical consolidation of engineering and management in S.T. through competencies of:  
 - geotourism level  
 - macroeconomic level  
 - microeconomic level

**Part II :**  
 OWN RESEARCH - ON OPTIMIZATION MANAGERIAL AND TECHNICAL ACTIVITY ON THE LINE OF S.D. IN THE T.I. (C4+C5+C6+C7)

**Chapter 4 -** Research methods on management in T.I. with focus on sustainability process adapted to the specificity of tourist destinations

**Chapter 5 -** Indicators of S.D. as a methodology in the managerial improvement of tourism in the Riobamba area

**Chapter 6 -** Research on the established principles and norms regarding the implementation of the S.D. policy in the reference tourist destinations with case study of the Riobamba area

**Chapter 7 -** Elaboration of a strategy for the realization of the optimized objectives and managerial actions, pre-established through the policy of S.T. development in the Riobamba area



**Pillar A**

strengthens the competences regarding the optimization of the tourist destination in the direction of sustainability

**Pillar B**

develops analysis and calculation skills to quantify specific parameters in S.T.

**Pillar C**

strengthens competencies regarding the implementation of S.D. policy and programs of tourist

**Pillar D**

develops skills in developing appropriate strategies for applying techniques and optimized management in T.S.



**PURPOSE OF DOCTORAL TRAINING:**

Acquisition of polyvalent and integrated skills in T.Ind., taking into account the tourist destination and sustainability parameters in relation to applied management, skills that make it possible to implement programs and strategies optimized as economic efficiency and systemic effectiveness of S.T., which are essentially the cumulative result of the research carried out as follows:

**Basic pillar + Special pillars (A + B + C + D)**

**BLOCK DIAGRAM OF THE DOCTORAL THESIS**

## Research methodology

### Methodological approach of thesis research

Through the exhaustive analysis of the old theory versus the holistic approach to Sustainability, key meanings are extracted about the need for the comprehensiveness of all areas of sustainable development, with a view to establishing strategies that optimize the management of the tourism industry of a territory. As can be seen from the block diagram of the thesis, the research strategy is based on the adoption of a managerial, technical, economic and inclusive position in the interpretation of the contents consulted as secondary data and, above all, of the data collected in field that helped to establish the resulting conclusions and recommendations.

The base pillars are Theoretical consolidation of engineering and management in Sustainable Tourism through competencies of:

- Geotourism level
- Macroeconomica level
- Microeconomic level

All of those pillars open an analysis about special pillars:

- A. Strengthens the competences regarding the optimization of the tourist destination in the direction of the Sustainability.
- B. Develops analysis and calculation skills to quantify specific parameters in Sustainable Tourism.
- C. Strengthens competencies regarding the implementation of Sustainable Development policy and programs of tourist destination.
- D. Develops skills in developing appropriate strategies for applying techniques and optimized management in Tourism Sustainable.

Since the subject of sustainable development has suffered approximately two decades of misinterpretation in Latin America, the first part of the thesis is dedicated to breaking down the term in a diachronic way and from different perspectives since it was assumed that Sustainability could be dismembered in Economics, sometimes in Environmental and in others only in the social field. In addition, it was noted that the operationalization of the term was voluntary because it was considered a waste of resources. Therefore, the second part of the thesis focuses on determining within the integral vision of *five* sustainability pillars the importance of considering them all, adapting them to the current reality of the tourism industry and applying them through the collection of real indicators in the Riobamba area, a small town in Ecuador whose tourist potential is undeniable, but which has not been able to diversify its offer due to lack of technical decision tools. That is why at the end of the research It proposes the formulation of strategies and policies that contribute to optimizing the tourism operation and administration of all its stakeholders.

The applicative part of the thesis consists of the analysis of the results of the implementation of some management methods and techniques adapted to the tourism industry, especially in the determination of systems of sustainability indicators that gave rise to repositories of tourism indicators at the level. global, regional and localized (Guégnard, 2004). The secondary data sources used were websites of public institutions and NGOs whose track record is proven and reliable. Likewise, some publications and related reports made in European and American countries were also analyzed, also highlighting a previous investigation carried out by the academy and the municipality

of Riobamba. The primary data resulted from the application of questionnaires in opinion surveys among tourists, tourist service providers and authorities of the tourist destination Riobamba.

The methodological framework, elaborated after long analyzes with the doctoral supervisor professor, is presented in the THESIS BLOCKS SCHEME, through the principles, methods, models, tools and concepts used, contributes to the investigation of the main problems of the sustainable management of tourist destinations and tourist service providers and the creation of viable proposals that provide solutions to urgent problems of the industry, so it is considered necessary to discuss and clarify the following particularities:

- The theories recognized as scientific in the literature on sustainable development of tourism, the same that come from original concepts presented from an ancient juncture that has had to adapt to current circumstances, focus on giving them a practical understanding for public administration processes, private and community in the Ecuadorian case.
- The methodological framework offers the possibility of developing a connection between Development theory, integral sustainability theory, indicator systems, tourism quality management systems and continuous improvement, and the possibility that the statistics generated influence the generation of public policies for the side and development of inclusive tourist destinations, in order to support a more responsible decision-making process based on updated and real data.
- The key role played by all those involved in the tourism industry is highlighted, starting from the demand (tourist) to all local entrepreneurs that are part of the tourism value chain with the offer of different services. Emphasizing their attitude, training and predisposition to venture into a philosophy of sustainable tourism for the continuous improvement of the service (Descy & Tessaring, 2001).
- The basic importance of understanding and having an updated, reliable and institutionalized system of indicators that is the platform for an effective public administration through policies established based on this data.

In short and finally it develops a strategy that optimizes management actions based on local data through the policy of Sustainable Tourism in Riobamba area.

## **RESULTS**

After thoroughly investigating, analyzing and discussing all the theoretical information on the foundations of Development, Sustainability, the conjunction of these two, Sustainable Tourism, various foundations of the Industry and its relationship with all these terms, an understanding was reached. wide panorama of Tourism at a global, American and European level, to contrast it with Ecuador and the study territory located in the town of Riobamba.

At the end of this entire process, the data obtained specifically on the compilation of tourism sustainability indicators for Riobamba is presented below, accompanied by some suggestions for improvement in the management of the territory. Next is the analysis of the legal framework of Ecuador based on several international normative guides and whose context is the province of Chimborazo where the canton of Riobamba is located and ends with the suggestion of a strategy to optimize tourism management for Riobamba, which consequently brings together a series of tools of proven success in other case studies with a reality very similar to that of the study territory.



We can approach as much as possible the managerial methodology necessary for the real development of sustainable tourism, only if the versatility of the domain and the determination of indicators based on mathematical and computer models are considered.

In this context, the objectives of the study are related to the component analysis of the tourism field in relation to the economic-social, environmental, political and cultural realities of a given area (Järvelä, 2008), as well as the identification of indicators that can objectify the assessment and management of the sustainable development of the tourism industry, with a case study related to the Riobamba area (Ecuador).

The indicators will be analyzed and highlighted by economic and geographical groups, with the stated purpose of developing a management strategy capable of generating sustainable tourism in the Riobamba area. By the way, Riobamba is made up of 5 urban parishes that were taken for study and 11 rural parishes where tourist activity is developed complementary or incipiently (Annex 1 and Annex 2).

Indicators of tourism sustainability of Riobamba are related primarily to the geographical and demographic area of the area, as can be seen from fig.4.1 and from table 4.1.

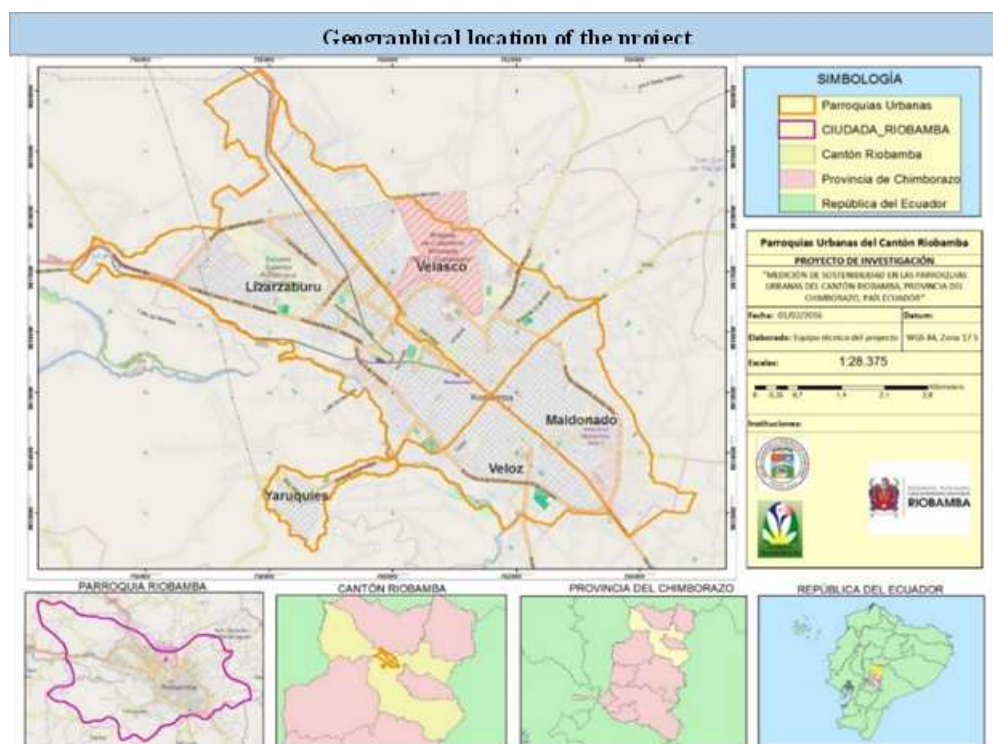


Fig. Nr.4.1: Location Map Riobamba  
Source: GADM Riobamba, 2018

## Results and discussions

### Analysis of indicators with applicability in the development of sustainable tourism

#### Economic area

a. Information analyzed to determine a list of economic indicators for Riobamba  
Considering that tourism is the third income of non-oil currencies of Ecuador (Plan de Desarrollo Turístico: PLANDETUR 2020), it is crucial to determine as the first field of tourism sustainability the economy, since national planning depends on it, the sources

of employment, the equitable distribution of the resource (Plan Nacional Toda una vida 2017-2021), the provision of basic services, the construction of tourist and social facilities and human well-being in the country (PROGRAMA NACIONAL PARA LA EXELENIA TURÍSTICA- ECUADOR, 2014 -2017).

Below, the secondary sources analyzed are detailed to subsequently establish a list of economic indicators that influence the economy of the city of Riobamba, whose case study is developed, from this section, in all areas of tourism sustainability.

#### b. Sustainable Tourism Indicators System of Bolivia

Once it has been determined that the Indicators System of the Vice Ministry of Bolivia is a feasible list to be applied in Riobamba, this information is screened to be able to choose the indicators adaptable to the tourist reality of the city.

#### **We mention the calculation formulas used in the specific analyzes of the research carried out in the doctoral thesis.**

Total number of tourists who arrived in the area, the data must be official and current. The sample is calculated using the mathematical formula:

$$n = \frac{p \cdot q \cdot N}{(N-1) \left( \frac{e^2}{z^2} \right) + p \cdot q}$$

For the projection of demand and supply the compound increase formula was applied.

$$Co = Cn (1+i)^n$$

Where:

Co= Year to project

Cn= Current demand: domestic and foreign tourists

I = Increase in national and international tourism

N = The year to be projected

To determine the tourist profile, the segment data with which you want to work is used if it is a local, national or foreign segment or with all three, the source of information must be official and current, the sample is calculated with the following formula Mathematics for finite populations:

$$n = \frac{N \cdot (p \cdot q)}{(N-1) \left( \frac{e}{k} \right)^2 + (p \cdot q)}$$

Where:

N = universe

n = sample size

p = probability of success = 0.5

q = probability of failure = 0.5

p.q = probability of occurrence, phenomenon = 0.25

e = margin of error + -8%

k = correction constant = 2

The sample is determined by the following mathematical formula for finite populations that determines the number of applicable surveys.

$$n = \frac{N(p \cdot q)}{(N-1) \left( \frac{e}{z} \right)^2 + (p \cdot q)}$$

For ease of understanding, the different strategies have been grouped in different work areas of the Riobamba destination:

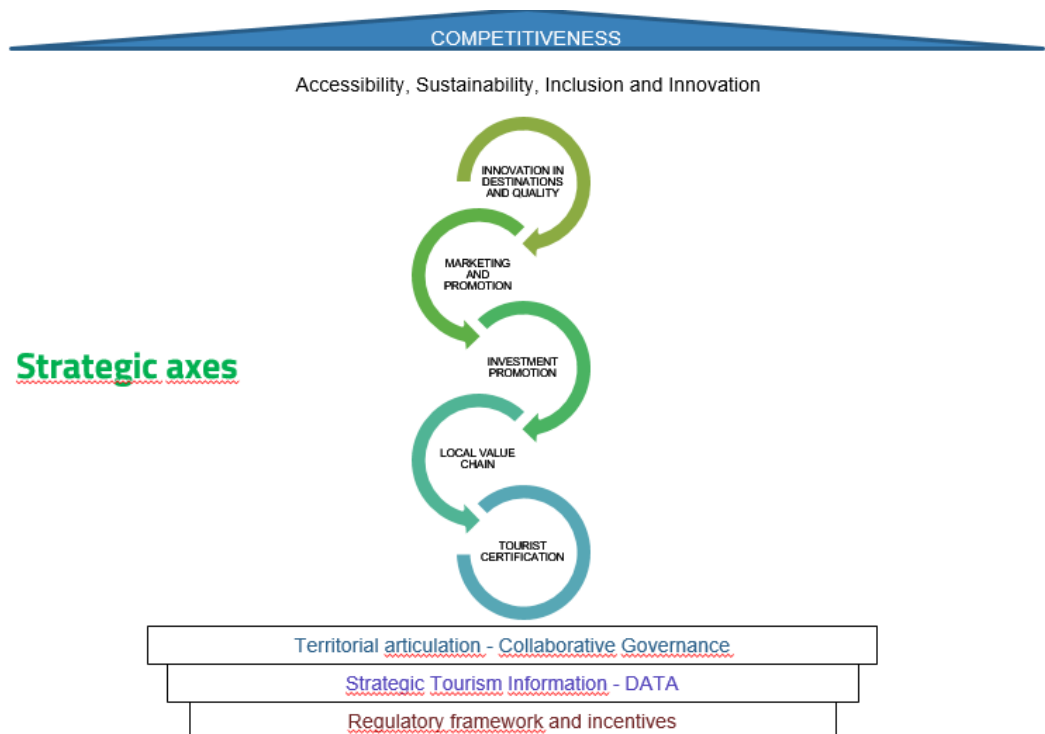


Fig. Nr.7.4: Strategic axes

### Sustainable tourism indicators collected in Riobamba validated to 2018

Once analyzed the secondary sources considered realities similar to Riobamba, the list of indicators of Bolivia (Vice Ministry of Tourism, Bolivia and WTO, 2005) and the own Ecuador-Tourism Development Plan-PLANDETUR 2020 (Ministry of Tourism of Ecuador, 2007), the survey and evaluation of sustainable tourism indicators was carried out with the information validated by the technicians of the Tourism Directorate (DITUR) of the Municipal Decentralized Autonomous Government of the city of Riobamba (GADMR), which are detailed in Basic Subjects as: Effects of tourism in the community.

