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“Rethink and reset” tourism in the Galapagos Islands: Stakeholders’ views on the sustainability of tourism development

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ABSTRACT

Tourism growth in biodiversity conservation areas presents both challenges and opportunities for sustainability. The COVID-19 pandemic brought both into focus in the Galapagos. This study engages with tourism service providers and regulators in Puerto Ayora, Santa Cruz Island, to explore how ‘sustainability’ has been integrated into evolving links between tourism and conservation since the implementation of the *Ecotourism Model* a decade ago. Findings suggest that to achieve sustainability, priorities include 1) engaging local stakeholders in a shared vision for tourism development; 2) addressing community concerns, especially regarding basic services, health and education; 3) assessing and managing the balance between “high-end” regulated tourism and low-cost informal tourism. These illustrate challenges and opportunities for sustainable tourism in the Galapagos and elsewhere.

1. Introduction

There is a history of complex interactions between tourism and biodiversity conservation in protected areas, which has resulted in a ‘symbiotic relationship’ (Boley & Green, 2016). This has led to a “conservation-tourism alliance” through which nature-based forms of tourism have been promoted by conservation practitioners, and supported by policymakers and managers, as a way to advance conservation aims while simultaneously addressing the economic and social aspirations of local communities. It is an important potential pathway to sustainable tourism and, more broadly, to meeting Sustainable Development Goals (Meredith, Blair, & Burbano, 2020) since it implies maintaining ecosystem integrity in conservation areas through low-impact, non-consumptive resource use, while also providing employment, improved infrastructure, and increased business opportunities for local communities (Boley & Green, 2016). Ecotourism is a form of nature-based tourism and is intended to embody this ideal (Fennell, 2008). However, inevitably, there are challenges associated with its

implementation (Brandon, 1996; Goodwin, 2015). This paper explores the challenges faced in the Galapagos Archipelago as the post-COVID-19-pandemic tourism recovery begins.

Awareness of negative effects of tourism saturation and of excessive visitation is not new (Milano, Novelli, & Cheer, 2019). These authors note that in the last four-decades, tourism impacts have increased not just as a result of increased numbers, but also due to increased mobility and increased demand for novel experiences. Researchers note both social and environmental impacts arising from excessive visitation in “hotspot” tourist destinations (e.g., Pecot & Ricaurte-Quijano, 2019; Pizzitutti et al., 2016). This has led to concerns about “overtourism” (e.g., Goodwin, 2017) and to recent research that aims to find how quality-of-life within affected communities can be reconciled continued expansion of the tourism economy (Everingham & Chassagne, 2020; Higgins-Desbiolles, 2020).

Tourism is one of the fastest-growing industries in the world, and since its benefits can be diffused into remote regions, local communities can be attracted by apparent opportunities. However, as Higgins-

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Desbiolles (2018) notes, 'neoliberal development ideals' can draw communities into tourism-dependent economies, where market volatility as well as social, economic, political and regulatory pressures can put local communities at risk (Sun, Li, Lenzen, Malik, & Pomponi, 2022). As alternative livelihoods in tourism are promoted, traditional livelihoods such as farming and fishing can be displaced, which can make local communities increasingly vulnerable to market volatility (Burbano & Meredith, 2020). Early calls for 'degrowth tourism' emphasized the need for 'rethinking sustainability' within tourism (Hall, 2010). Higgins-Desbiolles (2018) argues that tourism generally does not support sustainability, largely because of the negative impacts of overtourism (see also Milano et al., 2019). Eagles, McCool, and Haynes (2002) argued that dangers are most acute when tourism operations adopt the language of sustainable development without applying the principles of sustainability in practice; this impacts the efficiency of tourism operations management (Valdivieso, Eagles, & Gil, 2015).

The conservation-tourism alliance contains an inherent paradox: at the global scale, for example, areas considered crucial for biodiversity conservation are designated by UNESCO as Natural World Heritage Sites, but this designation can make them important tourist destinations and can increase pressures on the ecosystem (Birendra, 2021; Liburd & Becken, 2017). Effective tourism management is required (Job, Becken, & Lane, 2017) to prevent unintended negative consequences for both ecosystems and local communities (Hall, 2019) and in relation to the Sustainable Development Goals (e.g. dealing with high energy use and water consumption, inappropriate waste management, land use change, habitat destruction and biodiversity loss (Bramwell, Higham, Lane, & Miller, 2017).

Boluk, Cavaliere, and Higgins-Desbiolles (2019) note that destinations such as the Galapagos Islands or Machu Picchu (Peru) have been put in danger by continue tourism growth and highlight the need to find 'alternative paradigms' to counteract the impacts of tourism growth. "Responsible tourism", a form of tourism that "creates better places for people to live in and for people to visit" (Goodwin, 2011, p. x) has been proposed as a way to move towards sustainable tourism (Mathew & Sreejesh, 2017; Moscardo & Murphy, 2014); however, Higgins-Desbiolles, Carnicelli, Krolkowksi, Wijesinghe, and Boluk (2019) argue that even this approach will not be sufficient to address all impacts of increasing tourism; they stress the need for degrowth strategies, particularly in destinations where overtourism is apparent.

"Slow tourism" as an alternative to 'degrowth' has been explored by academics as an alternative form of tourism that can contribute to sustainability. It entails staying in a place for longer time and traveling at a slower pace, allowing a profound, true and cultural experience (Conway & Timms, 2010). The authors suggest that this attracts travelers who prefer enhanced quality-of-life experiences and it reduces negative socio-cultural and environmental impacts on host communities, so slow tourism is often associated with sustainable tourism (Oh, Assaf, & Baloglu, 2016).

World Travel and Tourism Council data shows that COVID-19 pandemic harshly affected the global tourism and travel industry: domestic visitor spending decreased by 45%, while international visitor spending declined by an 'unprecedented' 69.4% (WTTC, 2021). While the WTCC expects the sector will soon recover to pre-pandemic levels, there is concern among some scholars that a return to the "business as usual" model will only raise new problems (e.g., see Everingham & Chassagne, 2020; Higgins-Desbiolles, 2020; Higgins-Desbiolles, Doering, & Bigby, 2022; Romagosa, 2020) as tourists who have been confined and have saved money begin to move, and as businesses attempt to recoup what was lost during the pandemic (Vogler, 2021). They advocate taking advantage of this unprecedented period to make fundamental changes to the tourism sector, and consider that the pandemic crisis may offer an unexpected opportunity "to rethink and reset tourism" towards a more sustainable path. The Galapagos Islands present an interesting case for exploring options to rethink and reset with respect to a sustainable and mutually supportive strategy

addressing conservation priorities, community aspirations and the critically important tourism industry.

