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Transforming Mature Tourism Resorts into Sustainable Tourism Destinations through Participatory Integrated Approaches: The Case of Puerto de la Cruz

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Abstract: Transforming mature tourism resorts has evolved toward a greater involvement of public authorities and away from the mere renovation of public spaces. Authorities today are required to lead the reorganization of tourism activities through the development of co-operative networks between all stakeholders involved. In this paper, a participatory integrated approach has been designed and implemented in collaboration with Spanish authorities and the tourism sector to propose a strategy to achieve the renovation of tourism resorts. This methodology was applied to Puerto de la Cruz, the oldest tourism destination in the Canary Islands and a clear paradigm of a consolidated resort. The objective is to define and implement policies to transform Puerto de la Cruz into a more sustainable tourism destination.

Keywords: public policies; renovation of tourism activities; sustainable tourist destinations; participatory integrated assessment; consolidated tourism resorts

1. Introduction

Sustainable decision-making is a complex process [1–4], not only because of the variety of criteria (economic, environmental and social) to be considered, but also because of the multiple stakeholders involved. Indeed, due to the special characteristics of tourism, public authorities have gradually come to play a more determining role than in other sectors [5–11].

In general, the complex nature of current socioeconomic and environmental problems means that scientists can no longer provide valuable information without interacting with society; similarly, society cannot make decisions without proper scientific support [12]. This reciprocal interchange can be even more relevant when the private sector has a low level of leadership, or in the case of tourism, a destination reaches a critical post-stagnation phase of its life cycle [13–15]. In such cases, the public authorities emerge as key leaders among stakeholders and are often the driving force in tasks of strategy formulation and decision-making [16,17]. As a result, the regulatory, strategic and planning management interventions carried out together with investment in infrastructures and equipment can produce a profound evolution in a tourism destination.

In recent years, several authors have written about the inherent complexity of sustainable processes [1,2], the complexity of natural resource planning [3] and the importance of stakeholder

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involvement in these processes [18,19]. In fact, the collaboration between public and private stakeholders has been one of the main approaches to policy-making for sustainable tourism [20,21]. Moreover, the strategies and objectives of sustainable tourism require the implication and participation of the stakeholders in the process [22]. The main challenge is to achieve effectively the desired sustainability paradigm that merely consists of making up the traditional Fordist programs. In the case of small islands, these challenges are especially significant, because of their limited resources, high environmental vulnerability and the social and territorial impact of the tourism industry.

In this sense, Puerto de la Cruz (Tenerife) is a case study that fits this issue perfectly, since it is a tourist destination that reached a stagnation phase in its life cycle in the 1980s. Since then, there have been few or even no results from different strategies implemented. The tourist crisis associated with the financial and economic crisis of 2007 also hit Puerto de la Cruz deeply, revealing its obsolescence and loss of competitiveness.

Consequently, decision-making needs to be improved through the application of new rules, practices and participatory decision-making tools [18]. Moreover, adequate instruments and methodologies to diagnose and evaluate tendencies and future scenarios in the sustainability paradigm could lead to a proposal to not only improve and rehabilitate public spaces, but also to reorient Puerto de la Cruz as a tourist destination. This would involve adopting measures to create a new tourism model based on sustainability and integration with the environment, the economy and the local population. This is even more relevant in the case of Puerto de la Cruz, which has to define a tourism model that is in accordance with its characteristics as a city.

Hence, the participatory integrated assessment carried out herein has been designed with the collaboration of Tenerife's public authorities and the tourism industry to discuss strategies to rehabilitate the mature resort of Puerto de la Cruz.

In particular, the challenge faced by Puerto de la Cruz today requires improving its current position in the tourism market and gaining competitiveness in that market, as well as radically reorienting the nature of the its tourism products and their commercialization.

This paper conducts a framing analysis and designs and implements a participatory multi-criteria approach to explore, with stakeholders, possible policy scenarios to promote the transition toward a more sustainable tourism destination. In this paper, the key methodological aspects and major findings are discussed.

The integrated framework proposed in this paper follows three phases. First, the key variables influencing the problem to be addressed are identified. Moreover, the interaction of these variables must be understood to be able to construct a qualitative model. Second, to study the evolution of the main variables, several scenarios are provided, i.e., hypothetical sequences of events to identify systemic nodes, as well as to analyze different courses of action, desired and undesirable, of the system. Finally, a participatory process with stakeholders and experts is initiated to involve them in the discussion of the results obtained from the qualitative analysis and the scenarios. The experience of bringing together all of the stakeholders of the resort Puerto de la Cruz was quite successful. In fact, stakeholders and experts formulated jointly the strategies, policies and actions that could help Puerto de la Cruz become a sustainable tourism destination.

The rest of the paper is organized as follows. Section 2 makes a brief presentation of the case study and examines the principal difficulties that Puerto de la Cruz is facing. Section 3 examine the methodological integrated assessment approach applied and its results, respectively. Section 4 discusses the proposed policies to address the difficulties faced by Puerto de la Cruz, and finally, Section 5 provides some concluding remarks.

