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Ecotourism and Residents' Well-being

A Case Study from Monteverde, Costa Rica, during the COVID-19 Pandemic

by

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Abstract

The global COVID-19 pandemic is having tremendous adverse effects on human well-being and the tourism industry, revealing its high vulnerability, and putting the current system into question. A promising more sustainable tourism concept constitutes ecotourism albeit its impacts on residents' well-being remain unexplored. Addressing this research gap, a qualitative in-field case study was conducted in Monteverde, Costa Rica, to understand how ecotourism and well-being indeed relate. Using in-depth semi-structured interviews with its residents, this study found that: (1) "Physical and psychological health", "physical environment" and "social environment" are the most important well-being dimensions for the residents. (2) Although many residents lack a clear understanding of the concept of ecotourism, a nature-basis, environmental conservation, education, and sustainability are crucial elements for them. (3) While ecotourism had a negative influence on the "social environment" and a positive one on "income", "work", "education", and the "physical environment" before 2020, this relationship reversed during the pandemic with the latter two not being affected anymore. (4) Due to the high vulnerability of the economic sector, all interviewed residents wished for less economic dependency on ecotourism. The results imply that Costa Rican and local policy makers should see the pandemic as an opportunity to redefine the type of tourism they want, include the community in the process, and foster local resilience via economic diversification with the long-term goal of well-being maximisation.

Key words: Ecotourism, Well-being, Residents, Costa Rica, COVID-19

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List of Abbreviations

3S Tourism	Sun-Sea-Sand Tourism
ACE Tourism	Adventure-Culture-Eco Tourism
CDT	Tourism Development Centre
CST	Certification for Sustainable Tourism
E	Expert
EP	Ecotourism Provider
GEN	Global Ecotourism Network
ICT	Costa Rican Tourism Institute
MAB	Man of the Biosphere (UNESCO project)
N	Neighbours (neighbouring population of ecotourism-sites)
NGO	Non-governmental Organisation
OECD	Organisation for Economic Co-operation and Development
QOL	Quality of Life
RQ	Research Questions
SDGs	Sustainable Development Goals
TIES	The International Ecotourism Society
UN	United Nations
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organisation
UNWTO	United Nations World Tourism Organisation
WCED	World Commission on Environment and Development
WISE	Well-Being, Inclusion, Sustainability and Equal Opportunity
WHO	World Health Organisation



Figure 1 Statue of José Figueres Ferrer commemorating his abolishing of Costa Rica's army in 1948, Plaza de la Democracia, San José (own photography).

"We all know that the stars cannot be reached by hand, but we must all agree that men and nations need to know exactly which star they have hitched their chariot to, in order to be able to discern at the crossroads of the road which paths lead ahead, which are simple deviations and which drag them backwards (...) The name of the star that guides us must be, Costa Ricans, the **well-being** of the greatest number."

(José Figueres Ferrer¹)

¹ José Figueres Ferrer was Costa Rica's President for three periods (1948-1949, 1953-1958, 1970-1974) and his greatest achievements include the abolishment of the national army, the nationalisation of the banking sector as well as granting women and Afro-Costa Ricans the right to vote (Legislative Assembly of Costa Rica, 2011).

1 Introduction

The purpose of this introductory chapter is to familiarise the reader with the phenomena of ecotourism and well-being. It will discuss both thematic foci against the backdrop of the current COVID-19 pandemic and illustrate the importance of the investigation. It will further elaborate on the research questions and objectives of this study.

The tourism industry is facing a myriad of challenges such as economic volatility, social instability, environmental degradation, distribution of tourism benefits as well as the provision of non-economic benefits (Wall, 1997; Sirgy, 2012; Wondirad, 2019). The global COVID-19 pandemic just contributed to deepen the crisis. Worldwide international tourist arrivals shrank from 1.5 billion in 2019 to 381 million in 2020 (-74%), causing a loss in international tourism receipts of over US\$ 1.3 trillion and putting 100-120 million direct tourism jobs at risk (UNWTO, 2021). Economies that majorly depend on tourism such as Costa Rica were hit especially hard (Higgins-Desbiolles, 2020; UNWTO, 2021).

The pandemic provoked various changes in tourist behaviour such as increased domestic travel, increased importance of health & safety, preferences for nature and open-air tourism, and fostered responsibility, focussing on sustainability, authenticity, and local livelihood (UNWTO, 2021). Therefore, and due to the industry's increasing vulnerability as well as the changed and augmented consumer behaviour towards sustainability, the pandemic may be considered an opportunity for an "economic and social reset" to reform and transform the current tourism system (Everingham & Chassagne, 2020; Nepal, 2020).

The shift in tourism values, from economic ones to a stronger emphasis on non-economic values such as well-being and sustainability, has already been observed before the pandemic (Perdue, Tyrrell & Uysal, 2010; Uysal, Sirgy, Woo & Kim, 2016). However, the change in demand must be accompanied by a change in supply to make the industry more sustainable and resilient in the long-term. Thus, alternative sustainable tourism concepts such as *ecotourism* represent a crucial tool, since they improve local livelihood and promote environmental conservation simultaneously (Cobbinah, Amenuvor, Black & Pephrah, 2017; Nilsson, Griggs & Visbeck, 2016) but require further research (Khanra, Dhir, Kaur & Mäntymäki, 2021; Nordin & A. Jamal, 2020; Wondirad, 2019).

A second global phenomenon triggered by the pandemic is the increased attention to well-being in the international policy agenda. The OECD, for instance, founded a Centre on Well-Being, Inclusion, Sustainability, and Equal Opportunity (WISE) at the end of 2020, while countries such as Bhutan, New Zealand, or Costa Rica (Figure 1) adopted the concept of well-being much earlier in their national development agendas. In this regard, several researchers call for a stronger focus on well-being in the tourism industry and demand its transformation (Brodeur, Clark, Fleche & Powdthavee, 2021; Higgins-Desbiolles, 2020; Sharma, Thomas & Paul, 2021).

As a result of the negative impacts of the capitalistic tourism industry and the need to foster human well-being, a new branch of research emerged, analysing the relationship between tourism and well-being (Eshun & Tichaawa, 2019; Li & Chan, 2017; Pyke, Hartwell, Blake & Hemingway, 2016; Roy, Faroque & Gupta, 2021; Serenari, Peterson, Wallace & Stowhas, 2017). The impetus of this research stream roots in the cognizance that traditional economic measures of societal development and welfare (e.g. GDP) do not reflect the actual variable of interest – people's well-being (Sirgy, 2012; Uysal et al., 2016). In other words, concepts challenging the neoclassical growth economy such as ecotourism or "alternative economic activities will be crucial in ensuring the wellbeing of both collective society and the environment that supports it" (Everingham & Chassagne, 2020, p. 557).

Since the local communities are the ones that are allegedly impacted the most (directly or indirectly) by ecotourism (Eshun & Tichaawa, 2019; Honey, 2008; Stem, Lassoie, Lee & Deshler, 2003), it is crucial to understand how exactly ecotourism affects their well-being. Thus, a systematic inquiry of residents' perceptions of ecotourism is key in assessing its influence on the host community and its overall sustainability performance (Chi, Cai & Li, 2017; KC, Paudyal & Neupane, 2018), but currently lacks research (Uysal et al., 2016). Moreover, while many researchers found and assumed positive impact of the pandemic on the environment regarding ecotourism (Buckley, 2020; Virijević Jovanović, Mladenović & Zdravković, 2021), a holistic perspective of residents' well-being has not been researched so far to the knowledge of the author.

This thesis aims to address this gap by investigating the impact of ecotourism on residents' well-being in Monteverde, Costa Rica. The current ecotourism development models are Western-centred and exhibit a need for in-depth and holistic analysis and understanding of local contexts (Wondirad, 2019). Hence, a case study approach has been chosen, focussing on the region of Monteverde, Costa Rica. The region Monteverde constitutes an interesting research area due to its pioneering status in ecotourism practices (Laat, 2015).

In 2019, the Tourism Development Centre (CDT) Monteverde in collaboration with various local and national stakeholders developed a destination management plan with the following vision:

To be recognised by 2025 as the best international benchmark in the practice of **sustainable tourism**, standing out for its actions in nature conservation, its contribution to the **social and economic well-being of local communities** and the quality of its tourism services (CDT Monteverde, 2019).

Hereby, Monteverde stresses the importance of maintaining and enhancing the community's well-being via sustainable tourism, especially ecotourism as further elaborated in the plan. This raises the question of how ecotourism and well-being indeed relate and how the former can be instrumentalised to augment the latter. Moreover, since this plan was developed before the global COVID-19 pandemic, the impacts of this international crisis were not anticipated and need to be analysed and incorporated into the local development plan.

Hence, this thesis aims to fill in these lacunas in the literature as well as on Monteverde's operational level by an empirical analysis of how ecotourism affects the well-being of its

residents and how this relationship got impacted by the current COVID-19 pandemic. In detail, the following two major research questions were developed to address these issues:

RQ1 How does ecotourism affect residents' well-being in Monteverde, Costa Rica?

RQ2 How did the relationship between ecotourism and well-being get impacted by the COVID-19 pandemic?

To make RQ1 more tangible and accessible on an empirical level and in order to address the research gaps identified in the comprehensive literature review, it was split into three sub-questions, addressing residents' importance of well-being, their understanding of the concept of ecotourism, and the interrelation between the two concepts, respectively:

RQ1a Which dimensions of well-being matter most to Monteverde's residents?

RQ1b How do Monteverde's residents define and perceive ecotourism?

RQ1c How does ecotourism affect the different dimensions of well-being?

A qualitative research approach was employed, conducting semi-structured in-depth interviews with Monteverde's residents. Especially now during the global crisis, it is crucial for sustainability science that qualitative inquiry assesses the impacts of the pandemic on human communities and analyses their response reactions (Santana, Hammond Wagner, Berlin Rubin, Bloomfield, Bower, Fischer, Santos, Smith, Muraida & Wong-Parodi, 2021). To capture a variety of different perspectives and interests, three types of residents were distinguished: experts, ecotourism providers, and neighbouring populations of the ecotourism-sites. An eight-dimensional model of well-being as defined by van Ootegem and Spillemaeckers (2010) builds the basis of analysis: physical environment, physical and psychological health, social environment, political environment, income and wealth, education and information, leisure and culture, and work. The importance of the dimensions was assessed via interactive puzzles during the interviews to increase the engagement and participation of residents in the data collection process ("citizen science"), which is important for the enhancement of ecotourism research (Cornwall & Jewkes, 1995; Khanra et al., 2021).

For policy makers, the topicality and urgency of the thesis' subject can be seen in its high interrelatedness with the Sustainable Development Goals (SDGs) of the United Nations (UN), specifically the combination of Goal 3 "Good Health and Well-Being", Goal 11 "Sustainable Cities and Communities" and Goal 12 "Responsible Consumption and Production" (UN, 2021). While more goals are broached by this paper's topic such as education or climate action, they are not the focus of this thesis. The analysed issue and recommendations will be of special interest for policy makers in Costa Rica as well as community leaders, ecotourism providers, and residents of Monteverde alike to increase not only their economic resilience but develop an economy of well-being at the same time (Chi, Cai & Li, 2017).

The overall contribution of this paper is therefore quadripartite: (1) Academically, it will shed light on the impact of ecotourism on residents' well-being, an inconclusive and somewhat neglected topic in the literature, which traditionally is more interested in the environmental dimensions. (2) It will provide first-hand empirical results for contemporary issues like the actual impact of the COVID-19 pandemic on residents' well-being. (3) The research methods

and tools developed in this study are based on previous research but represent a new and valuable way to directly gather residents' perceptions of well-being, currently lacking operationalisation. (4) Ultimately, the research is of utmost importance for policy makers to achieve the SDGs by providing them insights on how to support tourism that is both, good for the environment and for the well-being of the residents.

The remainder of this paper will be structured as follows: Chapter 2 reviews the current literature, which addresses well-being and ecotourism, providing definitions and conceptualisations, background information as well as insights into previous studies. Chapter 3 addresses the methods and data applied in this study, discussing the research approach, sampling strategy, interview guide as well as limitations and triangulation. Chapter 4 presents the results of the analyses and discusses the respective findings. Chapter 5 concludes, and addresses needs for future research.

2 Literature Review

The literature review conducted for this research aims provide the reader with an overview of the topics addressed in the study via an in-depth revision of scholarly sources relevant for the research questions. Firstly, this chapter will introduce the concept of well-being. Secondly, the concept of ecotourism, how it differentiates itself from related concepts, and which economic, environmental, and socio-cultural impacts it contains will be discussed. Thirdly, key findings of previous research addressing the relationship between ecotourism and well-being will be presented. The chapter concludes with considerations of the COVID-19 pandemic.

2.1 Well-being

The concept of well-being gained increasing research interest in the last decades, which is reflected in the emergence of major journals addressing well-being specifically: *Applied Psychology: Health and Well-being*, *Psychology of Well-Being*, and the *Journal of Happiness & Well-Being*. Additionally, leading publishers such as Springer Publishers issued several book series addressing this topic such as “Springer Briefs in QOL [Quality of Life] and Well-being Research”. Nevertheless, there exists no commonly agreed upon definition of what well-being actually is (OECD, 2013a).

Due to fuzziness of the concept, well-being has been criticised as “one of the buzzwords of the decade” (Smith & Diekmann, 2017, p. 1). However, despite of the lack of a uniform definition of well-being, many authors agree on the fact that the notion of well-being is akin to the capacity to fulfil certain human needs such as health as well as to achieve personal goals (Foresight Mental Capital and Wellbeing Project, 2008; Hills & Argyle, 2002; Marks & Shah, 2004; Tay & Diener, 2011; OECD, 2013a). Aiming to find a comprehensive definition of well-being, Dodge, Daly, Huyton and Sanders (2012) state: “In essence, stable wellbeing is when individuals have the psychological, social and physical resources they need to meet a particular psychological, social and/or physical challenge” (p. 230). The difficulty to find a common denominator may be based on the fact that well-being is “intangible, difficult to define and even harder to measure” (Thomas, 2009, p. 11).

It is important to note that a distinction must be made between objective and subjective approaches to measure and analyse well-being. Objective measures of well-being encompass:

[...] economic well-being (e.g., household income), leisure well-being (e.g., number of parks and recreational facilities per thousand inhabitants), environmental well-being (e.g., CO₂ emissions), and health well-being (e.g., average life expectancy) (Uysal et al., 2016, p. 245).

Subjective aspects of well-being, on the other hand, usually require more psychological constructs and are often captured via primary data such as surveys or interviews as it will be done in this study. However, a main requirement of the measurement of well-being is the clarity of its concept. Since there often exists confusion regarding the concepts of well-being, happiness, quality of life, and life satisfaction, which are often treated synonymously, the next section aims at clarifying their relationship.

2.1.1 Related Concepts: Happiness, Quality of Life, and Life Satisfaction

Especially in economic literature, the terms of happiness, quality of life, life satisfaction, and (subjective) well-being are often used interchangeably (Alesina, Di Tella & MacCulloch, 2004; Delhey & Kohler, 2011; Uysal et al., 2016; Piekalkiewicz, 2017). Nevertheless, the terms slightly differ in definition, conceptualisation, and operationalisation, but lack accuracy and discriminatory power at the same time:

The highest conceptual overlap exists between well-being, happiness and quality of life (Medvedev & Landhuis, 2018). However, well-being is often argued to be the superior concept, subordinating the other two (Ruggeri, Garcia-Garzon, Maguire, Matz & Huppert, 2020). From a psychology-perspective on well-being, one can distinguish between *eudaimonia* and *hedonia* (Fowers, Mollica & Procacci, 2010). The former is based on an Aristotelian view that well-being embraces the fulfilment of our human capacities including, for example, personal growth, relatedness, and autonomy (Haybron, 2020) and the awakening of human's natural potential via societal interaction (Lepenies, 2012). The latter is narrower, defining well-being as the greatest balance of pleasure over pain (Crisp, 2017), popularly represented by Daniel Kahneman (Kahneman & Krueger, 2006). Diener and Suh (1997) call this hedonic perspective subjective well-being and distinguish between three intertwined components: pleasant affect, unpleasant effect (emotional assessment of one's life) and life satisfaction (i.e., the cognitive assessment of one's life).

This subjective well-being is often equated with the term happiness (Diener, 2006; Hills & Argyle, 2002). However, Marks and Shah (2004), for instance, say that "well-being is more than just happiness. As well as feeling satisfied and happy, well-being means developing as a person, being fulfilled, and making a contribution to the community" (p. 2). Although there exist many definitions of happiness, a common one is the one by Veenhoven (2012) who describes overall happiness as "the degree to which an individual judges the overall quality of his/her own life-as-a-whole favourably" (p.5). In turn, the World Health Organisation (WHO) defines quality of life as "an individual's perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns" (WHO, 2021).

Based on Schönberg (2020), Figure 2 exhibits a graphical illustration of the different concepts. Due to exactitude and to avoid confusion, in this paper only the term *well-being* will be used, which will not be theoretically defined but conceptionally expressed and operationalised via a multi-dimensional approach as discussed in the next section.

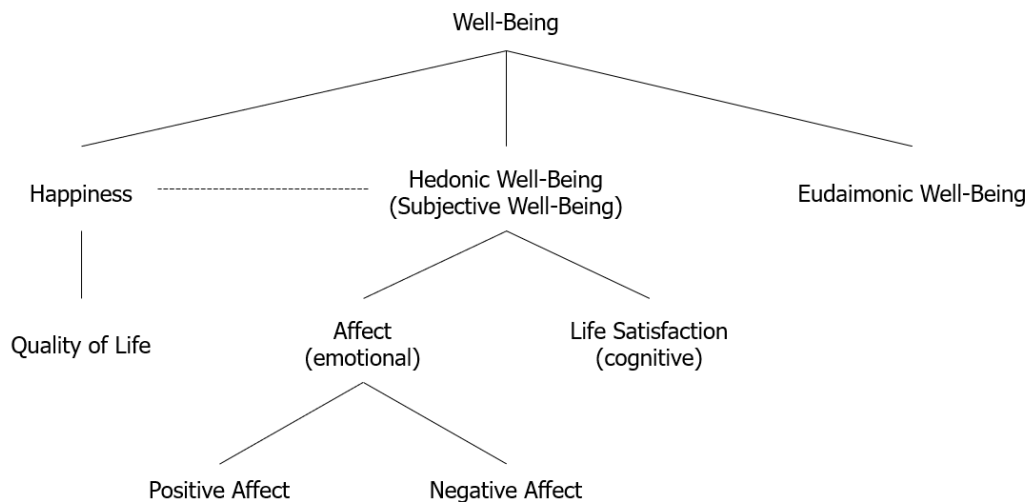


Figure 2 Well-being and related concepts (own depiction). Based on Schönberg (2020).

2.1.2 Dimensions of Well-being

In well-being literature, it is a common standard to express the concept of well-being in dimensions (Dodge et al., 2012; Michaelson, Abdallah, Steuer, Thompson, Marks, Aked, Cordon & Potts, 2009; Stiglitz, Sen & Fitoussi, 2009), instead of defining it. Frequently used dimensions are economic status (job and income), social relations, health, housing, natural environment (Chi, Cai & Li, 2017; Nussbaum, 2001; OECD, 2020b; van Ootegem & Spillemaeckers, 2010). These can be complemented by dimensions such as sense of community (Chi, Cai & Li, 2017; Kraeger, Cloutier & Talmage, 2017; Eshun & Tichaawa, 2019; OECD, 2020b), empowerment of vulnerable (Serenari et al., 2017), and leisure activities (Nussbaum, 2001; van Ootegem & Spillemaeckers, 2010). It is further argued that maintaining well-being over time requires the preservation of four types of capital: natural, economic, human, and social capital (Bennett, Lemelin, Koster & Budke, 2012; OECD, 2020b).

However, in general there have been very few attempts to operationalise the concept of well-being (Serenari et al., 2017). One of these attempts was made by van Ootegem and Spillemaeckers (2010) who consult various multidimensional indicators such as the Eurobarometer, the Human Development Index, the Index of Economic Well-being, the UN Human Development Report, and the WHO world's Health survey, amongst others, as well as lists of well-being dimensions developed by other researchers such as Nussbaum (2001). Based on this, they developed a well-being framework of eight dimensions, namely: work, physical environment, physical and psychological health, social environment, leisure and culture, education and information, income and wealth, and political environment (Figure 3) as well as several subdimensions for each of them. This multi-dimensional expression of well-being will also be applied in this study and further elaborated in Chapter 3.

As noted by Uysal et al. (2016), there is a strong need to identify relevant well-being dimensions for residents of local communities, which currently lack research in the (eco)tourism literature. To introduce the topic of ecotourism, the next section will firstly explain the two dominating tourism paradigms: mass tourism and alternative tourism.



Figure 3 Dimensions of well-being (own depiction). Based on van Ootegem and Spillemaeckers (2010)

2.2 Ecotourism

Tourism refers to the movement of people from one place to another due to leisure, business, or other purposes and incorporates various subindustries such as accommodation, entertainment, transportation, as well as food and beverage (UNWTO, 2021). It constitutes a relatively incipient phenomenon, arising with the large infrastructure development of railways during the 19th century (Holden, 2018). In its beginnings, tourism was perceived as an "industry without chimney", non-polluting, which can help to promote economic growth and employment (Honey, 2008; Singh, 2015; Wondirad, 2019).

However, tourism grew tremendously and the massive and excessive scale that it reached was expressed with the term "mass tourism". Despite the initial Panglossian perspective, mass tourism fostered overdevelopment and led to unequal distributions, economic leakage, environmental pollution, and socio-cultural intrusiveness (Holden, 2018; Goodwin, 1996; Honey, 2008; Orams, 2001). Nowadays, mass tourism is often equated with the 3S (sun, sea, and sand), sometimes also called 4S tourism (the fourth S being sex), and is characterised by being non-local oriented, exhibiting high economic leakage, and inauthentically commercialising natural and cultural resources (Fennell, 2020b; Fiorello & Bo, 2012; Honey, 2008).