**THEORETICAL REVIEW OF GLOBAL INDICATOR SYSTEMS**

AREAS	BASIC ISSUES	SOURCE / NUMBER OF INDICATORS
ECONOMIC	<ul style="list-style-type: none"> <li>- Satisfaction residents with tourism</li> <li>- Effects of tourism in the community</li> <li>- Maintenance of the satisfaction of tourists</li> <li>- Seasonality of tourism</li> <li>- Economic benefits of tourism</li> <li>- Energy management</li> <li>- Water availability and conservation</li> <li>- Drinking water quality</li> <li>- Wastewater treatment (wastewater management)</li> <li>- Management of solid waste (garbage)</li> <li>- Control of tourism development</li> <li>- Control of the intensity of use</li> <li>- Governance, Investments and financial Management</li> <li>- Training and qualification</li> <li>- Development of destinations</li> <li>- Tourist Facilitation</li> </ul>	<ul style="list-style-type: none"> <li>• Viceministry of Tourism. Bolivia y World Tourism Organization, 2005: 21</li> <li>• PLANDETUR 2020: 24 indicators</li> </ul>
SOCIAL	<ul style="list-style-type: none"> <li>- Social/Community impact</li> <li>- Health and security</li> <li>- Gender equality</li> <li>- Inclusion and accessibility</li> <li>- Protection and cultural valorization, identity and assets</li> <li>- Risk: social pressure on the local population for tourism</li> <li>- Risk: Occupation of the local population (low season)</li> <li>- Factor: participación of the local community in decisión-making in the tourism development planning process</li> </ul>	<ul style="list-style-type: none"> <li>• European Commission (ETIS, Social and Cultural Impact, 2016): 13 indicators</li> <li>• World Travel Organization, 2000: 10 indicators</li> </ul>

<b>CULTURAL</b>	<ul style="list-style-type: none"> <li>- Ratio between GDP on the culture and communication sector and total GDP</li> <li>- Index of cultural exported products</li> <li>- Price index of cultural products</li> <li>- Ratio between number of cultural workers and active population</li> <li>- Frequency index (attendance) to cultural places</li> <li>- Gender</li> <li>- Tolerance and Communication</li> </ul>	<ul style="list-style-type: none"> <li>• Institute de la Estatistique Québec- Canada. 2006: 14 indicators</li> <li>• Adaptation of MINTUR (2018) from UNESCO, 2006: 29 indicators</li> </ul>
<b>ENVIRONMENTAL</b>	<ul style="list-style-type: none"> <li>- Solid waste production</li> <li>- Daily wáter consumption per person</li> <li>- Application of Good practices in tourist operation</li> <li>- Mobility: air transport</li> <li>- Fuel for tourist activities</li> <li>- Tourist transport to acces destinations</li> <li>- Tourism carbon footprint</li> <li>- Green área per capita</li> </ul>	<ul style="list-style-type: none"> <li>• Adaptation of UNWTO, 2006 by Quito Metropolitan District, 2014: 8 indicators</li> </ul>
<b>INSTITUCIONAL – POLITICAL</b>	<ul style="list-style-type: none"> <li>- Institutionalidad</li> <li>- Governance, promotion and tourism management</li> </ul>	<ul style="list-style-type: none"> <li>• Project form measuring urban sustainability in the city of Riobamba-ESPOCH. 2017: 11 indicators</li> </ul>

<b>TECHNOLOGY</b>	<ul style="list-style-type: none"><li>- Data processing center</li><li>- Backbone – optical fiber</li><li>- use of technologies in public tourism offices,</li><li>- population access to technologies</li><li>- free internet points,</li></ul>	<ul style="list-style-type: none"><li>• CEPAL (2009), Agenda Digital de Panama de la Autoridad Nacional para la Innovación Gubernamental (2016), Agenda Digital de Chile (2016), y la Agenda Digital de Uruguay (2015).</li></ul>
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**SUSTAINABLE TOURISM INDICATOR SYSTEM COLLECTED IN RIOBAMBA**

AREAS	BASIC ISSUES	RIOBAMBA INDICATORS					OBSERVATION
ECONOMIC	<ul style="list-style-type: none"> <li>- Effects of tourism in the community</li> <li>- Maintenance of satisfaction of tourist</li> <li>- Economic benefits of tourism</li> <li>- Tourism development control</li> </ul>	<i>Code</i>	<i>Data</i>	<i>Unit</i>	<i>Amount</i>	<i>Source</i>	<ul style="list-style-type: none"> <li>• Adapted from VMB (2015), PLANDETUR 2020 and GADMR (2017) and data collected through surveys and public institutions.</li> <li>• INDICATORS OBTAINED FOR RIOBAMBA: 26 indicators</li> </ul>
		SV015	Number of establishments and tourist places that have police surveillance	Tourist establishment and places	400 registered places (2 protected areas with fixed surveillance un the urban area)	INEC, GADPCh, GADM (2010). Hosting Service Providers, MAE, Sangay National Park (2017)	
SOCIAL	<ul style="list-style-type: none"> <li>- Employment</li> <li>- Social level</li> <li>- Local labor</li> <li>- Gender</li> <li>- Training</li> <li>- Labor law</li> <li>- Underemployment</li> </ul>	<i>Code</i>	<i>Data</i>	<i>Unit</i>	<i>Amount</i>	<i>Source</i>	<ul style="list-style-type: none"> <li>• Adapted from European Commission (ETIS, Social and Cultural Impact, 2016) and WTO, 2000.</li> <li>• INDICATORS OBTAINED FOR RIOBAMBA: 9 indicators</li> </ul>
		ISTR02	Percentage of local labor in tourism business	Percentage /100%	Local: 95,7% External: 4,3%	Fieldwork and GADMR (2017)	

AREAS	BASIC ISSUES	RIOBAMBA INDICATORS					OBSERVATION
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ENVIRONMENTAL	<ul style="list-style-type: none"> <li>- Clean energies</li> <li>- Management policies</li> </ul>	<i>Code</i>	<i>Data</i>	<i>Unit</i>	<i>Amount</i>	<i>Source</i>	<ul style="list-style-type: none"> <li>• Taken from the adaptation of UNWTO, 2006 by Quito Metropolitan District, 2014:</li> <li>• <b>INDICATORS OBTAINED FOR RIOBAMBA: 8 indicators</b></li> </ul>
		IATSR 02	Number of hotel establishments by use of water saving device	Number of hotels	Low consumption tank: 16 (34.04%) Washing machines with reduced water cycle: 7 (14.89%) Saving taps: 7 (14.89%) Saving showers: 8 (17.02%) Double discharge toilets: 9 (19.15%)	Fieldwork (2018)	
CULTURAL	<ul style="list-style-type: none"> <li>- Economy</li> <li>- Gender</li> <li>- Tolerance</li> <li>- Communication</li> <li>- Governance</li> <li>- Tourism</li> <li>- Heritage</li> </ul>	<i>Code</i>	<i>Data</i>	<i>Unit</i>	<i>Amount</i>	<i>Source</i>	<ul style="list-style-type: none"> <li>• Institute de la Estatistique Québec-Canada. 2006</li> <li>• Adaptation of MINTUR (2018) from UNESCO, 2006</li> <li>• <b>INDICATORS OBTAINED FOR RIOBAMBA: 9</b></li> </ul>
		ICR-GTC 04	Number of cultural institutions in the city of Riobamba	Number of institutions	5 (GADMR, local TV channels: TVS and ECUAVISION, Tricolor Radio, Casa	Fieldwork	



					de la Cultura		indicators
INSTITUTIONAL-POLITICS	<ul style="list-style-type: none"> <li>- Human Resources</li> <li>- Normative</li> <li>- Public policies</li> </ul>	<i>Code</i>	<i>Data</i>	<i>Unit</i>	<i>Amount</i>	<i>Source</i>	<ul style="list-style-type: none"> <li>• Project form measuring urban sustainability in the city of Riobamba-ESPOCH. 2017</li> <li>• <b>INDICATORS OBTAINED FOR RIOBAMBA: 8 indicators</b></li> </ul>
		IPI-PPC 03	Number of tourism policies developed under consultation with the community and sectors involved	Number of local tourism policies	255 (Management : 50 Tourism development: 20 Heritage: 10 Cadastre: 44 Development of rural tourism; 3	Fieldwork (2019)	
TECHNOLOGY	<ul style="list-style-type: none"> <li>- Data processing center</li> <li>- Backbone – optical fiber</li> <li>- Automated garbage collection system</li> <li>- Ecuador Travel APP System Electronic billing</li> <li>- Video surveillance</li> </ul>	<i>Code</i> IT-TR08	<i>Data</i> Number of citizens who know Ecuador Travel application to use it in Riobamba	<i>Unit</i> Number of citizens	<i>Amount</i> Veloz: YES: 20 % NO: 80% Maldonado: YES: 9.5% - NO: 95% Velasco: YES: 10.1% - NO: 89.9% Lizarzaburu: YES: 12.4 % -	<i>Source</i> Field work	<ul style="list-style-type: none"> <li>• Adapted from CEPAL (2009), Agenda Digital de Panama de la Autoridad Nacional para la Innovación Gubernamental (2016), Agenda Digital de Chile (2016), y la Agenda Digital de Uruguay (2015).</li> <li>• <b>INDICATORS</b></li> </ul>

	<p>cameras connected to the ECU911</p> <ul style="list-style-type: none"><li>- Internet access at home</li><li>- Smartphones</li><li>- Data plans</li></ul>				<p>NO: 87.6%</p> <p>Yaruquíes:</p> <p>YES: 4.2%</p> <p>NO: 95.8%</p>		<p><b>OBTAINED FOR</b></p> <p><b>RIOBAMBA: 18</b></p> <p><b>indicators</b></p>
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## Competences and obligations of the Cantonal Autonomous Decentralized Governments (GADs) according to the National Law Organic Code of Autonomy and Decentralization (COOTAD)

According to COOTAD published in the Official Gazette Supplement 303 of October 19, 2010 In force and approved by the Executive Branch of the Presidency of Ecuador, Official Letter No. T.4570- S / n. 1-10-1516 Quito, October 11 of 2010. By order of the Constitutional President of the Republic, in accordance with the provisions of article 138 of the Constitution of the Republic, in accordance with article 64 of the Organic Law of the Legislative Function.

It explains about the way that Ecuador organizes its territory in TITLE II ORGANIZATION OF THE TERRITORY Art. 10.- Levels of territorial organization. - The Ecuadorian State is organized territorially in regions, provinces, cantons and rural parishes. Within the framework of this territorial organization, for reasons of environmental, ethnic, cultural and population conservation, special government regimes may be established: metropolitan districts, territorial districts of indigenous, Afro-Ecuadorian and Montubian peoples and nationalities, and the governing council of the Galapagos province.

Within this topic, Chapter III also specifically mentions the Cantons in its Art. 20.- Cantons. - The cantons are territorial circumscriptions made up of rural parishes and the cantonal head with its urban parishes, indicated in their respective COOTAD law.

And following these antecedents, what is expressed in the law on AUTONOMOUS GOVERNMENT POWERS FOR THE DEVELOPMENT OF TOURIST ACTIVITIES through Resolution of the Official Registry Supplement 718 of 23-Mar.-2016 In force No. 0001-CNC-2016 NATIONAL COUNCIL OF COMPETENCES: it is specified which ones are the obligations of the cantons in tourism matters: specific case of Riobamba, which is a canton:

### *Section II AUTONOMOUS DECENTRALIZED MUNICIPAL AND METROPOLITAN GOVERNMENTS*

**Art. 9.-** Powers of the autonomous decentralized municipal and metropolitan governments. - Development of tourist activities, the exercise of the powers of cantonal planning, cantonal regulation, cantonal control and cantonal management, in the terms established in this resolution and the current national regulations.

**Art. 10.- Cantonal planning.** - The following planning powers: 1. Prepare plans, programs and tourism projects of a cantonal nature, subject to the national planning of the tourism sector approved by the National Tourism Authority. 2. Formulate the cantonal tourism plan, which is subject to the national planning of the tourism sector. 3. The others that are established in the law and current national regulations.