2. Case Study

Puerto de la Cruz, located in the northern part of the island of Tenerife, is the oldest tourism resort in the Canary Islands. It has been considered one of the most important European tourism destinations since the 1960s. Until 1985, it was the main resort on the island; since then, however,

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the growing resorts in the south of the island have taken the leading role in the tourism in Tenerife. Puerto de la Cruz can be considered as a second-generation mass tourism destination [23] with symptoms of decline and challenges of rejuvenation [24]. In addition, it can be characterized as a typical mature tourist destination with a long-lasting stagnation phase in visitor numbers during the three decades up to 2006 and with approximately 75% of its tourist accommodation constructed prior to 1975. Furthermore, recent years have seen a substantial reduction in the number of tourists staying in Puerto de la Cruz. There was a fall of 30% between 2006 and 2012 with a clear deterioration in its economic activity and signs of obsolescence and decline. This was not only linked to the international economic depression and its consequences on the tourism market: in the same period, the fall in tourism in the south of Tenerife was a mere 4%. These characteristics fit with a declining tourist area [13,14], where the profitability of many tourist-related activities, especially accommodation, has been significantly reduced in recent years.

This loss of competitiveness is best seen by looking at the growing imbalance between the north and the south of the Island. From the situation in the 1970s, when Puerto de la Cruz lodged approximately 60% of the visitors to Tenerife, to 2012, when that percentage fell to just 14% (684,000 from a total of 4.9 million visitors to the island). This highlights the great divergence in the evolution of Puerto de la Cruz with respect to the resorts located in the south of Tenerife, where the growth of tourism activity now accounts for almost 80% of visitors to the island. Even though the public authorities were aware of the ever-greater divergence between the north and the south of Tenerife, they only took piecemeal measures that, in general, were based on incorrect assumptions about the nature of the problems that confronted the northern tourist destination.

One crucial aspect to understand the dynamics of Puerto de la Cruz as a tourist resort is its urban development model. The present city of Puerto de la Cruz is the result of a local model where permissive authorities allowed land use, buildings and growth areas; in particular, the first area of urban expansion (Martiánez area) led to Puerto de la Cruz's high-density urban development and high-rise buildings.

In fact, the bulk of tourism accommodation in Puerto de la Cruz was built between 1962 and 1972: in this period, the number of beds grew spectacularly from 2300 up to almost 30,000. Since 1972, the overall number of hotel beds in Puerto de la Cruz has not changed much. The cyclical fluctuations observed in the market were mainly produced by variations in the number of available apartments, which appear as the marginal part of the market and play a role as a "regulatory valve". In the great crisis of 2006–2012, the number of beds in apartments shrunk below 50%, while hotels only reduced by 20%. Nowadays, apartments offer only a quarter of the accommodation of Puerto de la Cruz (nearly 40% in the southern resorts of the island).

Especially during the 1990s, chains invested in the hotel business of Puerto de la Cruz. As of today, these chains offer approximately 50% of the tourist accommodation available in the destination. This is a very important characteristic of tourism activity in Puerto de la Cruz because the accommodation supply has also generated a great divide between traditional family-owned hotels and apartments versus hotels owned by chains. This divide is not only due to the differences in production and commercialization processes, but also because of their divergence in profitability and attachment to Puerto de la Cruz. Consequently, the deep crisis of local family-owned hotels has not been felt with the same intensity by the other half of accommodation suppliers. In fact, it has mainly been the plight of the family-owned accommodations that has generated the request for the public authorities to intervene directly in the destination.

To these developments, we have to add the effects of the international economic crisis on tourism activity in Puerto de la Cruz, where, as mentioned before, there was a fall of 30% in the number of tourists between 2006 and 2012. Despite the fact that tourism in the Canary Islands withstood the crisis better than many other activities, this tremendous drop in the resort reflected the continuation of its economic downturn. The situation was aggravated by the state of the German and British economies, the main tourist origin countries. The national market could not offset the international downturn in

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Puerto de la Cruz because more Spanish travelers took shorter trips and mostly within the Spanish mainland, so national tourism dropped more than a third between 2006 and 2012. As a result, revenue data per room showed a steady reduction for hotel and apartments in Puerto de la Cruz [25].

Furthermore, in recent years, there have been remarkable global and structural transformations that have markedly changed tourist destinations. In particular, the online boom, the expansion of low-cost airlines, the redistribution of tourist flows to medium- and long-distance destinations, the growth of independent tourism and the increased use of non-hotel accommodation have been some of the factors that have influenced tourism. Since 2008, all of these factors have operated within the context of an international economic recession, which has also affected tourist arrivals and business profitability in Puerto de la Cruz.

3. Method

To design strategies and policies to address complex problematiques, such as sustainable tourism issues, methodologies allowing both an integrated view of the issue and the proposal of appropriate strategies are necessary. Integrated assessment is the combination of existing and/or new methodologies intended to improve significantly the scientific analysis of any complex issue. These methodologies can also be extended as a means to identify and design the social contexts where decisions are made or considered [3]. In this regard, a methodology that combines tools from different fields of knowledge (social, natural and exact sciences) is suggested in the present study.

This integrated analysis follows works carried out by Corral Quintana, De Marqui et al. and Paneque et al. [18,26,27], among others, on approaches based on the relevance of extended participatory assessments [12,28].

The methodological integrated framework proposed in this paper to deal with the case of Puerto de la Cruz (see Table 1) follows three phases. Firstly, a detection of the key variables that influence the problem of tourism destination planning, as well as the interactions that may occur among them was performed. To do this, a Qualitative Model (QM) of the issue was developed. It was based on formal and informal sources of knowledge, such as an analysis of statistical data series and interviews with experts and stakeholders, which, on occasion, elicited conflicting opinions. This first step provides an initial overview of the different variables that influence destinations, facilitating the understanding of how the variables interact with each other.

Phase **Methodological Tool** Aim First Qualitative Model To determine key variables and their relationships Second Elaboration of Scenarios To assess action paths Third Participatory Process: 3 focus group sessions To define strategies and policies

Table 1. Integrated methodology scheme.