1.1. The Galapagos Islands case study

The Galapagos Archipelago is a UNESCO World Heritage conservation site deemed to be of global ecological importance, but it is also a well-known tourist destination where the conservation-tourism alliance has actively sought strategies to advance conservation and community interests through tourism. Early models of tourism were characterized by cruise-ship tourism, as this was perceived as being most compatible with biodiversity conservation (Epler, 2007). However, as this excluded local communities from direct benefits, there was increasing demand for a more inclusive model encouraged land-based tourism (Epler, 2007). Since 2009, the number of tourists in cruise-ships has decreased while the number of tourists staying in local communities has steadily grown (Izurrieta, 2017); by 2014, 65% of tourists (140,323 visitors) stayed in hotels in island communities (National Park Directorate, 2014).

However, tourism's rapid growth on the islands brought environmental threats that caused the Ecuadorian government to declare the Galapagos Islands under emergency status in 2007 (García, Orellana, & Araujo, 2013). In the same year, UNESCO added the islands to the *List of Natural Heritages in Danger* and set recommendations to monitor tourism and its impacts (UNESCO, 2007). The Ecuadorian and Galapagos governments responded with a comprehensive diagnosis and the creation of a tourism management system (Ministry of Tourism and World Wildlife Fund, 2011). Additionally, changes to the Galapagos' governance model aimed to facilitate transition towards a more sustainable archipelago. Critical to this, and to strengthening the conservation-tourism alliance and recognizing community needs and aspirations, was the adoption of a management approach using a social-ecological system framework within which economic, social and ecological interactions were seen holistically (González, Montes, Rodríguez, & Tapia, 2008).

In 2010, the Galapagos Islands were removed from UNESCO's list of sites in peril, but, still, recognizing the need to address "unsustainable tourism development" UNESCO's assessment urged the national government "to develop and implement a clear tourism strategy for the Galapagos, with a focus on establishing mechanisms to discourage rapid and uncontrolled growth in visitation" and "to consider the feasibility of temporarily limiting the number of visitors to the islands while such policies are developed and implemented." (UNESCO, 2010) In 2011, in the Galapagos Sustainable Tourism Summit, an *Ecotourism Model for the Galapagos Islands* was determined to address these recommendations, and to bring stakeholders together to agree on a list of actions and a set of monitoring metrics that would address sustainability in tourism (García et al., 2013).

Nonetheless, pre-pandemic, the total number of tourists continued to increase: from 173,000 in 2010 to 185,000 in 2011, 224,000 in 2015, 271,000 in 2019 (Galapagos Tourism Observatory, 2021). This resulted in increasing tourism infrastructure and activities (Galapagos Government Council, 2015), and led to further calls for controlled expansion, given mounting evidence of increasing threats to the sustainability of the Galapagos (e.g., see Pizzitutti et al., 2016). In 2020, the COVID-19 pandemic collapsed tourism and harshly affected the local population that directly or indirectly depended on this industry; this exposed the vulnerabilities of small communities reliant on tourism (Meredith et al., 2020). This crisis, according to Figueroa and Rotarou (2021), can afford an opportunity for small islands to align their tourism planning and management more closely with the sustainable development goals in an effort to build a sector that is sustainable, more inclusive, and resilient.

Given this opportunity for a post-pandemic "rethink and reset" in the Galapagos, this study explores how a "sustainability" has been integrated into the evolving link between tourism and conservation in the Galapagos since the implementation of the ecotourism model in 2011. The study focuses on the views of both tourism service providers and government regulators in the town of Puerto Ayora, Santa Cruz Island.

This was selected as it is the hub of tourism activities in the archipelago. The research advances understanding of the challenges associated with developing nature-based tourism to achieve the twin goals of protecting natural heritage and supporting community development. Specifically, the study seeks to show 1) perceptions of progress on the sustainability of tourism in the last decade; 2) indicators and concrete actions that are considered important to help establish sustainable tourism; and 3) how local stakeholders envision a future pathway for sustainable tourism in the Galapagos.

The following section provides some background about tourism development in the Galapagos. Then we present details about the methodology employed in this study. The results section identifies views about the sustainability of tourism activities since the ecotourism model was implemented, identifies perceived ideas and actions that could foster tourism’s sustainability, explores lessons from the pandemic crisis, and presents our participants’ views on how they envision the future of tourism in this important conservation area. The discussion and conclusions explore key findings and suggest implications both for local management and for tourism development beyond the case study.

1.2. The background of tourism development in the Galapagos

The Galapagos Archipelago is located about 1000 km off the coast of mainland Ecuador in the Pacific Ocean (Fig. 1). It was officially incorporated into the Ecuadorian territory on February 12th, 1832. In recent decades population has rapidly grown reaching about 32,000 inhabitants (Galapagos Government Council, 2021). The Galapagos

National Park was formally established in 1959, and encompasses 97% of land in the archipelago. All of the marine area is protected in the Galapagos Marine Reserve (Fig. 1), and both land and marine areas are managed by the 2014 Management Plan of the Galapagos (Ministry of the Environment and National Park Directorate, 2014). The protected areas are primarily designated for conservation, but other uses may be allowed by the National Park Directorate, the institution in charge of the preservation of the natural areas. The Galapagos province is administered by the Galapagos Government Council, and governed by a special regime determined by the Galapagos Special Law. The creation, regulation and operation of lodging establishments is determined by the 2015 Galapagos Lodging Regularization Plan (Ministry of Tourism, 2015a).

Tourism initiated in the Galapagos in the 1960s, when an Ecuadorian company began offering daily trips between the islands. In 1969, cruise ships operations started with a capacity of 60 guests. At that time, two weekly flights transported tourists, settlers and scientists between the mainland and the islands (Epler, 2007). Because of its unique characteristics, the Galapagos Islands were declared a Natural World Heritage Site by UNESCO in 1978 and, in 1987, a Biosphere Reserve. Since then, the number of visitors has grown exponentially (see Fig. 1). According to data from the Galapagos Tourism Observatory, there are now a total of 898 tourism service companies in the archipelago; the majority of these are located in Santa Cruz Island (468 companies) (Ministry of Tourism, 2020).