**Art. 11.- Cantonal regulation.** - Subject to current national regulations, the following regulatory powers: 1. Issue cantonal ordinances and resolutions that contribute to the strengthening and development of tourism, in accordance with the national planning of the tourism sector, current national regulations and public policies issued by the National Tourism Authority. 2. Regulate the operating hours of tourist establishments, in coordination with the Competent National Authority. 3. Regulate the development of the cantonal tourism sector in coordination with the other decentralized autonomous governments, especially promoting the creation and operation of associative and community tourism organizations, in accordance with current regulations. 4. Others that are established in the law and current national regulations.

**Art. 12.- Cantonal control.** - The following control powers:

1. Check that tourist establishments comply with current national and cantonal regulations.
2. Control tourist activities in municipal or metropolitan conservation and sustainable use areas, in coordination with the competent national entities.
3. Establish tourist protection mechanisms within its territorial constituency.
4. Grant and renew the single annual operating license, based on the requirements and standards established by the National Tourism Authority.
5. Control and monitor the provision of tourism activities and services that have obtained the sole annual operating license, without this implying categorization or re-categorization, in accordance with the regulations issued by the National Tourism Authority.
6. Apply the corresponding sanctions for non-compliance with the single annual operating license and the requirements for obtaining it, following due process and in accordance with current regulations.
7. Others that are established in the law and current national regulations.

**Art. 13.- Cantonal management.** - The following management attributions:

1. Promote the development of cantonal tourism activity in coordination with the other decentralized autonomous governments, especially promoting the creation and operation of associative organizations and community tourism companies, in accordance with current regulations.
2. Update the registry of tourist establishments in the canton, in accordance with current national regulations.
3. Prepare and update the inventory of tourist attractions in their constituency, in accordance with the regulations issued by the National Tourism Authority.
4. Update and provide adequate maintenance to the tourist signs, as well as the tourist signs of the canton.
5. Promote citizen awareness campaigns that generate a culture about the importance of tourism.
6. Collect the amounts for the imposition of sanctions for non-compliance with the single annual operating license and the requirements for obtaining it.
7. Development of tourist products or destinations that enable joint promotion and access to new markets in coordination with other levels of government.
8. Prepare and disseminate promotional and informational material for cantonal tourism.
9. Provide technical assistance and training to providers of tourist services in the canton, within the framework of national regulations.
10. Coordinate tourism welfare mechanisms with the different levels of government, as well as with the competent national entities.

11. Receive, manage, substantiate the processes of complaints made by different tourists, regarding the services received, and report them quarterly to the National Tourism Authority.
12. Carry out and support fairs, exhibitions, exhibitions, congresses and other promotional activities for tourism in accordance with the guidelines of the National Tourism Authority.
13. Participate in the preparation of cantonal tourism statistics, in accordance with the conditions established by the National Tourism Authority.
14. Promote cantonal tourism projects that are in accordance with current legislation.
15. Provide facilities in the sites identified as tourist, in coordination with the National Tourism Authority and the provincial decentralized autonomous governments.
16. Others that are established in the law and current national regulations.

### **Legal framework of tourist ordinances in Riobamba**

All the ordinances in Ecuador have a common legal basis, they start by citing articles of the higher law called the *Constitution of the Republic of Ecuador* which in its article 1 mentions that: "Ecuador is a constitutional state of law and justice, social, democratic, sovereign, independent, unitary, intercultural, plurinational and secular. It is organized in the form of a Republic and is governed in a decentralized manner (...)" ;

The following articles are cited: 3 numerals 7), article 14, article 66 numeral 29, article 82, article 83 numeral 13, article 226, article 238, article 240, article 264 numeral 8, article 276 numeral 7, article 377, in general, they refer to the fact that the Ecuadorian state guarantees its population to live in a healthy environment, legal security, take care of the natural and cultural heritage, the recognition of the GADs.

Likewise, they are protected by some articles of the *COOTAD law*, beginning with its article 54 letter g) which states that it regulates, controls and promotes the development of cantonal tourism activity, in coordination with the other decentralized autonomous governments, especially promoting the creation and operation of associated organizations and community tourism companies. Additional cites the following articles of this same law: at the end of article 135, article 144 and article 498 that refer to the recognition of tourism as a productive activity that can be managed by the different levels of government, the conservation and dissemination of cultural heritage and the reduction of up to 50% in tax values to be paid to those who dedicate themselves to tourism.

Naturally, it mentions the *Ecuadorian Tourism Law*, which in its article 16 establishes: "It will be the exclusive competence of the Ministry of Tourism, in coordination with the sectional bodies, the regulation at the national level, planning, international promotion, facilitation, statistical information and control of tourism, as well as control of tourist activities, in the terms of this law". And it continues with article 2 letter d), article 6 of the General Regulations to the Tourism Law that speaks of the exclusivity of this ministry to plan tourism as a tool for sustainable development in the country.

And finally, it mentions the *Agreement for the Transfer of Competencies* signed by the Ecuadorian State, MINTUR and the GADM Riobamba on July 19, 2001, which determines that: "This agreement is intended to transfer from MINTUR to the Municipality the powers of planning, promoting, to encourage and facilitate the organization, operation and competitiveness

of the cantonal tourist activity and of the establishments that provide services in tourist activities. These powers are assumed by the municipality and the bodies that are provided by Municipal Ordinance; and the third clause number 1 states: " Issue local ordinances and resolutions that specifically contribute to the strengthening and development (...) "

After analyzing the legal framework that governs tourism in Ecuador, its strategies and the current emerging proposals for the global pandemic situation, it is considered important to present below the local legal framework that governs the tourism industry in the city of Riobamba, basically as it is a small city and due to local competition, according to COOTAD 2010<sup>1</sup>, a series of municipal ordinances are established to govern and control tourist activity within this canton:

Table nr. 6.4: Canton Riobamba Tourist Ordinances

CANTON RIOBAMBA TOURIST ORDINANCES		
Ordinance No. 014-2019 - Aprobado el 8 de mayo de 2019		
Title	Article	Summary
TITLE I	1	<b>Object:</b> plans tourism management with stakeholders and control the quality of tourism activities.
	2	<b>Area of application:</b> Riobamba Canton
	3	<b>Administrative bodies:</b> the application of this ordinance by the General Directorate of Tourism Management with the General Directorate of Police Management and Municipal Control and Municipal Commissioner.
	4	<b>Definitions:</b> resource, activity, system, product, provider, development, tourist, visitor, cadastre, among others.
	5	<b>Purposes:</b> to promote tourism, registration, conservation and promotion of attractions, generates incentive policies.
TITLE II	6	<b>General Directorate of Tourism Management:</b> plans, encourages, promotes and controls tourist activity in Riobamba.
	7	<b>Attributions:</b> Cantonal Tourism Plan, special tourism zones, register and update inventories, tourist calendar, indicators, coordinate with government levels, agreements, technical assistance, promotion, signage, LUAF, cadasters, complaints, fam trips, training.
	8	<b>Cantonal Tourism Board:</b> mechanisms for participation and exchange of experiences of tourism actors.
	9	<b>Members:</b> Mayor, President, Director, representatives of GADPs, GADCs, GADPs, MAE, MINTUR, Chamber of Tourism, Ministry of the Interior, ENFE.
	10	<b>Operation:</b> chaired by the Mayor with a quorum, half plus one of the members will meet bimonthly.
	11	<b>Powers:</b> propose plans and programs and enter into inter-institutional agreements.
	12	<b>Approval minutes:</b> made by the secretary of the cantonal table.
TITLE III TOURIST MANAGEMENT	13	<b>Tourist services:</b> Accommodation, Food and beverages, Tourist operation and intermediation, Tourist transport, Community Tourism Centers, Amusement parks, Other activities.
	14	<b>Hours of operation:</b> for bars, discos, reception rooms, accommodation establishments on national holidays and local commemorative dates and Sundays, emergencies and unforeseen.
	15	<b>Tourists' rights:</b> information, agreed conditions, claims, quality, access to public attractions.
	16	<b>Obligations of tourists:</b> respect for attractions and facilities, comply with regulations, deliver information.
	17	<b>Tourism service provider rights:</b> training, participating in promotion and marketing plans, organizing events, requesting technical consultancy visits, receiving tax incentives.
	18	<b>Obligations of tourist service providers:</b> obtain the UAF, provide tourist services, advertise, guarantee security, good treatment, comply with schedules, allow the entry of technical personnel, guest registration.
STIMULES AND BENEFITS	19	<b>Incentives and benefits:</b> for the development of initiatives related to tourism management.
	20	<b>From the benefit of the tax incentive:</b> new establishments with a total discount in LUAF in the first year of operation.
	21	<b>Requirements:</b> described in article 25.
	22	<b>Of the advertising and training benefit:</b> tourist establishments up-to-date in their obligations receive dissemination of their establishments in advertising media.
	23	<b>Competence:</b> General Directorate of Tourism Management exercises control.
	24	<b>LUAF:</b> It is the authorization for service providers to carry out activities.

LUAF	25	<b>Requirements:</b> tourist registration certificate, RUC or RISE; Municipal license, certificate of being up to date with the GADMR, copy of identity card, Fire Department permit, proof of payment from LUAF, price list of services offered, Health certificate for restaurants, ICUS.
	26	<b>Term:</b> any natural and legal person in 60 days.
	27	<b>Promotional payment:</b> if it does not start the first month of the year, the payment will be proportional.
	28	<b>Validity:</b> until December 31 of each year.
	29	<b>Value:</b> table issued by MINTUR and other regulations in force.
	30	<b>Display:</b> must be visible to the public.
	31	<b>Renewal:</b> until April 30 of each year for natural persons and until May 31 for companies.
	32	<b>Requirements for renewal:</b> certificate of payment, patent, payment to Firefighters, LUAF payment; ARCSA health permit for restaurants, ICUS.
	33	<b>Change of activity, owner or address:</b> as if it were a new establishment, you have 30 days to notify MINTUR and GADMR.
34	<b>Termination of the tourist activity:</b> notify the GADMR and the SRI prior cancellation of their obligations. Submit a written request, single taxpayer registration with closure of activity and termination of tourist activity of MINTUR.	
OF CONTROL	35	<b>Control and surveillance:</b> General Directorate of Tourism controls and monitors the provision of services.
	36	<b>Operations:</b> the Directorate will carry out operations every 3 months or on holidays or in complaints.
	37	<b>Requirements to verify in the operations:</b> The Directorate has the power to enter the registered establishments to verify compliance with each category.
TITLE IV SANCTION	38	<b>Of the instructor body:</b> Municipal Commissioner issues its opinion to the Director of Tourism Management.
	39	<b>Of the sanctioning body:</b> Once the opinion is received, the Director of Tourism Management will observe compliance with legal regulations.
	40	<b>Violation report:</b> the report will attach evidence and return to the Municipal Police Station.
	41	<b>Control:</b> The Directorate in coordination with the Commissioner will carry out the control and monitoring of this ordinance.
INFRINGEMENTS AND SANCTIONS	42	<b>Preventive actions:</b> in charge of the Tourism Development sub-process of the General Directorate of Tourism Management, it may carry out prevention actions with tourism providers before committing offenses.
	43	<b>Infractions:</b> Minor, serious and very serious.
	44	<b>Minor offenses:</b> a fine of 15% of the unified basic remuneration. The causes are: not providing information, not displaying the LUAF, not allowing the entry of technical personnel, not delivering guest registration, receiving more than two warnings.
	45	<b>Serious offenses:</b> fine of 25% of the unified basic remuneration. Not allowing the entry of technical personnel, not obtaining or renewing LUAF, not meeting schedule, false advertising, not providing a good deal, repeating more than two minor offenses.
	46	<b>Very serious offenses:</b> fine of 35% of the unified basic remuneration. Breakage of closure seals, lack of work to the GADMR servants, repeat in more than two serious infractions.
	47	<b>Provisional protection measures and precautionary measures:</b> in the administrative process, provisional and precautionary measures may be issued according to the seriousness of the infraction stipulated in the Organic Administrative Code.
	48	<b>Destination of resources collected:</b> for the Tourism Fund of the General Directorate of Tourism Management (DGGT) of the GADMR.
	49	<b>Coercive:</b> if the fine is not paid within 8 days, the process will be sent to the DGGT to follow the coercive process
GENERAL DISPOSITION	<b>First</b>	Everything that was not provided for in this ordinance shall apply the provisions of COOTAD; Tourism Law and its Regulations, Organic Consumer Law, Code of Ethics for Tourism and other resolutions.
	<b>Second</b>	Tourist establishments that require expansion or modification in infrastructure will abide by Ordinance 013-2017 contained in the Urban Code of the GADMR.
	<b>Third</b>	Providers or tourists may report it, if it is false they will be charged 20% of the unified basic salary.
TRANSITORY DISPOSITIONS	<b>First</b>	The DGGT, within a period of 120 days from this publication in the Official Registry, will prepare a Cantonal Tourism Plan for the Riobamba canton, a calendar of socialization, dissemination and implementation.
	<b>Second</b>	Once this ordinance is issued, the GADM has 90 days to initiate the dissemination and socialization campaign of this ordinance.
REPEAL PROVISION	<b>Unique</b>	All ordinances that are in opposition to this ordinance are hereby repealed.
FINAL DISPOSITION	<b>Unique</b>	This ordinance will be in force as of the publication in the Official Registry, the institutional WEB page and the Municipal Gazette.