In the second phase, the qualitative knowledge attained was used to construct different scenarios integrating the temporal evolution of the most relevant variables. This enabled us to identify existing systemic nodes that should be considered and to analyze different courses of action, desired and undesirable, of the system. The scenarios ultimately facilitate the definition of the sustainable strategy and policies for Puerto de la Cruz in a final focus group session with the stakeholders and experts.

The proposed combination of methodologies, as well as the particular implementation sequence aim at allowing a more comprehensive understanding of the case and is thus a more holistic strategy to tackle the issue at hand. In the following sub-sections and sections, the integrated set of methodologies mentioned above and then the results of their implementation and conclusions are described.

3.1. The Qualitative Model

Social systems are very complex, and to understand them to make decisions, particularly strategic ones, it is necessary to work with variables that in the majority of cases are not quantitative. Sustainability **2016**, *8*, 680 5 of 17

Additionally, even in the case of quantifiable variables, sometimes researchers do not have sufficient information to build econometric relationships among them. These two restrictions may be overcome by the construction of qualitative models, like the one that is presented in this section. It does not give precise relationships between the variables, but enables us to understand the structure of the system and to detect the main relationships and roles of the variables.

During the first phase of the analysis, a set of 20 interviews with stakeholders and experts was carried out. Entrepreneurs, administrators, employees, local residents, as well as researchers were asked for their perception about the main issues of Puerto de La Cruz, as a whole and in particular about the tourism sector, with the following questions leading the discussion:

- (1) What are the main forces/variables, and the feedback between them, that could lead the process of transforming Puerto de La Cruz into a more sustainable destination?
- (2) What are the main policies that can be applied to these variables and the effects produced with the aim of improving the quality of life of the population and the visitors?

As a result of the interviews, a list of relevant variables related to the analyzed system and its environment was developed.

In order to identify which are the essential variables to understand the evolution of the assessed system [3,29–31], the Matrice d'Impacts Croisés-Multiplication Appliquée à une Classification method (MICMAC) was implemented.

MICMAC transforms the list of variables into an initial matrix (M1) (see Figure 1). M1 shows the direct interactions among the elicited variables. For each pair of variables, the following question arises: Is there a relationship of direct influence between variable i and variable j? If there is a relationship of direct influence, it is scored 1; to the contrary, it is 0.

	1 : Loc	2 : Equip	3 : UrbHer	4 : Accom	5 : CompOf	6 : Connect	7 : Health	8 : Qualif	9 : Plannif	10 : TouSegm	11 : TouProd	12 : Publnv	13 : Privlnv	14 : Regul	15 : Imag	16 : EconEnv	17 : Mark	18 : Env	
1:Loc	0	0	0	0	0	1	0	0	0	0	1	0	0	0	1	0	0	1	İ
2 : Equip	0	0	1	1	1	0	1	0	0	1	1	0	0	0	1	0	0	0	İ
3: UrbHer	0	0	0	0	1	0	0	0	0	1	1	0	0	0	1	0	0	0	İ
4: Accom	0	0	0	0	1	0	0	1	0	1	1	0	0	0	1	0	1	0	İ
5 : CompOf	0	0	0	1	0	0	0	1	0	1	1	0	0	0	1	0	1	0	İ
6 : Connect	0	1	0	1	1	0	0	0	0	1	1	0	0	0	0	0	0	0	İ
7 : Health	0	0	0	0	0	0	0	0	0	1	1	0	0	0	1	0	0	0	İ
8 : Qualif	0	0	0	1	1	0	0	0	0	1	1	0	0	0	1	0	1	0	İ
9 : Plannif	0	1	0	1	1	1	0	1	0	1	1	1	1	1	1	0	1	0	İ
10 : TouSegm	0	0	0	1	1	0	0	1	0	0	1	0	1	0	0	0	1	0	İ
11: TouProd	0	1	0	1	1	0	0	1	0	1	0	1	1	1	1	0	1	0	0
12 : Publnv	0	1	1	0	0	1	1	1	1	0	1	0	0	0	1	0	1	0	PS
13 : Privlnv	0	0	0	1	1	0	1	1	1	0	1	0	0	0	1	0	1	0	P-
14 : Regul	0	1	1	1	1	0	0	0	1	0	1	0	1	0	0	0	0	0	EP!
15 : Imag	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0	0	1	0	T _A -
16 : EconEnv	0	0	0	0	0	0	0	0	0	1	0	1	1	1	0	0	0	0	≧c
17 : Mark	0	0	0	1	0	0	0	0	0	1	1	0	0	0	1	0	0	0	© LIPSOR-EPITA-MICMAC
18 : Env	0	0	0	0	0	0	0	0	0	1	1	0	0	0	1	0	0	0	C

Figure 1. Matrix representing direct relationships among variables (Matrix 1 (M1)): Location (Loc); Equipment (Equip); Urban Heritage (UrbHer); Accommodation offer (Accom); Complementary Offer (CompOf); Connectivity and mobility (Connect); Health and safety (Health); Personal Qualification (Qualif); Strategic Planning (Plannif); Tourism Segmentation (TouSegm); Tourism Product (TouProd); Public Investment (PubInv); Private Investment (PrivInv); Sectoral Regulation and territorial planning (Regul); Image and promotion (Imag); Economic Environment (EconEnv); Marketing (Mark); Environment (Env).

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Filling the matrix serves to raise nxn^{-1} questions concerning n variables, some of which had been forgotten in the absence of such a systematic and thorough reflection. This interrogation procedure makes it possible not only to avoid errors, but also to sort and classify ideas leading to the creation of a common language within the group. Similarly, it allows a certain redefinition of the variables and, hence, of the analysis.