To counteract this negative development in the tourism industry and to react to the increased environmental awareness, a new allegedly more responsible conglomerate of various tourism

forms established in the early 1980s – so-called “alternative tourism” (Blamey, 2001; Gray & Campbell, 2007; Weaver, 2001a). As the name suggests, it positions itself clearly as a (positively connotated) alternative in contrast to mass tourism. Put differently, it emerged as a benign dichotomous concept challenging the conventional tourism practices, building a competing paradigm to mass tourism (Fennell, 2020b). Alternative tourism can be seen as a "softer" and more responsible approach which puts the natural and cultural resources in the centre of planning and development (Fennell, 2020b; Sharples, 2006). It can be characterised by being small-scale, community-controlled, and aims at increasing social well-being in the long-term as opposed to mass tourism, which is large-scale, controlled by multi-national corporations and aims at short-term profitability (Goodwin, 1996; Weaver, 2001a; Weaver, 2005a). Alternative tourism incorporates various forms such as science tourism, ethical tourism, pro-poor tourism, green tourism, volunteer tourism, adventure tourism, and ecotourism, amongst others (Goodwin, 1996). It was created to transform the tourism industry and make it more sustainable – what sustainable tourism however means will be discussed next.

2.2.1 The Paradigm of Sustainable Tourism

The discussion about defining sustainability started over 300 years ago (Michelsen, Adomßent, Martens & Hauff, 2016). Although there is a plethora of definitions, the most popular definition was given by the Brundtland Report, defining sustainable development as one “that meets the needs of the present without compromising the ability of future generations to meet their own needs” (WCED, 1987, Chapter 4). The concept gained worldwide attention and not only became part of the global policy agenda but also a paradigm in the tourism industry, albeit firstly being isolated from the original concept (Hunter, 1997).

The United Nations Environment Programme (UNEP) and the UN World Tourism Organization (UNWTO) define sustainable tourism as "tourism that takes full account of its current and future economic, social and environmental impacts, addressing the needs of visitors, the industry, the environment and host communities" (UNEP & UNWTO, 2005, p. 12). Generally, sustainable tourism should promote increased living standards for local communities, tourist satisfaction, environmental protection, and requires responsible management (Björk, 2000; Butler, 1999; Goodwin, 1996; Hunter, 1997). Due to the dichotomous stigmatisation and conceptualisation of alternative and mass tourism, one can assign alternative tourism to the sphere of the sustainability paradigm and mass tourism as the unsustainable pendant (at least in theory) (Weaver, 2001a).

However, there are also critiques regarding the concept. Butler (1999), for example, states that

the key problem with sustainable development in the context of tourism is not ensuring the continued introduction of small-scale, environmentally and culturally appropriate forms of tourism, but how to make existing mass tourism developments as sustainable as possible (p. 13).

Generally, the concept of sustainable tourism gained a lot of attention in academic literature and especially one of its subgenera, namely ecotourism, which will be conceptualised next.

2.2.2 Conceptualising Ecotourism

Ecotourism constitutes a form of sustainable tourism and dissociates itself clearly from mass tourism (Fennell, 2020b; KC, Paudyal & Neupane, 2018). It can range from weak to (very) strong sustainability², depending on the management practices (Sjaifuddin, 2020), since it assigns an economic value to natural resources but with the goal of fostering conservation (Honey, 2008). Among the various forms of sustainable alternative tourism, ecotourism represents the most promoted form (Eshun & Tichaawa, 2020) and is considered as the most crucial to achieve the SDGs due to its inherent interrelatedness to the triple-bottom-line of sustainability (Honey, 2008; Nilsson, Griggs & Visbeck, 2016).

The concept of ecotourism gained popularity in the 1970s and 1980s, resulting from environmental movements as well as the counter-movements to traditional mass tourism due to its negative social and environmental impacts and its capitalistic focus on income and growth (Cobbinah, 2015; Honey, 2008). Wondirad (2019) conducted a systematic meta-analysis of tourism journal publications, including 470 articles, and showed an overall trend of growth of this research field. Moreover, the increasing importance of the concept of ecotourism can be seen, for example, in the declaration of the International Year of Ecotourism by the UN as well as the introduction of a peer-reviewed *Journal of Ecotourism* in 2002.

However, the popularisation and mainstreaming of the concept watered it down and increasingly led to the abuse of the concept as a sole marketing tool, resulting in green washing (Honey, 2008; Inman, Mesa, Oleas & de los Santos, 1998; Fennell, 2020b). One issue with that are the many small-scale tourist services that label themselves as being sustainable because of the marketability and lucrateness of the concept, albeit lacking the operationalisation of these sustainability claims, which may have detrimental impacts on the society and environment (Butler, 1999; Drumm & Moore, 2002). Due to fuzziness of the concept of ecotourism, Aylward, Allen, Echeverra and Tosi (1996) label "sustainable ecotourism" as an environmental buzzword of the 1990s. In line with that, Wall (1997) criticised that "ecotourism may be little more than 'old wine in new bottles'" (p.496) – although being worthwhile in principle, a poor definition and implementation prevail.

Albeit lacking a commonly agreed upon definition (Donohoe & Needham, 2006), one of the most popular ones was given by The International Ecotourism Society (TIES), describing ecotourism as "responsible travel to natural areas that conserves the environment, sustains the well-being of the local people, and involves interpretation and education" (TIES, 2015a). This definition will also be used throughout this paper. Further frequently cited definitions from different decades as well as different authors and ecotourism organisations are represented in Table 1.

² The concept of *weak sustainability* assumes that all kinds of capital can be substituted by one another and expressed in monetary units while *strong sustainability* states that nature contains an intrinsic value and can neither be simply replaced by other kinds of capital nor monetarised (Hauff, 2016).

Table 1 Definitions of ecotourism.

Author(s)	Definition
Ceballos Lascuráin (1987)	“Traveling to relatively undisturbed or uncontaminated natural areas with the specific objective of studying, admiring, and enjoying the scenery and its wild plants and animals, as well as any existing cultural manifestations (both past and present) found in these areas” (p. 14)
Honey (2008)	“Ecotourism is travel to fragile, pristine, and usually protected areas that strives to be low impact and (often) small scale. It helps educate the traveller, provides funds for conservation, directly benefits the economic development and political empowerment of local communities, and fosters respect for different cultures and for human rights” (p. 33)
TIES (2015a)	"Responsible travel to natural areas that conserves the environment, sustains the well-being of the local people, and involves interpretation and education"
GEN (2016)	“Responsible travel to natural areas that conserves the environment, socially and economically sustains the well-being of the local people, and creates knowledge and understanding through interpretation and education of all involved”
Fennell (2020b)	“Ecotourism is a sustainable, non-invasive form of nature-based tourism that focuses primarily on learning about nature first-hand, and which is ethically managed to be low impact, non-consumptive, and locally oriented (control, benefits and scale). It typically occurs in natural areas, and should contribute to the conservation of such areas” (p. 24)
Ecotourism Australia (2021)	“Ecotourism is ecologically sustainable tourism with a primary focus on experiencing natural areas that fosters environmental and cultural understanding, appreciation and conservation”

One should note that the definitions develop from a more nature-based tourism definition (see section 0) by Ceballos Lascuráin (1987) to a more holistic one incorporating several key characteristics (e.g. Fennell, 2020b). If ecotourism is defined too broadly it loses its meaning (Orams, 2001; Weaver, 2001a). However, a stricter definition requires the determination of measurable indicators as well as a clear distinction of what falls into the scope of ecotourism and what not (Fennell, 2020b). Therefore, to increase the specificity of the concept, ecotourism is often defined multi-dimensionally via various characteristics which will be illustrated next.

2.2.3 Characteristics of Ecotourism

After a review of various definitions and conceptualisations of ecotourism, seven key characteristics could be identified which are often used to define ecotourism (see Table 2):

1. Travel to natural destinations
2. Education and interpretation
3. Environmental conservation
4. Cultural preservation, awareness, and respect
5. Community participation
6. Minimal negative environmental and socio-cultural impacts
7. Direct local economic benefits and improved community well-being

Table 2 Synthesised elements of ecotourism based on the review of various definitions and concepts.

Ecotourism Elements	Authors
Travel to natural destinations	Blamey (2001), Ceballos Lascuráin (1987), Donohoe and Needham (2006), Figgis (2000), Honey (2008), Leksakundilok (2004), UNEP and UNWTO (2002), Weaver (2005a)
Education and Interpretation	Beeton (1998), Blamey (2001), Cobbinah (2015), Donohoe and Needham (2006), Fennell (2001a), GEN (2016), Honey (2008), Leksakundilok (2004), TIES (2021b), UNEP and UNWTO (2002), Weaver (2005a)
Environmental conservation	Cobbinah (2015), Donohoe and Needham (2006), Fennell (2001a), Figgis (2000), GEN (2016), Honey (2008), Leksakundilok (2004), TIES (2021b), UNEP and UNWTO (2002), Wallace and Pierce (1996)
Cultural preservation, awareness, and respect	Cobbinah (2015), Donohoe and Needham (2006), Fennell (2001a), Honey (2008), Leksakundilok (2004), TIES (2021b), Wallace and Pierce (1996), Wearing (2001)
Community participation	Cobbinah (2015), Courvisanos and Jain (2006), Eshun and Tichaawa (2019), Fennell (2001a), Fiorello and Bo (2012), Gezon (2014), Leksakundilok (2004), Wallace and Pierce (1996), UNEP and UNWTO (2002)
Minimal negative environmental and socio-cultural impacts	GEN (2016), Honey (2008), Leksakundilok (2004), TIES (2021b), UNEP and UNWTO (2002), Wallace and Pierce (1996)
Direct local economic benefits and improved community well-being	Cobbinah (2015), Donohoe and Needham (2006), Fennell (2001a), Figgis (2000), GEN (2016) Honey (2008), Leksakundilok (2004), TIES (2021b), UNEP and UNWTO (2002), Wallace and Pierce (1996),

Further mentioned characteristics in addition to the ones above include, for example, the empowerment of vulnerable individuals, especially of indigenous populations (Cobbinah, 2015; Coria & Calfucura, 2012; GEN, 2016; TIES, 2021b) or culture. While some argue that cultural components must be included (Weaver, 2005a; Weaver & Lawton, 2007), Fennell (2020b), for instance, argues that the cultural part of ecotourism must not be stressed, because it is part of all forms of tourism. Regarding the operationalisation of ecotourism, many researchers demand a small-scale local infrastructure, meaning local ownership and small-scale businesses, local employment as well as local purchasing (GEN, 2016; Honey, 2008; UNEP & UNWTO, 2002). Almost never mentioned but also crucial for ecotourism is financial sustainability and tourist satisfaction (GEN, 2016; TIES, 2021b; Weaver, 2005a), which is often simply assumed. In addition, Honey (2008) suggests that ecotourism should support human rights and democratic movements, exhibiting social and political sensitivity toward the host destination.

Although ecotourism may support development as a local strategy, the following is important to keep in mind: "Just as tourism is rarely the sole cause of the problems for which it is sometimes indicted, it is unlikely to be the complete solution to all development needs" (Wall, 1997, p. 505). Therefore many researchers explicitly state that ecotourism is no panacea (Cobbinah, 2015; Coria & Calfucura, 2012; Donohoe & Needham, 2006; Eshun & Tichaawa, 2020; Honey, 2008; Orams, 2001; Weaver, 2001a). However, to illustrate the uniqueness of ecotourism and its potential for sustainable development, the next section discusses the distinction between ecotourism and other forms of tourism, which are often considered synonymously, but differ vastly from ecotourism in their concepts.

2.2.4 Delimitation from Other Forms of Tourism

As discussed earlier, ecotourism is often treated synonymously with other forms of alternative tourism such as nature tourism, wildlife tourism, and adventure tourism (Björk, 2000; Honey, 2008; Fennell, 2020b; Stonehouse, 2001; Weaver, 2001a). For example, to illustrate the increasing homogenisation and conceptual overlaps between adventure tourism (A), cultural tourism (C) and ecotourism (E), Fennell (2020b) develops the concept of ACE-tourism to illustrate the convergence development over the last years. However, ecotourism differs significantly from the allegedly equivalent concepts for several reasons:

Since ecotourism firstly includes ethical values and a link to positive outcomes in its definition, it needs to be marked-off from nature tourism, which "is defined simply as travel to enjoy and experience nature, with no reference to impact" (Hunt, Durham, Driscoll & Honey, 2015, p. 341). Nature tourism (also called nature-based tourism) often includes safe activities such as hiking, biking, or camping, with no connection to education or conservation, and is thus far from equivalent to ecotourism (Drumm & Moore, 2002; Fennell, 2020b; Goodwin, 1996; Honey, 2008; Laat, 2015). Nevertheless, since nature tourism just refers to the occurrence of a nature environment and ecotourism incorporates travel to natural destinations as shown in the previous section, ecotourism can be understood as a sustainable subset of the former (Blamey, 2001; Weaver, 2001a). Applying the same logic, nature tourism hence also incorporates certain forms of mass tourism as well as wildlife and adventure tourism (Goodwin, 1996).

Wildlife tourism can be defined as “tourism based on encounters with non-domesticated (non-human) animals” (Higginbottom, 2004, p. 2). Activities of wildlife tourism can either be consumptive (hunting or fishing) or non-consumptive (animal watching or photography). Wildlife tourism and ecotourism do not share the same value sets (e.g. use vs. non-use values) and the former does, for example, not include experiencing plants (Tisdell & Wilson, 2004). However, while most researchers would agree that non-consumptive wildlife tourism such as bird watching could be ecotourism if complemented by sustainable practices and education (Fennell, 2020b), academic opinions on consumptive wildlife tourism diverge greatly. Whereas some researchers argue that hunting and fishing can be ecotourism (Gössling & Hultman, 2006; Holland, Ditton & Graefe, 1998), others strictly neglect this perspective (de la Barre, 2005; Fennell, 2000; GEN, 2016).

Lastly, adventure tourism describes a form of tourism which promotes adrenaline, requires certain skills (e.g. climbing, kayaking, sky diving, white water rafting...), equipment, and often contains a certain amount of risk (Fennell, 2020b; Honey, 2008; Weaver, 2001a). The main differentiation between ecotourism and adventure tourism is that while the former has an intrinsic interest in the environment and contains educative elements, the latter is mainly characterised by tourists with an interest in physical exertion and experiencing adrenaline through the entailed risk (Weaver, 2001a; Honey, 2008).

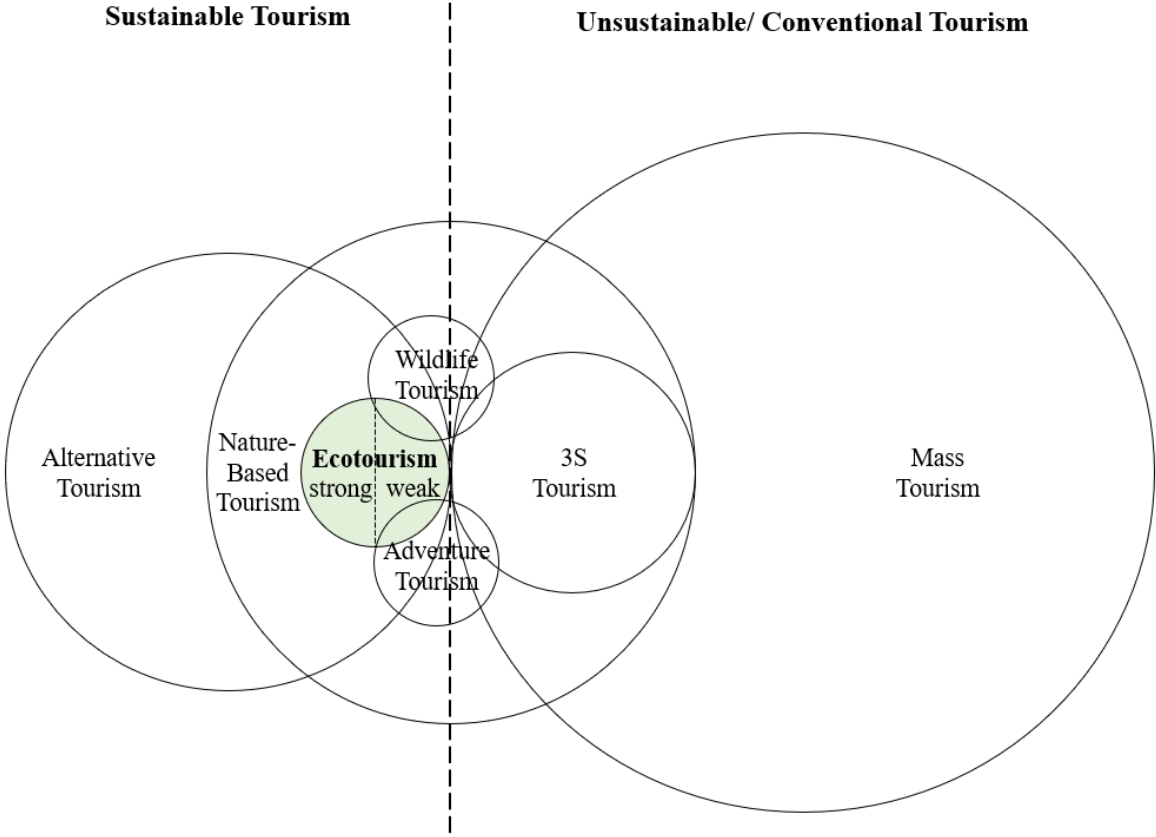


Figure 4 Discussed forms of tourism and their relationship to each other (own depiction). Based on Fennell (2020b), Honey (2008), and Weaver (2001a).

To conclude, one should note that while adventure, nature, and wildlife tourism are often defined by their recreational activities, ecotourism differentiates itself from them via an ethical imperative of environmental conservation and the endowment of socio-cultural benefits for local communities (Björk, 2000; Honey, 2008; Fennell, 2020b). To make the distinction and potential overlaps between the different concepts more tangible, Figure 4 illustrates a depiction of the discussed tourism forms using Venn diagrams. Ecotourism can, however, not only be distinguished within the sphere of alternative tourism, but also be differentiated along a continuum within its own concept as elaborated next.

2.2.5 Types of Ecotourism

Ecotourism can range between hard and soft ecotourism (also called deep and shallow) as well as between comprehensive and minimalist ecotourism (Acott, La Trobe & Howard, 1998; Inman et al., 1998; Fennell, 2020b; Weaver & Lawton, 2007). While the former differentiation mainly aims at the scale of activities, the latter assesses the degree of sustainability enhancement (Weaver, 2005a). A graphical illustration of the different concepts can be seen in Figure 5.

The weak or shallow pole of ecotourism follows a business-as-usual attitude towards the environment, stressing on its usefulness and exploitability to the advantage of humans (utilitarian anthropocentric perspective). It is characterised by large-scale activities, including bigger groups of people, shorter trips, and expectations of service. In contrast, strong or deep ecotourism follows a paradigm of ecocentrism and deep ecology, challenging capitalism, and materialism. It is characterised by small-scale activities, including smaller groups of people, longer trips, and expectations of few if any services (Acott, La Trobe & Howard, 1998; Inman et al., 1998; Weaver, 2002).

Weaver (2005a) suggests an additional differentiation between minimalist and comprehensive ecotourism. The minimalist pole has no aspiration to transform the tourist or host destination, is quite specific and basic in its learning outcome, the effects are aimed locally, and it solely focuses on the natural environment regarding sustainability. The comprehensive form, on the other hand, pursues a more holistic approach, combining socio-cultural and environmental aspects, actively aiming at enhancing sustainability on a global scale and laying its learning focus on a deep understanding and focus of the tourist and local community.

It is often argued that the discriminatory power between soft ecotourism and mass tourism is low, leading to partial overlaps and assumptions of convergence (Sharpley, 2006; Weaver & Lawton, 2007). While some embrace the idea of a mass ecotourism (Butler, 1999; Kontogeorgopoulos, 2005; Weaver, 2005a), others strictly neglect it due to its dichotomous conceptualisation as a subset of alternative tourism (Diamantis & Ladkin, 1999; Fennell, 2020b; GEN, 2016). Although most ecotourism activities can be assigned to the soft and minimalist sphere of ecotourism due to cost effectiveness and less complexity, according to Weaver (2005a), the perfect ecotourism model would be a comprehensive one which combines soft and hard, i.e. small-scale and hard-scale, attributes.