Table nr. 6.5: Ordinance No. 018-2020 – Approved on December, 17 of 2020

<b>Ordinance No. 018-2020 - Aprobado el 17 de diciembre de 2020</b>	
<b>THE ORDINANCE THAT REFORMS ORDINANCE No. 014-2019 THAT REGULATES THE PLANNING, PROMOTION, INCENTIVE AND CONTROL OF TOURIST MANAGEMENT IN THE CANTON RIOBAMBA.</b>	
<b>Article</b>	<b>Summary</b>
<b>1</b>	Replace Art. 2 by the following: <i>This ordinance has its scope of application in the territorial district of the Riobamba canton, both in the cantonal head and in its rural parishes.</i>
<b>2</b>	In Art. 5, replace letters a) and d) with the following: <i>a) Promote and encourage all kinds of tourist activities, through the creation of tourist products; implementation and adaptation of infrastructure and; b) For the benefit of the city brand and tourists, generate incentive policies for tourism service providers, and quality policies in the provision of services for the benefit of tourists.</i>
<b>3</b>	In Art. 7, replace the text of letters f), o), and u) as follows: <i>f) Coordinate with the different levels of Government and the private sector, the development, planning and promotion of tourist products or destinations for the strengthening of tourism in the canton, o) Send the corresponding sanction reports to the Municipal Commissioner, in order to collaborate efficiently, when there is an offense committed by the administration, following due process, u) Coordinate the promotion and development of the manifestation of the "Pase del Niño" and any other material and immaterial heritage or attraction with the competent GADMR Units.</i>
<b>4</b>	Include in Article 9 the following letters: <i>l) Representatives of Higher Education Institutions; and m) Representatives of the community sector of the Canton.</i>
<b>5</b>	Replace the first paragraph of article 10) by the following: <i>"The Cantonal Tourism Board, will be chaired by the Mayor of the GADMR, or his delegate; the quorum for the installation of the Cantonal Board will be half plus one of its members"</i>
<b>6</b>	Replace in Art. 14 number 1) of letter b) by the following: <i>b) Bars and discos may operate from 12:00 to 03:00 the next day, complying with current regulations and standards regarding the sale of alcoholic beverages. Include number 4) that says: Reception rooms may work from 7:00 a.m. to 3:00 a.m. the next day, complying with current regulations and standards regarding the sale of alcoholic beverages.</i>
<b>7</b>	Replace the text of letter h) of article 18) by the following: <i>Deliver the guest register digitally weekly, in the format that the General Directorate of Tourism Management provides to accommodation establishments and guarantees the confidentiality of the data delivered.</i>
<b>8</b>	Replace it in Art. 29 with the following text: <i>Of the rate prior to obtaining the LUAF.- Tourism service providers must pay the GADMR an annual value as part of the rate, price to obtain the LUAF, value which will be established by the DGT for each activity, taking into account the provisions of the National Tourism Authority as a basis; The table of values established by the DGGT will be delivered in November of each year to the Financial Management and Information Technology Directorates, for issuance the following year; This table will be approved by the corresponding entities of the GADMR.</i>
<b>9</b>	Add an unnumbered article that says: <i>The tourist service provider may pay the LUAF during the months of January to November as follows: a) Total Payment: knowing the value, you can make a single payment for the total value; b) By installments: the total amount to be paid can be deferred in the number of installments, according to the number of months remaining to end the fiscal period, the value of the installment is the same every month c) in installments: installments to total amount, you will be able to obtain the LUAF when it covers the total amount, without passing the renewal time.</i>
<b>10</b>	Replace it in Art. 31 by the following text: <i>The LUAF must be renewed until the first ten calendar days of December, without any surcharge both for natural persons not obliged to keep accounting and for persons obliged to keep accounting; Once this period has expired, the value of the license will increase, in accordance with the provisions of article 21 of the Tax Code.</i>
<b>11</b>	In Article 32, delete letter a) and replace letters b) and d) with the following texts: <i>b) Municipal license of the immediately previous year; c) Payment of the LUAF fee.</i>
<b>12</b>	Replace letter b) of article 34) by the following: <i>b) Closure of the RUC of the establishment dedicated to tourism.</i>
<b>13</b>	Replace it in Art. 35 by the following text: <i>The DGGT will be in charge of controlling and monitoring the provision of tourist services in the Canton Riobamba, especially for quality improvement purposes. Without this implying categorization, an action that is exclusive and exclusive to the National Tourism Authority.</i>
<b>14</b>	Add to the end of article 36 the following: <i>As a result of the operations of the Tourism department,</i>



	<i>it must present a plan of consultancies and accompaniments to be applied in the three months after the date of the operations, in order to improve quality of the provision of tourist services in the canton. The Plan must cover coordination actions with the other Management Directorates of the GADMR; and other institutions in case of being necessary.</i>
<b>15</b>	<i>Add the following to the end of Art. 37: In the case of establishments that do not meet the requirements, within 7 days of the visit, they must present the discharge evidence or an improvement plan to the Tourism Management Directorate who will communicate the status of the non-compliance and sanctioning process. If they do not comply, they must be reported to the competent National Authority to continue with the re-categorization process.</i>
<b>Add the following TRANSITIONAL PROVISIONS:</b>	
<b>THIRD:</b>	Due to the health emergencies that prevail in the country and the declaration of a state of exception, which has negatively affected the business of tourism companies and their income, consider for the years 2020 as part of the economic reactivation , that the one-time tourist service provider may renew LUAF and pay the value of the rate by deferral from the approval of this reform until December 2021.
<b>FOURTH :</b>	For the renewal and payment of the rate corresponding to the license of the year 2021, a discount of 90% will be made to that issued by the National Tourism Authority and the renewal may be carried out until July 2022; As of that date, Ar. 8 "Renewal of the present Ordinance reform"
<b>FIFTH:</b>	Due to the negative impacts that the tourism sector has had due to the health emergency derived from COVID-19, in 2020 tourism companies that have not obtained the LUAF within the established deadlines will not be subject to sanction or collection of a fine .
<b>SIXTH:</b>	General Secretary of the Council, will be in charge of codifying the reform ordinance 014-2019 that regulates the planning, promotion, incentive and control of tourism management in the Riobamba canton, to have the codified ordinance.
<b>STATEMENT OF MOTIVES</b>	
<p>According to data from MINTUR, the tourism sector has great economic consequences due to the health emergency caused by COVID-19. In the month of March, it was estimated that the main characteristic activities of tourism would cease to receive directly between 380 and 418 million dollars, with an average daily loss of between 12 and 14 million dollars.</p> <p>Riobamba also within the tourism sector; Its cadastre has been affected with greater economic loss within this Covid-19 crisis in the confinement stage, so the impact within the tourist sector of the Canton is analyzed.</p> <p>The Tourism Management Directorate proposes to manage the crisis and mitigate the impact by working and supporting from the public sector to help maintain employment, support self-employed workers, ensure the liquidity of companies, promote the development of skills and review taxes, fees and regulations related to travel and tourism (WTTC-World Travel and Tourism Council, 2004); taking into account that tourism activity generates jobs and investment places that contribute to the economic growth of the canton (Du &amp; Lew 2016); In order to promote the development of this activity, this Reform to the Ordinance that regulates the Planning, Promotion, Incentive and Control of Tourism Management in the canton Riobamba determines tax incentives, advertising and training benefits, which motivate tourism providers to provide optimal, quality services and above all maintaining sanitary measures to take care of everyone's health; as well as fulfilling the attention to the needs, desires and expectations of tourists.</p> <p>For these reasons, and GADMR, within the scope of its exclusive powers and territorial jurisdiction, exercising its regulatory power, in compliance with Resolution No. 001-CNC-2016 of the National Council of Competences in which it establishes "The object of this resolution is to regulate the powers and attributions of the Municipal, Metropolitan, Provincial and Rural Parish GADs, regarding the development of tourist activities in the territorial district".</p>	

**By: Auhtor, 2020**

It can be said that one of the factors that have influenced the creation of these ordinances is that Riobamba has always been seen as a city of passage where the tourist offer is limited to the traditional gastronomy of a few meeting points and the abundant hotel offer but not of quality, since of the 55 registered accommodation establishments only 20% belong between 3 and 4 stars and in the analysis made by the public institutions in charge, the level of quality in general has deficiencies, including the level of friendliness of owner-managers, lack of specialization and training of personnel, frequent rotation of jobs held by a single person, payment of wages below the minimum living wage, lack of security among the principals.

In addition, to this is added the reality of the current economic and socio-political situation at the country level, since it is not the best that has been experienced in decades, from this the lack of effective tourism promotion, as well as the ineffectiveness of the local authorities that have various proposals and tourism projects born from the academy and from the associations of tourism service providers that are not put into practice.

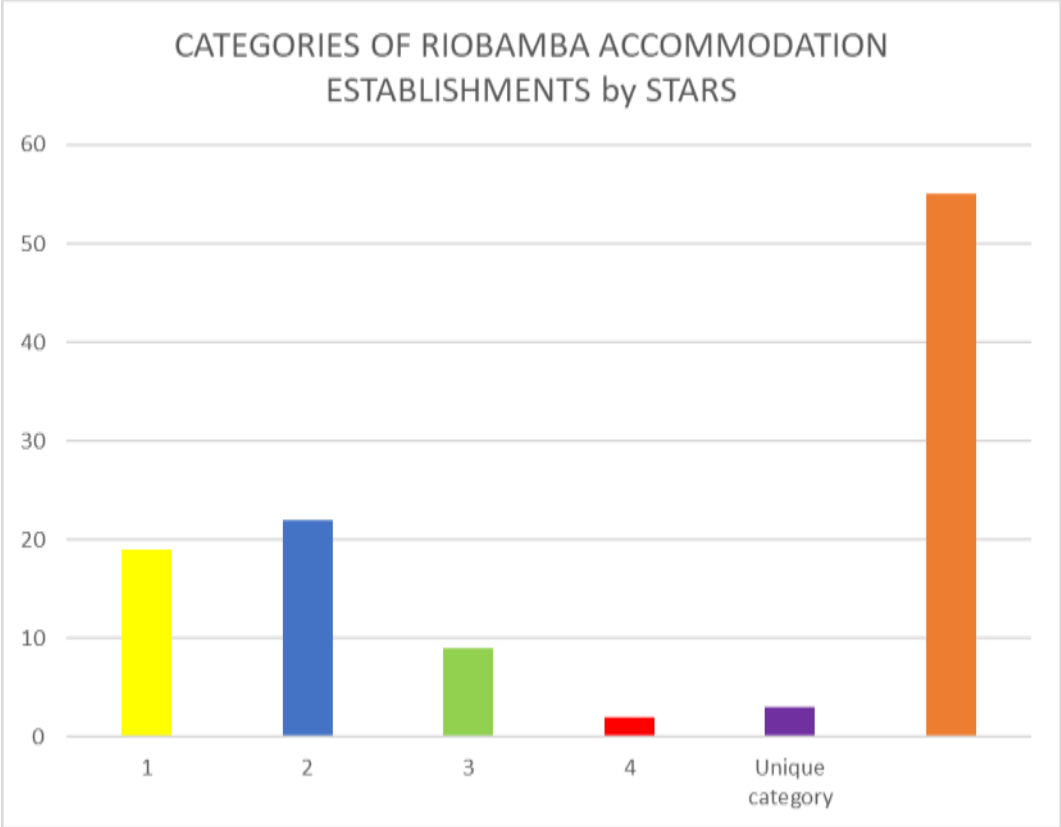


Fig. Nr. 6.5: Categories of Riobamba Accommodation Establishments by Stars

Source: GADMR, 2019

Elaborated by: Verdugo, C. 2021

**Propose a model of Sustainable Tourism Managerial Policy in the Riobamba Region**

It is proposed to consider and add the following aspects of the tourism industry that the Riobamba ordinance does not contemplate or treats very lightly with the need to adapt to the global and local reality.

**CANTONAL ORDINANCE FOR RIOBAMBA 001**

For all purposes of this ordinance, without prejudice to those provided for in national legislation, the following are considered tourist activities:

- 1) Accommodation
- 2) Food and beverage service
- 3) Transportation (Annex 19), when it is mainly dedicated to tourism
- 4) Operation
- 5) Brokerage, tourist service agency and event, conference and convention organizers.
- 6) Casinos, game rooms (bingo-mechanics), racetracks and stable amusement parks.

Art. 1. Clarification. - All the articles of the current ordinance of the GADC Riobamba remain in force, to which the following suggested Articles are added on aspects that are not deepened in the current ordinance in force:

Art. 2. Competition. - The Decentralized Autonomous Government of the Riobamba Canton is responsible for maintaining the Tourism Registry of the Riobamba canton, and therefore it will exercise all the powers that correspond to the Municipality, by virtue of the agreements for the transfer of powers signed in relation to the registry of Tourism.

Will be added:

Art. 3. Tax incentives. - Tax incentives are already expressed in the current GADM Riobamba ordinance (Annex 18), but the following additional ones are necessary:

a. Total tax exemption for the first three years to all tourism providers who start a business for the first time.

b. Set the value of the LUAF at 5% of the earnings for the year.

c. Access to a business image consultancy by the technical team of the Tourism Directorate of GADM Riobamba and / or Regional MINTUR zone 3.

d. Access 50% of the payment for participation in national or international fairs to the three best service providers with payments on the day of the fiscal year.

Art. 4. Training. - Granting of the "Q" Seal of tourism quality to all service providers who have achieved and demonstrated tourist satisfaction for at least three consecutive years.

a. Access to free training on aspects of your tourism business to improve, which will be accessed by the five best tourism establishments receiving the "Q" Seal of quality in Riobamba.

b. Service providers registered with the "Q" Seal will be bound by an annual calendar to provide their facilities for talks and training on tourism issues at least once a year if necessary.

c. Service providers registered with the "Q" Seal will be obliged to collaborate as instructors and / or trainings of the topics on an annual calendar to facilitate their facilities for talks and training on tourism topics at least once a year if necessary.