Once the matrix is filled, the identification of the key variables is carried out in a two-step process; first, by a direct classification, using simple sums of values of influence (rows) and dependence (columns) for each of the variables, followed by an indirect classification obtained after raising the power of M1 four times, producing a matrix representing indirect relationships among variables, namely M4 (see Figure 2). The analysis of M4 facilitates the disclosure of hidden relationships, which are difficult to understand based on just the information provided by matrix M1.

	1 : Loc	2 : Equip	3 : UrbHer	4 : Accom	5 : CompOf	6 : Connect	7 : Health	8 : Qualif	9 : Plannif	10 : TouSegm	11 : TouProd	12 : Publnv	13 : PrivInv	14 : Regul	5: Imag	16 : EconEnv	17 : Mark	18 : Env
1 : Loc	Ò	198	76	798	704	37	95	565	88	760	838	146	291	146	703	Ò	767	Ò
2 : Equip	0	335	127	1358	1199	63	163	960	150	1300	1429	249	490	249	1209	0	1304	0
3 : UrbHer	0	225	91	912	802	41	114	648	107	860	958	162	330	162	804	0	875	0
4 : Accom	0	307	119	1246	1100	57	152	885	141	1188	1312	226	450	226	1108	0	1198	0
5 : CompOf	0	307	119	1247	1099	57	152	885	141	1188	1312	226	450	226	1108	0	1198	0
6 : Connect	0	282	114	1150	1012	52	145	816	136	1087	1210	204	413	204	1020	0	1104	0
7 : Health	0	178	74	718	630	32	91	511	86	672	753	126	261	126	628	0	688	0
8 : Qualif	0	307	119	1247	1100	57	152	884	141	1188	1312	226	450	226	1108	0	1198	0
9 : Plannif	0	658	251	2670	2362	124	331	1903	299	2570	2820	493	959	493	2412	0	2564	0
10 : TouSegm	0	328	128	1336	1181	62	166	948	152	1279	1410	243	479	243	1198	0	1284	0
11 : TouProd	0	529	197	2149	1905	101	266	1534	237	2086	2276	402	768	402	1963	0	2064	0
12 : Publny	0	471	180	1903	1685	89	229	1348	211	1824	2007	349	689	349	1693	0	1831	0
13 : Privlnv	0	435	169	1762	1558	82	214	1244	198	1683	1857	320	636	320	1564	0	1693	0
14 : Regul	0	437	176	1773	1566	82	224	1257	207	1687	1871	318	637	318	1580	0	1702	0
15: Imag	0	266	105	1080	953	49	133	764	124	1024	1135	194	390	194	955	0	1037	0
16 : EconEnv	0	261	101	1049	931	49	136	752	119	1015	1111	196	376	196	961	0	1003	0
17 : Mark	0	225	91	913	801	41	114	648	107	860	958	162	330	162	804	0	875	0
18 : Env	0	178	74	718	630	32	91	511	86	672	753	126	261	126	628	0	688	0

Figure 2. Matrix representing indirect relationships among variables (M4).

The results in terms of the influence and dependence of each variable may be represented on a plane, in which the y-axis displays the leading forces (this is calculated based on the sum of rows in M4), while the x-axis shows the dependent ones (the sum of columns). The interaction of these two dimensions divides the diagram into four areas of analysis according to the ability of the variable to influence the rest and the issue (see Figure 3). The following typology can be distinguished:

- (a) lead variables, which produce strong impacts on other variables and, to the contrary, are not significantly affected by changes in others (in the upper left of Figure 3).
- (b) interacting or feedback variables, which produce, directly or indirectly, important impacts on the others and are also affected by their changes (in the upper right of Figure 3).
- (c) dependent variables, which are the opposite of the first group, because they are very sensitive to changes in other variables, but do not produce important effects on them (in the bottom right of Figure 3).
- (d) variables that may have less attention paid to them because they neither produce nor receive important effects (in the bottom left of Figure 3).

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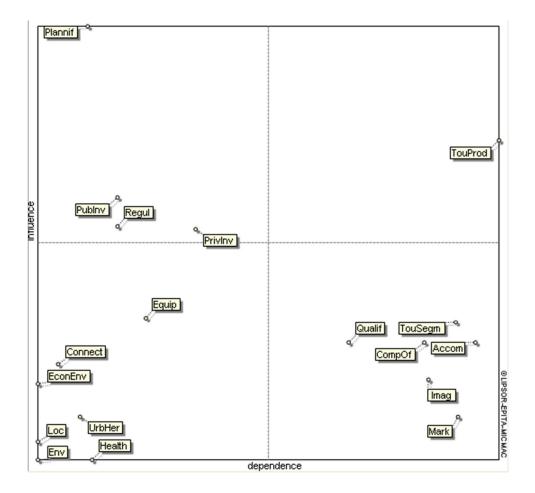


Figure 3. Matrix representing indirect relationships among variables (M4).

The analysis of the outcome of the qualitative model, in terms of the dependence and influence of the lead variables of the system, provides the necessary understanding of the system that will subsequently be used to build the scenarios of a more or less sustainable destination.

3.2. Elaboration of Scenarios

The proposed scenarios are a hypothetical sequence of events aimed at focusing attention on causal processes and decision processes. The scenarios were developed based on the results obtained from the previous two analyses. The QM provided a tourism destination sustainable planning process. The two scenarios were built to facilitate the later discussion of the problematique with the social actors and experts and the design of a strategy to combat the decline of the destination.