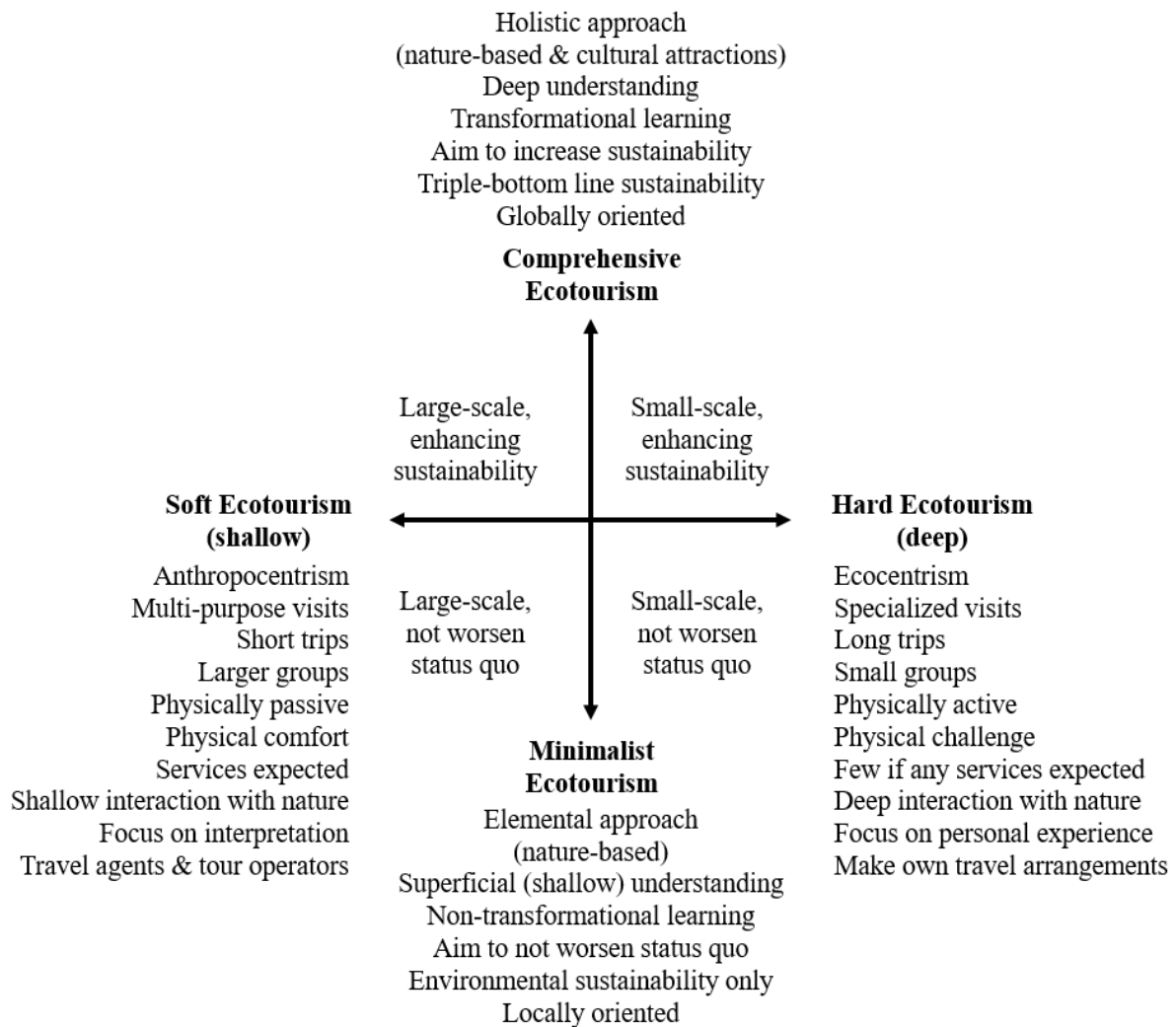


Figure 5 Matrix of types of ecotourism (own depiction). Based on Acott, La Trobe and Howard (1998), Weaver (2002), and Weaver (2005).

However, whether soft, hard, minimalist, or comprehensive ecotourism, it is almost impossible for tourism to have no impact on the geographical setting in which it happens. "The naive assumption that tourism which is nature-focused will automatically be sustainable may not only be incorrect but also harmful" (Butler, 1999, p. 12). Therefore, the next chapter addresses a summary of the main economic, environmental, and social impacts of ecotourism.

2.2.6 Impact of Ecotourism

On the one hand, "ecotourism embraces the principles of sustainable tourism, concerning the economic, social and environmental impacts of tourism" (UNEP & UNWTO, 2002, p. 2). On the other hand, even if the impacts of tourism were relatively small, over time they may cumulatively sum up and lead to detrimental consequences in the locations that they occur (snowball effect) (Butler, 1999). Therefore, ecotourism entails – as all forms of tourism – various positive as well as negative economic, environmental, and socio-cultural impacts, which will be discussed in the following.

2.2.6.1. Economic Impacts

The economic impacts of ecotourism are manifold and include positive as well as negative impacts, especially for the host destination. On the one hand, ecotourism may lead to local employment, generates government revenue through taxes, enhances the infrastructure, financially fosters the creation and maintenance of protected areas, and may provide funding for community projects via revenue sharing (Serenari et al., 2017; Stem et al., 2003; Wearing, 2001). On the other hand, it may induce fiscal costs, for instance for infrastructure, lead to inflation and thus increased prices in host communities that are borne by the residents and may amplify income inequalities while fostering the emergence of financial elites (Cobbinah et al., 2017; Lindberg, 2001; Wearing, 2001).

The local economic impact of ecotourism on the host communities is often likely to be small because of leakage, i.e. the majority of generated income leaves the host community, benefitting mainly other national or international actors instead of local stakeholders (Abukhalifeh & Wondirad, 2019; Stem et al., 2003; Wall, 1997). However, Aylward et al. (1996), for example, show that, if there is local ownership, i.e. the residents own most of the tourism infrastructure such as hotels, restaurants, and stores, the economic benefits (with non-market benefits being even higher) resulting from ecotourism do not only positively affect the national level but also local communities themselves. Therefore, ecotourism may differ in its economic impacts based on its operationalisation, meaning that a community-based ecotourism approach where most businesses are owned by residents generates more income for the local community and minimises leakage as compared to an ecotourism where the lodging and tour providers are owned by large foreign companies. Moreover, Hunt et al. (2015) have shown that ecotourism provides higher income to residents than other local employment opportunities. Nevertheless, Wall (1997) criticises the capitalistic thinking, which is often dominating in ecotourism, putting too much emphasis on economic growth. This neoclassical paradigm is often detrimental for the other two dimensions of sustainability, namely the environmental and social one.

2.2.6.2. Environmental Impacts

Ecotourism, such as all forms of tourism, has vast impacts on the environment although they tend to be lower than in other forms of tourism if practised with commitment (Buckley, 2001; Honey, 2008; Fennell, 2020b). The major impacts occur through travel to and from the destination, accommodation, and the practised recreational activities. The exact impact on the environment, however, depends largely on the type of activity, the respective ecosystem, the scale, and the duration of the ecotourism practices. Since ecotourism fosters the lifestyle of communities living side-by-side with protected areas, one reason for potential conflicts is the interaction between wildlife and people, which may result in issues such as loss of livestock because of predators, crop damage due to herbivores, or animal attacks on humans (Heikkinen, Moilanen, Nuttall & Sarkki, 2011; Jones, 2007). Further negative impacts include the trampling of vegetation, noise disturbance, soil erosion, water and air pollution, and visual impacts, amongst many others (Buckley, 2001; Goodwin, 1996). However, key to reduce these impacts are a pro-environmental management of the tour operators (e.g., type of activity, activity design, equipment, training, education) as well as low-impact land, water, and visitor management

practices by public agencies and private landholders (e.g., access bans or quotas, entry fee discrimination, impact measurement and monitoring) (Buckley, 2000; Sjaifuddin, 2020).

One main positive impact is the promotion of and contribution to conservation of natural environments through the ousting of alternative land uses with higher negative impacts such as farming, fishing, or mining (Buckley, 2001; Koens, Dieperink & Miranda, 2009; Stem et al., 2003). Moreover, ecotourism helped to put the environment on the tourism development agenda and rose the environmental awareness among tour operators, tourists, governments, and residents alike while fostering environmental education (Goodwin, 1996; Hunt et al., 2015; Wall, 1997). Nonetheless, although ecotourism often offers many ecological benefits, a lack of socio-economic outcomes seems to prevail (Cobbinah et al., 2017; Honey, 2008). Put differently, it often seems that the ecological benefits provided by ecotourism exceed the socio-economic ones (Eshun & Tichaawa, 2020).

2.2.6.3. Socio-Cultural Impacts

Ecotourism has various socio-cultural impacts which may adversely affect the host destination. For example, ecotourism may also lead to change of lifestyles and behaviour of local communities as well as cultural suppression and devaluation through the dominance of white tourists with a Western culture (MacCannell, 1992; Wearing & Larsen, 1996). This often leads to acculturation which describes the cultural acquisition, adaptation, and assimilation to the usually dominating culture (Lea, 2006). Acculturation can be seen when communities fear a distortion of their local culture. For example, local communities in Ghana fear that their younger generations will adopt the dressing of (international) tourists, which is often perceived as too revealing, indecent, and thus culturally immoral (Cobbinah et al., 2017). In the long-term this may lead to the dissolution of local communities' social and cultural structure (Stem et al., 2003). Certain tourism practices such as extensive partying or culturally disrespectful behaviour may also have negative impacts on the host community's well-being (Smith & Diekmann, 2017). Moreover, ostracism and inequitable distribution of benefits lead to persistent dissatisfaction among the host community, promoting progressive depletion of local natural and cultural resources as well as degeneration of social capital (KC, Paudyal & Neupane, 2018).

However, ecotourism may also provide many socio-cultural benefits such as expanding the market for local products and thereby sustaining local customs and traditions, using local labour and expertise, providing funding for the preservation of cultural heritage, increasing and promoting scientific research as well as fostering community awareness in terms of culture and nature (Honey, 2008; Wearing, 2001). In addition, ecotourism also enhances idea exchange and training opportunities and may indirectly also lead to international recognition of the host destination, often resulting in pride amongst the local communities (Cobbinah et al., 2017; Courvisanos & Jain, 2006; Honey, 2008). Further socio-cultural benefits may result from the social interaction between ecotourists and community members, leading to increased mutual understanding which "will only benefit and sustain the well-being of local communities" (Wearing, 2001, p. 401). To understand how ecotourism exactly influences the well-being of local communities, the role of communities in ecotourism must be discussed first.

2.2.7 The Role of Local Communities in Ecotourism

Especially in developing countries, ecotourism is often introduced externally by foreign stakeholders such as non-governmental organisations (NGOs) or international institutions, which is sometimes referred to as “green imperialism” or “eco-colonialism”, leading to a lack of internalisation and understanding of the concept in local communities (Cobbinah, 2015; Goodwin, 1996). This is fatal since local communities are often the main recipient of the negative as well as positive impacts created by ecotourism activities (Biagi, Ladu, Meleddu & Royuela, 2020; Chi, Cai & Li, 2017; Courvisanos & Jain, 2006). To counteract this development and to close the gap in the operationalisation of ecotourism, a new research stream developed focussing on the often-neglected socio-economic dimensions of sustainability – *community-based ecotourism* (Fiorello & Bo, 2012; N. Kontogeorgopoulos, 2005; Stone & Stone, 2011). This form of ecotourism specifically promotes decentralisation of power to communities and targets their inclusion in the planning and management processes of the ecotourism sector (Abukhalifeh & Wondirad, 2019). This is crucial because, albeit often neglected, tourism represents a “community industry” and the impacts of ecotourism are highly dependent on the local (geographical) context in which they occur due to local governance processes (KC, Paudyal & Neupane, 2018; Nunkoo, Smith & Ramkissoon, 2013).

The local community can be considered a composite stakeholder which includes various actors with partly competing and at times conflicting interests (Abukhalifeh & Wondirad, 2019; Meleddu, 2014). Thus, one fallacy in the ecotourism literature is the misleading assumption of homogeneity of local communities, neglecting the partly diverging interests of different groups (Eshun, 2014; Hunt et al., 2015). One example is the difference between so-called “experts” of ecotourism development and the communities themselves as discussed by Lash and Austin (2003). Therefore, it is important to keep in mind that locals are often no homogeneous group, meaning that the appreciation and sensitivity towards local heterogeneity is crucial (Eshun & Tichaawa, 2020; Hunt et al., 2015; Sarkki, Rantala & Karjalainen, 2015).

Nevertheless, “community participation in the planning process is a *sine qua non* of ecotourism” (Courvisanos & Jain, 2006, p. 134) because it may decrease the future likelihood of conflict and misinformation and is pivotal for support of ecotourism policies by residents (Abukhalifeh & Wondirad, 2019; Wearing, 2001). Thus, “clearly, a process is needed whereby *direct knowledge, experience and understanding* from the community forms the basis for the management of socio-cultural impacts so that these communities can engage in ongoing development and enhancement through ecotourism” (Wearing, 2001, p. 396). However, in reality, this is often not the case. Within the tourism development process, residents often feel powerless because of rigid top-down tourism decisions and policies (Nunkoo & Ramkissoon, 2012). Serenari et al. (2017), for instance, criticise the paternalistic structure of private protected areas ecotourism ventures in Chile, which exclude local people from governance and lead to a disempowerment of local communities. Another major critique often raised within this context is the fact that the main decision makers of ecotourism development often remain expatriates or foreign stakeholders which lack an understanding of cultural intricacies and functioning of the respective host communities (Wearing, 2001).

Moreover, ecotourism often fails to enhance the social capital of locals and leads to inequality in the distribution of benefits amongst them, especially of direct financial benefits (Cobbinah et al., 2017; Coria & Calfucura, 2012). Therefore, many residents feel displeased by the uneven distribution of economic benefits derived from tourism activities (Nunkoo & Gursoy, 2017). Also, it is detrimental if locals perceive tourists instead of themselves as the main beneficiaries because it may lead to the build-up of resentments towards national parks, protected areas, and conservation (Ceballos-Lascuráin, 1996).

To obtain support from local communities for ecotourism practices, one needs to promote, facilitate, and augment local participation as well as actively involve local communities in the whole ecotourism development process, from planning and designing over implementation to continuous consultation (Chi, Cai & Li, 2017; Courvisanos & Jain, 2006; Wearing, 2001). This premises the provision of adequate trainings, such as language and management, as well as access to capital (Wall, 1997). Moreover, to ensure true alignment and inclusion of residents' well-being in ecotourism policies and governance, equitable capacity-building is necessary (Bennett et al., 2012) paired with a holistic incorporation of local well-being definitions (Serenari et al., 2017). In addition, community expectation management via education is important to avoid community disappointment resulting from expectations combined with maintaining transparency and residents' knowledgeability of the tourism planning process and community developments (Chi, Cai & Li, 2017; Gezon, 2014). This local empowerment and participation in ecotourism will then lead to an increase for the local community's own sense of well-being (Eshun & Tichaawa, 2019). To better understand the relationship between ecotourism and residents' well-being, it will be discussed next based on previous research.

2.3 Ecotourism and Well-Being

Although the focus on local communities represents the dominating research stream in ecotourism literature, the main areas covered are residents' participation, empowerment, attitude, capacity building, benefits, and costs, without specifically analysing the residents' well-being (Wondirad, 2019). However, the ideal form of tourism would maximise the well-being of the greatest number of people (utilitarianism) but explicitly without compromising the well-being of local people (Smith & Diekmann, 2017). There are two major reasons why residents' well-being needs to also be accounted for by policy makers: Firstly, it represents a proxy indicator for sustainable development in the respective spatial area. Secondly, a hostile attitude of local communities towards tourists may harm the whole sector, leading to detrimental economic losses (Biagi et al., 2020).

The focus on well-being in tourism research generally increased over the last decades, from a theoretical as well as methodological point of view, but still remains in its infancy (Smith & Diekmann, 2017). There has been especially little research on analysing the social impacts of ecotourism development on well-being (Serenari et al., 2017). Themes such as social relationships, self-esteem, and personal development are often neglected albeit being fruitful and necessary to fully understand the long-term effects of ecotourism (Li & Chan, 2017). In general, the results from studies that analyse residents' well-being and ecotourism remain

discordant and vague, implying a strong need for further research and empirical foundation (Chi, Cai & Li, 2017; Uysal et al., 2016).

Tourism policy makers and tourism developers often create packages that promote sustainability and improved well-being of local people, which in reality are rather concerned with creating an eudaimonic experience for the tourist without necessarily considering the impacts on the host community (KC, Paudyal & Neupane, 2018; Smith & Diekmann, 2017). For example, analysing local communities' understanding of ecotourism in Ghana, Cobbinah (2015) revealed a limited comprehension and resulting poor implementation of ecotourism practices by local agencies. Moreover, he reported that ecotourism did not lead to the expected improvements of the locals' living conditions and well-being.

In contrast, others found none at all or a positive relationship between (eco)tourism and well-being. Chi, Cai and Li (2017), for instance, explain this by the fact that residents of a tourism-dependent destination have the perception that the benefits outweigh the costs, thus tolerating tourism's negative impacts, which is in line with the findings of Andereck, Valentine, Knopf and Vogt (2005). Analysing communities around the Kakum Conservation Area in Ghana, Cobbinah et al. (2017) also found that residents generally exhibit positive feelings regarding ecotourism. Trying to determine which factors influence residents' subjective well-being at World Heritage Sites, Chi, Cai and Li (2017) applied a quantitative model based on surveys in Lijiang, China, and found that higher economic status, sense of community, and social environment are positively associated with residents' subjective well-being.

One can conclude that the understanding and analysis of local feelings and experiences towards ecotourism, albeit lacking operationalisation, becomes necessary in the sustainability discussion of ecotourism as a development strategy (Cobbinah et al., 2017; Honey, 2008; Nilsson, Griggs & Visbeck, 2016). Thus, there is a research need to verify to which extent allegedly sustainable tourism practices such as ecotourism indeed have positive impacts for the local residents' well-being (Smith & Diekmann, 2017), especially against the backdrop of the current COVID-19 pandemic which will be examined next.

2.3.1 Ecotourism, Well-being, and the Global Pandemic of COVID-19

Ecotourism, as all forms of tourism, represents a vulnerable sector that is sensitive to national as well as global changes (Abukhalifeh & Wondirad, 2019). As already marked by Wall (1997), in many cases ecotourism is the only economic activity offered and exerted by residents, increasing their vulnerability to the fickleness of a volatile and uncontrollable industry. In line with that, Wondirad (2019) predicted that the stability of the ecotourism industry will be jeopardised by global pandemics and diseases which will lead to income losses for local communities and may put the sector's sustainability at risk. The drastic consequences of this economic dependency could be seen first-hand in the breakout of the global COVID-19 pandemic in 2020. For instance, an analysis of the effects of the COVID-19 pandemic at the Pacuare Reserve in Costa Rica has shown that the loss of visitors reduced personnel and financial precarity led to negative impacts on conservation, particularly on the conservation of the leatherback sea turtles as well as decreased environmental education (Quesada-Rodríguez,

Orientele, Diaz-Orozco & Sellés-Ríos, 2021). However, not only the environmental dimension of sustainability got impacted but also and especially, society's well-being in general. The pandemic and the frequently induced lockdowns had severe impacts on people's well-being, especially their mental health, affecting it adversely (Brodeur et al., 2021).

At the same time, the pandemic may be an opportunity to redefine, transform, and reform tourism, making it more ethical, sustainable, and resilient, which may preserve society's well-being in the long-term (Higgins-Desbiolles, 2020; Sharma, Thomas & Paul, 2021). Since the tourism industry is one of the most impacted ones, it is especially crucial to assess the well-being impacts on stakeholders within this sector (Roy, Faroque & Gupta, 2021).

Therefore, this paper aims to contribute to the current debate on how to enable the post-pandemic recovery in tourism-dependent destinations by analysing the relationship between ecotourism and well-being in Monteverde, Costa Rica. More specifically, this study addresses the following research questions:

- RQ1* *How does ecotourism affect residents' well-being in Monteverde, Costa Rica?*
- RQ1a* *Which dimensions of well-being matter most to Monteverde's residents?*
- RQ1b* *How do Monteverde's residents define and perceive ecotourism?*
- RQ1c* *How does ecotourism affect the different dimensions of well-being?*
- RQ2* *How did the relationship between ecotourism and well-being get impacted by the COVID-19 pandemic?*

To address them, the next chapter will discuss the data and methods applied in this study.

3 Data and Research Methods

This section aims to present and justify the chosen data collection and research methods. Firstly, the choice of a qualitative research approach and the case, Monteverde in Costa Rica, will be discussed. Secondly, the sampling strategy, the interview guide design, and data analysis approach will be elaborated. Lastly, the chapter examines ethical considerations, triangulation, and limitations.

3.1 Research Approach

Qualitative research allows to provide of insights into real-life experiences of individuals and communities (Santana et al., 2021), since it aims to study individuals in their “natural settings, attempting to make sense of, or interpret, phenomena in terms of the meanings people bring to them” (Denzin & Lincoln, 2017, p. 3). Moreover, qualitative research allows to obtain and interpret in-depth data (Yin, 2018) and may even lead to empowerment of residents via participation and community-engagement (Cornwall & Jewkes, 1995). Especially now during the pandemic, the employment of qualitative research seems to be key to reveal the impacts on people and their coping mechanisms. As pointed out by Santana et al. (2021):

The unique strengths of qualitative research, through in-depth inquiry and identification of unexpected themes and linkages, is essential to our growing understanding of COVID-19's impacts on the social world and its intersection with sustainability science (p. 1).

Therefore, a qualitative research approach has been chosen, since it is strongly affiliated with the employed case study method (Ritchie & Lewis, 2003). The employed case study approach allows the researcher to gain a nuanced perspective on reality and helps to understand the viewpoints and behaviour of the social actors (Flyvbjerg, 2006) as discussed next.

3.2 Case Study Selection and Description

As suggested by Eisenhardt (1989) and Yin (2018), a case-based study is especially useful, if the object of investigation is either poorly understood or represents a new phenomenon. Both apply to this study, since, to the best knowledge of the author, residents' well-being research has been rarely deployed so far, especially not within the context of ecotourism in Costa Rica and during a new phenomenon such as the COVID-19 pandemic. Even though a case study puts the research focus on a specific case, this study will generate valuable insights into people's

perception of ecotourism under consideration of their well-being. It may also provide valuable lessons from a pioneering country as well as reveal future research needs. As Eysenck (1976) stated: “Sometimes we simply have to keep our eyes open and look carefully at individual cases – not in the hope of proving anything, but rather in the hope of learning something” (p. 9). Therefore, a case study approach seems suitable for this research.