Art. 5. Quality of Service. - It is necessary to establish for this purpose a certifying entity in charge of the process.

a. Certifying Entity. - Those legal entities qualified and authorized by the GADMR for the inspection and certification of compliance with regulatory requirements are certifying entities authorized to grant the Certificate of qualification, classification and categorization.

b. Without prejudice to those authorized certifying entities that may grant the qualification, classification and categorization certificate, the GADMR, in any case, may directly issue the aforementioned certificate

c. The qualification and authorization standards of the Certifying Entities will be determined by the GADMR Board of Directors.

d. Responsibility of the Certifying Entity. - The certifying entities, their representatives and the people who on their behalf prepare and subscribe the Qualification, Classification and Categorization Certificates are administratively, civilly and criminally responsible for the information they provide for the purposes of obtaining the definitive registration in the Registry of Tourism or its modifications.

Art. 6. Nature of activities related to tourism. - The GADMR, in those areas of the city where, in its opinion, there is a significant presence of tourist activities, will define the activities that,

without being classified as tourist, are subject to the control and sanction regime provided for in this Ordinance. The Director of Tourism of the GADMR will issue the corresponding regulations.

Art. 7. Certificate of exercise of a non-tourist activity. - Without prejudice to the other obligations provided for in the legal system, when a service provider undertakes an activity related to tourism in those areas of the city where there is a significant presence of tourist activities, defined by the GADMR according to the preceding article, it must obtain a certificate from the DITUR that your establishment does not carry out tourist activities. If the activity is linked to tourism and the service provider has not obtained this certification, for all purposes it will be considered as a tourist establishment that lacks the administrative authorizations for its operation, and the GADMR will apply the control and sanction regime provided in this ordinance.

Art. 8. Collection and destination of the amounts collected for financial penalties. -The amounts collected for financial penalties, including coercive fines, will be immediately credited to the account determined by the DITUR of the GADMR. This amount will be used to finance the plans, projects and activities in charge of the GADMR.

a. Of the one hundred percent of collections made obligatorily, 15% will be allocated annually to improvements of heritage tourist sites, green areas and other public meeting points to preserve the tourist image of the city.

Art. 9. OF THE TOURIST ACCOMMODATION. - Add this ordinance where the following clauses are mandatory:

a. Biannually update the categorization of accommodation establishments to keep up to date the variation of the categorizations, updates, new openings, closings or setbacks of a created or natural nature.

b. The official categories are as follows and all accommodation establishments must be classified within one or more of them:

c. ACCOMMODATION CATEGORIES: Luxury, First, Second, Third and Fourth. These categories apply to the following types of accommodation:

d. TYPES OF ACCOMMODATION: HOTELS: Hotel; Residential hotel; Hotel apartment; Hostels- Residential hostels; Hosterias-Paraderos-Motels; Pensions; Cabins, Shelters, Hostels.

NO HOTELS: Tourist apartments; Tourist camps.

Art. 10. OF THE ACCOMMODATION OF FOOD AND DRINKS. - Add this ordinance where the following clauses are mandatory:

a. Biannually update the categorization of accommodation establishments to keep up to date the variation of the categorizations, updates, new openings, closings or setbacks of a created or natural nature.

b. The official categories are as follows and all accommodation establishments must be classified within one or more of them:

c. FOOD AND DRINK CATEGORIES: Luxury, First, Second, Third and Fourth. These categories apply to the following types of establishment:

d. TYPES OF ACCOMMODATION: HOTELS: Drive In; Pubs; Soda Fountains.

Art. 11. RECREATION, FUN, SPACE OR MEETINGS SERVICE.-

- a. SPA: They will pay the fixed value that corresponds to them according to the following detail: first, second and third.
- b. NIGHTCLUBS AND DANCE ROOMS: They will pay the fixed value that corresponds to them according to the following detail: first, second and third.
- c. PEÑAS: They will pay the fixed value that corresponds to them according to the following detail: first, second and third.
- d. CONVENTION CENTERS: They will pay the fixed amount that corresponds to them according to the following detail: first, second.
- e. RECEPTION ROOMS AND BANQUETS: They will pay the fixed value that corresponds to them according to the following detail: Luxury, first and second (Gottwik, 2004).
- f. BALLS AND SKATING RACKS: They will pay the fixed amount that corresponds to them according to the following detail: first, second.
- g. TOURIST RECREATION CENTERS: They will pay the fixed amount that corresponds to them according to the following detail: first, second.
- h. TRAVEL AND TOURISM AGENCIES: They will pay the fixed amount that corresponds to them according to the following detail: Wholesaler, Operator, International and Duality.
- i. CASINOS. - They will pay the fixed value that corresponds to them according to the following detail: Luxury and first.
- j. GAMES AND BINGOS ROOMS: They will pay the fixed value that corresponds to them according to the following detail: Luxury, First, Second and Third (Ordenanzas Distrito Metropolitano de Quito,2019).

### **Improvement Proposals**

Based on the general analysis of the entire national, regional and local legal framework carried out, some proposals are made to improve the tourist situation of Riobamba, in addition to this legal framework, the political, social and economic situation that the country and the world are experiencing is added. and the quality-of-service provision by service providers and the perception of the actors involved in the tourism industry.

#### **a. Proposal for an advertising attack at the National level**

Riobamba, with the climatic, geographies and socio-cultural characteristics of an Andean city in the Ecuadorian mountains, is very attractive to be visited by people from large cities with a warm climate. Additional Riobamba represents an economic alternative for tourist visitation since the local price of all services and products is quite convenient compared to the large cities of Ecuador such as Guayaquil, Quito and Cuenca where the standard of living is really much more expensive.

In addition, Riobamba is surrounded by small towns with very striking food and traditional practices, as well as indigenous groups that live in very attractive natural areas of the mountains.

Due to all these characteristics, it is proposed that you adopt a more aggressive advertising strategy in the largest cities of the country and along the Ecuadorian Coast and Amazon as a different and economical alternative to doing tourism. They can be expressed in the following marketing material:

- Full color triptychs,
- Presence in internal tourist fairs,
- Advertising material such as guides distributed in public and private institutions,
- Advertising campaigns in schools, colleges and universities in those regions,
- Advertising in public media such as TV, radio and newspapers,
- Cultural exchanges between peoples and nationalities of these regions.

Thus, for example, at the country level there are also other alternatives for tourism investment that can represent a tourist hitch point to form tourist products such as tourist routes or circuits in which Riobamba could anchor itself as another attraction (Annex 3). This from the holistic view that tourist destinations should not be considered as small units of an isolated site but the more attractive they are incorporated, the better and more productive for the regional or national tourism value chain<sup>2</sup>.

### **Summary Of The Tourist Management Optimization Strategies For The City Of Riobamba**

It is essential to clarify that the graph tries to summarize the strategies previously described in depth from the OPTIMIZATION STRATEGIES section for tourism management in the city of Riobamba, however, cross-sectional elements are displayed that are present throughout the analysis of this important work. How not to highlight as the basis of the entire tourism system and of this proposed strategy the Territory (geophysical and human), the information or Data so necessary for decision-making in management and the prevailing need for a clear regulatory framework but on all practical for the current situation in Riobamba and in the world.



Source: MINTUR, 2016  
By: Auhtor, 2021

Fig. Nr. 7.10: Sustainable tourism certification standards guidelines

## **IMPROVEMENT RECOMMENDATION**

### **ECONOMIC AREA**

- As a general recommendation to both the governing bodies of tourism activity and the institutions involved and service providers, manage education and training in tourism management at the national level, as it is the basis for the tourist development of destinations.
- The Tourist Management Directorate of the Autonomous Decentralized Municipal Government of Riobamba is recommended to institutionalize the research process by increasing the level of sustainable tourism management in the city through the periodic updating of a database of sustainable tourism indicators to help make inclusive and effective decisions for the tourist image of the city.
- The development of tourism projects and activities should have a priority and complementary importance between the rural and urban area of Riobamba, since the tourist mostly perceives the different tourist services in the city and the landscape resources in the countryside.
- Inter-institutional agreements and agreements must be maintained, renewed and increased in order to cover all areas of sustainable tourism management in the city.
- The Tourism Management Office of the city must develop strategies that allow it to implement the self-management of sustainable tourism activities and projects.

### **SOCIAL AREA**

- Make a participatory annual operating budget to collect and prioritize urgent tourist investment needs to improve the image of the city.
- Although there is a greater number of women working in the tourism sector, it is recommended to carry out activities that promote gender equity and professional training equally for men and women for the benefit of efficient tourism management in Riobamba.
- Expand tourism training topics to new tourism trends for which Riobamba has potential, strengthening customer service and improving the quality of service provision.
- Support tourism ventures that contribute to improve the tourist image of the city and promote tourism value chains with a sustainability approach.

### **ENVIRONMENTAL AREA**

- Create a local ordinance that requires tourist establishments to use biannually at least one clean energy practice or other responsible tourism practices to consolidate a healthy environment in the city.



- Request to the tourist service establishments an annual certificate of participation in training of recycling or waste management to improve the internal functioning of their businesses and contribute to the green image of the city.
- The GADMR and other local institutions should promote business plans to encourage small businesses to the production of biodegradable cleaning products that are consumed by tourist establishments, local population and tourists as souvenirs.
- Motivate the tourist service establishments to provide environmental information of the city and this linked to the promotion of the two protected areas that are located within the province of Chimborazo and that attract an important number of tourists annually.

#### **CULTURAL AREA**

- Create an alliance between the public, private and community sectors in the specific execution of social and cultural activities that promote the cultural heritage of Riobamba first at the local level to achieve the valuation of the local population and that this is reflected in the treatment abroad.
- Establish a permanent program for urban and rural schools and colleges in Riobamba, which conducts annual tours through tourist sites in the city so that children and young people know them, value and promote them in their homes and institutions, thus creating a culture of appreciation to the patrimony that a generational legacy can form.
- Create social and business associations that promote the Riobamba destination inside and outside the city through Marketing mix strategies focused on highlighting the neglected cultural tourist heritage.

#### **INSITUTIONAL – POLITICS AREA**

- Socialize this type of studies on the current situation of the staff that works tourism in public agencies so that there is receptivity and openness to give information necessary for a current diagnosis of the management, technical and operational staff of tourism in Riobamba.
- Update the public policies that govern the tourist activity of Riobamba according to the national and world tourism situation.
- Engage in the tourist management of Riobamba to the indigenous sector that operates a specialized and strong tourist modality at international level such as community tourism, so that they can contribute with their experiences and at the same time, they are trained in public and private management for the improvement of your ventures.
- Create improvement ordinances in accessibility facilities to tourist sites, which meet the needs of comfort and enjoy experiences for the disabled demand sector.



## TECHNOLOGICAL AREA

- Identify the effectiveness of the functions of tourism agencies in the city in order to apply improvement strategies and avoid duplicating functions in order to improve the quality of service in the city.
- Based on this first survey of indicators, monitor the status of free internet access areas for local population, visitors and tourists, with the aim of improving the current situation of accessibility and internet connectivity.
- Follow up on the electronic tourism applications that are currently working to improve them and establish which are the ones used in order to apply promotion and education strategies to the tourist that Riobamba and the province sees.
- Implement the coverage of Wi-Fi zones in all the tourist attractions of the city and electronic information points to accompany the tourist in case of an emergency.

### General conclusions

1. Tourism is a socioeconomic activity in constant renewal that responds to the preferences and demands of the new objectives of the world market, where the competitiveness of destinations is usually the motivation of businessmen to provide a quality service that seeks differentiation and local and global positioning, so it is essential that the sustainability of the business is not a voluntary requirement but rather an obligation in any business that wants to endure over time through responsible management of the tourist resource.
2. Tourism is one of the most important engines of economic movement in countries that receive tourist flows, so it can help in times of crisis to move from a complementary activity to a main activity that supports the national economy of a country.
3. It is concluded that the issue of sustainability in Latin America and Ecuador has been a subject with too many misconceptions, from its true meaning to its integrality with the three pillars mentioned for decades and that were limiting in its practical action. In the first instance, the mistranslation of the term and its segmentation when speaking of environmental sustainability or economic sustainability (BMWA-Federal Ministry of Economics and Work, 2003); and secondly, to a reduced conception of analyzing only areas such as the Economy, Society and the Environment, making Culture, Technology and Institutional Politics invisible.
4. Ecuador has a privileged position to develop sustainable tourism, thanks to its cultural and multinational wealth, as well as its mega biodiversity, it has a history of more than 40 years of conservation actions, as a joint effort in the preservation of cultural wealth that the country owns.
5. The tourism industry in Ecuador suffers from a tendency to improvisation and lack of technology of its personnel, forgetting that it is a social science activity (Bryman, 2015). and clearly dealing with diverse human groups, with very volatile tendencies, tastes and preferences and influenced by the different moments that the current world lives at a vertiginous speed of change and adaptation.

Therefore, the survival of the sector is complicated when factors of idiosyncrasy, politics, religion and even lack of professionalism take precedence over what should be a planned management of tourism heritage, where tourism continues to be seen as a sector of little importance and without much economic contribution to the GDP of Ecuador.

6. Ecuador's tourism regulations, which also govern Riobamba, have many elements of comprehensive sustainability and respect for heritage, however, they continue to maintain a discourse that fails to take off the country as a tourist destination in the world market.

7. There is still a break in the application of the concept of sustainability where: (a) there are still followers of the old school where sustainability can be measured in fragments: the economic factor on the one hand, and the environmental factor on the other (Forsyth, 1997) and (b) the holistic current where the rational operation of the industry is not consistent if there is no talk of integrality and multidisciplinary in tourism, which, by the way, is a business and as such must be planned through the use of methodologies and techniques that guarantee its viability.