It is relevant to consider scenarios as progressions of events and not as future images. This will help focus attention on the unfolding of alternative routes and junctions, where human actions can affect the future significantly.

The anatomy of a scenario according to several actors [3,32–34] encompasses the following elements: (a) critical dimensions; (b) trigger forces; (c) strategic invariants (pre-determined elements); (d) critical uncertainties; and (e) discussion (logical, of scenarios) and future image.

Critical dimensions collectively define the multidimensional space where the scenarios can be constructed. They do not necessarily have to represent or contain casual assumptions, as they are defined in terms of relevance: they describe the most important attributes of the future images. They are not selected based on their scientific importance, but on the basis of their political value and are used to evaluate the desirability and feasibility of the scenarios. The following critical dimensions

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have been defined: (a) economy; (b) society, education and culture; (c) tourism sector; (d) governance; (e) environment and natural resources.

Trigger Forces (TFs) represent the factors, tendencies or key processes, which may influence the situation or decisions made, as well as those that drive the system and co-determine how the future scenario unfolds. TFs can be arranged into two main categories: contextual forces: economic, social, environmental processes or events; and social actor forces: actions and projects by the government, as well as by other social and political actors. In the case of converting Puerto de la Cruz into a sustainable tourism destination, they would be the following:

- Economy: (a) competitive economic sectors (tourism and services); (b) public investment (investment in R&D); (c) private sector investment; and (d) improvement of the economy.
- Society: (a) integrated civil society; and (b) inhabitants.
- Tourism sector: (a) infrastructures; and (b) tourism initiatives.
- Governance: (a) development and land-use planning; and (b) institutional stability.
- Environment and natural resources: (a) environmentally-friendly initiatives; and (b) mobility and accessibility.
- Strategic invariants (predetermined elements) are considered evident and invariant tendencies throughout all scenarios. If an event or a process could presently develop into any scenario, it is a predetermined element. In the case under analysis, the demographic tendency is considered a strategic invariant.
- Critical uncertainties are those initiative forces whose progression cannot be anticipated, but are fundamentally known to affect a set of events, determining principal differences between scenarios.

3.3. Participatory Process: Focus Groups

Stakeholders should be considered in decision-making processes as a powerful problem-solving tool [35] and as a basic requisite to cope with the complexities of problems [1,36]. By involving stakeholders in decision-making processes, we are able to speak about knowledge being "socially robust", referring to both transparent and participative processes, as well as of social approval of scientific production [37,38].

Together with the previous consultation processes, a participatory process was designed to involve the Puerto de la Cruz stakeholders in defining the strategic plan. Fifteen stakeholders, among public and private social actors, were involved. The results of the qualitative analysis and the scenarios were discussed with the participants in three focus group sessions devoted to discussing three main aspects: (a) the issue under study; (b) the possible scenarios; and (c) the strategies, policies and actions that would help Puerto de la Cruz become a more sustainable tourism destination.

In the first session, the initial list of variables elicited from the interviews, as well as the outcomes of the quality model, that is the classification of the variables, were discussed as a way of facilitating a better understanding of the problematique or issue framing. At a second meeting, the different scenarios were presented, and they were used as an opportunity to reflect on the past, present and the possible futures of Puerto de la Cruz discussing the pros and cons of each of them. In the final session, the stakeholders were involved in defining a planning strategy that would achieve the chosen scenario for Puerto de la Cruz as a tourism destination.

4. Results

4.1. Issue Framing (Quality Model)

As discussed in [39,40], a salient feature of this kind of analysis is to identify the causes of the decline. An analysis of the existing literature on the subject and discussion with specialists in the field and members of the Consortium produced the following main problems:

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(a) The destination has been commercialized in the sun and sand market, even though its characteristics are more of an urban nature.

- (b) Puerto de la Cruz has followed an aggressive pricing policy against the growing competition of the south of Tenerife and the rest of the resorts in the Canary Islands. Consequently, quality of service and profit margins have deteriorated, leading to a decline in the competitive success of Puerto de la Cruz.
- (c) There are at least three reasons why currently there are limits to investment and modernization of infrastructures in Puerto de la Cruz: the high cost of the (much-needed) renovation of accommodations, low profit margins and difficulties in borrowing due to the financial crisis.
- (d) The renovation of accommodation also faces legal difficulties because hotels, new, as well as old ones, need to comply with the current tourism regulations.
- (e) The dependence on tour operators for the commercialization of Puerto de La Cruz means that accommodation companies do not sell directly to their clients.
- (f) A consequence of the (low) occupancy rates in Puerto de la Cruz has been the conversion of tourist apartments into apartments for residents. In addition, the difficulties to renovate buildings have also contributed to this development.
- (g) Public spaces in Puerto de la Cruz have suffered a continuous deterioration that has not been contained by the application of too few and often piecemeal measures that do not attack the root of the problems, but only some of its most evident effects.
- (h) The image of Puerto de la Cruz has become increasingly associated with one of continuous and irreversible decline as a sun and sand destination, i.e., a mature tourist destination in a "stagnation" stage.