Costa Rica has been chosen as a country because of pioneering in the field of ecotourism (Hunt & Harbor, 2019), thus being able to provide in-depth insights about its impact on local communities. More specifically, Monteverde has been chosen as the region of analysis because of being one of the first communities that implemented ecotourism practices and thus constituting one of the most popular ecotourism destinations due to its precious natural reserves (Laat, 2015). The setting of ecotourism in Costa Rica and the case of Monteverde will be described next.

3.2.1 Costa Rica

Costa Rica managed to transform its agrarian economy, whose export sector was firstly focused on coffee, then beef, and lastly bananas, to become a service economy, heavily relying on its (eco)tourism industry. This boom in ecotourism approximately started in 1987 (Aylward et al., 1996). Costa Rica exhibits a favouring political economy for ecotourism because of preservation and ecotourism-centred institutions, long-lasting peaceful democracy, political neutrality, fruitful climate, a large educated middle-class, geographical proximity to its largest sales market, North America, and a broad diversity of environmentally aware stakeholders (Braun, Dreiling, Eddy & Dominguez, 2015; Courvisanos & Jain, 2006).

To create a local-favouring as opposed to a tourist-favouring ecotourism system, Costa Rica established an UNESCO-MAB³ besides its efficient and attractive National Park System in the early 1970s, while introducing several projects to include locals in the management process and provide local communities with respective trainings (Wearing & Larsen, 1996). This community involvement, consultation, and empowerment in the ecotourism planning processes is crucial (Courvisanos & Jain, 2006; KC, Paudyal & Neupane, 2018). Moreover, Costa Rica introduced various university and high-school programmes focused on ecotourism to increase local involvement and raise environmental awareness and education (Wearing, 2001).

Despite its efforts, a smaller economy, such as Costa Rica, is more likely to exhibit higher leakage, i.e. income generated by ecotourism does not stay in the host destination, but leaks to other countries, due to lower diversity in its domestically produced goods and services (Weaver, 2001b). This is an issue because developing countries especially exhibit a high degree of leakage with more than 90% of tourism spending leaking away from communities close to ecotourism sites (Lindberg, 2001). Baez and Fernandez (1992), for instance, showed that less

³ “The MAB [Man and the Biosphere] programme is an intergovernmental scientific programme that aims to establish a scientific basis for enhancing the relationship between people and their environments” (UNESCO, 2021).

than 6% of income generated by tourism at Tortuguero National Park in Costa Rica actually flows to local communities. Nevertheless, analysing Costa Rica's Osa Peninsula, Hunt et al. (2015) found that ecotourism is more effective in improving residents' well-being than other locally available sectors. She also showed that even residents of the Osa Peninsula who do not derive their primary income from the payroll of ecotourism activities exhibit an overall positive attitude towards ecotourism and its related creation of local education opportunities, job trainings, and nature conservation.

In fact, the study of Hunt et al. (2015) is the only one explicitly analysing residents' well-being as impacted by ecotourism. Although Monteverde constitutes one of the first and most popular ecotourist destinations in Costa Rica, there has been no research yet conducted on how ecotourism influences residents' well-being, at least not to the author's knowledge. Thus, to understand the case study setting of Monteverde better, the next section introduces a short overview of the region and its ecotourism system.

3.2.2 The Case of Monteverde

The region Monteverde⁴ with its eponymous town is located in the province of Puntarenas in Costa Rica and situated at 4,662 ft (1,440 m) above sea level (MonteverdeInfo, 2021). After Costa Rica's independence in 1821, agriculture and cattle farming were the main sectoral activities, which was also the case in Monteverde, where the first small settlements were found by farmers from the Central Valley around 1920. In 1950, US Quakers sought refuge in Monteverde, built a community and founded the first conservation areas for drinking water usage. Scientists conducting research in Monteverde revealed the need for environmental conservation, which was the beginning of a long history of environmental protection. Agriculture and animal breeding were then finally ousted by ecotourism in 1985 (Martín, 2004). Nowadays, despite constituting a relatively small area, Monteverde contains six different ecosystems with over 100 species of mammals, 120 species of reptiles and amphibians, 400 species of birds, 2500 species of plants and myriads of insects (MonteverdeInfo, 2021).

Popular ecotourism activities in Monteverde include the Monteverde Private Cloud Forest Reserve (the first private reserve in Costa Rica, even before the National Park System), the Orchid Garden, Butterfly Garden, Serpentarium, Ranarium, Community Reserve of Santa Elena or CASEM, which are all initiatives founded, designed, and operated by local community members. According to Báez (2002), a very successful ecotourism community project which gained global attention is the Sky Walk-Sky Trek project which allows visitors to experience the cloud forest via suspended bridges connected by trails.

The fast emergence and growth of tourism in the area occurred without proper urban planning, management, and land use planning. This led to social segregation, enforced by socioeconomic inequalities, and prevailing individualism, hampering the emergence of a unified community identity, which further resulted in a lack of social cohesion. Moreover, the fast urban

⁴ The term Monteverde used in this paper refers to the region, not just the city, if not stated differently.

development led to many negative consequences and externalities for the community, including the emergence of slum dwellings, lack of sidewalks, unequal income and property distribution, no proper waste disposal system, water pollution, and vehicle congestion (Martín, 2004).

In addition, a stated preferences analysis conducted by Laat (2015) revealed "that there is a disconnection between the self-identified ecotourist and the real principles of ecotourism" (p. 103). The self-description as an ecotourist is rather related to the location of the area visited, i.e. Monteverde, which can be traced back to the tourist's lack of knowledge and environmental education. Assessing the sustainability of the Monteverde Cloud Forest Reserve, Aylward et al. (1996) analysed the visitation rates, financial, ecological, and economic dimensions of ecotourism and concluded that it can be indeed labelled "sustainable" ecotourism. However, they completely neglected the social dimension of sustainability in their analysis and did not draw upon ecotourism's impact on the local communities and their well-being. Therefore, a more holistic approach, not only focussing on the economic and environmental dimension and on one spatial particularity like the reserve, is necessary to assess how ecotourism and its development affect residents' well-being in Monteverde. This will be done via a qualitative research approach, conducting in-depth semi-structured on-site interviews as elaborated next.

3.3 Data Collection

When researching distressed communities, it is pivotal to collect data of mutual interest which increases participation and commitment of the interviewed individuals (Santana et al., 2021). Since well-being is a personally relatable topic with ecotourism constituting a tangible one due to experiences of all residents in Monteverde, the research topic and data can be seen of mutual interest for the researcher, participants, and the community alike.

Although the majority of studies analysing the relationship between tourism and residents' well-being apply primary data collection methods, most of them use surveys or focus-groups to reach representativeness or to analyse data econometrically (Uysal et al., 2016). Thus, this study aims to complement the existing literature by collecting thorough primary data via in-depth interviews, one of the most common qualitative data collection methods. Especially since well-being exhibits an inherent connection to the individual, it is imperative to inquire the individual's personal experiences, perceptions, and opinions, which is done best in one-on-one interviews. Furthermore, in-depth interviews are especially useful for a case-study approach, where the aim is to obtain an in-depth understanding, due to the nuanced examination of the case with the goal of comprehending complex settings, decisions, motivations, impacts, and outcomes of certain processes (Ritchie & Lewis, 2003).

Since limited face-to-face field work may inhibit the researcher's access and trust-building within the community of study (Lo Iacono, Symonds & Brown, 2016), it was crucial to collect the data on-site. Therefore, data collection happened during a four-month research stay in Costa Rica, of which two and a half months were spent in Monteverde. Additional data was gathered via various field trips, on-site observations, and a daily field diary, increasing the researcher's cultural sensitivity and helping him to gain an overall picture of the socio-economic and

political situation in Costa Rica and Monteverde. Moreover, these data collection methods served as validation and triangulation of the in-depth interviews.

Lastly, photographic material will be used to support the findings and make the topic more tangible. Although the social sciences are often referred as "disciplines of word" (Mead, 2009), the use of photography in qualitative research can be seen as a fruitful and complementary method that provides on-site insights, increases the engagement of the researcher, and constitutes a viable way to triangulate the interview contents (Banks & Zeitlyn, 2015; Schwartz, 1989). To understand the studied units, the following section describes the sampling strategy and process.

3.4 Sampling

A differentiation between three types of groups of residents was made for which different sampling strategies were used: Experts (E), ecotourism providers (EP), and the neighbouring population of ecotourism-sites, simply called neighbours (N). Choosing sample units with certain characteristics enables to comprehend (perceived) impacts of ecotourism and to distinguish between different interest groups and stakeholders. This is crucial because different community stakeholders may have different perspectives, opinions, knowledge, and socioeconomic backgrounds (Abukhalifeh & Wondirad, 2019; Eshun, 2014; Lash & Austin, 2003). Especially "the uneven impacts of the pandemic across demographics demonstrate the importance of representing diverse experiences in qualitative research" (Santana et al., 2021, p. 6).

As it is common in qualitative research using primary data collection, sampling was not intended to be representative but to purposely reflect the opinions and stories of the most knowledgeable (experts and community leaders), the executing (ecotourism providers), and the most impacted (residents in proximity to the ecotourism sites). Thereby, a diverse and inclusive, yet not representative, pictures was aimed to obtain.

Firstly, selective (key informant) sampling was employed to obtain starting points. The selective sampling was based on the experts and community leaders in Monteverde, whom the researcher got to know during the field trips. This was followed by snowball sampling, meaning that the key informants referred the researcher to further experts in the fields of well-being and ecotourism, who exhibit a lot of community experience in Monteverde, as well as to ecotourism providers, including lodging companies (hotels), natural reserves, and tour guides. In addition, hotels must have been certified with the highest standard of the CST (Certification for Sustainable Tourism) which was developed by the Sustainability Programs Department of the Costa Rica Tourism Board and the Costa Rica National Accreditation Commission and is issued by the Costa Rican Tourism Institute (ICT). This allowed to only include "true" ecotourism providers and no greenwashing actors, which would bias the results since the research focus is on ecotourism itself. Lastly, the sampling strategy for the residents followed a door-to-door cold acquisition of residents working or living close to the ecotourism sites. This means that small local businesses or private homes close to the interviewed ecotourism providers were

located and asked for participation. This was based on the fact that spatial proximity to the ecotourism-sites and conservation areas had already been used by other researchers, since residents in the immediate vicinity are allegedly experiencing the greatest impacts (Cobbinah et al., 2017; Honey, 2008; Eshun & Tichaawa, 2020; Serenari et al., 2017). Meanwhile, the spatial propinquity allows them to participate and enjoy the attractions (Coronado Martínez, Rosas Baños & Cerón Monroy, 2018). Thus, they constitute suitable participants to evaluate the impacts of ecotourism on their well-being. A summary of the sample types, strategies, criteria, and examples can be seen in Table 3.

Table 3 Sampling approach

Sample type	Sampling strategy	Sampling criteria	Examples
Expert (E) (4x)	-Selective sampling -Snowball sampling	-Community leaders -Experts in terms of ecotourism and/or well-being -Long-term community experience	-President of community NGO -Retiree but years of experience in various community projects
Ecotourism Provider (EP) (4x)	-Snowball sampling -Internet research	-Owner or provider of an ecotourism business -At least five years of experience in their position -If lodging: highest CST certification	-Lodging (hotels, ecolodge, hostel) -Natural reserve provider -Tour provider
Neighbour (N) (5x)	Door-to-door cold acquisition	-Close spatial proximity of business or home to ecotourism-site -Should not fall in one of the upper categories -Lived in Monteverde for a long time	Any person that does not fall in one of the upper categories (e.g. café employee, local artist, gas station attendant)

The categories are not mutually exclusive. However, the differentiation made with the three sample types is rather based on different experiences and knowledge levels as well as exerted occupations. To increase the understanding of the exact process and execution of the interviews, the interview procedures are discussed next.

3.5 Interview Procedures

All interviews were conducted with each participant separately and individually at an agreed upon time. During a pandemic it is imperative for researchers to account for potential health hazards in the case of face-to-face data collection and hence promote virtual and participatory data collection methods if considered adequate (Marhefka, Lockhart & Turner, 2020; Santana et al., 2021). Therefore, each interviewee was asked, if she preferred an in-person or online interview via Zoom. In total 13 interviews were conducted, of which ten interviews happened in-person and three online (Table 4). This was considered to be a suitable number of interviews, since theme saturation is often achieved after 12 interviews (Guest, Bunce & Johnson, 2006). If the interview were selected to be in-person, the interviewee herself could choose the location, allowing her to pick a place where she would feel comfortable and safe.

Table 4 Interviewed residents and respective settings (own elaboration).

Interviewee	Job	Date	Duration	Place	Language
EP1	Sustainability Director in a Hotel	08.03.2021	44:33 min	Zoom (online)	Spanish
EP2	Hotel Owner	11.03.2021	37:18 min	Hotel	Spanish
EP3	Executive Director in Private Reserve	22.03.2021	57:35 min	Zoom (online)	English
EP4	Naturalist Tour Guide	06.04.2021	54:06 min	Interviewer's home	Spanish
E1	Coffee Farm Owner	01.03.2021	58:07 min	Coffee Farm	Spanish
E2	Researcher in Education NGO	02.03.2021	56:20 min	NGO	Spanish
E3	President of Community NGO	08.03.2021	49:02 min	Zoom (online)	English
E4	President of Tourism NGO	29.03.2021	49:21 min	NGO	Spanish
N1	Private Lodging Operator	27.02.2021	46:39 min	Interviewer's home	Spanish
N2	Café Owner	18.03.2021	31:79 min	Café	Spanish
N3	Local Artist	19.03.2021	42:45 min	Local Art Shop	Spanish
N4	Unemployed Constructor	15.04.2021	49:37 min	Interviewee's home	Spanish
N5	Unemployed Service Staff	16.04.2021	52:04 min	Interviewee's home	Spanish

For each interview, a time slot of one hour was booked in accordance with the interviewee while briefing her that the interview is designed for a duration of about 45 minutes. In preparation for the in-person interviews, all necessary documents were printed out and brought along. For each interview, new documents were printed out and treated hygienically due to

potential health risks of smear infection. For the online interviews, it was checked that the internet connection was stable, all links function, and all online documents were ready to use.

Before the start of the interview, the participants were briefed once more about the topic of research and handed a respective information sheet about it. Furthermore, they were asked to fill out an interview consent form, which highlighted the confidentiality and anonymity of the interview contents. Additionally, the form asked for consent for recording the interview. For online interviews, the same documents were sent beforehand via mail with the request of signing and sending them back before the actual interview. The employment of informed free consent as well as the inclusion of choice option regarding disclosed information and recording as done in this study, is crucial to increase trust, empower the participant, and especially during the pandemic, to minimise the risk of re-traumatisation (Mezinska, Kakuk, Mijaljica, Waligóra & O'Mathúna, 2016; Santana et al., 2021; Wood, 2006). The employed information sheet and interview consent form can be seen in Appendix A in English and in Appendix B in Spanish.

For the physical interviews, strict hygienic measures were undertaken, in line with the national and local recommendation and regulations⁵. Moreover, it is ethically imperative to exhibit high levels of empathy and respect for the participants during the whole time of the interview, since they may face the struggle of executing several societal roles simultaneously while facing health issues, financial insecurity, and social inequalities (Santana et al., 2021).

After the interviews, the recordings were transcribed in proximity to each meeting to directly capture the details and impressions of the respective interview. For one hour of interview, the transcription process took approximately seven hours. A strict or true verbatim transcription style was applied, which captures all sound and non-verbal communication including pauses, false starts, and laughter, amongst others. This aims to not only include *what*, but also *how* a person speaks, which may be of high importance to an emotional topic such as well-being, revealing subtle nuances and involved emotions. Lastly, the Spanish transcripts were translated into English and then cross-checked by a Spanish native speaker who is also fluent in English. To illustrate the process of the development of the concrete interview guide, the next section explains its design and contents.

3.6 Interview Guide Design

Initially, it was planned to conduct focus groups, following the focus group discussion guide to research people's well-being developed by van Ootegem and Spillemaeckers (2010). However, due to the pandemic as well as potential hazards for participating residents, this research approach refrained from such manner. Instead, the researcher developed an in-depth semi-structured interview guide based on the well-being dimensions identified by van Ootegem and

⁵ Before the interview, the interviewee and the interviewer washed their hands and disinfected them. During the interview, a safety distance of 1.50m was kept and masks needed to be worn at all times.

Spillemaeckers (2010) and containing participatory and interactive elements (Cornwall & Jewkes, 1995). Using semi-structured interviews enabled the interviewer to control the interview process structure, without constraining the in-depth understanding of the case. The literature review conducted before and during the study provided a solid foundation for the research and supported the construction and analysis of the interview guide.

The interview guides were generally the same for experts, ecotourism providers, and neighbours, but differed in the queried perspective: Experts and ecotourism providers were asked to reflect on the well-being dimensions that they think are most important for Monteverde's residents and how they are affected by ecotourism (*perceived effect* on the residents' well-being). Whereas neighbours were asked directly to reflect on their own well-being and ecotourism's effect on it (*actual effect* on the residents' well-being). This allowed to explore biases, distortions, and discrepancies in perception regarding residents' well-being among different community stakeholders as expected by the literature (Eshun, 2014; Lash & Austin, 2003).

Since interviews were conducted in Spanish or English, depending on the interviewee's mother tongue and language preference for the interview, the guide was designed in both languages. A forward and backward translation process was applied to design the English and Spanish versions of the interview guide, thereby ensuring clarity, consistency, and validity (Marín & Marín, 1995; Serenari et al., 2017). Additionally, the congruency of the two versions was verified by a Spanish native speaker, who speaks English fluently. The final versions in English and Spanish can be found in Appendix C and Appendix D for experts and ecotourism providers and in Appendix E and Appendix F for neighbours, respectively. The interviews were designed to last for approximately 45 minutes and ranged between 31:79 and 58:07 minutes, which can be considered a normal fluctuation due to different levels of talkativeness and knowledge of the participants.

Lastly, as suggested in qualitative research, a pilot interview was run with a resident to ensure the understandability and feasibility of the interview guide, to discover potential flaws or misunderstandings, and to give the researcher routine in conducting the interviews. After the pilot, a few questions were linguistically adapted to be more precise. Moreover, the "ecotourism puzzle" was created in the way described in section 3.6.2, due to former operationalisation issues. The pilot interview was included in the analysis under the category "neighbour" but without the answer to the "ecotourism puzzle" because of later adaptation of the question. When and in which form interactive elements were embedded in the interviews and which further topics were covered, will be illustrated next.

3.6.1 Interview Topics

The final interview guide includes six topics: introduction, well-being, ecotourism, the influence of ecotourism on well-being and the impact of COVID-19, concluding remarks, and lastly, demographics. They are described next with the estimated time needed given in brackets:

Topic I – Introduction (5min)

After introducing the thesis and its objective, some ice-breaker questions were asked to build up trust between the interviewee and the interviewer, enabling a smooth start into the interview. This was especially important since well-being is a quite personal topic, making a broad conversation opener an appropriate tool. In addition, the questions aimed at getting to know the person, her life in Monteverde, and the type of occupation and tasks she has, helping the author to put the interview's contents and experiences into context.

Topic II – Well-being (8min)

This part primarily aims at understanding the participant's perspective and definition of well-being and refers to RQ1a. Letting participants define and contextualise well-being is an approach that has also been used by other researchers such as Fattore, Mason and Watson (2007) or Serenari et al. (2017), allowing for an understanding of ecotourism impacts on well-being from residents' perspective. After the interviewee's own definition, a puzzle with the eight well-being dimensions was handed out and the participant was asked to rank them according to her personal prioritisation. Lastly, the participant was asked to assess her own state of well-being on a Likert-scale from one to ten, with one being the lowest and ten the highest well-being possible. This was not done to obtain statistically significant results, but rather to make the topic more tangible and to understand the participants way of thinking. Moreover, it animated the participant to reflect upon her own state of well-being and may thereby trigger deeper answers. Lastly, if the chosen number was not yet ten, the interviewee was asked to reflect on what is missing or what must be done to give a ten.

Topic III – Ecotourism (12min)

After looking at well-being, the researcher made the transition to ecotourism. This part aims at understanding the participant's perspective on ecotourism, how she defines it, and how she experiences its development in Monteverde. This section mainly addresses RQ1b. Firstly, the interviewee was asked to elaborate what ecotourism is for her. After that she should reflect on the development of ecotourism in Monteverde over the past ten years, its largest changes, its role for the community, as well as the main actors. As a follow-up question on the ecotourism actors, the participant was firstly asked which actors or persons benefit the most from ecotourism (“winners”) and which ones benefit the least (“losers”).

Topic IV - The Influence of Ecotourism on Well-Being and the Impact of COVID-19 (14min)

This section aims at combining the former two and creating a link between ecotourism and well-being (RQ1c) as well as how this relationship got impacted by the pandemic (RQ2). Firstly, interviewees were asked to reflect on their well-being changes along the ecotourism development before the pandemic (until 2019) and subsequently with or during the pandemic (from 2020 on). After the free elaborations, the participant should rank the well-being dimensions again, but this time based on the impact that ecotourism had on them, which could be either positive, neutral, or negative. This was firstly done under consideration of the situation before the pandemic and afterwards during the pandemic.

Topic V – Concluding Remarks (5min)

To conclude, the interviewee was asked if she had any suggestions on how ecotourism policymakers and providers could increase her well-being via ecotourism. This was done to use the potential creativity and suggestions of improvement of the respondents. Since they are the ones being most affected by ecotourism, it is valuable to channel their experiences and knowledge and ask for potential enhancements of the system. After that, they were given space to add things that were not said yet but are crucial for the understanding of the relationship between ecotourism and well-being. Lastly, the interviewee was asked if she could think of someone else that I should talk to. On the one hand, this corresponds to the elaborated waterfall sampling strategy. On the other hand, it was used to increase the validity of the selected participant, if named several times by different individuals.