8. The use and application of technical tools such as market studies, business plans and feasibility studies, among others, to determine the total viability of a tourism project is prevailing, a situation that is still incipient in Ecuador, since entrepreneurs They consider it sufficient to have capital and the good will to undertake in the tourism industry, to this is added the historical dependence on the will of the State in matters of public tourism policies. All this results in many businesses failing and plunging the sector into obvious stagnation.

9. The initiative of the tourism industry to train on issues of good practices of sustainable tourism, corporate social responsibility and national and international certifications is still scarce, however it is recognized that Ecuador is taking the first steps through strategic alliances with international certifiers.

10. Riobamba, without a doubt, shows a high tourist potential with the possibility of consolidating community tourism modalities, geotourism (it is surrounded by volcanoes), gastronomic tourism, among the main ones; however, its value chain is not yet consolidated due to lack of technical knowledge on the subject and because it is not linked to national actions to declare Ecuador as an international tourist destination.

11. Riobamba shows a great weakness due to the lack of associativity between all the associations of tourist service providers, for this reason an urgent coalition is necessary with a view to mutual benefits, which also promotes a culture of continuous improvement to achieve international standards within the industry.

12. Riobamba lacks a tourism observatory, which is evidenced by decision-making based on official figures that in many cases are out of date or not validated, in addition to the isolated efforts of various sectors such as the Academy, hotel associations and community sector.

13. The main weakness of tourism management in Riobamba is the lack of group commitment from the business sector, added to this the rotating system of jobs in community tourism and the instability in public management that does not formalize proven optimization and continuous improvement methodologies.

14. In some situations, the absence of descriptive and inferential statistics applied to the lists of existing indicators obtained in the field, until obtaining variables and data that are verified and measured with the perspective of obtaining indices and future projections that help create contingent plans within the tourism industry in the face of extemporaneous events.

15. Although Ecuador has tourism indicator system initiatives that are applied with relative success in obtaining data and using it as a tool for tourism management and the creation of public policies and local ordinances (Quito, Guayaquil and Cuenca), it is noted the need to improve management mechanisms with a sustainable approach to these tourist destinations.

16. Although the system of indicators proposed by the UNWTO 2016 is one of the most complete and adaptable to the different Latin American territories. Eventhough, it is observed that its expansion is still necessary since they do not consider relevant aspects such as the indicators for vulnerable groups that practice tourism (people with disabilities, indigenous groups, children and others).

17. It is shown that the comprehensive measurement of the 6 areas of sustainability is necessary to achieve sustainable management and development in a destination, the case of Riobamba showed that areas as important as Social, Technological and Political had not previously been considered. Institutional, generating bottlenecks in the Servuction process.

18. The conceptual and practical clarification of the differences is eminent and at the same time the complementarity of the "Social" and "Cultural" spheres so that from the Technical and the Public Administration the operative guidelines of its real conception can be created. the indicators to be measured.

19. It can be considered that Ecuador has a basically updated legal framework adapted to the territorial reality, but it is necessary to supplement it with elements regarding the management of the territorial landscape in order for the application of the legislation to have a greater rigour, especially with the observance of quality and environmental standards in all tourism businesses; regular controls of MINTUR in the application for minimum requirements and standards become necessary at Riobamba level.

19. Ecuador in general has a valuable accumulation of national and international certifications that are being applied in the tourism services sector, but this management must be applied more seriously in all the establishments that have not yet obtained them and in those that have already obtained them. It is necessary to maintain the trend of continuous improvement of the applied management.

20. Although there are a series of actions and the efforts made by the governance of local tourism at the municipal and regional levels 3 Tourism stand out, following the studies of the thesis we can say that these efforts are still insufficient and in some cases disjointed, resulting in a waste of resources, money, time and personnel, due, among other things, to the lack of commitment of the authorities but also to the political intention of covering too many problems in the industry and not solving some specific ones but in an efficient and effective way.

## Special conclusions

1. In order to understand the real sustainability concept, it is very important to understand its evolution and stakeholders (Annex 17), that is why it can be said there is no real sustainability if the integrality of its areas is not considered: economic, social, environmental and additional the new areas that globalization demands today as culture, technology and the institutional-political environment shortening the paradoxical sustainability gap understood from the theoretical concept of development towards a praxis that has undergone historical, geopolitical and social change.
2. Optimizing management on the marketing line represents a powerful tool for entrepreneurs to consolidate their destiny and individual businesses, attracting new customers with the solvency of their certifications that support a value chain where the process is ordered and sustainably care what ensures that everyone involved in tourism practice can meet their leisure, environmental education, business and other related needs.
3. One aspect of managerial optimization is the adaptability that ensures the consolidation of intercontinental and global networks on the exchange of successful experiences on sustainable tourism could help to insentiate and emulate the good practices developed by adapting them to unique territories.
4. The quarrels carried out indicate that to achieve true responsible management of all stakeholders, it must be to strengthen alliances even with the competition as a source of learning and quality improvement from simple aspects such as customer service to accountability at the business level, at the level public sector in the joint administration of strategies and practical actions to deal with such sensitive issues as: climate change, global epidemics, terrorism and others.
5. For managerial optimisation, it is appropriate that current sustainable development policies, which have been managed in a global context through a series of summits and events on the subject, are directly linked to a systemic analysis so that ecosystems are no longer arbitrarily managed and used, and this approach should result in a shift from an abstract policy based not only on words, but above all through global facts, so as to support the idea that capitalism prevails over capital and over society and not society over the market.
6. We note that the Government of Ecuador is concentrating several sustainable tourism consolidation programs that aim to become an effective tool of conscious management in the search for combating the poverty that exists, in itself the central element being sustainability, to which our studies support complementary a decentralized management which seeks to consolidate several aspects, among which we can mention: competitiveness, adapted governance, fair distribution of existing resources, consolidation of private investments, added value and improvement of existing tourism methods, both at national level and especially at local level.
7. Sustainability, being a real concern of the actors in tourism in the world, but also in Ecuador, is a process that must be better understood from a managerial perspective, by appropriating the principles of global and tourist sustainability, to which optimization can be induced by operating and practicing tourism modalities which mainly ensures compliance with Nature, local ancestral practices and know-how in tourist destinations, community tourism, followed by anatomical tourism, adventure tourism, gastronomic tourism, religious tourism.
8. The comprehensive measurement of the 6 areas of sustainability considered in our multicriterial studies is necessary to achieve sustainable management and development in a destination, such as the Riobamba case study where certain important areas, such as Social, Technological and Political, have not been considered. Institutionally, having the effect of blocking in

the balanced and harmonized process of the applied management.

9. The optimization of touristic management considers Riobamba economic indicators that show that a significant economic dynamism can be generated for the region, but our research shows that resources intended for tourism are wasted due to the lack of strategic and operational planning, which leads to the dissatisfaction of the tourist or visitor.

10. We signal that Riobamba is a city of cultural, historical, religious and gastronomic contrasts, which makes it possible to optimize management by wrapping unique tourist routes that require urgent technical and professional intervention, as they are still empirically realized.

11. Despite the fact that the diversity of human groups is so diverse and represents one of the main territorial attractions of Ecuador, plus a solid legal framework, we find that tourism management is not applied effectively due to the current situation in the country, which unfortunately includes a system of corruption, the Covid-19 pandemic, a marked management of powers and a dash of racism.

12. There is a managerial problem that requires optimization mechanisms framed in a new sustainable tourism strategy, namely Riobamba is a fleeting city that has not managed to diversify its offer precisely because of the lack of full application of its tourism regulations and the lack of a diversification of the offer.

13. Riobamba is not yet considered a tourist destination according to the holistic concept of a destination based on indicators resulting from multi-criteria analysis, and it hardly imposes itself as another additional attraction of the country, so it needs to strengthen its local regulatory framework, especially on the basis of statistics that are not regularly updated or institutionalised.

14. Management optimisation implies the fact of continuous innovation in tourism activity and an obligation of all providers of goods and services, as the world is fast moving and changing at all levels, and this influences the trends of tourists who are increasingly looking for diverse and unique experiences, so that optimisation mechanisms provide for the establishment of attractors, where tourism is a motivation for experience and a significant income for the beneficiary populations.

15. Riobamba has the natural, cultural and human potential to become a sustainable destination, therefore in the applied management must continue to update the tourist observatory of statistics according to the season of visitation and in addition highlight the use of cleaner technologies which in addition by the environmentally friendly impact becomes a strong attraction for tourists who identify Ecuador as a megadiverse and natural place.

16. We note that the destinations that wish to position themselves in the world tourist market must at least consolidate the diagnosis and planning phase of their territories for packaging and technical marketing that seeks market niches according to their potential and operational capacity and that, of course, act under an expressed reality. in figures on tourist activity.

17. Riobamba is already a city that has ventured into the application of tourist certifications; however, it is important that these quality standards go up until they reach an international level where supervision is constant by virtue of the benefits that these certifications bring to the whole destination.

18. Research has shown that the cultural and political-institutional indicators of tourism management have been relegated, being equally important for being constitutive members of the integral sustainability of the tourism system since they are born and are made to guide intersectoral and multicultural relations. in tourism.

19. It is imperative and basic to have a repository of indicators that deepen and cover all the pillars of sustainability to achieve the practice of responsible tourism in all geographical areas with all types of actors. As we can noticed in chapter 2 An analysis is made of how the current situation, the ethics of tourism and entrepreneurs demonstrate sustainable management strategies as an imperative for optimization of global cooperation in the tourism industry.

20. The elaboration and proposal of a comprehensive model of a system of sustainable tourism indicators is important to change the local reality and broaden the vision of tourism management from the public-private administration, considering the influence of other sectors of development such as culture, technology, and politics.

21. In general, the optimization strategy for sustainable tourism management to guide public policy is based on the following principles: accessibility, social inclusion, contribution to local and national economies, environmental care, citizen ethics, and innovation and technology.

22. At the local level, the presentation of the strategy to optimize sustainable tourism in the comprehensive directions (multicriteria) of six components, proposes firstly the particular development of this system of indicators at the level of the city of Riobamba, secondly to maintain a tourist observatory to periodically validate the data and train tourism stakeholders from the public (Kickbush, 1998), private and community sectors on these processes where they must be active participants from their different responsibilities to implement the optimization of tourism management and continuous improvement in the industry.

### **Dissemination of research results**

The results of the *Research on the impact of technical factors and indicators in optimizing the managerial process in sustainable tourism applied in the Riobamba Area, Chimborazo Province, Ecuador*, based on the principles of sustainable development, have been disseminated through the publication of three scientific articles, of which two indexed articles, as the main author and co-author with Dr. Romulus Gruia Principal Director of this thesis, were published in the Journal of EcoAgrotourism – ROSITA- ISSN 1844-8577 and one scientific article on innovation as lead author in the Creativity and Innovation Journal ISSN-L 2537-5997. One sent it to the Bulletin of the Transilvania University of Brasov about Environmental Indicators in process.

Papers on the topics covered in this thesis were also presented at the following scientific events:

- 7<sup>th</sup> BIOATLAS 2018 international conference, held in Braşov, on May 25-26, 2018, organized by the Faculty of Food and Tourism of the University “Transilvania”, ROSITA (Romanian Society of Information Technology in Food and Tourism) PS2. <http://bioatlas.rosita.ro>, SIBIU, ROMANIA, VERDUGO, Catalina, 2018: A LOOK AT TOURISM SUSTAINABILITY OF

### **Future Research Directions**

1. Given the extension of the thesis on various research fronts, imposed by the complexity of the subject of the impact of technical factors and indicators in optimizing the managerial process in tourism based on the sustainable principle, several lines of research may arise, first by nature multidisciplinary of tourism and second because the paradigm of Sustainability is continually developing with greater studies each time thanks to the fact that tourism is an activity in constant change and construction due to social and conjunctural changes.
2. In view of the constant global changes that influence tourist destinations, future research focused on new trends in the tourist market and the different profiles of tourists that are formed over time and that adapt to different geographical spaces is essential. global.
3. In the field of study of Sustainability per se, it is necessary to build new theoretical-practical scientific knowledge for the definition and subsequent application of all the six pillars of sustainability that this research proposes and in clarifying that the basic premise on modern sustainability of destinations is based on their complexity, complementarity and comprehensiveness.
4. It is necessary to identify and analyze social phenomena that are born as a product of the interactions produced by tourism, among which can be mentioned Tourism, Tourismphobia and Gentrification, among the most current, which generate a number of extremely important tourism indicators. to consider in order to generate an orderly planning of heritage destinations that at the same time avoids or repairs damages produced by the commodification and spectacularization of these heritages.
5. In the field of sustainable management of tourism resources, it is of scientific interest to apply the brainstorming method and others provided by Disciplines such as Participatory Methodologies, to classify the indicators of sustainable management of the locality according to their nature (quantitative or qualitative), as well as establishing the measurement scale or formula to determine the level of the indicator, possibly of some specific reference values of the Riobamba tourist destination. The use of the multi-criteria analysis method or another similar method to determine the importance of each indicator of the set in the context of the sustainable management of resources in the public, private and community sectors can be considered as a research methodology.
6. It is clear that the implementation of sustainability principles requires long-term policies and contingency plans, prioritization of investment with resources (financial, human, environmental) anticipated in advance, integration of comprehensive sustainability policies in the tourist destination, careful evaluation of the impact of tourism development and, last but not least, strong political and organizational support from the local community as well.
7. Updating of descriptive statistics, starting from the application of the formula to calculate the population sample, which should use a smaller margin of error, if possible 3%, given that it is the standard used by pollsters at the country level. to reduce the error through increasing to a

considerable number the surveys applied for the purpose of studying tourism supply and demand. As well as looking for other statistical methods that allow projections of tourist arrivals to Riobamba and all its immediate attractions such as protected natural areas, community tourism centers, urban historic center and 11 rural parishes that are part of the province of Chimborazo, as well as a study on strategies to diversify the tourist offer throughout the territory to achieve a higher income per day from tourism thanks to its extended stay from 1.5 days to more than 2 days per visit.