Such stakeholders and experts' knowledge, elicited during the interview process, was translated into a set of relevant variables that were analyzed through the qualitative analysis. Thus, the following variables were taken into account in the qualitative analysis of Puerto de la Cruz:

- Location (Loc)
- Equipment (Equip)
- Urban Heritage (UrbHer)
- Accommodation offer (Accom)
- Complementary Offer (CompOf)
- Connectivity and mobility (Connect)
- Health and safety (Health)
- Personal Qualification (Qualif)
- Strategic Planning (Plannif)
- Tourism Segmentation (TouSegm)
- Tourism Product (TouProd)
- Public Investment (PubInv)
- Private Investment (PrivInv)
- Sectoral Regulation and territorial planning (Regul)
- Image and promotion (Imag)
- Economic Environment (EconEnv)
- Marketing (Mark)
- Environment (Env)

Matrix M1 (Figure 1) shows the interactions among the defined variables according to the opinions expressed by the different experts and stakeholders consulted. Cells containing ones (1) mean that the variable located in the row affects the variable in the column, while a cell with zero (0) implies that there is not a direct impact between such variables. Thus, for instance, private investment affects

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directly the quantity and quality of available accommodation, the complementary offer, as well as other variables.

Raising matrix M1 to the fourth power allows the detection of indirect impacts among tourism destination variables. M4, that is the matrix reflecting the indirect relationships among variables, is shown in Figure 2. Thus, for instance, while there is not a direct relation between location and urban heritage, there are 76 indirect relations through other variables.

The knowledge obtained and structured through the implementation of the qualitative analysis of M4 (Figure 2) is the main input for the scenarios of Puerto de la Cruz. The way of structuring information obtained as result of this kind of analysis is useful in decision-making processes, since the key policy variables (leading and interacting in the model) are revealed. The relationships described in M4 (Figure 2) are displayed in the form of a graphical representation (see Figure 3). In the case study of Puerto de la Cruz and as a result of the analysis of indirect relationships (M4) strategic planning, both public and private investments, as well as regulation measures are leading forces. Therefore, actions carried out on these variables should be primarily aimed at, affecting the following dependent variables: marketing, tourism segment, complementary services, tourism product and the accommodation offer. With regard to the interacting variables (upper right-hand side), the tourism product is a key variable, since it affects and is affected by different variables (Column and Row 11).

The importance of public and private investment can be seen, as well as the need for proper planning and more effort devoted to business strategies and tourism products. In addition, the correct analysis of tourism segments, accommodation strategies and complementary services is required.

The results of the qualitative model were presented in the first focus group session with the aim of discussing with stakeholders the main issues that Puerto de la Cruz was facing. The idea behind this exercise was both to use the analysis of the variables as a facilitator for the actors' dialogue, as well as an instrument to structure existing knowledge. Thus, the general perception about the issues was progressively modified during the session. It was not only a question of stagnation and even decline due to obsolescence of the private and public infrastructures, but also of a deficient position in the tourism market. The issue was not solely that the destination may have become aged, but also that the tourism market is completely different from what it was before. In fact, the sun and sand market now has many more modern (and "better-suited") resorts on offer, and the spectacular growth of potential customers has moved away, so that this consolidated destination only attracts marginal, "low-cost" segments (young students, retired people). For these reasons, even the best renovation measures are insufficient to arrest the marginalization process.

In summary, the problems of Puerto de la Cruz are even greater when the destination has deteriorated in such a way that it also requires emergency measures to halt the growing decline of its tourist infrastructure and basic facilities. It is not only a question of stopping physical decay and degradation, but also of avoiding the continuation of a bad image in the tourism market. This is a particularly difficult point to address because early in a renovation process, a destination cannot fight back with the publicity of the new image that it needs to transmit to the market. In fact, it may not have a clear understanding of what new products it has to offer or what the implications are for production and commercialization.

4.2. Scenarios for Puerto de la Cruz

Scenarios should unfold following an internal logic that links the elements into a plot or coherent argument. The challenge is to identify a plot that (1) captures the dynamics of the situation in the best possible way and (2) transmits the meaning of the message effectively. The whole ensemble of initiative forces can develop in different ways, following different plots, where eventually, the different elements are combined via a narrative that illustrates how the system evolved from a moment in time (generally the present) to a future one.

During the development of the scenarios, several concealed concerns were revealed. The technical and financial inability of the city authorities, in the opinion of the inhabitants of Puerto de la Cruz,

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has led to a loss of trust in local leadership. The general consensus on what can be done may still not be enough to achieve the required changes to modify the situation of tourism activity in a mature destination. Moreover, hard decisions may not be made, due to the pressure exerted by the weakest sectors of the stakeholders, and an excessive "management and control" by the authorities may stop new ideas and the introduction of the much needed innovation in tourism. Another concern was that though the policies implemented by different authorities may well have reached a desirable equilibrium of forces, they may not have the necessary efficiency and swiftness to rehabilitate a mature destination.

Public policies have in general been aimed toward restraining supply and improving quality, thus implicitly advocating for a process of concentration in larger tourism firms. However, these public efforts have not been directed to the development of strong entrepreneurial structures based on local platforms. In fact, there have not been public measures to support the creation of local hotel chains. Apparently, Canarian authorities did not trust in the emergence and consolidation of local business groups in tourist activities or at least do not believe that this could occur in the short or medium term. Therefore, the strategic leadership required for directing and managing tourism, as well as to implement economic innovation, has to be placed in more efficient hands.

As a result of the knowledge elicited during this exercise, the key elements of three scenarios (Figures 4–6) were envisaged together with the stakeholders involved in the second focus group session. The resulting scenarios were the outcome of discussing the qualitative analysis for the most significant variables of the problematique and an exercise of forecasting or future projection.