Tourism development in the Galapagos has been characterized by a type of tourism perceived as being compatible with biodiversity conservation. Visitors with high purchasing power have preferred cruise

TOURISM SECTOR					
Years	1990	2000	2019	2020	2021
Total number of tourists arrivals	41,000	73,000	271,000	72,000	38,000*
* January to June 65% national visitor and 35% international visitors.					
Years	2007	2010	2015	2018	
Arrival of tourists - cruise ship	82,000	81,000	73,000	67,000	
Years	2007	2010	2015	2018	
Arrival of tourists - land-based	79,000	93,000	152,000	180,000	
Years	1981	1991	2000	2021	
Number of vessels	40	67	80	87	
Number of passengers	597		1,733	1,860	
Years	1990	2000	2010	2018	
Number of lodging establishments	12	39	147	317	

Activity	Number of service providers
Guides	800
Accommodation	317
Travel agencies	195
Food and beverages	153
Daily tour boats	116
Cruise ship boats	78
Land transportation	5

Activity	Number of total direct jobs
Accommodation	1,306
Travel agencies	435
Food and beverages	750
Daily tour boats	340
Cruise ship boats	1,112
Land transportation	19

Employment in tourism (2018)

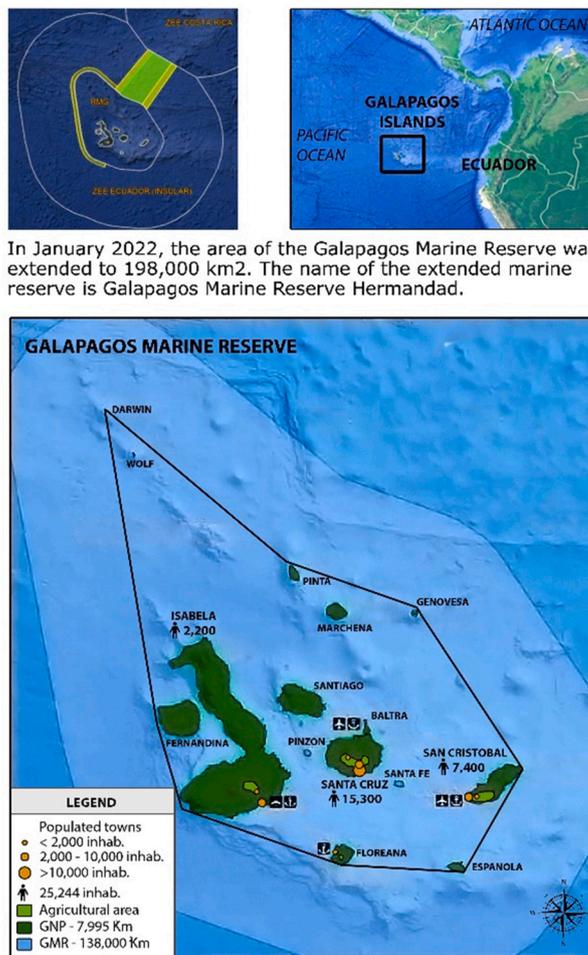


Fig. 1. Location of the Galapagos Archipelago. (Source: Google Earth.) Source of data: Galapagos Tourism Observatory, 2019 and National Institute for Census Data, 2015.

ship tours to visit remote areas of the archipelago. In 1981, there were 40 ships authorized to operate with a capacity of 597 passengers; currently there are 87 ships operating within the marine reserve, with a capacity of 1860 passengers and five daily cruises—see Fig. 1 (National Park Directorate, 2021).

Since 2000, the number of land-based tourists has continued to increase. This growth in demand led many residents to offer hospitality services despite having no previous experience or knowledge (Valdivieso, Tapia, Endara, Ramia, & Azanza, 2021). In recent years, the number of lodging establishments has grown exponentially; there are 317 accommodation business with capacity for 6943 visitors, officially registered in the Ministry of Tourism of Ecuador (Galapagos Tourism Observatory, 2019).

Tourism activities in the Galapagos' protected areas, are monitored and controlled by the National Park Directorate through the *Visitor Management System of the Galapagos* created in 2002. This monitoring system addresses five elements for controlling tourists activities within the conservation areas: zoning, acceptable visitor load, itineraries, tourism monitoring, and visitor site management strategies (Reck, Casafont, Naula, & Oviedo, 2010).

1.2.1. Efforts to promote sustainable tourism monitoring 2011–2020

Early efforts to monitor tourism in the Galapagos date back to the 1960s (Cajiao et al., 2020). These efforts were mainly related to scientific approaches or focused only inside the protected areas. The creation of the Galapagos Tourism Observatory, which is part of the adopted ecotourism model in 2011, was the first permanent effort to track metrics of tourism in the populated areas. In 1980, first year with tourism arrival records, less than 20,000 tourists were registered to the Galapagos. Four decades later, in 2019, more than 271,000 tourists were recorded (Galapagos Tourism Observatory, 2021). Tourism growth is closely related to population and businesses growth, creating higher demand for services and products, which in turn increases the risk of introducing invasive species to the sensitive areas of the Galapagos (Proaño & Epler, 2007). Also, as arrivals increase, the need for working force, waste management efforts, energy supply, management capabilities and other resources also increase accordingly.

In this context, the need to track these increases in supply and demand, as well as the related impacts and linkages, was the priority goal of the first set of indicators established by the Galapagos Tourism Observatory (see Cajiao et al., 2020). These indicators were used to track tourism metrics until 2015, year when the ecotourism model needed to be evaluated (Ministry of Tourism and World Wildlife Fund, 2011) and when the current *Galapagos Special Law* was published. Then, from late 2015, a second stage was characterized by enriching the set of indicators to be collected in terms of tourism demand, tourism supply; related to the environment, fuel consumption and waste production from tourism; and in terms of the social component, number of employment (fixed and non-fixed contracts in tourism business), and the multiplier effect of tourism on local economy (Galapagos Tourism Observatory, 2016).

These indicators fulfilled information needs of local stakeholders, and in addition with other key information available, were used as primary information for establishing key planning and decision making documents like the *Tourist Lodging Regulation for the Galapagos Province* (Ministry of Tourism, 2015b), *State of Conservation Reports for the Galapagos Islands* (UNESCO, 2010), the *Galapagos Territorial Management and Sustainable Development Plan 2015–2020* (Galapagos Government Council, 2015) and the last available evaluation of the ecotourism model (Galapagos Government Council, 2019). In the following years, monitoring and management challenges are expected as tourism increases are foreseen for land-based tourism - i.e., cruise ship numbers in the Galapagos are locked and no further increases are allowed. In recent years, land-based tourism has been undergoing a significant transformation related to changes in visitors' profiles, expectations and interests; with visitors more interested in traveling independently, making shorter visits, and spending more time on sites located near the towns (Cajiao

et al., 2020).

Due to the COVID-19 pandemic, in March 2020, the tourism influx stopped completely as part of the national lockdown. Flights were reactivated in June 2020, and by the end of the year, near 73,000 tourists visited the Galapagos—which represents a 73% decrease compared to 2019. As of June, arrivals for 2021 were only 39,000, down 31% from 2020 (Galapagos Tourism Observatory, 2021). Prior to the pandemic, tourism accounted for nearly 80% of the Galapagos economy (Pizzitutti et al., 2016), so the impacts of the reduced tourism influx on the local economy were expected to be extensive.