8. It would be convenient to extend the study for the determination of a Provincial tourist observatory that, among other points, keeps updated the data obtained as a result of the application of surveys validated in the field and in the office and that another study be carried out in parallel on the design of a tourism plan. Training for tourist service providers on Marketing Mix strategies with emphasis on Marketing and Promotion of emerging tourist destinations.

## **Recommendations**

1. It is important that the structuring of a system of sustainable tourism indicators designed and adapted for the Riobamba Destination be created jointly with all those involved in the activity, and that the result of this consensus be institutionalized taking advantage of the pressure exerted by the institutions formed. legally as the guild of hoteliers, transporters, Community Tourism Corporation of the province, the Academy and the same public sector represented in the tourism department of the Municipality, the Provincial Government and Regional 3 of the MINTUR.

2. It is necessary to socialize and adapt the technical tools for verifying quality levels in all tourist activities and in businesses that directly or indirectly strengthen tourism management, such is the case of the hotel sector, restaurants, bars, operators, travel agencies and other related.

3. Strengthen the activities of exchange of experiences, workshops and fairs that are being carried out in Riobamba for the involvement of public authorities, higher education institutions and tourism research institutes more directly in raising awareness among business managers about the benefits of using local and regional value chains with ethical products and personnel and about how to involve small producers and promote ethical and responsible tourism.

4. It is necessary to implement public policies that are inclusive and accessible to both tourist demand and service providers, incorporating some incentives for both groups in order to promote the internal tourist movement and engage international tourism as well.

5. The strategic alliance between the Academy and the tourism sector is tacit so that technical specialists and engineers can be trained and trained to comply with the standardization of the world market in specific issues such as customer service, presentation of dishes, decoration, among others; capable of building the reputation of their businesses and also establishing corporate brands worth remembering not only for their aesthetics but also because they enclose quality in all senses of the management and operation of the different tourist products.



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### **Brief summary of the PhD thesis**

The research in this thesis aimed to apply the idea of sustainability to tourism activities, by optimising management based on the calculation of specific indicators to objectify and streamline the process. The case studies were applied to the tourist destination Riobamba (Ecuador). A diagnosis of sustainable management at an international level with comparative examples from around the world, as well as at national and local level in Ecuador's tourist destinations was carried out. The result of the research is highlighted by finding technical and managerial solutions through the development of a sustainable model, with a well-defined methodology and a punctual strategy of application. The realization of the action strategy is convergent with the implementation of a sustainable tourism policy for the tourist destination Riobamba, but also with the potential for extrapolation and generalization of the application of optimized management methods. On a unified path, the peculiarities of the thesis researches analyze the versatility and complexity of the approached theme, through three studies in the theoretical part and four researches in the applied part. Concrete and innovative results are highlighted concerning the updating and adaptation of the concepts of sustainable tourism development, the technical-economic efficiency of tourism operations, the elaboration of a methodology for the certification and shaping of the image of the Riobamba tourist destination and, last but not least, the scientific basis for the elaboration of public policies and related strategies in the field of modern tourism, based on the principles of sustainability and systemic efficiency.

### **Scurt rezumat al tezei de doctorat**

Cercetările din prezenta teză au urmărit aplicarea ideii de sustenabilitate la activitățile din turism, prin optimizarea managementului bazată pe calcularea unor indicatori specifici de obiectivizare și eficientizare a procesului. Studiile de caz au fost aplicate la destinația turistică Riobamba (Ecuador). S-a realizat o diagnoză a managementului sustenabil la nivel internațional cu exemple comparative pe mapamond, precum și la nivel național și local în destinațiile turistice ale Ecuadorului. Rezultatul cercetărilor se evidențiază prin găsirea unor soluții tehnice și manageriale prin elaborarea de unui model sustenabil, cu metodologie bine conturată și cu o strategie punctuală de aplicare. Realizarea strategiei de acțiune este convergentă cu implementarea unei politici de turism sustenabil pentru destinația turistică Riobamba, dar și cu potențialitatea extrapolării și a generalizării aplicării metodelor de management optimizat. Pe un parcurs unitar, particularitățile cercetărilor tezei analizează polivalența și complexitatea tematicii abordate, prin trei studii în partea teoretică și patru cercetări în partea aplicativă. Sunt evidențiate rezultate concrete și novatoare privind actualizarea și adaptarea conceptelor de dezvoltare sustenabilă a turismului, eficientizarea tehnico-economică a operațiunilor turistice, elaborarea unei metodologii de certificare și conturare a imaginii destinației turistice Riobamba și, nu în ultimul rând, punerea bazelor științifice pentru elaborarea de politici publice și a strategiilor aferente în domeniul turismului modern, bazat pe principiile sustenabilității și eficacității sistemice.



ESCUELA SUPERIOR POLITÉCNICA DE CHIMBORAZO



**SUMMARY (C.V)**

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**1. ACADEMIC TRAINING**

N°	Undergraduate Degrees	University	Country	Year
1	Ecotourism Engineer	ESPOCH	ECUADOR	2004

N°	Graduate Degrees	University	Country	Year
1	ENVIRONMENTAL MANAGEMENT SPECIALIST majoring in AMAZON AND HUMAN RIGHTS	ANDINA SIMÓN BOLIVAR	ECUADOR	2004
2	MASTER IN DESIGN, PROJECT MANAGEMENT AND EVALUATION	POLITÉCNICA DE CATALUNÑA	ESPAÑA	2010
3	MASTER IN SUSTAINABLE TOURISM AND LOCAL DEVELOPMENT	ESPOCH	ECUADOR	2015

**2. COURSES AND SEMINARS (more than 40 hours)**

**3.1 Courses and Seminars offered by ESPOCH**

N°	COURSE NAME	HOURS
1	BASIC COURSE MOUNTAIN	40
2	SUFFICIENCY IN THE FRENCH LANGUAGE	400
3	SUFFICIENCY IN THE ENGLISH LANGUAGE	400
	PREPARATION FOR TOEFL	
4	TRAINING IN TOURISM AND SUSTAINABLE DEVELOPMENT. 2005	40
5	SEMINAR ON FAUNA OF ECUADOR. 2005.	40
6	TRAINING IN TOURISM AND SUSTAINABLE DEVELOPMENT.2005	40
8	ENGLISH AS A SECOND LENGUAGE 2010	400



9	DEVELOPMENT OF SYLLABI 2010	40
10	USE VIRTUAL CLASSROOM 2011	40
11	CONCEPT AND USE OF ICT 2011	40
12	SOCIAL RESPONSIBILITY AND HIGHER EDUCATION 2012	8
13	LINGUISTIC ABILITIES AND READING COMPREHENSION 2012	40
14	IMPROVING THE QUALITY OF HIGHER EDUCATION WITH THE USE OF N TIC'S 2012	40
15	STRENGTHENING OF GENERIC SKILLS AND DEVELOPMENT OF REAGENTS 2013	40
16	INTERNATIONAL SEMINAR ON TOURISM AND LOCAL DEVELOPMENT 2013	16
17	INTERNATIONAL CONGRESS APPLIED STATISTICS 2013	40
18	MEASUREMENT METHODOLOGY ENVIRONMENTAL IMPACTS WITH FUZZY LOGIC 2013	96
19	DATA PROCESSING WITH EMPHASIS ON GEOGRAPHICAL ANALYSIS 2013	40
20	STRENGTHENING OF GENERIC SKILLS AND ELABORACIONDE REACTIVOS. 2013	40
21	PROCESSES LEVELING THE NATIONAL TRAINING SYSTEM AND ADMISSION 2014	53
22	FACULTY OF NATURAL RESOURCES SUSTAINABILITY COURSE - 2014	80
23	INTERNATIONAL SEMINAR ON NATURAL HERITAGE, CULTURAL AND SUSTAINABLE DEVELOPMENT 2014	25
24	GEOGRAPHIC INFORMATION SYSTEMS. 2014	40
25	LEARNING METHODOLOGIES. 2015	40
26	PALEOECOLOGY: POLLEN IDENTIFICATION PROTOCOLS 2015	80
27	FIRST INTERNATIONAL CONGRESS OF APPLIED ECOLOGY. 2015	40
28	FORMULATION OF RESEARCH PROJECTS AND SCIENTIFIC ARTICLES. 2015	40
29	METODOLOGIAS LEARNING AND RESEARCH. 2015	120
30	EXPERIMENTAL DESIGN AND THEORIES OF SAMPLING. 2015	40
31	COURSE STATISTICAL with SPSS VER.2.2. 2015	50

### 3.2 Courses and workshops offered by other institutions

N°	NAME	INSTITUTION	COUNTRY	Year
1	I PROGRAMMER OPERATOR IN COMPUTER SYSTEMS AND INTERNET	Instituto Estrella Verde	ECUADOR	2005
2	COURSE WORKSHOP FOR JUVENILE REPORTERS	ERPE	ECUADOR	2005
3	BASIC FIRST AID COURSE AND CAMPAMENTACION.	ESPOCH/CRUZ ROJA ECUATORIANA	ECUADOR	2005
4	COURSE TECHNICAL CUSTOMER CARE.	MINISTERIO DE TURISMO ECUATORIANO.	ECUADOR	2005
5	INVENTORIES AND PRACTICES OF FOREST PLANTED MANGROVE. Muisne, Esmeraldas.	ESPOCH/FUNDECOL	ECUADOR	2005
6	RURAL TOURISM IN SENIOR MANAGEMENT	UNIVERSIDAD DE BUENOS AIRES	ARGENTINA	2006
7	AGROFORESTALES MEASUREMENTS AND ENVIRONMENTAL STUDIES IN THE PROVINCE OF NAPO.	UNIVERSIDAD ANDINA SIMON BOLIVAR	ECUADOR	2006
8	QUALITY IN THE CENTURY XII. 2004.	MUNICIPALIDAD DE RIOBAMBA	ECUADOR	2007
9	ARCHAEOLOGY AND TOURISM IN ECUADOR 2005	CASA DE LA CULTURA ECUATORIANA	ECUADOR	2007
10	SEMINAR ON HUMAN RIGHTS OF MIGRANTS. 2005.	MUNICIPALIDAD DE RIOBAMBA	ECUADOR	2007
11	ENGLISH AS A SECOND LANGUAGE COURSE	IN DEKALB TECH COLLEGE. ATLANTA-GEORGIA	USA	2007
12	ENGLISH AS A SECOND LANGUAGE.	ENGLISH FOR INTERNATIONAL INSTITUTE. ROSWELL-GEORGIA-USA.	USA	2007
13	PUBLIC CONSULTATION WORKSHOP OF "NATIONAL IMPLEMENTATION PLAN FOR THE MANAGEMENT OF THE POPS" 2005.	MINISTERIO DEL AMBIENTE/PNUMA/GEF	ECUADOR	2008

14	INTERNATIONAL SEMINAR "SOCIAL MANAGEMENT" NGOs and international aid workers SOURCES.	ILUSTRE MUNICIPIO DE RIOBAMBA	ECUADOR	2008
15	PROJECT ELABORATION. SOCIAL SERVICE TRAINING ECUATORIANO.	SECAP	ECUADOR	2008
16	INTERNAL AUDITOR ISO STANDARDS: 9000, 14000, 18000.	S.G.S SEDE ECUADOR	ECUADOR	2009
17	INTENSIVE SOCIAL RESPONSIBILITY.	I.R.S.E	ECUADOR	2009
18	CORPORATE SOCIAL RESPONSIBILITY COURSE WITH EMPHASIS TO STAKEHOLDER AND PRIORITIZATION MATRIX	CÁMARA DE COMERCIO QUITO	ECUADOR	2009
19	METHODOLOGY OF MEMORIES OF SOCIAL RESPONSIBILITY 2009.	BUSSINES SCHOOL INSTITUTE	ECUADOR	2010
20	BUSINESS COUCHING. 20009.	ACOSA	ECUADOR	2010
21	FSC STANDARDS, SOCIAL RESPONSIBILITY AREA. (TIMBER COMPANY ACOSA). 2010.	ACOSA	ECUADOR	2010
22	CURSO NORMAS BASC. 2010.	BUREAU VERITAS	ECUADOR	2010
23	EFFECTS OF GLOBAL WARMING AND ALTERNATIVES FOR CHANGE	FUNDACION MARCO Y RED PARAMO	ECUADOR	2010
24	SGS COURSE INTERNAL AUDITOR, ISO STANDARDS: 9000, ISO 14000, OHSAS: 18000.	SGS SEDE ECUADOR	ECUADOR	2011
25	ERGONOMICS, OCCUPATIONAL HAZARDS AND INDUSTRIAL SAFETY	UNIVERSIDAD TECNICA DE COTOPAXI	ECUADOR	2011
26	BASIC AND INTERMEDIATE GIS.	UNACH	ECUADOR	2013
27	INTERNATIONAL SEMINAR ON TOURISM AND LOCAL DEVELOPMENT.	GAD PROVINCIAL CHIMBORAZO	ECUADOR	2013
28	INTERNATIONAL SEMINAR ON SUSTAINABLE DEVELOPMENT, HERITAGE AND TOURISM.	MINISTERIO DE TURISMO Y MINISTERIO DE AMBIENTE.	ECUADOR	2015
29	ASSESSMENT OF ECONOMIC AND ENVIRONMENTAL - VALUING ECOSYSTEM SERVICES.	CATIE	ECUADOR	2015