Topic VI – Demographics (1min)

Lastly, the respondent was asked to fill-out some demography data (see Appendix G and Appendix H). Hereby, she was reminded about the confidentiality and anonymity of the data. This part was put at the end of the interview because it was assumed that the built-up trust during the interview would facilitate the responsiveness of the participant. The demographics are crucial to put the oral answers and puzzles in a context and to better understand each person's living conditions. Only data that was necessary for the study was being requested. The actual demographics of the residents that participated in the interviews can be found in Appendix I. Since the “well-being puzzle” as well as the “ecotourism puzzle” are crucial participatory elements of the interviews, they will be described next.

3.6.2 Interactive Interview Elements

Well-Being Puzzle

The well-being puzzle refers to a developed interactive tool created for the ordinal ranking of the importance of the eight dimensions and their subdimensions as defined by van Ootegem and Spillemaeckers (2010) for the interviewee's personal well-being. For the in-person interviews, the dimension puzzle pieces were cut out and physically given to the participant. For the online interviews, an identical format was created using Google Slides, allowing the same interactivity as the in-person interviews. Important to note is that the ranking was not designed to receive econometrically usable results but rather for three other reasons: (1) It makes the participant reflect on the different dimensions and how important they are for her personal well-being. Therefore, along the process of ranking, the interviewer gains insights into the thinking of the interviewee. (2) It is a tool for empowerment of the participant. Instead of the interviewer analysing or interpreting the most important dimensions top-down, this allows to include the interviewee in the research process and give her power to make her own decisions (Cornwall & Jewkes, 1995). (3) It makes the whole topic of well-being more tangible for the interviewee and for the analysis of the results. The final well-being puzzle can be seen in Appendix J (English) and Appendix K (Spanish).

Ecotourism Puzzle

This puzzle is based on the same physical puzzle pieces of the well-being dimensions as the former. However, this time, the participant was asked to categorise and rank the dimensions within three different blocks (as opposed to the eight ranks before): positively influenced by ecotourism, not influenced by ecotourism, and negatively influenced by ecotourism. This exercise was done firstly reflecting on the situation before the pandemic and after that reflecting on the current situation during the pandemic. This tool allowed for the connection of the well-being dimensions and ecotourism, while having the same benefits as mentioned for the prior one. Also, analogously to the former puzzle, identical physical (paper-based) as well as online (Google Slides) versions were developed. The final ecotourism puzzle is depicted in Appendix L (English) and Appendix M (Spanish).

3.7 Data Analysis

The data analysis was based on the transcripts of the in-depth interviews, the notes taken during the interviews as well as the general notes taken in the field diary during the research stay. For the data analysis, the qualitative data analysis software NVivo 12 Plus was used. Within this tool, general data about the respective interviews and demographics were included in an anonymous and confidential manner. The transcripts were coded according to the different well-being dimensions and sub-dimensions as defined by van Ootegem and Spillemaeckers (2010), while newly arising themes were added, respectively. An overview of the identified thematic codes and the respective references can be seen in Appendix N. After the process of transcription, each interview was analysed separately and immediately after being transcribed (first reading). This allowed the researcher to still be in the “mindset” of the interview and process the experiences directly. Additionally, notes, which were taken during the interview, were used to identify themes that spontaneously came to mind during the interview. This analysis process was repeated for each interview, respectively. In the end, when the last interview was analysed, all interviews were revised again in chronological order and text passages were newly coded or recoded based on the final themes (second reading). This is important since themes may have appeared in later stages of analysis which had not been considered in prior ones. Moreover, it serves as a revision and validation of identified themes.

Moreover, the results from the well-being puzzle and the ecotourism puzzle were analysed in Microsoft Excel and visualised in a matrix to derive recommendations for action and to make the qualitative data more tangible. The matrix is conceptualised in Figure 6. For this purpose, dimensions which were assessed as being positively affected by ecotourism received the value “1”, neutral affected ones “0”, and negatively affected ones “-1”. These values were then averaged over all interviewees for each dimension. To increase the validity of the results, Wilcoxon Signed Ranks Tests were applied to determine statistically significant differences to the hypothetical means for each puzzle, showing predominant perspectives amongst the residents. Nevertheless, albeit considering ethics on a rolling basis and conducting crucial triangulation, the methods and data used in this study are subject to certain limitations. Therefore, the next section covers these three issues: ethics, triangulation, and limitations.

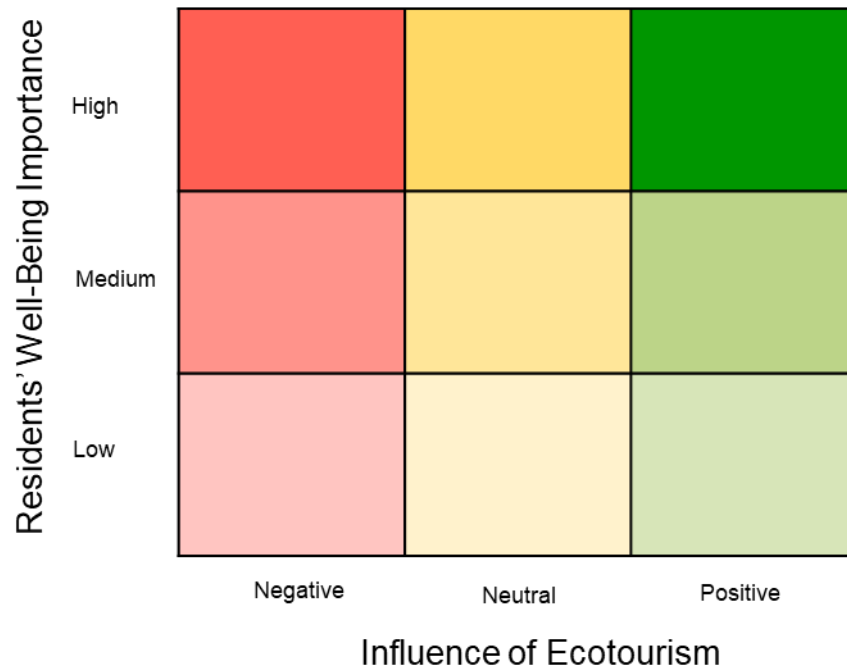


Figure 6 Ecotourism-well-being-matrix. The colour indicates the criticality of the dimensions (red=most critical, yellow=medium critical, green=not critical) while the colour intensity indicates the urgency (the more intensive the colour, the more urgent is the active management of the dimension).

3.8 Ethics, Triangulation & Limitations

In any research, qualitative or quantitative, the researcher should reflect on ethical considerations, needs to triangulate, and must be aware of the limitations of the study (Flick, 2014; Ritchie & Lewis, 2003). The main ethical concern of this study is the participant’s health (physical and psychological) which may be endangered due to the current pandemic (Santana et al., 2021). However, to mitigate health risks, several hygiene measures were undertaken as stated in the section 3.5 Interview Procedures and the participation was completely voluntarily. Moreover, the participants could freely choose between an in-person or online mode of the interview as suggested by Marhefka, Lockhart and Turner (2020). In addition, there is a risk of re-traumatisation that may occur due to the reliving of past experiences and traumata related to the pandemic. This was tried to be minimised via the employment of informed free consent, the empowerment of the participant with choice options, trust-building, and high levels of empathy (Santana et al., 2021; Wood, 2006). Another potential issue with online sessions nowadays is the so-called "Zoom fatigue", referring to a state of the participant where she feels drained by videoconferencing (Fosslien & Duffy, 2020). To overcome this phenomenon, participatory elements such as the well-being puzzle were included to increase interaction and to maintain and refresh the participant’s attention.

However, not only the participant’s health needed ethical consideration but the researcher’s as well. Listening to the lived experiences and traumas of the participants in terms of health, economic, and emotional impacts of the COVID-19 pandemic, may lead to an intensification

of the emotional experience of the researcher during the qualitative inquiry (Santana et al., 2021). Importantly, a lack of mindfulness regarding the researcher's own well-being may also endanger the quality of the research (Rager, 2005). Therefore, it is crucial that researchers proactively reflect upon and stabilise their own well-being (Whitt-Woosley & Sprang, 2018). This was done in form of journaling, physical exercises, and the usage of peer support networks, where the researcher could debrief and reflect on the made experiences with a third party, as recommended by several researchers (DeLuca & Maddox, 2016; Dickson-Swift, James, Kippen & Liamputtong, 2009).

Triangulation is crucial to increase the validity of the findings (Flick, 2014). Data triangulation of the in-depth interviews was conducted in various forms such as the usage of the field diary, photography, and the cross-checking with local studies and materials. Furthermore, participant observations made while living in the community in Monteverde, during the field trips, and via participating in various ecotourism activities were employed to triangulate the information from the in-depth interviews. In addition, all participants were asked if they liked to get sent a draft version of the thesis to review the analysis and interpretation of the interviews, making their own comments and interpretations of the quotes. This can be seen as additional data validation via participatory research as suggested by Cornwall and Jewkes (1995).

Additionally, the researcher would like to emphasise that the study is object to various limitations which may endanger the validity and generalizability of the results. Firstly, as it happens when qualitative methods of study are used, it may be the case that the results are biased by the sample selection, especially when using snowball sampling. However, this risk was addressed through the usage of various sampling methods as well as the inclusion of different types of community members (experts, ecotourism providers, and residents). Secondly, some interviewees may not have been used to being recorded which in turn may affect their responsiveness. Nonetheless, it seemed like all participants felt comfortable with the recording and spoke their mind freely during the interviews. Thirdly, there are linguistic limitations, which may arise despite being fluent in Spanish, however not a native speaker. Therefore, small linguistic nuances or hints between the lines may have gotten lost. Nevertheless, this was addressed through cross-translation by a Spanish native speaker who is also fluent in English. Lastly, there may be an investigator bias which leads to the fact that intentionally or inadvertently, the investigator might have injected his personal biases into the participants' statements and ideas during the interview as well as during interpretation and analysis. It may also result from the fact that the researcher is white, male, and was raised in a developed country, which could result in cultural differences. However, this risk was addressed through the researcher's various experiences of living abroad with people from different nationalities and cultures as well as by living with Costa Rican locals for almost four months. This increased the mutual cultural understanding, created community trust, and thus decreased the potential bias. In addition, the risk was reduced by applying a semi-structured interview guide, asking the same questions in the same way to all interviewees. Keeping these ethical considerations in mind and being aware of the limitations, the next chapter will address the results of the study and discuss them with regard to current literature.

4 Results & Discussion

This chapter will present the main empirical findings of this study and put the results in the context of the current literature. It aims at analysing and interpreting the responses given in the interviews, while demonstrating congruence and distortion between the findings and theory.

4.1 Residents' Well-Being

The purpose of this section is to address the *RQ1a: Which dimensions of well-being matter most to Monteverde's residents?* It further explores how Monteverde's residents define well-being and how their status quo in terms of well-being is.

4.1.1 Residents' Definition of Well-Being

Before exposing the residents to the framework of the well-being dimensions, the residents were asked for their personal definition of well-being. In line with the OECD (2013a), the results confirm that certain basic needs must be satisfied to achieve well-being (EP2, EP3, E1, E3, E4). Hereby, three residents explicitly referred to Maslow's famous hierarchy of needs (EP2, E3, E4). Often depicted as a pyramid, from the bottom of the hierarchy upwards it represents the following needs: physiological needs, safety needs, love and belonging, esteem and self-actualization (Maslow, 1943). This reference can be traced back to their high educational background, all having at least completed university (Appendix I).

Generally, four major dimensions are most important for Monteverde's residents: (1) physical and psychological health, (2) the physical environment, (3) the social environment, and (4) economic stability. These four dimensions are in line with the findings of other researchers regarding the importance for well-being (Chi, Cai & Li, 2017; Nussbaum, 2001; OECD, 2020b; van Ootegem & Spillemaeckers, 2010). These four major themes also fit the capital theory of Bennett et al. (2012) and the OECD (2020b) which states that natural, economic, human, and social capital are necessary to maintain well-being over time.

One could already see a clear difference in importance for the residents: While for example various sub-dimensions of physical and psychological health were touched upon by all 13 residents, six residents referred to economic stability in terms of jobs and incomes in their definition. One of the experts, for instance, states:

Well-being is a very holistic thing, isn't it? It doesn't have to do with... strictly with an economic aspect. Well-being has to do with an emotional state, a person's state of mind, a state of physical health, right? (E2)

Social relationships encompass family, friends as well as work colleagues, while the physical environment refers to the natural environment, housing, and enjoyment of nature. Many residents also referred to the advantage of living in a rural environment close to nature as opposed to an urban environment as explained by a neighbour:

All citizens here feel an attachment to the place. Or most of us do. At least we were born here and most of us stay here because of the lifestyle surrounded by forest, not city (N1).

The current average level of well-being and how it could be improved will be discussed next.

4.1.2 Current Well-Being Levels

As shown in Figure 7 the average well-being of the interviewed residents in Monteverde amounts to 7.23 out of possible 10. However, a difference in perception can also be found here: While Monteverde's ecotourism providers overestimate residents' well-being compared to the actual well-being of the neighbours, the experts underestimate it ($8 > 7.2 > 6.5$). Since the data are not representative, further investigation of this perception bias would be necessary. Justifying the low average of the experts, Expert 1 argues as follows:

[...] a lot of people who don't live in Monteverde would think that Monteverde has an average of nine, right? That's an outsider's view. But we who live here and know more about the local intimacy, there's a lot of stress, there's a lot of debt, there's consumption patterns, there's... lack of jobs, at the moment. And these make the average low.

To understand the results, the next chapter will discuss what well-being means for the residents.

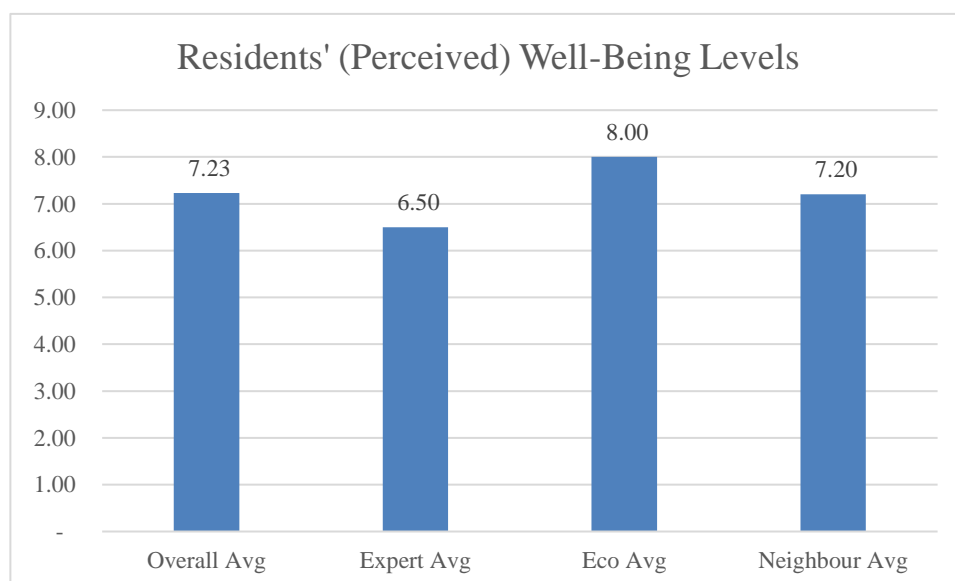


Figure 7 Well-being levels of Monteverde's residents (own elaboration).

4.1.3 Most Important Well-Being Dimensions

Summarising the results of the well-being puzzle of all 13 residents, one can see in Table 5 that the average importance of the dimensions matches the residents' prior definition of well-being: physical and psychological health, the physical environment, and the social environment represent the most important ones, while leisure & culture as well as the political environment are on average the least important dimensions. A one-tailed one-sample Wilcoxon Signed Ranks Test shows that the former three are statistically significantly (at 5% level) better than the hypothetical mean ranking of 4.5, while the latter two are statistically significantly worse. In other words, the depicted ranking reflects a majoritarian perspective among the interviewees.

Table 5 Residents' importance of well-being dimensions (Own elaboration).

Rank	Dimension	Avg. Rank	p-value
1	Physical and Psychological Health	2.46	0.004*
2	Physical Environment	2.62	0.004*
3	Social Environment	3.38	0.008*
4	Work	4.31	0.337
5	Income & Wealth	4.38	0.486
6	Education & Information	4.92	0.104
7	Leisure & Culture	6.31	0.004*
8	Political Environment	7.62	0.001*

* $p < 0.05$

The low importance of the political environment is justified by the residents because “a lot of people don't want anything to do with politics in the country” (EP4) and because “it's part of the system here and I don't think it's questioned. I think it's definitely a democracy and there is freedom of political rights and religion... So, it's kind of taken for granted” (E3). This aligns with the findings of van Ootegem and Spillemaeckers (2010), who found the same reasoning for the political environment being the least important in Belgium. In the same study, health and social environment were also considered the most important in Belgium, however, the physical environment was only on rank 5 while being in Monteverde the second most important one. This finding may be traced back to the special role of the environment for the community, differing from an urban environment as explained one resident: “However, being in an environment which isn't the city which is... you're surrounded by nature and by green, that has a very positive effect on your well-being” (E3).

Van Ootegem and Spillemaeckers (2010) argue that the dimensions with which residents are struggling personally are likely to be more important to the respective person. While this reasoning may explain the low importance of the political dimension, it cannot explain why income and work are not ranked as the most important ones, although unexceptionally all residents reported to have problems with them (see Appendix I). The inverted logic also applies for the physical environment, which is abundantly present in Monteverde, but instead of being ranked low, it is in fact the second most important one. Therefore, this may indicate that there are other inherent factors that influence the importance of well-being dimensions of residents, independently of their personal status quo. To proof this theory, multi-year panel studies would be necessary to assess the time stability of the results (Nawijn & Filep, 2016).

There were clear distortions in perception regarding well-being between the three groups. This is in line with the findings of Eshun (2014), Hunt et al. (2015), and Lash and Austin (2003) who promote sensitivity towards community heterogeneity and partly diverging perception among different community stakeholders. There seems to be a tendency of experts and ecotourism providers alike to overestimate the importance of income and education in relation to neighbours' well-being, while underestimating the role of the physical environment (see Appendix O). This bias may result from higher educational levels as well as average incomes of experts and ecotourism providers compared to the neighbours, which are closely related to one's life evaluation (Kahneman & Deaton, 2010). For instance, one expert ranks income high arguing that "in Monteverde there is a lot of focus on the economic, on the material, on the work, the income" (E1), whereas one neighbour ranks it low "because I feel that I don't need a lot of money to be happy, right? So, it's not so relevant for me" (N1). Since ecotourism is the major income source in Monteverde, the next section will explore what ecotourism means to Monteverde's residents and how they perceive its development.

4.2 Ecotourism in Monteverde

The purpose of this chapter is to address *RQ1b: How do Monteverde's residents define and perceive ecotourism?* It further presents the residents' perspective on the main characteristics of ecotourism, the development in Monteverde, and its main winners and losers.

4.2.1 Residents' Definition of Ecotourism

4.2.1.1. Confusion with Related Concepts

Generally, there exists a lot of insecurity and confusion regarding the concept of ecotourism and related concepts among Monteverde's residents, especially among the ones with less education, i.e. the neighbours. These findings are in line with the ones of Cobbinah (2015) and Goodwin (1996) and may be traced back to a lack of internalisation and an introduction of the concept by external stakeholders. For example, one interviewee states humorously: "Actually, I don't have a very defined concept of ecotourism (laughing)" (N3).

In particular, there seems to prevail confusion regarding the distinction between ecotourism and nature-tourism (EP3, E3), rural tourism (EP3, E1), and sustainable tourism (EP2, E2), respectively, which are used synonymously by the residents. The interviewees often rather define nature tourism instead of ecotourism, such as one resident who refers to ecotourism as "the appreciation and exploration of the 'medio ambiente', the environment... The wild environment you might say... or the forest and jungles" (E3).

One interviewee, for instance, explicitly states: "I give talks to student groups a lot and I often say ecotourism or nature-based tourism and I feel like to me ecotourism is nature-based

tourism” (EP3). Nevertheless, at the same time she seems to know the difference between the two concepts but simply uses the terms interchangeably: “But to me, I feel like the ecotourism part of it is not only that you're in the forest but that you leave that experience with a greater understanding of the ecosystem or the natural environment around you” (EP3). Aiming to overcome the conceptual confusion, one interviewee suggests the following:

In my concept, I could change eco - I don't know what other component I would prefer - but I think that, if we keep using ecotourism for a form of economy that cares for nature, cares for people's well-being, then, we have to question our concept of "eco" and understand that eco includes being human as part of nature. For me ecotourism is a form of tourism that takes care of nature in the long term, including human well-being (E1).

Despite the lack of a common clear definition, various common themes regarding ecotourism could be retrieved from the interviews with the residents, which will be introduced next.

4.2.1.2. Main Characteristics of Ecotourism for the Residents

Generally, four major characteristics can be obtained from residents' definitions of ecotourism: (1) Interconnectedness with nature, (2) environmental protection and conservation, (3) environmental education and conscientisation, and (4) the triple-bottom line of sustainability.

The first three identified themes from residents' perspective are in line with three of the seven elements of ecotourism considered important by other researchers as shown Table 2 in Chapter 2.3.1 (Cobbinah, 2015; Donohoe & Needham, 2006; Figgis, 2000; Honey, 2008; Leksakundilok, 2004; UNEP & UNWTO, 2002; Weaver, 2005a). Although ecotourism is part of sustainable tourism, the balance of the three sustainability dimensions is often not explicitly stated as an element of ecotourism but rather assumed implicitly. However, Sjaifuddin (2020) shows for instance, that the sustainability of the management practices of ecotourism is crucial since it determines if ecotourism falls into weak or strong sustainability.