ROT and DECAY

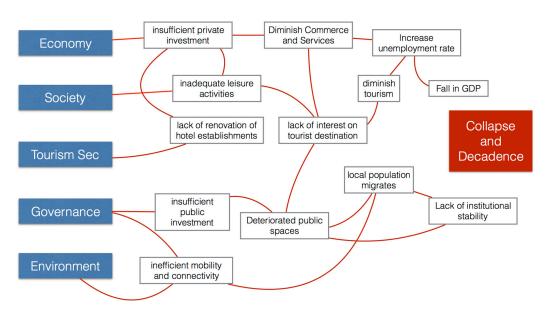


Figure 4. Scenario "rot and decay": the collapse of Puerto de la Cruz.

The first scenario (Figure 4), denominated "rot and decay", represents a Puerto de la Cruz in continuous decline and decay. The future image shows a tourist destination in 30 years with low quality and a worrying economic collapse. This situation results from the dynamic influence of different variables (mainly those considered relevant in the qualitative analysis). Thus, a decrease in public and private investment, resulting in a slow economic recovery and a lack of clear objectives by the main stakeholders, will lead to a progressive decrease in the number and quality of business and municipal services in general. The leisure and cultural activities will also be influenced by apathy and poor management. A lack of commitment to using clean energy alternatives, to improve sustainable

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connectivity and media mobility will decrease the interest of the city for residents, visitors and economic operators in the search for locations for their activities. This will affect negatively the ability of Puerto de la Cruz to generate employment and income, producing a steady exodus of residents and reducing the destination's revenues and profitability, driving the tourist destination, Puerto de la Cruz, into decline and collapse.

FENICE

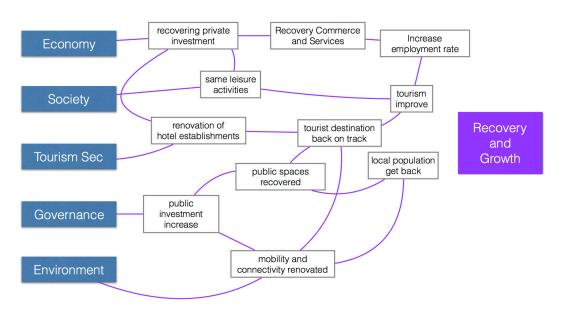


Figure 5. Scenario "fenice": Puerto de la Cruz's mirage.

BLOSSOM

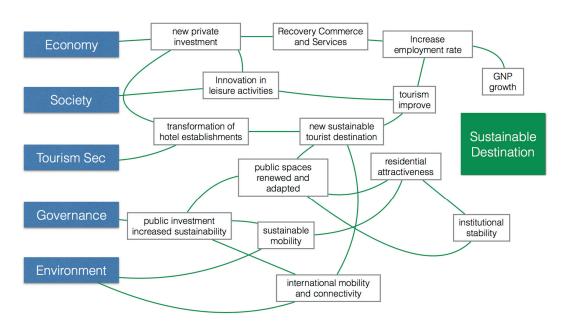


Figure 6. Scenario "blossom": Puerto de la Cruz as a sustainable destination.

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The scenario "fenice" represents an image of Puerto de la Cruz, which due to the economic recovery, sees a rebirth of economic activities based on public investment and a gradual increase in private investment resulting from increased confidence of the different social actors. However, these Puerto de la Cruz revitalization patterns are based on pre-crisis behavior, and the sectoral structure, the business activities and associated services maintain the same type of activity as before. Therefore, Puerto de la Cruz recovers, but it does not adapt to the new reality of more sustainable tourist destinations, which places Puerto de la Cruz in a position of vulnerability to external contexts and misses the opportunity of a possible transformation.

Finally, the "blossom" scenario tries to display a Puerto de la Cruz that after the crisis resurfaces with a proposal of structural changes and a renewed commitment to being a sustainable tourist destination. The previous territorial and sectoral planning is changed radically, and there is a strong commitment to sustainable and innovative activities, creating a municipality with high added value.

4.3. Strategic Plan

During the third and last focus group session, the discussion among the participants led to a debate on the consequences of each scenario for the Puerto de la Cruz and, finally, to a strategic plan of action to reorient Puerto de la Cruz as a tourist resort avoiding the negative scenarios.

The strategic plan to tackle the problems that the destination Puerto de la Cruz has to confront consisted of four complementary strategic lines, with a set of seventeen policies and a higher number of specific actions aimed at achieving structural change in the destination (see Table 2). The implementation of these strategic axes would move the destination towards the desired scenario, which will convert Puerto de la Cruz into an economically- and socially-profitable tourist resort while diminishing environmental impacts.

The proposed plan implies that Puerto de la Cruz must enhance its core strengths, which are generally those of an urban destination, and focus on accommodation and services with European standards, an excellent location and a high quality environment, i.e.,:

- (a) Promote an environmentally-safe and pleasant area where public spaces are well kept, with sufficient provision of social welfare services (especially health), within an accessible urban context that allows interaction with the local population.
- (b) Promote a diversified offer of leisure, catering and commerce and integrated with the design of potential new products, especially in the cultural sphere.
- (c) Transform itself into the base of operations for the North of Tenerife (and the island as a whole), incorporating complementary tourist products not directly available in Puerto de la Cruz.
- (d) Achieve a standard of accommodation that is more characteristic of urban quality hotels, with greater involvement of the private sector, through the implementation of sectorial and territorial regulations that are more appropriate to the characteristics of Puerto de la Cruz.

The traditional dependence on tour operators in destination marketing and the absence of a proper profile in the promotion and image of Puerto de la Cruz have been a hindrance that has negatively influenced its evolution and possible reorientation. This shows a lack of vision that has reduced the ability to manage the new challenges that tourism activities must face in the near future. Therefore, it is essential to carry out a substantial change in the marketing and promotion of Puerto de la Cruz, i.e., a firm commitment to a unique and specific product consistent with the characteristics of the destination. Thus, for the necessary exposure in the 21st century, the destination has to penetrate into direct marketing through the appropriate retail channels.