2. Methodology

2.1. Data collection

To move towards the sustainability of tourism, it is important to identify how local stakeholders perceive issues of sustainability. This study is a qualitative exploration of the views and experiences of local actors involved in tourism businesses (e.g., accommodation, food and beverage, tourism services), and regulators engaged in the planning and management of tourism in the Galapagos (e.g. private and public institutions and local non-governmental organizations). Hardy and Pearson (2018) note that operators' and regulators' perspectives of tourism development have been less studied. We focus on the perceptions of people living and working in Puerto Ayora, which has the greatest number of people working in tourism, receives the highest number of tourists, and has the largest population in the Galapagos Islands.

Views and experiences of local actors are explored through semi-structured key-informant interviews. These were carried out in Nov. 2021 with 23 respondents who were identified using one of three sampling techniques: *Purposive sampling* where particular individuals or office-holders were contacted based on their experience, knowledge or involvement in the tourism sector (Dunn, 2010); *Convenience sampling* where appropriate participants in key activities were engaged based on accessibility (Etikan, Musa, & Alkassim, 2016); and *Snowball sampling* where initial respondents identified others who should be approached (Bradshaw & Stratford, 2010). Semi-structured interviews were guided by a set of prearranged questions (see Fig. 2), that allowed for follow-up questions and open discussion intended to clarify information and deepen participant's views and comments (Dunn, 2010). Interviews were conducted face-to-face in Puerto Ayora or through phone or zoom calls according to prearranged appointments, and lasted between 30 and 90 min. All were audio-recorded with the participant's consent. The affiliations and activities of our participants is presented in Table 1.

2.2. Data analysis

Qualitative information from semi-structured interviews was fully transcribed and later reviewed for key ideas and themes. This information was manually coded using the qualitative data analysis software, MAXQDA Analytics Pro v2022: a priori codes were used for key concepts embedded the interview guide and a posteriori codes for recurrent points that emerged from the coding process (Miles, Huberman, & Saldaña, 2014). During the first cycle of coding, codes and sub-codes grouped in major themes were continuously reviewed and revised for consistency and then re-coded when necessary. Once all the qualitative information was coded, the coding system was manually reviewed in a second coding cycle. The coding process thereby summarized, distilled and condensed text data which allowed the identification of patterns of similarity, difference, frequency, sequence, and causation (Miles et al., 2014). Once coding was complete, extracts from coded themes were organized in different files (e.g., according to specific questions) and analyzed to extract key participant quotes supporting the critical emerging narratives. This study was conducted with requisite approvals from The Human Research Ethics Committee from Universidad San Francisco de Quito, Ecuador.

- 1) What does the term "Sustainability" mean to you? What would it mean to achieve sustainability in the context of the Galapagos as a World Heritage Site?
- 2) What do you understand "Sustainable Tourism" to be? What actions have been done in the last 10 years to achieve Sustainable Tourism in the Galapagos?
- 3) What actions could have been done better in the past 10 years to achieve Sustainable Tourism in Galapagos?
- 4) What metrics or indicators do you consider the most important for addressing sustainability in the Galapagos context? Please suggest two environmental, economic, and socio-cultural indicators. Why are these important?
- 5) How can the tourism sector improve its management to promote sustainable tourism in the Galapagos Islands?
- 6) The Covid-19 pandemic stalled all tourism activities in the Galapagos. As tourism is expected to recover, from your perspective, what are the factors that should change for effective implementation of Sustainable Tourism in the Galapagos?
- 7) How do you envision that tourism activities might change in the Galapagos over the next five years?

Fig. 2. Set of questions from the interview guide.

Table 1
Affiliations or activities of key-informants.

Private and public institutions and NGOS (n = 9)		Tourism service providers (n = 14)	
- Ministry of Tourism (office Galapagos)	- previous and current manager for the Galapagos office	- Naturalist guides	- working in the marine and land PAs
- Galapagos National Park Directorate	- ex-director / manager of the Department of Public Use Management	- Accommodation (small, medium, and large operations)	- manager
- Galapagos Chamber of Tourism (Capturjal)	- previous and current representative	Food and beverage	- manager
- Association of Naturalist Guides of the Galapagos National Park (Aguipa)	- member of the association that provides advice to the directorate	- Handicraft shop	- owner
- NGOs (three local organizations)	- staff working in tourism and conservation issues – provide advice to the national park	- Cruise ships operations (medium and small operations)	- manager and employee
		- Travel agency	- manager
		- Diving center	- owner and manager

Note: Approximately half of our participants were born and raised in the Galapagos, and most have between 10- and 30-years' experience working in tourism and conservation in the Galapagos.

3. Results

The term "sustainability" is the underpinning concept within the *Ecotourism Model* in the Galapagos Archipelago. As such, we were interested in knowing how respondents interpreted this term and its relation to tourism. In general, our respondents considered sustainability "a broad term that is hard to define," but with respect to tourism, interpreted it to mean such things as: performing an activity that has a low footprint; is sustainable in the long-term through the preservation of the natural resources; is adaptable; considers the link between nature and humans; and consists of the "balanced" use of resources, where positive actions mitigate negative impacts. Sustainability also means the inclusive and equitable distribution of tourism benefits to the community, and managing tourism consistent with World Heritage Sites norms.

Regulators consider that integrating the concept of sustainability in tourism is a challenging activity that requires effort not only from those who have a direct stake in tourism but from all local actors within the community.

For half of our interviewees, achieving sustainability means optimising the balance between benefits for the environment from having low-impact tourism activities, and benefits for the communities by supporting tourism activities that meet community needs and support well-being. Several interviewees stated the need to "prioritize quality over quantity," meaning an emphasis on 'high-end' tourism with controlled environmental impacts rather than informal, lower cost tourism, where individual tourist activities are harder to monitor and regulate. All respondents, whether tourism service providers or regulators, said that to achieve sustainability, it is essential to develop responsible tourism, where there are organized tourism operations, and where education and training are provided to all working in the industry.

3.1. Perceived progress made towards the sustainability of tourism

Ten years have passed since the Galapagos Sustainable Tourism Summit, where the ecotourism model was determined to address the sustainability of tourism activities. According to our interviewees, several management efforts have been made to control issues, such as increasing immigration, population growth, the introduction of exotic species, overfishing, waste generation and disposal, and the effects of tourism expansion, which were impacting the conservation of the islands. When we asked the respondents what they consider has been done in this decade, the majority responded by citing the implementation of regulations and management guidelines. Although these measures have limited their economic activities and changed their lifestyle, they have helped to address the above-mentioned issues (Fig. 3).