For Monteverde's residents the nature is the focus of ecotourism and needs to be protected and preserved. One interviewee, for instance, says that “ecotourism is tourism that goes hand in hand with the environment, that wants to help the planet” (EP4). Moreover, according to most residents, ecotourism should also contain educational elements and increase environmental awareness, as expressed by this resident:

Ecotourism in the end is to educate people about the importance and the awareness that... that we should have to live in mutual respect with the rest of nature, that we are an integral part of nature just like the animals and the trees and that we want to generate that... that right balance to... to continue their subsistence, right? (E4)

Interestingly, although most residents wish for more community participation as discussed later, they do neither include their role as a community nor refer to the local benefit distribution in their definition of ecotourism as suggested, for example, by Cobbinah (2015), Fennell (2001a), Leksakundilok (2004), or Wallace and Pierce (1996). Only one expert explicitly states that “one of the elements of ecotourism, is that it be locally owned...that it be small scale” (E3) which is

in line with the small-scale local infrastructure demands for ecotourism by GEN (2016), Honey (2008), and UNEP and UNWTO (2002). However, to understand and assess the actual local impact of ecotourism on the residents' well-being, it is crucial to first understand its development in Monteverde as discussed in the next section.

4.2.2 Development of Ecotourism in Monteverde

The interviews with the residents revealed three major phases of development over the last 50 years: (1) Monteverde developed from an economy completely based on agriculture towards ecotourism. (2) Over the years, tourism gained massively and uncontrolled in scale until the pandemic, which can mainly be traced back to a lack of urban planning. (3) Ecotourism is progressively substituted by adventure tourism activities. These developments are summarised and visualised in Figure 8, which is based on the interviews and triangulated with tourism reports and data of Monteverde.

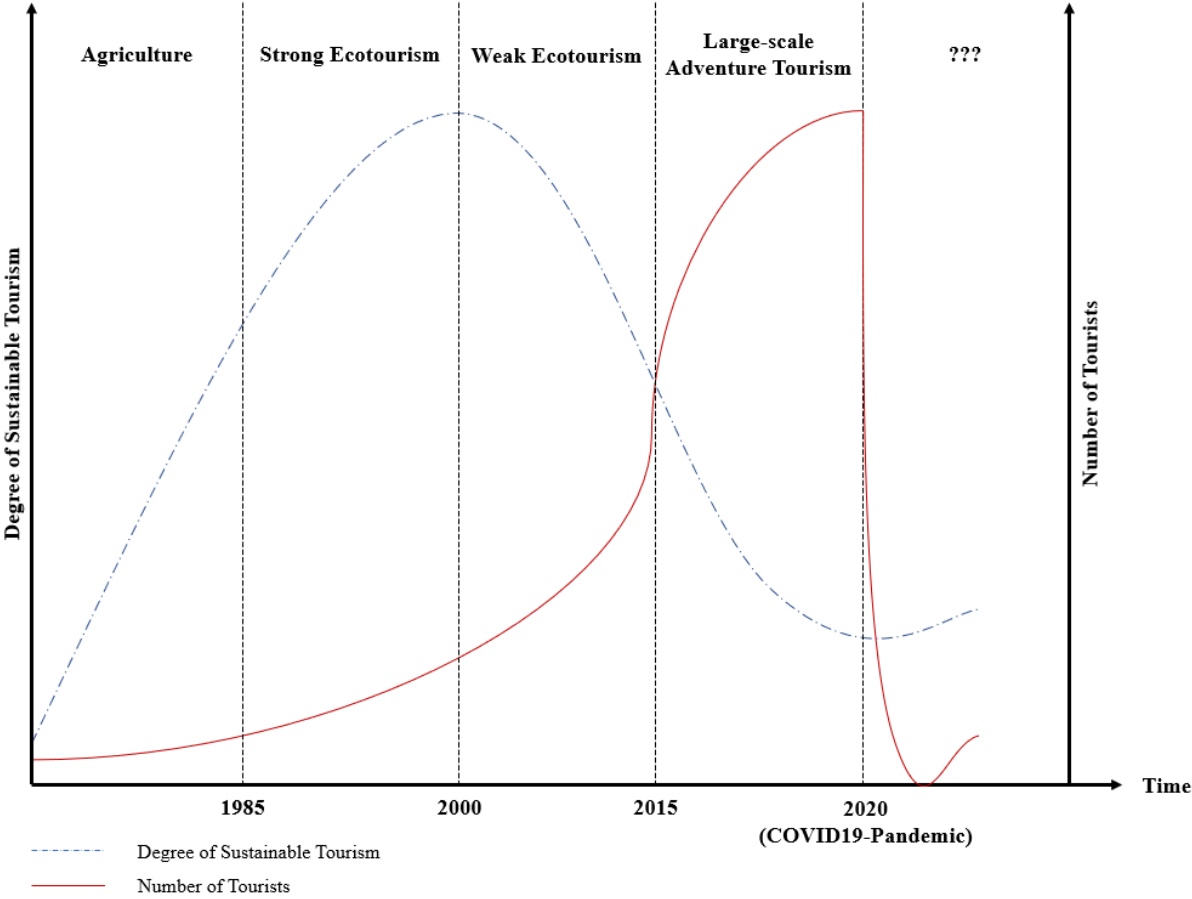


Figure 8 Development of Monteverde's economy over the last 50 years (own depiction).

4.2.2.1. Development 1: From Agriculture to (Eco-)Tourism

The residents describe a development of Monteverde's economy from mainly being based on agriculture towards an economy almost solely dependent on tourism. According to the interviewees, this can largely be traced back to economic motivation. One example of the transition from agricultural business towards a touristic one is this hotel owner: "When my parents had a dairy and decided to sell it, we already had this land, so we built cabins. We first worked in the dairy and then in the hotel business (EP2)". In line with Buckley (2001), Koenigs, Dieperink and Miranda (2009), and Stem et al. (2003), one resident argues that this transition and the related reforestation has led to an improvement of the environment:

The environment has improved somewhat...a lot actually... because of ecotourism. Because a lot of this used to be pastureland and so those people stopped doing cows, and milking cows, and those kinds of things, and have changed those pastures back into forest (E3).

4.2.2.2. Development 2: From Small-Scale Tourism to Mass Tourism

Almost all residents describe an increase in scale of tourism in Monteverde in the last couple of years before the pandemic. In this regard, most residents describe the emergence of mass tourism in Monteverde: "Sometimes we have had years where we have had mass tourism and in very, very large numbers" (N3). To get an understanding of the actual scale before the pandemic, one of the interviewees indicates the following:

I think we were going from ecotourism to over-tourism. We're a community of between five or six thousand people, depending on what the geographical boundaries are that you... that are included in that. Hm... And we were receiving more than 200,000 tourists. That's not ecotourism anymore. That's over-tourism (E3).

The massive scale-up mainly resulted from a lack of urban planning, land management, and a lack of control as also found by Martín (2004). Consequently, many residents express environmental concerns such as one ecotourism provider: "I think, at the end of the day because of the lack of...hm... because of the lack of planning on a community scale, honestly, the environment is one of the losers" (EP3). Due to this development, many residents doubt the existence of ecotourism in Monteverde such one interviewee who explicitly labels the tourism in Monteverde as mass tourism instead of ecotourism, showing the dichotomous relation of the two concepts: "There is an overexploitation of ecotourism... of tourism. But that would no longer be ecotourism, that would be mass tourism, right?" (EP1) In other words, Monteverde's residents generally refuse the idea of a mass ecotourism as advocated by Butler (1999), Kontogeorgopoulos (2005), and Weaver (2005a). This finding supports the theory of convergence between soft ecotourism and mass tourism as pointed out by Sharpley (2006) and Weaver and Lawton (2007), providing empirical evidence for the small conceptual distinction between the two concepts.

4.2.2.3. Development 3: From Ecotourism to Adventure Tourism

The last major development described by almost all residents is a diminishment of ecotourism in Monteverde, because now “there are other tourism areas that are being developed that perhaps don't necessarily fall into that category [ecotourism]” (E2). Especially the fast emergence of adventure tourism was named by a majority of residents: “It's like an explosion of new projects in the area of adventure tourism, right? With canopies, zip-lines and suspension bridges” (E2). This development can also be seen in the townscape of Monteverde, which is characterised by businesses promoting adventure experiences (Figure 9).



Figure 9 Adventure tourism promotion in Monteverde (own photography).

One resident raises the concern that adventure tourism does not only develop in parallel to ecotourism but even replaces it:

So Monteverde is not being promoted for its nature or for its biodiversity, for its flora and fauna, but Monteverde is being marketed as adventure tourism. So, the... people who look for Monteverde... What do they find when they look for Monteverde? Canopy, bungee, bridges, horses, quads... and maybe the tours of... frogs or birds or amphibians and reptiles are no longer common. They're not being promoted anymore (N2).

The residents further agree on the fact that adventure tourism is not ecotourism: “I feel like, the line that I draw personally where I don't feel like is ecotourism as much would be like adventure tourism, some of the canopy tours and things like that” (EP 3). The main reasons therefore are the neglect of education: “well, I think that the overall educational action is lost a little bit” (E1) as well as the negative environmental impacts of some adventure tourism activities as argued by one ecotourism provider:

The canopy is not a... it's not an ecotourism activity for me. Because when people go on the canopies... First the noise of the... where the cable goes (imitating the sound of canopy). That's already a... a sonic pollution. Secondly, the screams that people make when they go there. So that doesn't stop affecting the... the... let's say the fauna of the place (EP4).

4.2.3 Winners & Losers in the Industry

Nevertheless, in line with the findings of Hunt et al. (2015) on the Osa Peninsula in Costa Rica, a very positive image of ecotourism seems to prevail among the residents of Monteverde. A majority of the interviewed stated that (almost) everyone wins from ecotourism such as this interviewee: “Well, generally everybody wins here. I don't think there's nobody that doesn't gain a little bit from... from...from ecotourism” (EP4). This can be traced back to local ownership and local reinvestments as argued by this expert: “Monteverde has gained a lot because the capital, the money, the rents, stay here. So, we all win, in that sense” (E2).

Strikingly, although not explicitly intended by the question, many residents stated the environment as the biggest loser. On the one hand, it is argued that this results from the increased visitation and consumption as stated by this resident: “Obviously nature would be the most affected and there is an overexploitation of ecotourism...of tourism” (EP1). On the other hand, many refer to the lack of adequate water and waste disposal in Monteverde:

Because of the lack of planning on a community scale, honestly, the environment is one of the losers. Monteverde doesn't have a wastewater treatment plant, for example. We don't have an adequate waste disposal system including recycling and stuff like that (EP3).

The issues of black and grey waters which are intensified by increased visitation can also be seen in Monteverde's townscape (Figure 10).



Figure 10 Grey waters in Monteverde (own photography).

This, however, may not only lead to the fact that nature loses but also humanity in the long-term: “Obviously the one who loses is the environment, right? And if the environment loses, we lose, because it's a cycle” (E2). Especially residents' well-being may be impacted hereby since there exists a close relation between ecotourism and well-being as stated by this interviewee: “I think it's almost one and the same thing. We see ecotourism as well-being” (E4). How ecotourism and well-being indeed relate will be discussed next.

4.3 Ecotourism, Well-Being, and the Pandemic

This section addresses *RQ1c: How does ecotourism affect the different dimensions of well-being?* as well as *RQ2: How did the relationship between ecotourism and well-being get impacted by the COVID-19 pandemic?* It thus aims at showing how ecotourism and residents' well-being relate and which impact the global pandemic had on it.

4.3.1 Ecotourism's Impacts on Residents' Well-being (Pre-Pandemic)

Summarising the results from the ecotourism well-being puzzle, Figure 11 shows the results aggregated from all residents' responses⁶.

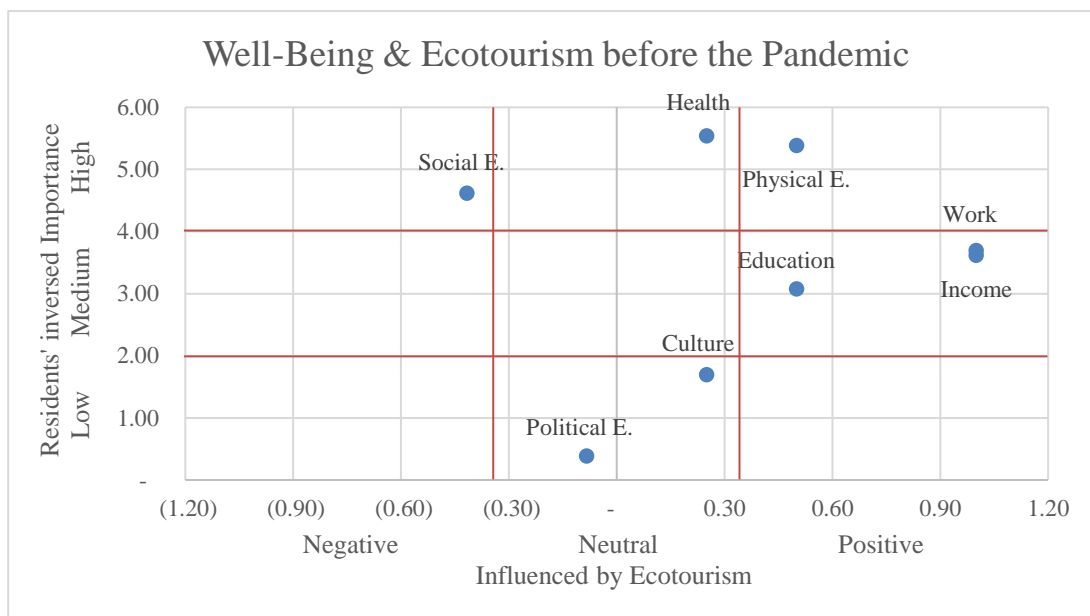


Figure 11 The relationship between well-being and ecotourism (pre-pandemic) (own elaboration).

All residents assessed income and work to be positively affected by ecotourism before the pandemic, while a great majority states that the physical environment as well as education and information were also positively influenced by ecotourism. The psychological and physical health, leisure and culture and the political environment were not said to be influenced by ecotourism on average, whereas the social environment was assessed to be slightly negatively affected by ecotourism although being important for residents' well-being. One-tailed one-sample Wilcoxon Signed Ranks Tests show that the four positively influenced dimensions are

⁶ To increase the readability of the graph, the inversed importance, in other words the maximal rank (8) minus the actual rank of each dimension was deployed (the higher the y-value, the more important the dimension).

statistically significant (at 5% level) greater than zero, i.e. positive. The exact values and p-values can be seen in Appendix P.

Ecotourism as an Economic Engine in Monteverde

Before the pandemic, all residents stated that income and work, which are medium important for residents' well-being, were positively influenced by ecotourism because it represents the "economic engine of the village" (R1), being "the main source of income, [and] it generates work for people" (E1). One expert goes even one step further and states: "It's the engine of development... economic, social, as well as cultural" (E2). Most residents emphasise hereby the positive fact that "in Monteverde about 90 percent of the... hm... businesses are locally owned. So, because they are not companies or chains, those monies are distributed in the community" (EP2). These findings support the ones by Aylward et al. (1996) that a high level of local ownership prevails in Monteverde, reducing economic leakage as emphasised by various researchers such as Fennell (2020b), Honey (2008), and Weaver (2001a).

Improvements of the Physical Environment

According to the residents, the physical environment, which is the second most important dimension for residents' well-being, benefitted from ecotourism due to increased conservation and preservation as suggested by the literature (Buckley, 2001; Honey, 2008; Nilsson, Griggs & Visbeck, 2016). This was mainly achieved through the creation and maintenance of protected areas and respective environmental education as explained this resident: "And in the last ten years we have maintained the protection of those areas and we use a minimum part... a minimum area of the whole protected sector for education with visitors" (E1). According to another interviewee this has also led to increased biodiversity (EP3). Residents directly benefit from this natural environment which positively affects their health and well-being as stated by this resident: "For example, I go for a walk, distract my mind, and that's good for my health. I go... I go out to the bushes, to the mountains, to the park and I come back home more relaxed" (N4). Lastly, many residents report infrastructure improvements with the increase in ecotourism as suggested by Wearing (2001).

Education, Cultural Exchange, and Social Environment

The majority of Monteverde's residents report a strong positive impact on the community's and personal education similarly to the findings of Hunt et al. (2015). For example, one interviewee states that due to ecotourism "now we have some private schools here that have curriculums geared towards protection of the environment and learning about care of the environment" (E3). In addition, due to ecotourism the residents learn a lot about environmental practices themselves such as this neighbour:

Well, actually from...from ecotourism, from conservation or from running a tourism business in an area like Monteverde, I have learned a lot. In every sense of the word, from knowing where I'm going to put my rubbish to knowing how I'm going to manage my grey water waste... in taking care of myself in the face of pollution, in respecting nature, in not invading... hm... nature. So, I've actually learned a lot (N2).

As suggested by Courvisanos and Jain (2006), many residents positively report cultural exchanges between locals and tourists such as this neighbour: “I worked with AirBnB, and for me it was very important, it was very nice to have conversations with tourists about their experiences and about my experiences” (N5). This may in return even foster the importance of education among the residents:

So, the impact has been strong and positive because there has been a cultural exchange that has allowed many families in these 35 years, hasn't it, to broaden their vision of the world and to see how important education is for children (E2).

So far, the literature mainly stresses the positive effect of people’s restricted time on resource management decisions when working in ecotourism, decreasing time spent in environmentally negative activities such as agriculture or hunting and thereby reducing local pressure on natural resources (Stem et al., 2003; Stronza, 2007). However, this study shows that many residents state a lack of time for recreation, personal life as well as family due to the continuous involvement in ecotourism and long working hours. This led to a negative influence on the *social environment*, which is one of the most important dimensions for residents’ well-being. One resident, for example, reports: “You work sometimes more than 8 hours so there's very little time...very little time to...to dedicate personal time, right?” (N3). Put differently, “it impacts social and family life when you’re working 24/7 in the tourism industry” (E3). However, many of these relationships between well-being and ecotourism changed with the pandemic as discussed next.

4.3.2 Ecotourism’s Impacts on Residents’ Well-being (Post-Pandemic)

As one can see in Figure 12 the pandemic drastically changed the influence of ecotourism on well-being and had severe adverse impacts on Monteverde’s community.

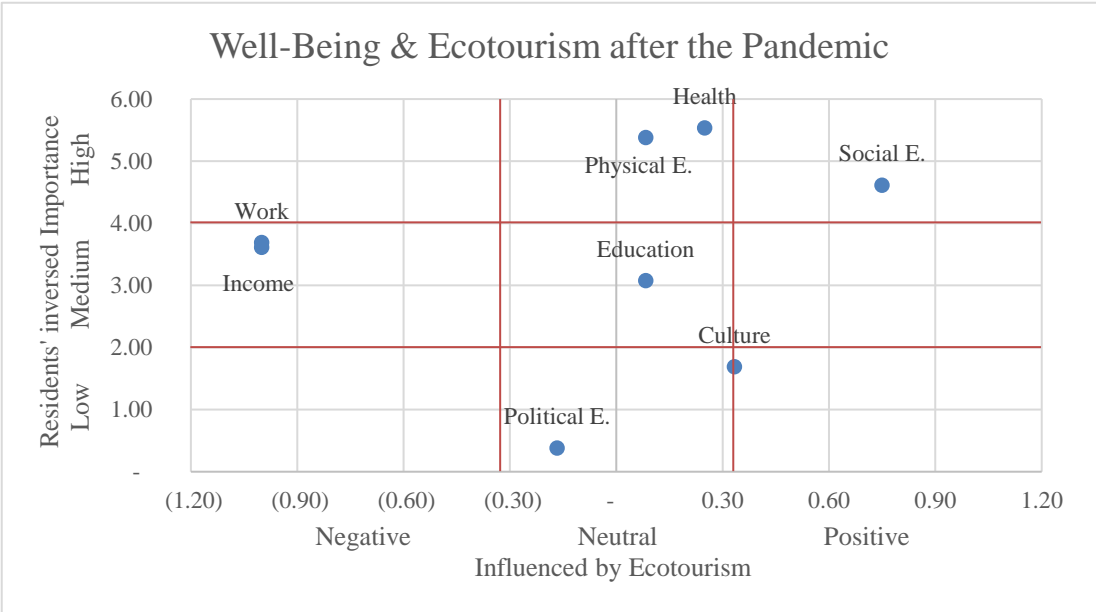


Figure 12 The relationship between well-being and ecotourism (post-pandemic) (own elaboration).

While the social environment is now strongly positively and culture and leisure slightly positively affected by ecotourism (or rather by the lack of it), income and work are assessed to be negatively influenced by all residents. Except for leisure and culture, these results are statistically significant. The rest of the dimensions are not considered to be very strongly affected on average or result in the medium range because of strongly contrasting opinions among the residents. The exact values and p-values can be seen in Appendix P.

4.3.2.1. Negative Impacts of the Pandemic

Generally, three major themes can be obtained regarding the negative impacts of the pandemic in terms of ecotourism and residents' well-being: (1) Loss of income and indebtedness, (2) unemployment, and (3) adverse physical and psychological health effects.

The most negatively impacted well-being dimensions were work and income as stated by a neighbour: “during the pandemic, apart from the fact that we didn't have work, we didn't have much income” (N3). This detrimental consequence can be observed in various ecotourism sites worldwide because of high economic dependency (Lock, 2020; Virijević Jovanović, Mladenović & Zdravković, 2021). The negative economic impact is aggravated by the fact that many residents in Monteverde are highly in debt and have almost no savings, decreasing their economic livelihood as a study of one of the experts has shown:

In the survey that was done with 1,600 households, 85% had unemployment problems. More than 85% percent worried about debts...in the banks... some kind of credit. And they don't know how to redeem them. So, it's a COVID problem (E2).