Following [41,42] on early participation in sustainable decision-making processes, the authors consider that stakeholders have frequently been excluded from these processes despite stakeholders being necessary to elaborate beneficial policies for sustainable rehabilitation strategies of tourism destinations.

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Table 2. Puerto de la Cruz: strategic plan axes.

Strategic Axis	Description
Territory and environmental impacts	This core axis includes generic actions of sustainability, as well as environmentally-responsible procedures, practices and behaviors, which relate to renovation, rehabilitation and reorganization of urban and coastal spaces to improve significantly the quality of the environment. The proposal includes various measures ranging from those relating to energy, emissions and waste to those aimed at improving the quality and availability of public spaces in urban areas and on the coast and, specifically, improved integration of unique attractions.
Connectivity, accessibility and mobility	Since the 18th century, with the development of the port activity in Puerto de la Cruz, the city has been a central transport and communications node in the north of Tenerife, connecting not only internally different parts of the area, but also, and above all, linking it to the rest of the island and the outside world. Puerto de la Cruz plays a central role in the Valle de La Orotava and in Tenerife's economy. For this reason, Puerto de la Cruz should continue aiming for its full inclusion in the transport and communication networks of Tenerife. In addition, to improve the quality of life of the citizens of Puerto de la Cruz and its visitors, a reduction of traffic congestion in the streets is required that would improve mobility and accessibility.
Local economy and social integration	New attractions should be offered by Puerto de la Cruz; there should be promotion in two areas: (a) the reinforcement of the traditional commercial area in relation to the island's economy and tourism; and (b) the search for differentiated goods. In fact, stakeholders stated that shopping facilities and retail sales are important components of the future success of Puerto de la Cruz, re-establishing shopping for residents, as well as visitors from the rest of the island. Retail prosperity cannot be sustained from tourists alone; therefore, the objective is to cater to different market segments. Therefore, shopping must be a major theme in urban rehabilitation.
Tourist product and commercialization	The crucial point of this strategic axis is the need to move away from the exclusive sun and sand commercialization of the resort toward a wider consideration of its resources and those located on the rest of the island. Puerto de la Cruz must increase its central position on the island and become the base of operations for the North of Tenerife (and the island as a whole), thus incorporating many complementary tourist products not directly available in Puerto de la Cruz.

5. Conclusions

Authorities in mature resorts often try to design rehabilitation plans independently, assuming that the rest of the stakeholders will comply with these proposed plans. Our approach points out that when dealing with complex socioeconomic issues, the design of any specific plan should involve the relevant stakeholders in order to delve into the true nature and characteristics of the issues affecting a destination and, hence, develop a holistic and long-term sustainable plan. This would avoid partial or incomplete plans based on an inadequate understanding of the reality.

The emphasis on the rehabilitation of private and public spaces in this resort tells us that previous assessments had been carried out wholly from the point of view of the supply side of the market. It was implicitly assumed that any renovation efforts would lead to an improvement in spending by tourists and a consequent enhancement of profit margins. There has not been a specific assessment of the current or future demand for potential tourism services of a renovated Puerto de la Cruz.

It should be noted, however, that this analysis of the destination Puerto de la Cruz has extended beyond the typical studies of public spaces and infrastructures. It has included a deeper examination of the products being offered by the resort. The challenge faced by Puerto de la Cruz today requires not only improving its current situation in the tourism market, as well as gaining competitiveness in that market, but also radically altering the nature of the tourism products that are currently being sold and how they are commercialized. Puerto de la Cruz has been commercialized as a sun and sand destination, even though its characteristics are more of an urban and leisure nature. In fact, its

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supply of accommodation exhibits fewer common spaces (pools, gardens, etc.) than a typical resort in the Caribbean, or for that matter in the newest resorts of the south of Tenerife. Puerto de la Cruz's accommodation corresponds to the "vertical" or "tower" buildings that are demanded for a night stay, i.e., city tourists, and not the "horizontal" construction of the typical Caribbean resort model. This divergence has conditioned the level of efficiency in the management and marketing of the tourism product sold.

As a result, the analysis carried out has led to a proposal to reorient Puerto de la Cruz as a more sustainable tourist destination. The resort needs to take a more radical approach, adopting measures that involve a new tourism model, one that it is more in accordance with Puerto de la Cruz's characteristics as a city.

A second point to address refers to the regulation of tourism activities and, in general, of economic activities. Thus, legal changes during recent decades have modified the rules and regulations that govern tourism activities in such a way as to repel private investment directed at the improvement of accommodation. This has happened in the Canary Islands where the official requirements today are completely at odds with the hotels and apartments prevailing in Puerto de la Cruz. Moreover, if the accommodation sector has poor expectations about future profitability and difficulties obtaining credit from the banking system, it is no wonder they will not invest in their hotels.

The participatory integrated analysis of Puerto de la Cruz has been quite successful because it was viewed as the best and only way ("the last opportunity") to stop the continuous decline in tourism activity in the city. Both stakeholders (entrepreneurs, authorities and employees) and the inhabitants of Puerto de la Cruz had a shared feeling that they needed to be rescued by the same institutions (island and regional governments) that, in their view, were largely responsible for the decay of their city. Public authorities have favored the development of the main competitor of Puerto de la Cruz, i.e., the south of Tenerife. Above all, the success in engaging stakeholders highlights the movement away from mere planning changes (prescriptive and technical) to more holistic and inclusive tourism destination management [43].

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