Regarding tourism management, some interviewees from both groups noted the creation of the Galapagos Tourism Observatory has facilitated the collection of data required to control and manage tourism activities on land and sea; also the establishment of the Tourism Monitoring System has helped to organize, control and manage tourism operations and business. In addition to these, our interviewees mentioned other actions that have aided in addressing some environmental, social, and tourism concerns (Fig. 3). As benefits accrue more towards large companies, our respondents see efforts made to foster local participation in tourism to be positive. Participants working in the planning and management of tourism consider the progress made to create spaces for dialogue between different stakeholder groups and inter-institutional



Fig. 3. Accomplishments: Respondents' perceptions of positive actions that have been taken to promote sustainable tourism in the past 10 years.

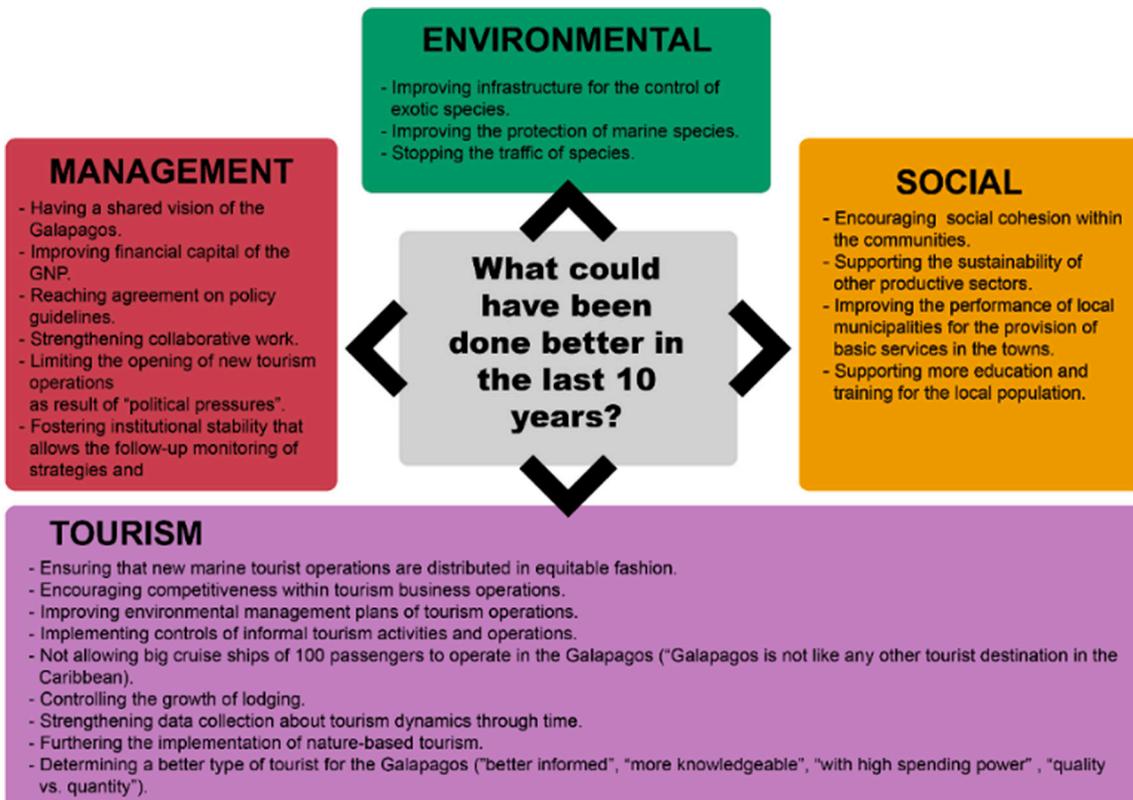


Fig. 4. Limiting Factors: Respondents' views about issues that if addressed timely would have contributed to achieving sustainable tourism.

collaboration, which has been pivotal to generate management policies, to be important. However, despite the efforts that have been made to ensure the sustainability of tourism, the majority of our interviewees stated that problems and challenges persist (Fig. 4).

Many interviewees consider that to address persistent social-environmental problems, it is “crucial to have a shared vision for the Galapagos,” reconciling what is entailed in being a tourist destination and what is required for the community; they believe having a common understanding on “what we want for the Galapagos” and “what we want the Galapagos to be,” should be an integral part of the management of the islands; “a vision that does not depend on particular agendas” but that guides the islands’ governance through time. Many reported that building a shared vision should be made a priority not only for the institutions in charge of the administration of the archipelago, but also for the central government.

In terms of very practical logistic or infrastructure concerns, other priorities identified were improving basic services for the towns, generating a better waste management system for the cities and for land-based tourism operations, controlling immigration to limit the number of people living in the Galapagos; decreasing the number of vehicles in the towns (e.g., pickup trucks that consume too much fuel). Noted by several was the contradiction in policies promoting the acquisition of electric cars, as the electricity is generated by fossil fuel which is heavily subsidized in the Galapagos.

Our interviewees often stated that “Galapagos is too politicized,” which discourages following regulations and enforcing control. Some consider there is an ineffective implementation of regulations that affects the organization and performance of tourism, and the society at large (e.g., such as strict environmental controls for tourism operations, and environmental ordinances from local municipalities and the Ministry of Tourism).

Another raised point from both groups is the urgent need to handle corruption happening at all levels, where personal interests are prevalent (e.g., patronage, nepotism, etc.). They stated this limit the effective enforcement of regulations and it is necessary to “apply sanctions to all, in the same way.” Some explained that local communities have a complex composition of actors where the control of illegal activities is an important barrier to the sustainability of the Galapagos. A tourist guide stated: “We need to encourage integrity within the local communities

because, if not, corruption spreads fast, and complicates sustainability from an environmental and social point of view.” (I10) Interviewees noted that addressing these issues will contribute to the sustainability of the Galapagos.

3.2. Indicators for addressing sustainability

Including stakeholders’ participation in the planning and management of tourism is considered key for attaining sustainable tourism. When asked what they believe is essential to be measured for addressing sustainability, the majority from both groups responded: measuring social factors, particularly the provision of basic services such as potable water and sewerage, education and health services, and employment informality, to be essential. For half it was also important to assess energy consumption in populated areas, the presence of exotic species, the cost of living and living conditions, the amount of local produce consumption, and investment and corporate social responsibility. Factors of tourism considered important to be assessed were the following: tourism revenue and its distribution within the communities, type of tourism operations and visitor type, waste generated from tourism activities, and a thoughtful assessment of the use of the GNP entrance fee (see Fig. 5).