Moreover, the pandemic had a great negative impact on residents' mental and physical well-being (Brodeur et al., 2021) as stated by this interviewee: “In physical and psychological health, I think people here had problems...” (EP1). One resident, for instance, clearly states the negative impact of the pandemic on her mental well-being: “I was entering a crisis... a loneliness, a darkness” (N5). Nevertheless, although the majority of researchers only reports negative impacts of the pandemic on ecotourism (Virijević Jovanović, Mladenović & Zdravković, 2021) many residents also stressed on the fact that the pandemic also brought positive aspects, which can be considered as an opportunity for Monteverde as discussed next.

4.3.2.2. Positive Impacts of the Pandemic

Based on the residents' statements, five major positive impacts of the pandemic can be induced: (1) Dematerialisation and emotional recentring, (2) more time for recreation, (3) strengthened family ties, (4) fostered solidarity, and (5) promoted self-sufficiency and resilience.

The pandemic came to remind many residents of Monteverde of the advantages of “a simpler life. I think people have realised that we can go back and live better with less. And hopefully that will continue because I think that's been healthy” (E3). It also led to a rethinking of what is necessary and questioning of the materialistic lifestyle as noted by one interviewee:

But what we have noticed is that now in pandemic we realise that perhaps we give more importance to money than it deserves. And what we've seen most of all is that having the people we love close to us is more important than money (EP2).

On the one hand, the increased free time resulting from the lack of work can now be spent to strengthen family ties: “Since we are not so busy, it brought us closer, maybe, to our nuclear family” (N1). On the other hand, it can be used for personal recreation: “We have more time now for cultural activities, to play, to be with the children, to enjoy nature” (N3). This made the social environment now being positively affected with the pandemic.

Another positive development triggered by the pandemic was the emergence of “a great network of solidarity and mutual support in Monteverde” (E2), i.e. enhanced social cohesion and a focus on collective well-being (Chassagne & Everingham, 2019). In this regard, one interviewee states that “we learnt to be more supportive of people in difficult situations” (N1). This has also led to various solidary community projects such as free breakfast for residents in need or using the labour power of the residents who lost their jobs to improve the community’s infrastructure in form of pavements (Figure 13).



Figure 13 Community projects: Free breakfast for community members in need (left) and volunteer pavement construction for unemployed residents (right) (own photography).

Lastly, as predicted by Everingham and Chassagne (2020), “people have found other ways to become more resilient and more self-sustaining” (E3). For instance, one neighbour became more self-sufficient: “It [the pandemic] came to remind me that... that we can make or produce our own food” (N3), which is crucial because “there are people here [in Monteverde] who are starving” (N5). Generally, Monteverde’s residents showed concrete wishes and ideas for how ecotourism can be improved to increase community well-being, which will be presented next.

4.3.3 Suggestions for Improvement

Out of the interviews, four main demands were raised by Monteverde’s residents regarding how ecotourism policy makers and providers can improve residents’ well-being via ecotourism:

- (1) Monteverde has to redefine and determine what kind of (eco)tourism it wants.
- (2) Ecotourism must be community-based in its design, planning, and benefit structures.
- (3) Monteverde should strengthen the educational component of ecotourism to conscience and create environmental awareness among locals, businesses, and tourists alike.
- (4) Monteverde needs to diversify its economy, being less dependent on ecotourism, while fostering the local economy and resilience.

Regarding the redefinition of ecotourism, one expert pleads for a close collaboration of different policy levels: “So, it is necessary that both, at the government level and at the regional and local level, the policies define what kind of tourism we want (E2)”. Another expert states:

[...] we have to redefine it. We have to look at all tourism as being non-extractive, we have to look at tourism as being regenerative, it has to give back to the community that it's visiting, it has to take part in and understand, it needs to be slow tourism (E3).

In other words, the pandemic offers Monteverde the opportunity for an economic, environmental, and social “reset” (Everingham & Chassagne, 2020; Nepal, 2020). Most residents agree on the fact that the redefined tourism needs to be limited, monitored, and controlled, keeping in mind that “well-being is not related to quantity, but to quality. I think ecotourism should promote more visitation of less people for more time. Fewer people for more time” (E1). This view supports the perspective in literature that tourism should be slow, small-scale, local, and benefiting local communities and tourists alike to maximise well-being (Honey, 2008; Everingham & Chassagne, 2020). In this regard, it is important for the residents that this new design as well as the general decision and execution processes is managed by the community as pointed out by a resident: “I think the policy should prioritise ecotourism as a community decision and process (E1)”. This shows residents’ need for a community-based ecotourism (Fiorello & Bo, 2012; Kontogeorgopoulos, 2005; Stone & Stone, 2011).

In addition, many residents wish for more (environmental) conscience, awareness, and education among the residents and tourists alike: “So, I think that what we need to work a lot on is the culture of the people... hm... with education, with training, with awareness and appreciation” (E4). This refers mainly to an improved wastewater and solid waste disposal system as well as the fostering of recycling within the community. This process has already been initiated by the Community Council and the ecotourism providers (Appendix Q) but needs to be formalised, scaled-up, and be further promoted.

Lastly and at the same time, the most mentioned need of Monteverde’s residents is a decoupling of Monteverde’s economy from ecotourism, a demand which is also made by the current literature (Everingham & Chassagne, 2020; Higgins-Desbiolles, 2020). In other words, the community wishes for more economic independence and the creation of alternative economic opportunities in addition to ecotourism, while putting the focus on the local economy and local resilience. Hereby, they demand a complementation rather than a substitution of ecotourism activities because of its high potential for community well-being. This in return, would not only lead to economic stability and diversity but also enhance residents’ well-being and its maintenance over time:

I think we have seen that well-being is also associated with a diversity of options. So, ecotourism should not lead to a concentration of the economy in ecotourism. Already that

creates a risk of well-being loss when ecotourism, that depends on travel over borders, collapses again from a health situation (E1).

Summing up the importance of this research and the results of the study, the next chapter concludes and indicates future research needs.

5 Conclusion and Future Research

This chapter will summarise and reflect on the study and its results. It further answers the research questions, highlights this study's contribution, and makes recommendations for policy makers and future research.

This thesis aimed at identifying the relationship between ecotourism and well-being in Monteverde and how this relationship got impacted by the global COVID19 pandemic. For this purpose, the following research questions were derived:

Table 6 Overview of analysed research questions.

ID	Research Question
RQ1	How does ecotourism affect residents' well-being in Monteverde, Costa Rica?
RQ1a	Which dimensions of well-being matter most to Monteverde's residents?
RQ1b	How do Monteverde's residents define and perceive ecotourism?
RQ1c	How does ecotourism affect the different dimensions of well-being?
RQ2	How did the relationship between ecotourism and well-being get impacted by the COVID-19 pandemic?

To answer them, a qualitative research approach was chosen, conducting 13 semi-structured in-depth interviews with residents in Monteverde during a four-month fieldtrip. More specifically, it was differentiated between three different community groups – experts, ecotourism providers, and neighbours of ecotourism sites – to capture a diverse and inclusive, yet not representative picture of Monteverde's residents.

Summarising the result, physical and psychological health, the physical environment, and the social environment were considered the most important dimensions of well-being, leisure and culture as well as the political environment were assessed to be the least important ones by the residents (RQ1a). However, it cannot be excluded that these results may depend on intrapersonal characteristics of the interviewees, i.e. endogeneity, which would require long-term panel studies analysing causal relationships (Nawijn & Filep, 2016).

Moreover, although Monteverde's residents generally lack a clear understanding and definition of the concept of ecotourism, they considered education, the relatedness to nature, conservation, and sustainability to be crucial elements of it (RQ1b). The study further reveals that ecotourism indeed can be a valuable tool to foster residents' well-being, having positive impacts on work, income, education, and the physical environment (nature and infrastructure). However, this

often happens on the cost of the social environment albeit constituting the second most important dimension for residents' well-being (RQ1c).

Although it could be shown that ecotourism has the potential to positively influence residents' well-being, the actual impact depends greatly on the respective management practices of the ecotourism destination (Sjaifuddin, 2020). Therefore, to maximise ecotourism's positive impact, the actual design and operationalisation of ecotourism should be community-based as not only requested by the residents but also suggested by the literature (Fiorello & Bo, 2012; Kontogeorgopoulos, 2005; Stone & Stone, 2011) while maintaining continuous communication and transparency among the process (Chi, Cai & Li, 2017; Serenari et al., 2017). The author wants to emphasise that especially the latter is a key requirement for successful ecotourism because of his perception that although there are many community projects and participatory activities going on in Monteverde, many residents did not seem to be well informed, demanding projects that are already implemented (e.g. a weekly local agriculture market).

Moreover, although many studies focus on the environmental impacts of ecotourism and stress on the positive relationship (Buckley, 2001; Goodwin, 1996; Koens, Dieperink & Miranda, 2009), many residents expressed their concerns regarding the natural environment mainly because of increased visitation. This supports the demand of Honey (2008) for ecotourism to be small-scale and locally owned in order to be sustainable, neglecting the idea of large-scale ecotourism as proposed by some researchers (Butler, 1999; Kontogeorgopoulos, 2005; Weaver, 2005a).

Lastly, the research found that the pandemic had detrimental impacts on ecotourism and thus residents' well-being because Monteverde's economy is almost completely dependent on this economic activity. In other words, income and work suffered severely while the social environment in return benefitted generally, especially in terms of family strengthening (RQ2).

The topic as well as the results can be considered relevant because they contribute to the under-researched relationship between ecotourism and well-being in the academic literature, giving in-depth insights into a prominent case study, Monteverde. Moreover, this study provides first empirical findings for the impact of the pandemic on residents' well-being which will be crucial to assess the pandemic's overall impact on society, the economy, and the environment, and give incentives for further research addressing this new phenomenon. Lastly, this study does not only fill gaps in the current ecotourism and well-being literature, but also shows the high potential of community-based ecotourism as a tool to manage and augment residents' well-being if planned and managed in a sustainable way, relevant for Monteverde's residents and community leaders, Costa Rican policy makers, and other ecotourism destinations alike.

In this regard, three major recommendations can be made to Monteverde's policy makers which may partly apply also to other ecotourism destinations: (1) The pandemic and the accompanying socio-economic slow-down can be considered an opportunity to redefine the kind of tourism the region wants, which should be done in a participatory manner including the whole community. (2) Due to an overreliance and overdependency on ecotourism, there is a need to identify and create alternative economic activities to complement ecotourism, focussing on the promotion of a local circular economy and self-sufficiency. (3) It is of utmost importance

to maintain and promote transparency and continuous communication along the design, planning and execution process, to foster societal understanding and social inclusion.

Qualitative data methods, like the ones used for this thesis have the advantage of deepening in explorative questions, incorporating human experiences, and revealing causal effects such as the ones established in the research questions, testing for the effect of ecotourism on residents' well-being. Nevertheless, they also have limitations like the representativity of the data, potential personal biases induced by the researcher, linguistic barriers, and the lack of tracking developments over time. Therefore, future research should aim at complementing this study by multi-year panel studies in Monteverde to analyse if the found relationships are stable over time and causal (Nawijn & Filep, 2016). Moreover, the applied theoretical framework and methods in this paper should be applied at other ecotourism destinations to reveal similarities and differences to the case of Monteverde. Generally, the researcher likes to call for more papers addressing human well-being and how it relates to economic activities such as ecotourism, to exhibit opportunities to achieve the SDGs (Nilsson, Griggs & Visbeck, 2016), to criticise the current neoclassical Western worldview, and to foster a harmonic convergence and symbiotic relationship between our society, economy, and the environment in the long-term.

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7 Appendix

Appendix A

Information Sheet and Interview Consent Form (English)

Ecotourism and Residents' Well-being – A Case Study from Monteverde, Costa Rica, during the Covid-19 Pandemic

This interview is part of an ongoing research project called “Ecotourism and Residents’ Well-being – A Case Study from Monteverde, Costa Rica, during the Covid-19 Pandemic”. The project is funded by and carried out at Lund University, as part of the Master in Innovation and Global Sustainable Development.

The project aims at understanding the relationship between ecotourism and residents’ well-being from the perspectives of locals, ecotourism providers and community leaders: Within this overall purpose, the project intends to explore what the dimensions of well-being are that matter the most for Monteverde’s residents. It further aims at assessing how locals define ecotourism and what their understanding to the contribution to the community is. Lastly, the explicit interrelation between ecotourism and well-being should be assessed and how this relationship got impacted by the ongoing Covid19-pandemic.

The project is led by Frank Schönberg and supervised by Prof. Cristina Chaminade.

The project is supported by Lund University, The International Center for Economic Policy for Sustainable Development (CINPE) of the National University of Costa Rica (UNA), and the Erasmus+ International Credit Mobility (ICM) Grant.

Interview Consent form – individual interviews

The interview will be digitally recorded, and the interviewer will take notes. Both notes and recordings will remain confidential. We are aware that these interviews may include risks by discussing sensitive information. These risks will be mitigated by a strict protection of the data in a password protected software environment. Only the project leader and the researchers in the project will have access to the notes.

Your personal identity will remain anonymous. No views will be directly attributed to you in any document that may be produced from the interviews. The name of your firm or institution may however be known in the report unless you explicitly indicate otherwise.

The information gathered from this study will be used to contribute to the project. It may be presented in the form of a report, a paper to a colloquium and/or a published scientific paper.

Consent

I hereby agree to participate in research regarding “Ecotourism and Residents’ Well-being – A Case Study from Monteverde, Costa Rica, during the Covid-19 Pandemic“ on the conditions above.

I understand that if I decide to participate in this study, my participation is free and voluntary, and I have the right to withdraw my consent to take part or to stop my participation at any time without penalty or negative consequences.

.....

Signature of participant

Date:.....

Full name in block letters.....

I hereby agree to the tape recording of my participation in the study. () Yes () No

If you have any questions about your rights as a study participant or are dissatisfied at any time with any aspect of the study, you may contact Frank Schönberg at this phone number (XXX) or this email (XXX). Moreover, you can also contact the project’s supervisors Prof. Cristina Chaminade (XXX) or Prof. Keynor Ruiz-Mejías at Universidad Nacional (XXX).

Appendix B

Information Sheet and Interview Consent Form (Spanish)

El ecoturismo y el bienestar de los residentes

- Un estudio de caso de Monteverde, Costa Rica, durante la pandemia de Covid-19

Esta entrevista forma parte de un proyecto de investigación sobre "Ecoturismo y bienestar de los residentes - Un estudio de caso de Monteverde, Costa Rica, durante la pandemia de Covid-19". El proyecto está financiado por la Universidad de Lund y se lleva a cabo en el marco de la Maestría en Innovación y Desarrollo Global Sostenible.

El proyecto tiene como objetivo comprender la relación entre el ecoturismo y el bienestar de los residentes desde la perspectiva de los lugareños, los proveedores de ecoturismo y los líderes de la comunidad. Dentro de este propósito general, resulta importante identificar cuáles son las dimensiones del bienestar que más importan a los residentes de Monteverde. Además, se desea conocer cómo definen los lugareños el ecoturismo y cuál es su comprensión de la contribución a la comunidad. Por último, se analizará la interrelación explícita entre el ecoturismo y el bienestar y cómo esta relación se vio afectada por la actual pandemia de Covid19.

El proyecto está dirigido por Frank Schönberg y supervisado por la Profesora Cristina Chaminade.

El proyecto cuenta con el apoyo de la Universidad de Lund, el Centro Internacional de Política Económica para el Desarrollo Sostenible (CINPE) de la Universidad Nacional de Costa Rica (UNA) y la beca Erasmus+ de Movilidad Internacional de Créditos (ICM).

Formulario de consentimiento para las entrevistas individuales

Su identidad personal permanecerá en el anonimato. No se le atribuirá directamente ninguna opinión en ningún documento que se elabore a partir de las entrevistas. Sin embargo, el nombre de su empresa u organización puede aparecer en el informe, a menos que usted indique explícitamente lo contrario.

La entrevista se grabará digitalmente y el entrevistador tomará notas. Tanto las notas como las grabaciones serán confidenciales. Somos conscientes de que estas entrevistas pueden conllevar riesgos al hablar de información sensible. Estos riesgos se mitigarán mediante una estricta protección de los datos en un entorno de software protegido por contraseña. Sólo el director del proyecto y los investigadores del mismo tendrán acceso a las notas.

La información recogida en este estudio se utilizará para contribuir al proyecto. Podrá presentarse en forma de informe, ponencia en un coloquio y/o artículo científico publicado.

Consentimiento

Por el presente acepto participar en la investigación sobre "Ecoturismo y bienestar de los residentes - Un estudio de caso de Monteverde, Costa Rica, durante la pandemia de Covid-19" en las condiciones arriba indicadas.

Entiendo que, si decido participar en este estudio, mi participación es libre y voluntaria y tengo el derecho de retirar mi consentimiento para participar o dejar de hacerlo en cualquier momento sin penalización ni consecuencias negativas.

.....

Firma del participante Fecha:.....

Nombre y apellidos en mayúsculas:.....

Acepto que se grabe la entrevista que me realizarán. () Sí () No

Si tiene alguna pregunta sobre sus derechos como participante en el estudio o no está satisfecho en algún momento con algún aspecto del estudio, puede ponerse en contacto con Frank Schönberg en este número de teléfono (XXX) o en este correo electrónico (XXX). Además, también puede ponerse en contacto con la supervisora Profesora Cristina Chaminade en la Universidad de Lund (XXX) o el Profesor Keynor Ruiz-Mejías de la UNA (XXX).

Appendix C

Interview Guide: Experts and Ecotourism Providers (English)

1. Introduction

- a. Could you tell me a little about your life here in Monteverde? Have you always lived here?
- b. Can you tell me which job you have and what are your tasks?

2. Well-Being

- a. How would you define well-being?
→ Give participant the well-being puzzle with the dimensions.
- b. Which dimensions do you think influence the well-being of Monteverde's residents the most/least?
 - i. Could you please elaborate your choice of dimensions?
- c. Considering all aspects of life, how would you rate Monteverde's residents' average well-being on a scale from 1-10? (1 = low well-being, 10 = high well-being)
 - i. Why would did you chose this number?
 - ii. If not 10: What needs to happen to give a 10?

3. Ecotourism

- a. What is ecotourism for you?
- b. How would you describe the development of ecotourism in Monteverde within the last 10 years?
 - i. What have been the most important changes over these 10 years?
- c. What role does ecotourism play for the community in Monteverde in general? (local level)
- d. Who do you think are the main actors of ecotourism in Monteverde?
- e. Which of these actors do you think benefit the most from ecotourism?
- f. Which of these actors do you think benefit the least from ecotourism?
- g. How would you describe your experience in the ecotourism industry?

4. The Influence of Ecotourism on Well-being + Impact of Covid19

- a. How did the well-being of Monteverde's residents change
 - i. with the development of ecotourism in Monteverde until 2019? (before Covid19)
 - ii. with the global pandemic from beginning of 2020 on? (during Covid19)

→ Give participant the ecotourism puzzle.

- b. Which dimensions of well-being were influenced positively, which ones were not influenced, and which ones were influenced negatively by ecotourism? (before the COVID-19 pandemic)
 - i. Could you please explain the ranking of the dimensions?
- c. Which dimensions of well-being were influenced positively, which ones were not influenced, and which ones were influenced negatively by ecotourism? (during the COVID-19 pandemic)
 - i. Could you please explain the ranking of the dimensions?

5. Concluding Remarks

- a. Do you have any suggestions on how ecotourism policy-makers or providers could increase the well-being of Monteverde's residents in the future?
- b. Is there anything else you would add that may help to understand the relationship between well-being and ecotourism?
- c. Can you think of anyone else who I should speak to, who would help me understanding the relationship between well-being and ecotourism?

6. Demographics

→ Give participant third sheet about demographics and ask them kindly to fill it out. (Important: The reveal of information is completely voluntary, and I will remind them about the strict confidentiality of the data.)

Appendix D

Interview Guide: Experts and Ecotourism Providers (Spanish)

1. Introducción

- a. ¿Podría contarme un poco de su vida aquí en Monteverde? ¿Siempre ha vivido aquí?
- b. ¿Puede decirme qué trabajo tiene y cuáles son sus tareas?

2. Bienestar

- a. ¿Cómo definiría usted bienestar?

→ Entrega el rompecabezas del bienestar con las dimensiones.
- b. ¿Qué aspectos de la vida influyen más/menos el bienestar de los residentes de Monteverde?
 - i. ¿Podría detallar su elección de las dimensiones?
- c. Teniendo en cuenta todos los aspectos de vida, ¿cómo calificaría el promedio del bienestar de los residentes de Monteverde en una escala de uno a diez? (1 = bajo bienestar, 10 = alto bienestar)
 - i. ¿Por qué ha elegido ese valor?
 - ii. Si no es un 10: ¿Qué tiene que pasar para dar un 10?

3. Ecoturismo

- a. ¿Qué es para usted ecoturismo?
- b. ¿Cómo describiría el desarrollo del ecoturismo en Monteverde en los últimos 10 años?
 - i. ¿Cuáles han sido los cambios más importantes a lo largo de esos 10 años?
- c. ¿Qué papel juega el ecoturismo para la comunidad de Monteverde en general? (nivel local)
- d. ¿Quiénes cree que son los principales actores del ecoturismo en Monteverde?
- e. ¿Cuáles de estos actores cree que se benefician más del ecoturismo?
- f. ¿Cuáles de estos actores cree que se benefician menos del ecoturismo?
- g. ¿Cómo describiría su experiencia en la industria del ecoturismo?