### 3. EXPERIENCE

#### 4.1 Professional

N°	COMPANY-INSTITUTION	POSITION	SINCE MONTH-YEAR	TO MONTH-YEAR
1	POETIC UNITY FOUNDATION	Presidenta Encargada/Técnico Proyectos Sociales	dic-05	sep-08
2	TRADITION POUR DEMAIN FOUNDATION	Representante para el Ecuador/apoyo logístico	ago-06	Actualidad
3	INSTITUTE OF PUEBLO KAÑARI	Técnico Cultural	jun-06	dic-06
4	CANTON TOWNSHIP CAÑAR	Asistente Relaciones Publicas	ene-07	jun-07
5	PRIVATE EXPORT FOUNDING CORPORATION	Accountant Assistant	ago-07	dic-07
6	KAMANA GEA FUNDATION	Presidenta Ejecutiva	Dic 07	Dic 2008
7	AGLOMERADOS COTOPAXI S.A (TIMBER COMPANY)	Relacionadora Comunitaria	dic-08	jul-10



#### 4.2 Docente

N°	CURSOS – MATERIAS	INSTITUCIÓN	DE MES-AÑO	A MES-AÑO
1	FOLKLORE II y II	ESPOCH	mar-05	mar-06
2	CULTURAL MANAGEMENT I	ESPOCH	mar-06	mar-07
3	ENGLISH I Y II	ESPOCH (Orellana province)	mar-09	jul-09
4	PARTICIPATORY METHODOLOGY	ESPOCH	ago-10	Ene-11
5	PROTECTED AREAS OF ECUADOR	ESPOCH	ago-10	feb-11
6	PARTICIPATORY METHODOLOGY	ESPOCH	feb-11	aug-11
7	ECOSYSTEMS MANAGEMENT	ESPOCH	feb-11	aug-11
8	ENGLISH I, III y IV	ESPOCH	ago-11	ene-2012
9	ENGLISH FOR PROFESSIONALS	SMAC INSTITUTE	dic-07	dic-08
10	BIODIVERSITY MANAGEMENT	ESPOCH	mar-13	Aug-13
11	ENVIRONMENTAL LEGISLATION	ESPOCH	mar-13	Aug-13
12	ENVIRONMENTAL INTERPRETATION I	ESPOCH	mar-13	Aug-13
13	MANAGEMENT PROJECT	ESPOCH	Oct-13	Mar-14
14	EVALUATION PROJECT	ESPOCH	Mar-14	Aug-14
15	TERRITORIAL PLANNING	ESPOCH	Oct-14	Marz-15
16	PERSONNEL MANAGEMENT	ESPOCH	Marz-15	Aug-15
17	TOURISM AND ENVIRONMENTAL LEGISLATION	ESPOCH	Oct-15	Marz-16
18	PARTICIPATORY METHODOLOGY	ESPOCH	Mar-16	Actual

#### 4.3 Management Positions

N°	Position	INSTITUTION	SINCE MONTH-YEAR	TO MONTH-YEAR
1	President Responsible / Technical Social Projects	POETIC UNITY FOUNDATION	dic-05	sep-08
2	Representative for Ecuador / logistical support	TRADITION POUR DEMAIN FOUNDATION	ago-06	Actual
3	Executive President	KAMANA GEA FUNDACION	Dic-07	Dic-08

#### 4.4 Trainer

N°	COURSE-WORKSHOP (AREAS)	INSTITUTION	SINCE MONTH-YEAR	TO MONTH-YEAR
1	Cultural Revitalization	AYUDA EN ACCION FOUNDATION	oct-04	dec-04
2	Cultural Revitalization	INSTITUTE OF PUEBLO KANARI	apr-05	jun-05
3	tourist-cultural products	MUNICIPALITY OF CANAR	jun-05	jul-05
6	Environmental Education	PRINDLE POND CAMP/YMCA	may-07	sep-07
5	English as a second language	BAPTIS CONGREGATION - ECUADOR	jul-08	aug-08
4	Conflict resolution through Social Responsibility	AGLOMERADOS COTOPAXI (TIMBER COMPANY)	aug-09	jun-10
5	Native guides of Chimborazo Natural Area and Sangay National Park training in English language	MINISTRY OF ENVIRONMENT OF ECUADOR	Sept-15	

#### 4.5 Links with the Community

No.	TYPE OF EXPERIENCE	PROGRAM	DURATION
1	Coordination of the Inter-Government Agreement ESPOCH Autonomous Decentralized Canton Cultural El Tambo.	ESPOCH-LINK WITH THE COMMUNITY.	
2	Coordination of the Inter-Government Agreement ESPOCH-CONAGOPARE OF TUNGURAHUA PROVINCE.	ESPOCH-LINK WITH THE COMMUNITY.	

#### 4.6 Investigation

No.	TIPO DE EXPERIENCIA	PROGRAM	DURATION
1	MEASURING SUSTAINABILITY IN THREE CITIES OF ECUADOR WITH APPLICATION COMPARISON TO THE WORLD MAJOR CITIES	PROMETEO	08-2014/ 08-2015
2	FEASIBILITY STUDY FOR THE IMPLEMENTATION OF A RESORT IN Hulgra PARISH, CANTON Alausi, Chimborazo province "	ESPOCH	02-2015/07-2015
3	TOURISM DEVELOPMENT PLAN FOR NEW PARISH LOJA, Lago Agrio Canton, Sucumbios	ESPOCH	10-2014/ 07-2015
4	FEASIBILITY STUDY FOR CREATING A HOSTERIA IN CANTON Alausi, Chimborazo province	ESPOCH	09-2015/05-2016
5	FEASIBILITY STUDY FOR THE IMPLEMENTATION OF ECOTOURISM CENTER IN CANTON "JOYA DE LOS SACHAS", PROVINCE OF ORELLANA	ESPOCH	10-2015/04-2016
6	DESIGNING A PRODUCT OF CULTURAL TOURISM FOR THE GUANO CANTON.	ESPOCH	07-2015/01-2016
7	FEASIBILITY STUDY FOR THE IMPLEMENTATION OF A TOURISM PRODUCT IN CANTON Suscal, PROVINCE CAÑAR	ESPOCH	01-2015/06-2016
8	PRODUCT DESIGN OF A TOURIST rafting Cumandá CANTON, Chimborazo province	ESPOCH	04-2015/06-2016
9	FEASIBILITY STUDY OF A PRODUCT FOR TOURIST CROWD PARISH, CANTON Alausi, Chimborazo province	ESPOCH	10-2015/05-2016
10	PROPOSAL FOR A METHODOLOGY FOCUSED ON FOUR PILLARS OF SUSTAINABILITY FOR ASSESSMENT OF IMPACTS GENERATED BY THE TOURIST ACTIVITY IN CANTON Puyo, Pastaza Province	ESPOCH	current
11	MEASURING SUSTAINABILITY IN RIOBAMBA CITY.	SUSTAINABILITY DEVELOPMENT GROUP.	current

#### 4.7 Consultancy

N°	PROJECT'S NAME	INSTITUTION	SINCE MONTH-YEAR	TO MONTH-YEAR
1	Construction of sanitary sewer, water, and paved several streets of Canton Guano	Gobierno Autónomo Descentralizado del cantón Guano.	ene-10	abr-10
2	Water system in San Bartolo Sindipamba community,	Gobierno Autónomo Descentralizado del cantón Guano.	jun-11	oct-11
3	Cobblestone income Balneario Los Elenes	Gobierno Autónomo Descentralizado del cantón Guano.	dic-11	abr-11
4	Irrigation Improvement Project Corporation agricultural production and marketing "La Envidia"	Gobierno Autónomo Descentralizado del cantón Guano.	dic-11	abr-11

5	Construction of sewerage in the parish community Langos San Miguel El Rosario	Gobierno Descentralizado Guano.	Autónomo del cantón	may-11	ago-11
6	Double bituminous treatment on the way from school Shiry Cachatón to San Francisco Cachatón	Gobierno Descentralizado Guano.	Autónomo del cantón	may-11	sep-11
7	Sewerage system in the community Cochapamba Gonzol-Canton Chunchi	Gobierno Descentralizado Chunchi.	Autónomo del cantón	ene-12	mar-11
8	Development of the proposed improvement for tourism and recreational purposes complex pools Ishigto of the parish of Juan Montalvo canton Cayambe	Gobierno Descentralizado Cayambe.	Autónomo del cantón	Jun-13	Sep-13

#### 5. PUBLICATIONS

No.	TITULO	EDITORIAL	AÑO PUBLICACION
1	Urban Sustainability Assessment and ranking of cities	ELSEVIER: Computers, Environment and Urban Systems	2016
2	Alternative Community Tourism to Achieve Participative Ventures Case Study: Commercial Determination of a Tourist Product In The Canton Suscal, Province Of Cañar Province Of Cañar – Ecuador	European Scientific Journal	2016
3	Territorial Planning as a Proposal for Local Economic Development Case Study: Proposal for a Plan for Development and Territorial Planning for the Alausí Canton, Productive Economic Component	European Scientific Journal	2016
4	Ecological Characterization Of Bofedales, Habitat Of Vicuñas Applying Remote Sensing and Sig Methodologies Case Study: Chimborazo Fauna Production Reserve	European Scientific Journal	2016
5	Cultural Indicators As A Decisive Complement To Comprehensive Sustainability System Of Cultural Indicators As A Contribution To The Determination Of Comprehensive Urban Sustainability Of Riobamba, Chimborazo Province	European Scientific Journal	2016
6	Management model the basis for the sustainable development of the San Andrés parish	European Scientific Journal	2016
7	Agro-ecotourism as a public-private development alternative in the San Isidro parish, Guano Canton	MKT- Descubre.Comercialización, Investigación y Negocios. ESPOCH	2016
8	Agro-ecotourism as a public-private development alternative in the San Isidro parish, Guano Canton	European Scientific Journal	2016
9	Profitability and Economic, Environmental and Social Sustainability in Protected Areas Insured Through the Management Model Case Study: Carrel and Whympet Refuges Chimborazo Reserve	European Scientific Journal	2017
10	Registry of Movable Cultural Assets for the Archaeological Analysis of Pre-Columbian Social Groups. Case Study: Puñay, Chunchi Canton, Chimborazo Province, Ecuador	European Scientific Journal	2017
11	Incidence of the Value Chain in the Sustainable Development of Robusta Coffee Cultivation (Coffea Canephora) Case Study: San Jacinto del Búa Parish, Santo Province Sunday Of The Tsachilas - Ecuador	European Scientific Journal	2017
12	Tourism Development Plan as an Alternative for Socioeconomic Dynamism in Nueva Loja Parish, Lago Agrio Canton, Sucumbíos Province	European Scientific Journal	2017
13	Economic indicators that enhance tourism sustainability in the city of Riobamba	Dominio de la Ciencia	2017

14	Proposal for a Model of Information and Knowledge Management in the Framework of a Cantonal Tourist Observatory in the City of Riobamba	European Scientific Journal	2017
15	Design of a Wastewater Treatment Plant for Reuse in Irrigation in Green Areas	European Scientific Journal	2017
16	Decisive innovations for humanity, what people think	Creativity and innovation journal	2017
17	Descriptive statistical analysis of political indicators that promote tourism in Riobamba	Polo del conocimiento	2018
18	Stage of theoretical and practical sustainable tourism research	Journal of EcoAgritourism	2018
19	Optimization of tourism industry parameters in relation to landscape management	Journal of EcoAgritourism	2018
20	BOOK: FRACTAL GEOMETRY	Editorial La Caracola	2018
21	BOOK: GOVERNANCE FOR TOURISM. case studies	Editorial La Caracola	2019
22	BOOK: STUDY ON THE APPLICATION OF SUSTAINABLE DEVELOPMENT CONCEPTS IN THE TOURISM INDUSTRY	Casa Editora del Polo	2019
23	SUSTAINABILITY OF TOURISM MANAGEMENT IN THE ECONOMIC, ENVIRONMENTAL, SOCIAL, CULTURAL, TECHNOLOGICAL AND POLITICAL-INSTITUTIONAL FIELDS OF THE CITY OF RIOBAMBA	Editora Caracola	2020
24	SYNTHETIC INDEX OF CULTURE: A PUBLIC MANAGEMENT TOOL FOR THE TOURISM DEVELOPMENT OF TERRITORIES	Dominio de la Ciencia	2021
25	ANALYSIS OF THE REPUTATION OF ACCOMMODATION ESTABLISHMENTS IN DIRECT BOOKING APPLICATIONS THROUGH EWOM, CIUDAD DE LOJA CASE STUDY	Polo del Conocimiento	2021
26	ADVENTURE TOURIST ROUTE AS AN ALTERNATIVE OF SUSTAINABLE TOURISM AND DEVELOPMENT IN CAÑI, CHIMBORAZO - ECUADOR	Polo del Conocimiento	2021
27	BOOK: TOURISM MANAGEMENT, A SOCIAL APPROACH FROM THEORY TO PRACTICE	Editora Caracola	2022

#### 6. IDIOMAS

No.	LANGUAJE	SPEAKING %	WRITING %	COMPREHENSION %
1	ENGLISH	100%	95%	95%
2	FRENCH	30%	90%	30%
3	KICHWA	5%	50%	30%

#### 7. ADDITIONAL INFORMATION

EXPERIENCE IN COMMUNITY PROJECTS AND SOCIAL, ENVIRONMENTAL EDUCATION, CULTURAL REVITALIZATION, community conflict resolution, CORPORATE SOCIAL RESPONSIBILITY, LOBBYING, Tourism, QUALITY STANDARDS 9000 1400 ENVIRONMENT, SAFETY AND OCCUPATIONAL HEALTH 18000, TEACHING AND TRAINING AND LANGUAGES AS THESE AREAS ENGLISH AND SPANISH.

**9. STATEMENT**

I take responsibility I declare that all information contained in this form is true. In the event that the falsity of the information will check authorize the institution to take appropriate legal action.

Riobamba, October 1st, 2022.



Plaza de los Andes s/n  
CATALINA  
MARGARITA VERDUGO  
BERNAL

Signature  
Doctoral student  
Digitized signature