Our respondents believe that as conservation of the Galapagos has been a priority for many local and international institutions and actors, the natural characteristics of the islands and species are well protected. However, they believe that sustainability will not be achieved if social concerns are not resolved. A tour operator expressed: “It is important to reassess what we want to sustain...we should not measure income, but the well-being of the people” (I21). Moreover, a common sentiment is that having a population with low levels of education, an issue that has persisted for many years, will be a permanent barrier to attaining sustainable tourism, and therefore, will impact the success of the Galapagos’ sustainable development.

Most importantly, the COVID-19 pandemic uncovered the high vulnerability of the islands’ health system, where the absence of an appropriate hospital, specialists, and equipment puts the lives of residents and visitors at risk. It was recognized that without the economic support of the tourism sector, the outcome of the pandemic would have been catastrophic. Furthermore, several respondents consider it necessary to assess the level of employment informality, which increased with



Fig. 5. Indicators: factors that respondents cited as important measures of sustainability. The relative frequency of each concern is shown by the size of the font used to print it. (Source: R Project for Statistical Computing v4.0.3., R word cloud package).

the pandemic; the need for having a complete understanding of the amount of fixed and non-fixed contracts in the tourism business was emphasized. Lastly, most respondents addressed the urgency to assess the local populations' living conditions as tourism increases the cost of living.

3.3. Enhancing the management of tourism activities

It has been a decade since the number of land-based visitors surpassed that of cruise-ship tourists for the first-time. When we asked how tourism management could be enhanced, both groups indicated the need to control the overdevelopment of land tourism and to improve its management as it is causing significant pressure on local infrastructure and resources. Several respondents noted that the increase of house-lodging has fostered a change in the type of tourists that arrive on the islands. Also they commented on the need to regulate flight companies that extensively lower the price of flight tickets with promotions that foster low-budget tourism. A diving guide explained: "since Latam is operating in the Galapagos, we have this type of tourist, it sounds discriminatory, but this is not good for the Galapagos. He comes to do nothing, and obviously, does not want to spend money in tours" (I07).

Low-cost travel promotes the creation of cheap tour packages and services, and this reduction in visitor expenditure is affecting the competitiveness of tourism and is greatly impacting the quality of tourism services. A travel agency operator commented:

"Some travel agencies offer really cheap tourism in the Galapagos, and this does not contribute much to the local population...When you offer cheap tours, you do not really understand what the Galapagos is. Also it is a way of doing mass-tourism, which is very dangerous for here as for any place" (I18).

Both groups consider it important to strengthen the tourism value chain, improve tourism services at different scales, create environmental consciousness within tourism service providers, and provide education and training. A tourist guide commented: "land-based tourism should be re-assessed as there is plenty room to improve there" (I01). A manager from a private tourism organization emphasized: "It is important to determine parameters for the land-based offer that will contribute that to accommodation be accord to what the tourist destination needs" (I11). According to our respondents, land-based tourism development will have to be reassessed in terms of the carrying capacity of the populated islands.

3.4. The COVID-19 pandemic: an opportunity to reinvent?

Considering the current and potential impacts of the COVID-19 in the development of tourism, we asked for our interviewees' perspectives about the factors that should change for a 'real' implementation of sustainable tourism in the Galapagos, taking the present context into account. They started by addressing lessons taught by the pandemic. All our participants noted that this event made evident how reliant they were on tourism; a tourism manager explained:

"One of the things we learned from the pandemic is that the Galapagos' economy depends 99 percent on tourism. What is going to happen if something like this occurs again? We see how fragile tourism is; thus, it is necessary to also analyze other approaches" (I09).

Half of our participants from both groups commented on the need for economic diversification; the owner of a hotel expressed: "We are too dependent on one activity, and this is a big problem, and there has been no way of changing it because what other things you can do here? All other economic productive activities also depend on tourism" (I11).

Additionally, many participants noted the problem of their heavy reliance on food imports from the mainland. A tour operator stated: "We felt very vulnerable here. We depend too much from outside. In the

pandemic, people realized that we cannot only rely on tourism. This made us understand that we cannot also depend on what it comes from outside." (I21) Therefore, the participants consider it important to strengthen the islands' productive sectors so that they can provide food for the community and also to encourage livelihood diversification in other sectors (e.g., jobs related to public services, science and conservation). Other participants commented about how the pandemic developed a sort of social cohesion where everyone recognized the value of local food producers and the significance of supporting each other.

When asked about the factors that should change to address sustainable tourism in the Galapagos (see Fig. 6), most of our respondents noted the opportunity that the islands now have to re-assess the pace of tourism development and to reflect on "what it is worth to preserve, and if that is good for all or just for few." The administrator of a small cruise-ship operation expressed:

"We were going too fast and there is no infrastructure to support all the people that were coming, and what we have is of bad quality, more often with lower prices and with faster tours; with that 'cheap tourism' that is not bad just because it is cheap but because they do not know to where they are going and what they need to take care." (I13).

Therefore, our interviewees consider it crucial to debate on "what kind of tourist we want for a tourism destination, such as the Galapagos," and to continue making efforts to achieve sustainability within tourism operations.

3.5. Envisioning the future

For small-islands communities whose economy is solely dependent on tourism, the pandemic was a hard external shock. Therefore, it was important to know our interviewees' perspectives on how the future of tourism activities could be for the next five years and how they should be. We identified two viewpoints: one with a positive perspective about changes that will not only improve tourism management but also address some social concerns, and another with a more pessimistic view where current problems will persist that will affect not only tourism development but also local communities at large if not regulated appropriately (see Fig. 7).

People from both groups mentioned concerns about how current issues will persist (e.g., increasing immigration and population growth, unemployment, increasing demand of services, growing waste generation); and how increasing land-based tourism will continue putting pressure on the protected areas. For example, a tourism manager commented:

"All want to do tourism, they want to have more visitor sites opened, they want to have more tourism operations, all want to have access to the protected areas. We need to work collaboratively between all actors and reach minimum agreements to guarantee the Galapagos' sustainability in the long-term. If not, at the pace we go, we will be all against each other, and we will have massive tourism...We need to have an agreement between all, public, private and the community, about what we want the future of the Galapagos to be, from now to 20 or 30 years" (I09).