4. La influencia del ecoturismo en el bienestar + el impacto de Covid19

- a. ¿Cómo ha cambiado el bienestar de los residentes de Monteverde
 - i. con el desarrollo del ecoturismo en Monteverde hasta 2019? (antes de la COVID-19 pandemia)
 - ii. con la pandemia mundial a partir de principios de 2020? (durante la COVID-19 pandemia)

→ Entregue al participante el rompecabezas del ecoturismo

- b. ¿Qué dimensiones del bienestar se vieron influidas positivamente, cuáles se vieron no influidas y cuáles se vieron influidas negativamente por el ecoturismo? (antes de la COVID-19 pandemia)
 - i. ¿Podría explicar la clasificación de las dimensiones?
- c. ¿Qué dimensiones del bienestar se vieron influidas positivamente, cuáles se vieron no influidas y cuáles se vieron influidas negativamente por el ecoturismo? (durante la COVID-19 pandemia)
 - i. ¿Podría explicar la clasificación de las dimensiones? (tanto antes como durante Covid19)

5. Comentarios Finales

- a. ¿Tiene alguna sugerencia sobre cómo los responsables de la política de ecoturismo o los proveedores del ecoturismo podrían aumentar el bienestar de los residentes de Monteverde en el futuro?
- b. ¿Hay algo más que añadir que pueda ayudar a entender la relación entre el bienestar y el ecoturismo?
- c. ¿Se le ocurre alguien más con quien debería hablar, que me ayude a entender la relación entre el bienestar y el ecoturismo?

6. Demografía

→ Entregue a los participantes la tercera hoja sobre datos demográficos y pídale amablemente que la rellenen. (Importante: La revelación de información es totalmente voluntaria y les recordaré la estricta confidencialidad de los datos).

Appendix E

Interview Guide: Neighbours (English)

1. Introduction

- a. Could you tell me a little about your life here in Monteverde? Have you always lived here?
- b. Can you tell me which job you have and what are your tasks?

2. Well-Being

- a. How would you define well-being?
→ Give participant the well-being puzzle with the dimensions.
- b. Which dimensions influence your personal well-being the most/least?
 - i. Could you please elaborate your choice of dimensions?
- c. Considering all aspects of your life, how would you rate your well-being on a scale from 1-10? (1 = low well-being, 10 = high well-being)
 - i. Why would did you chose this number?
 - ii. If not 10: What needs to happen to give a 10?

3. Ecotourism

- a. What is ecotourism for you?
- b. How would you describe the development of ecotourism in Monteverde within the last 10 years?
 - i. What have been the most important changes over these 10 years?
- c. What role does ecotourism play for the community in Monteverde in general? (local level)
- d. Who do you think are the main actors of ecotourism in Monteverde?
- e. Which of these actors do you think benefit the most from ecotourism?
- f. Which of these actors do you think benefit the least from ecotourism?
- g. How would you describe your experience in the ecotourism industry?

4. The Influence of Ecotourism on Well-being + Impact of Covid19

- a. How did your well-being change
 - i. with the development of ecotourism in Monteverde until 2019? (before Covid19)
 - ii. with the global pandemic from beginning of 2020 on? (during Covid19)

→ Give participant the ecotourism puzzle.

- b. Which dimensions of well-being were influenced positively, which ones were not influenced, and which ones were influenced negatively by ecotourism? (before the COVID-19 pandemic)
 - i. Could you please explain the ranking of the dimensions?

- c. Which dimensions of well-being were influenced positively, which ones were not influenced, and which ones were influenced negatively by ecotourism? (during the COVID-19 pandemic)
 - i. Could you please explain the ranking of the dimensions?

5. Concluding Remarks

- a. Do you have any suggestions on how ecotourism policy-makers or providers could increase your well-being in the future?
- b. Is there anything else you would add that may help to understand the relationship between well-being and ecotourism?
- c. Can you think of anyone else who I should speak to, who would help me understanding the relationship between well-being and ecotourism?

6. Demographics

→ Give participant third sheet about demographics and ask them kindly to fill it out. (Important: The reveal of information is completely voluntary, and I will remind them about the strict confidentiality of the data.)

Appendix F

Interview Guide: Neighbours (Spanish)

1. Introducción

- a. ¿Podría contarme un poco de su vida aquí en Monteverde? ¿Siempre ha vivido aquí?
- b. ¿Puede decirme qué trabajo tiene y cuáles son sus tareas?

2. Bienestar

- a. ¿Cómo definiría usted bienestar?

→ Entrega el rompecabezas del bienestar con las dimensiones.

- b. ¿Qué aspectos de su vida influyen más/menos en su bienestar personal?
 - i. ¿Podría detallar su elección de las dimensiones?
- c. Teniendo en cuenta todos los aspectos de su vida, ¿cómo calificaría su bienestar en una escala de uno a diez? (1 = bajo bienestar, 10 = alto bienestar)
 - i. ¿Por qué ha elegido ese valor?
 - ii. Si no es un 10: ¿Qué tiene que pasar para dar un 10?

3. Ecoturismo

- a. ¿Qué es para usted ecoturismo?
- b. ¿Cómo describiría el desarrollo del ecoturismo en Monteverde en los últimos 10 años?
 - i. ¿Cuáles han sido los cambios más importantes a lo largo de esos 10 años?
- c. ¿Qué papel juega el ecoturismo para la comunidad de Monteverde en general? (nivel local)
- d. ¿Quiénes cree que son los principales actores del ecoturismo en Monteverde?
- e. ¿Cuáles de estos actores cree que se benefician más del ecoturismo?
- f. ¿Cuáles de estos actores cree que se benefician menos del ecoturismo?
- g. ¿Cómo describiría su experiencia en la industria del ecoturismo?

4. La influencia del ecoturismo en el bienestar + el impacto de Covid19

- a. ¿Cómo ha cambiado su bienestar
 - i. con el desarrollo del ecoturismo en Monteverde hasta 2019? (antes de la COVID-19 pandemia)
 - ii. con la pandemia mundial a partir de principios de 2020? (durante la COVID-19 pandemia)

→ Entregue al participante el rompecabezas del ecoturismo

- b. ¿Qué dimensiones del bienestar se vieron influidas positivamente, cuáles se vieron no influidas y cuáles se vieron influidas negativamente por el ecoturismo? (antes de la COVID-19 pandemia)
 - i. ¿Podría explicar la clasificación de las dimensiones?
- c. ¿Qué dimensiones del bienestar se vieron influidas positivamente, cuáles se vieron no influidas y cuáles se vieron influidas negativamente por el ecoturismo? (durante la COVID-19 pandemia)
 - i. ¿Podría explicar la clasificación de las dimensiones? (tanto antes como durante Covid19)

5. Comentarios Finales

- a. ¿Tiene alguna sugerencia sobre cómo los responsables de la política de ecoturismo o los proveedores del ecoturismo podrían aumentar el bienestar de usted en el futuro?
- b. ¿Hay algo más que añadir que pueda ayudar a entender la relación entre el bienestar y el ecoturismo?
- c. ¿Se le ocurre alguien más con quien debería hablar, que me ayude a entender la relación entre el bienestar y el ecoturismo?

6. Demografía

→ Entregue a los participantes la tercera hoja sobre datos demográficos y pídale amablemente que la rellenen. (Importante: La revelación de información es totalmente voluntaria y les recordaré la estricta confidencialidad de los datos).

Appendix G

Demographical Questions (English)

Q4 Which category below includes your age?

- 19 or younger
- 20-29
- 30-39
- 40-49
- 50-59
- 60 or older

Q5 What is your civil status?

- Married
- Widowed
- Divorced
- Separated
- Single
- In a relationship

Q6 What is the highest level of school you have completed or the highest degree you have received?

- Incomplete primary school
- Completed primary school
- Incomplete secondary school
- Completed secondary school
- Technical education
- Incomplete university education
- Completed university education
- Postgraduate

Q7 What was your income approximately in 2019 (before Covid19)?

- 0 CRC – 6,100,000 CRC
- 6,100,000 CRC – 12,200,000 CRC
- 12,200,000 CRC – 18,300,000 CRC
- 18,300,000 CRC – 24,400,000 CRC
- 24,400,000 CRC – 30,500,000 CRC
- 30,500,000 CRC – 36,600,000 CRC
- 36,600,000 CRC – 42,700,000 CRC
- 42,700,000 CRC – 48,800,000 CRC
- 48,800,000 CRC or more

Q8 What was your income approximately in 2020 (during Covid19)?

- 0 CRC – 6,100,000 CRC
- 6,100,000 CRC – 12,200,000 CRC
- 12,200,000 CRC – 18,300,000 CRC
- 18,300,000 CRC – 24,400,000 CRC
- 24,400,000 CRC – 30,500,000 CRC
- 30,500,000 CRC – 36,600,000 CRC
- 36,600,000 CRC – 42,700,000 CRC
- 42,700,000 CRC – 48,800,000 CRC
- 48,800,000 CRC or more

Appendix H

Demographical Questions (Spanish)

P4 ¿En qué categoría se incluye su edad?

- 19 años o menos
- 20-29
- 30-39
- 40-49
- 50-59
- 60 años o más

P5 ¿Cuál es su estado civil?

- Casado
- Viudo
- Divorciado
- Separado
- Soltero
- En una relación

P6 ¿Cuál es el nivel de estudios más alto que ha completado o el título más alto que ha recibido?

- Primaria incompleta
- Primaria completa
- Secundaria incompleta
- Secundaria completa
- Educación técnica
- Educación Universitaria incompleta
- Educación universitaria completa
- Posgrado

P7 ¿Cuáles fueron sus ingresos aproximados para el año 2019 (antes de Covid19)?

- 0 CRC – 6,100,000 CRC
- 6,100,000 CRC – 12,200,000 CRC
- 12,200,000 CRC – 18,300,000 CRC
- 18,300,000 CRC – 24,400,000 CRC
- 24,400,000 CRC – 30,500,000 CRC
- 30,500,000 CRC – 36,600,000 CRC
- 36,600,000 CRC – 42,700,000 CRC
- 42,700,000 CRC – 48,800,000 CRC
- 48,800,000 CRC o más

P8 ¿Cuáles fueron sus ingresos aproximados para el año 2020 (durante Covid19)?

- 0 CRC – 6,100,000 CRC
- 6,100,000 CRC – 12,200,000 CRC
- 12,200,000 CRC – 18,300,000 CRC
- 18,300,000 CRC – 24,400,000 CRC
- 24,400,000 CRC – 30,500,000 CRC
- 30,500,000 CRC – 36,600,000 CRC
- 36,600,000 CRC – 42,700,000 CRC
- 42,700,000 CRC – 48,800,000 CRC
- 48,800,000 CRC o más

Appendix I

Demographical Data (Averages and Frequencies per Sample Group)

Name	Sex Freq.	Avg. Age Group	Education Freq.	Avg Income 2019 (pre-COVID19)	Avg Income 2020 (post-COVID19)
Ecotourism Providers	Male (3x) Female (1x)	40-49	Technical Education (1x) Completed university (2x) Postgraduate (1x)	\$20,000 – \$29,999	\$10,000 – \$19,999
Experts	Male (2x) Female (2x)	50-59	Completed university (1x) Postgraduate (3x)	\$30,000 – \$39,999	\$20,000 – \$29,999
Neighbours	Male (2x) Female (3x)	40-49	Incomplete secondary (2x) Completed secondary (3x)	\$10,000 – \$19,999	\$0 – \$9,999
Overall	Male (7x) Female (6x)	40-49	Incomplete secondary (2x) Completed secondary (3x) Technical Education (1x) Completed university (3x) Postgraduate (4x)	\$20,000 – \$29,999	\$10,000 – \$19,999

Appendix J

Well-Being Puzzle (English)

Ranking	Well-Being Dimensions
Rank 1 (most important)	
Rank 2	
Rank 3	
Rank 4	
Rank 5	
Rank 6	
Rank 7	
Rank 8 (least important)	

<p style="text-align: center;">Work</p>	<ul style="list-style-type: none"> ▪ Health and safety ▪ Involvement in decisions ▪ Autonomy ▪ Work Life Balance ▪ Personal development
<p style="text-align: center;">Physical Environment</p>	<ul style="list-style-type: none"> ▪ Housing ▪ Living environment (safe, liveable, limited pollution) ▪ Access to clean air/soil/water ▪ Sustainable traffic/mobility
<p style="text-align: center;">Physical and Psychological Health</p>	<ul style="list-style-type: none"> ▪ Access to social security ▪ Adequate alimentation ▪ Life expectancy ▪ Sufficient hygiene ▪ Feeling happy ▪ Self-confidence
<p style="text-align: center;">Social Environment</p>	<ul style="list-style-type: none"> ▪ Family life ▪ Social life (neighborhood, friendship, networks) ▪ Being treated as a dignified person (equality)
<p style="text-align: center;">Leisure & Culture</p>	<ul style="list-style-type: none"> ▪ Access to cultural activities ▪ Leisure time available ▪ Sports ▪ To laugh and play ▪ To enjoy nature
<p style="text-align: center;">Education & Information</p>	<ul style="list-style-type: none"> ▪ Education of children ▪ Education of adults ▪ Access to information
<p style="text-align: center;">Income & Wealth</p>	<ul style="list-style-type: none"> ▪ Income ▪ Good pay and fringe benefits ▪ Savings ▪ Unemployment benefits ▪ Future expectations
<p style="text-align: center;">Political Environment</p>	<ul style="list-style-type: none"> ▪ Basic political rights ▪ Freedom of religion, speech and movement ▪ Political system (democracy) ▪ Participation in politics (right to vote)

Appendix K

Well-being Puzzle (Spanish)

Clasificación	Dimensiones del Bienestar
Categoría 1 (más importante)	
Categoría 2	
Categoría 3	
Categoría 4	
Categoría 5	
Categoría 6	
Categoría 7	
Categoría 8 (menos importante)	

Trabajo	<ul style="list-style-type: none"> ▪ Salud y seguridad ▪ Participación en las decisiones ▪ Autonomía ▪ Equilibrio trabajo-vida personal ▪ Desarrollo personal
Entorno físico	<ul style="list-style-type: none"> ▪ Vivienda ▪ Entorno (seguro, habitable, sin contaminación) ▪ Acceso a aire/suelo/agua limpios ▪ Tráfico/movilidad sostenible
Salud física y psicológica	<ul style="list-style-type: none"> ▪ Acceso a seguridad social ▪ Alimentación adecuada ▪ Esperanza de vida ▪ Higiene suficiente ▪ Sentirse feliz ▪ Confianza en sí mismo
Entorno social	<ul style="list-style-type: none"> ▪ Vida familiar ▪ Vida social (barrio, amistad, redes) ▪ Ser tratado como una persona digna (igualdad)
Ocio y cultura	<ul style="list-style-type: none"> ▪ Acceso a actividades culturales ▪ Tiempo libre disponible ▪ Deportes ▪ Reír y jugar ▪ Disfrutar de la naturaleza
Educación e información	<ul style="list-style-type: none"> ▪ Educación de los niños ▪ Educación de los adultos ▪ Acceso a la información
Ingreso y riqueza	<ul style="list-style-type: none"> ▪ Ingresos ▪ Buen sueldo y beneficios adicionales ▪ Ahorro ▪ Beneficios de Desempleo ▪ Expectativas de futuro
Entorno político	<ul style="list-style-type: none"> ▪ Derechos políticos básicos ▪ Libertad de religión, de expresión y de circulación ▪ Sistema político (democracia) ▪ Participación en la política (derecho de voto)

Appendix L

Ecotourism Puzzle (English)

Ranking	Well-Being Dimensions
Positive	
Neutral/ Not affected	
Negative	

Appendix M

Ecotourism Puzzle (Spanish)

Clasificación	Dimensiones del Bienestar
Positivas	
Neutral/ No afectadas	
Negativas	

Appendix N

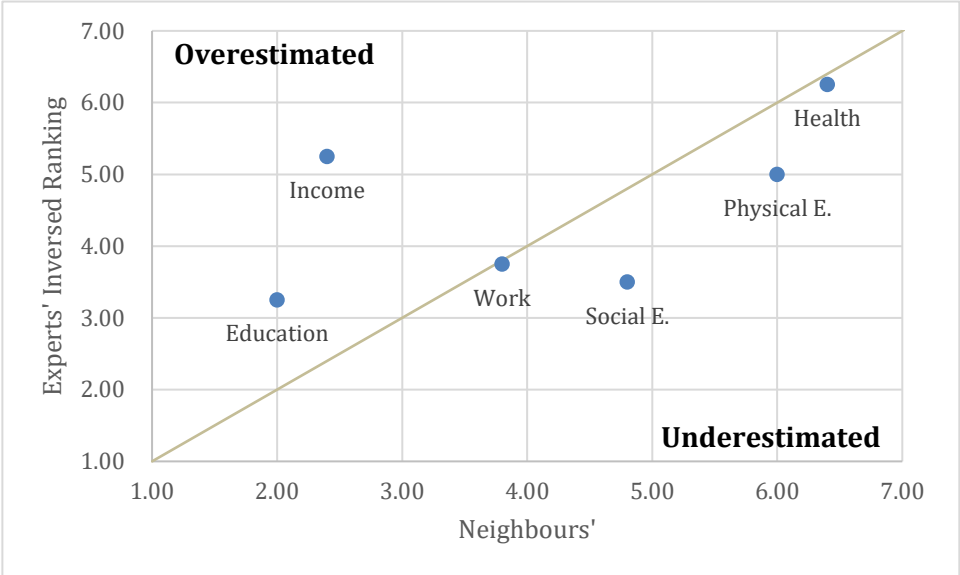
Codification (Only Most-Referenced Ones)

Codes (Three Levels)	Sources	References
Well-Being		
Definition		
Basic Needs Satisfaction	5	9
Economic Stability (Work and Income)	6	6
Physical Environment	6	6
Physical and Psychological Health	13	20
Social Environment	7	7
Dimensions		
Education and Information	9	12
Income and Wealth	10	26
Leisure and Culture	8	8
Physical and Psychological Health	13	34
Physical Environment	12	24
Political Environment	10	14
Social Environment	9	20
Work	9	18
Ecotourism		
Definition		
Confusion with Related Concepts	7	10
Interconnectedness with Nature	11	16
Environmental Conservation	7	16
Environmental Education	6	6
Triple-Bottom Line of Sustainability	5	6
Development		
Agriculture to Ecotourism	8	18
Ecotourism to Adventure Tourism	8	19
Small- to Large-Scale Tourism	9	16
Impacts		
Economic	12	53
Environmental	12	55
Social	11	81
Well-Being, Ecotourism & COVID-19 Pandemic		
Negative Impacts		
Loss of Income and Indebtedness	12	29
Unemployment	10	19
Adverse Health Effects	8	15
Positive Impacts		
Dematerialisation	10	22
More Time for Recreation	8	14
Family Strengthening	9	16
Fostered Solidarity	12	35
Self-Sufficiency and Resilience	6	13
Suggestions for Improvement		
Redefinition of Tourism	10	24
Community-Based Ecotourism	11	20
Education and Awareness	9	20
Economic Diversification	11	29

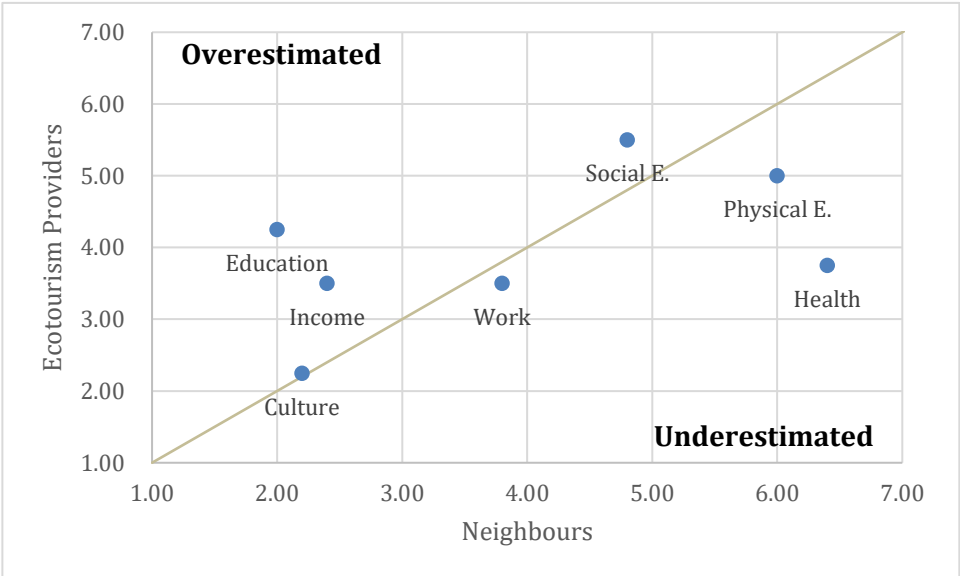
Appendix O

Well-Being Assessment of the Different Sample Groups

Experts' versus Neighbours' Well-Being Assessment



Ecotourism Providers' versus Neighbours' Well-Being Assessment



Appendix P

Relationship between Well-being and Ecotourism

Dimension	Inversed Rank (8 – rank)	Influence by Ecotourism (Pre-pandemic)		Influence by Ecotourism (Post pandemic)	
		Average	p-value	Average	p-value
Work	3.69	1.00	0.001*	-1.00	0.001*
Physical Environment	5.46	0.50	0.045*	0.08	0.382
Physical and Psychological Health	5.46	0.25	0.152	0.25	0.185
Social Environment	4.62	-0.42	0.067	0.75	0.008*
Leisure & Culture	1.69	0.25	0.152	0.33	0.101
Education & Information	3.08	0.50	0.028*	0.08	0.366
Income & Wealth	3.62	1.00	0.001*	-1.00	0.001*
Political Environment	0.38	-0.08	0.341	-0.17	0.086

* $p < 0.05$

Appendix Q

Monteverde's recycling initiatives