Many agree that tourism cannot grow forever, and thus, it is important to set limits based on the islands' carrying capacity. Some participants were confident that if land-based tourism is efficiently regulated and there is institutional stability; a shared vision among actors; efficient control and regulations; effective health, education, and other basic services, it will be possible to achieve sustainability in the Galapagos. Two individuals working in tourism for more than 15 years stated: "My ideal Galapagos will be sustainable, clean and organized" (I04); "I hope the Galapagos will be, once again, a really dreamed destination, not one of a weekend" (I07). According to our respondents, if "the Galapagos is the jewel in the crown" of Ecuador's tourism,

What are the factors that should change for effective implementation of Sustainable Tourism in the Galapagos?

- Develop new tourism products and services that are more exclusive, that generate higher revenues with fewer visitors and less impact.
- Control the growth of domestic tourism that brings a type of tourist that seeks for the 3s product (Sun, Sea and Sand), which is not aligned with nature-based tourism.
- Provide environmental education to national tourists that currently represent 60% of visitor arrivals.
- Monitor the impact of airlines that promote low-cost travel to the islands and low-budget holidays on the islands.
- Give attention to education and training.
- Support economic diversification.
- Provide economic support to local ventures.
- Control and organize land-based tourism.
- Improve infrastructure and basic services in the towns.
- Promote sustainability in the tourism value chain.
- Encourage environment-friendly patterns of consumption within the local population.

Fig. 6. Changes: Respondents' assessments of what should change to promote sustainable tourism.

How do you envision that tourism activities might change in the Galapagos from now to five years?

Best hope:

- Better tourism infrastructure.
- Strengthened tourism sector.
- Responsible entrepreneurs.
- More specialized tourism operations.
- Small business with quality services.
- Type of visitor that stays longer and consumes more locally.
- Having the same number of visitors as previous years.
- High-end tourism: well-informed visitors, high quality of tourism operations and services.
- Organized and respectful type of tourism, based on conservation and sustainability principles.
- New visitor sites for the local population.
- People more educated and with specialized skills.
- Having clean energy.
- Having a health care system that support the population and visitors.
- Functional basic services, sewerage system, efficient waste management.
- Diversification of economic productive activities.
- More consumption of products made locally.
- Decision-making based on technical and scientific information.
- Mindset change of the Galapagos society towards the value of conservation and sustainability.

Greatest concerns:

- Small business do not survive the outcome of the pandemic.
- Decision-making based on agendas with personal aims rather than on technical information.
- Inadequate enforcement of control and regulations.
- Political pressure interfering with decision-making of the PAs.
- Lack of continuity in the administration - institutional instability.
- Not having a sense of belonging within the Galapagos society.
- Increasing tourism, more pressure on towns' infrastructure and basic services.
- Growth of waste generation.
- Continued inadequate health and education system.
- Increasing immigration – population growth.
- Maintain reactive management instead of responsive management.
- Deficient basic services, sewerage system, and waste management.
- The mindset of the Galapagos society becomes more money-oriented.
- Corruption keeps influencing decision-making and management in public institutions and private organizations at different levels.
- Continue having low-cost travel and low-budget tourism in the Galapagos.
- Surcharge of tourist products and services might impact the productivity of the tourism destination.
- Not be able to mitigate the impacts of population and tourists on the islands.
- Growing pressure on the PAs.
- Narcotraffic, money laundering, traffic of species.

Fig. 7. Projections: Respondents' viewpoints about the future of tourism activities. Note: "Best hope", what our respondents hope for. "Greatest concerns", issues that will persist in impacting sustainability in the Galapagos.

"everyone should treat it like that." There is no doubt, that both public and private institutions and organizations, and the community and visitors as well have a key role to play in the sustainability of tourism activities in the islands, and therefore, on the sustainable development of the Galapagos Archipelago.

4. Discussion

This study aimed to explore how the sustainability notion has been integrated in the development of tourism in the Galapagos since the implementation of the Ecotourism Model in 2011. By exploring the views of tourism service providers and regulators from Santa Cruz

Island—the center of tourism activities in the Galapagos Archipelago, we were able to identify 1) perceived progress on the sustainability of tourism implementation in the last decade; 2) what indicators and concrete or tangible actions are considered important help establish sustainable tourism; 3) how local stakeholders envision a future pathway for the sustainable tourism in the Galapagos.

In last decade, there have been myriad local and international efforts to address the negative impacts of tourism expansion and related social-environmental concerns. However, the growth paradigm has continued to predominate regardless of prior calls to effectively limit the number of visitors—intentions to cap tourist numbers has not been strictly followed (Kelley, Page, Quiroga, & Salazar, 2019). UNESCO's assessment in 2018

noted Ecuador's commitment to promote a "zero-growth tourism model" in the Galapagos, and recommended "maintaining the limits on the number of flights." (UNESCO, 2018) That did not happen and the number of commercial flights to the archipelago has continued to increase.

UNESCO's assessment of 2021 noted that land-based tourism and flights to both of the Galapagos' airports have increased considerably. The report highlights that continued growth of tourism is an important concern. The assessment urged the state "to develop and implement a clear action plan with urgent measures to limit the number of tourists and flights to achieve the zero-growth model in line with its commitment." (UNESCO, 2021) Due to the pandemic crisis, there is the intention to open direct international flights to the Galapagos, but to require assessments of the potential impacts of these arrivals. This has been approved by Ecuador's National Assembly. But, regardless of these assessments, it is unclear how these increased flights will contribute to sustainable tourism.

Overtourism has been a common problem for some tropical tourism destinations, where tourists overload the services and facilities producing inconvenience for local residents impacting on their well-being (Pecot & Ricaurte-Quijano, 2019). Pecot and Ricaurte-Quijano (2019) studied overtourism in the Global South and found that the way tourism is managed in the Galapagos is far from being align with an ecotourism model, and that signs of overtourism are visible. Crowding associated with the emerging low-cost forms of mass tourism on the populated islands is obscuring the "ecotourism experience" that has been widely promoted.

The unique ecological characteristics of the Galapagos has focused governance attention on the management of the protected areas. Prior to the conceptualization of the Galapagos as a social-ecological system (González et al., 2008), needs from local communities were poorly considered (Lu, Valdivia, & Woldford, 2013). Persistent issues noted by our interviewees were political inference in the management of the islands, persistent low attention to social concerns, and to local corruption. Previous research has shown inadequate access to basic services, and deficiencies in health care and educational infrastructure, attributes in part to the fact that management of local municipalities had been politicized (e.g., see Mena, Quiroga, & Walsh, 2020; Villacis & Carrillo, 2013). The COVID-9 pandemic exposed the vulnerability of the islands' health care system, which has now become a prevalent concern for locals.

The pandemic crisis revealed the vulnerability of small island communities where the economy is reliant on tourism (Figueroa & Rotarou, 2021). As tourism is the main economic activity in the Galapagos and has continued growing, people within other economic sectors, such as fishing and farming, have changed their livelihoods not only because of the economic appeal of tourism jobs, but also due to "push factors" such as regulatory processes, precarious markets, ineffective institutional support, and climatic conditions that constrained traditional livelihoods (Burbano & Meredith, 2020). Our interviewees noted how vulnerable they feel due to their high reliance on "the outside," through dependency on tourism arrivals and food imports from the mainland. These dependencies, as well as, reduced occupational diversification, have led to reflection about opportunities and challenges for sustainable development in the Galapagos (see García Ferrari, Bain & Crane De Narváez, 2021).

The expansion of land-based tourism has heightened about the mix of tourist arriving – both domestic and international – and about the tourism operations that are developing in response. Our interviewees expressed that low-budget tourism and low-cost travel are good neither for the local economy, nor for the iconic conditions of the Galapagos. Respondents clearly felt that that "quality" should be prioritized over "quantity." This point follows what Hall (2010, pp. 131) states about developing tourism in a way that encourages "qualitative development but not aggregate quantitative growth", since the latter contributes to the unsustainability of tourist destinations that depend primarily on the

well-preserved status of their ecological characteristics.

Increased domestic tourism, according to Figueroa and Rotarou (2021), represents an immediate opportunity for island communities to address the economic impacts of the pandemic, and to restore residents' quality of life. However, in the Galapagos, the increase of domestic tourism is, for some, a cause of concern as it is believed domestic tourists are not sensitive enough to the fragile ecological conditions of the islands, and that domestic tourists likely to spend less than international tourists. In 2021, as COVID-19 restriction lifted, when annual arrivals shot up to 136,000 visitors, 60% were domestic (National Park Directorate, 2021). If domestic tourism continues to dominate, it will be necessary to develop an environmental campaign to educate visitors about activities suited to conservation areas, and to reflect on revenue streams.

The 'growth paradigm' in the tourism industry has been distressing many local communities worldwide, given concerns about overtourism and related impacts (Figueroa & Rotarou, 2021). This concern is evident in the Galapagos where, according to our interviewees, tourism is developing too rapidly and where, in the last decade, scholars have been urging a change in the tourism paradigm (e.g., see Pizzitutti et al., 2016; Quiroga, 2013). Slow tourism might help to address the 'quantity vs quality' issue, if stakeholders agree on, and adhere to the 'zero-growth model' where arrivals are limited, but activities are more consistent with the ecological sustainability and more aligned with livelihood needs.

Despite progress to addressing impacts from increased tourism, much needs to be done if tourism is expected to contribute achieving Sustainable Development Goals on the islands. To deal with overtourism and its concomitant effects, our interviewees agreed on the urgent need for a common vision of tourism development for the Galapagos. Graci and Van Vliet (2020) argue that some of the most significant factors impeding the sustainable development of tourism are the absence of 'a shared vision,' a lack of clear leadership, and the absence of long-term strategic plans. Considering COVID-19 impacts, Gösling, Scott and Hall (2021, pp. 15) suggest it is imperative not to go back to "business-as-usual" when the crisis is over, but to work to a new, more sustainable, model.

The Galapagos Council is attempting to address this. They recently presented the *Territorial Management and Sustainable Development Plan 2030*, which is based on five strategic areas with specific goals and indicators to measure sustainability in terms of: governance, community, environment, habitat, and economy (Galapagos Government Council, 2021). Within the economy area, it specifies the objective of developing an "inclusive tourism model, locally based and sustainable." This objective can guide, through a consultative process, the development of core values and principles that underpin the shared vision of tourism development; as Faulkner (2002) noted, co-creating a long-term shared perspective of the future of tourism development that follows continuous cycles of action, learning and reflection. Building a shared vision is a major challenge given the diversity of stakeholder views and interests. However, managers in the Galapagos, having committed to a social-ecological-system framework, have demonstrated an adaptive approach to addressing challenge of public participation and consensus building.

Based on our findings, to develop the shared vision for tourism development, we recommend a process that 1) recognizes the specific, sometimes competing, needs and aspirations of different stakeholder groups; 2) identifies collaboratively core values and principles that support the vision and transcend individual and political interests and agendas; 3) reflects on fundamental questions such as: what must be preserved; how rights, benefits and responsibilities can be equitably identified and adopted; determines what management actions need be taken and by whom; and identifies how "best hope views" (as the ones presented in this study) can be integrated into a "shared vision". Without such a renewed and clear vision of tourism development in the Galapagos, it will be difficult to move collaboratively towards sustainable tourism.

5. Conclusion

The economic significance of the global tourism industry offers potential benefits to remote areas, but there are important concerns about the impacts of unregulated tourism growth. One area of particular concern is where tourism has been promoted as a means of encouraging the protection of biodiversity while helping to meet community aspirations. The challenge is to find more sustainable and inclusive forms of tourism. The COVID-19 crisis exposed vulnerabilities and provided an opportunity to reassess the interconnections of conservation, tourism and community interests, to consider ways to enhance tourism planning and management, and to promote sustainability in practice.

This explorative study aimed to present the views and experiences of people working in the center of tourism activities of the Galapagos Archipelago as the tourism industry rebounds. The study shows the complexity of the tourism dynamic within a conservation-tourism alliance, where tourism has been viewed as the optimal strategy for meeting conservation and community needs. The stakeholder views and insights reflected in this study will be important for local decision-making, but they should also be valuable for, and applicable to, other areas where tourism is the link between biodiversity conservation and community development.

A key finding of the study is that stakeholders share the view that unrestricted tourism growth is counterproductive because of both social and environmental impacts. Addressing the effects of overtourism in the Galapagos, as in other tropical islands, may involve degrowth strategies or a transition to slow tourism that provides a mechanism to increase the revenue and employment benefits from tourism, but decrease the per-capita impact on island resources. For a tourist destination to succeed with sustainable tourism, social and ecological concerns must be considered; if tourism is thought to be a catalyst of sustainable development, then, quality-of-life and individual well-being of local residents must be addressed, even as conservation priorities are considered.

The early adoption of the “Ecotourism Model” in the Galapagos, and the subsequent opportunity for a reset associated with the COVID-19 tourism collapse, has allowed for an informed stakeholder assessment of challenges and opportunities. Given the dramatic post-pandemic rebound in tourism activity, and the strong motivations of tourism actors to make up for losses incurred, it is clear that the call for a “rethink and reset” is urgent. The qualitative study of these stakeholder insights and opinions should contribute to the process in the Galapagos. But, in addition, insights from this important conservation area may be useful for those assessing tourism management in other areas where a post pandemic recovery offers an opportunity to rethink and reset tourism towards a more sustainable path.

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