The Galapagos Paradox: Negotiating Conservation and Human Development

A political ecology review on how conservation policies shape living conditions in Santa Cruz, Galapagos



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The Galapagos Paradox: Negotiating Conservation and Human Development Santa Cruz Island

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Abstract

The underlying political and economic factors of conservation policies: on shaping the living conditions in Galapagos, Ecuador

This research examines how conservation policies shape the living conditions of residents of Santa Cruz, the most populated island of the Galapagos Island in Ecuador. By using a political ecology framework, this research aims to understand how the economic and political factors of conservation policies shape local living conditions. Through a combination of in-depth interviews, observations and informal conversations this research sheds a light on the complex trade-offs between conservation and human development. The creation of the Galapagos reserve resulted in a significant shift in power dynamics, moving authority from locals to foreign organizations and, eventually, the Ecuadorian government. Later on, the government's economic interest in tourism has driven its expansion alongside conservation. The prioritization of nature conservation and the development of a tourism-friendly island have overshadowed investments in local services and increased competition over resources. The unequal power dynamics intensifies the situation as locals experience unequal distribution of benefits and burdens. Conservation policies contributed to the transformation of traditional livelihoods towards the service sector. Furthermore, policies also shaped human-environmental relations of residents. Local disempowerment and the commodification of nature have resulted in a disconnection towards their surroundings. Another result of the unequal power allocation and conservation policies is the discontent among some residents which results in resistance and non-compliance of some rules. The findings of this research contribute to a broader understanding of the socioenvironmental challenges and opportunities in conservation policy implementation, with implications for sustainable development and to create more inclusive development strategies in the Galapagos and similar contexts around the world. Future efforts should stress environmental education, local agency, and collaborative nature-society relations.

Keywords: political ecology, conservation policies, environmental governance, neoliberal conservation, living conditions, Galapagos islands

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List of abbreviations

CDF	Charles Darwin Foundation
GNP	Galapagos National Park (Parque Nacional Galapagos)
GSL	Galapagos Special law
GSR	Galapagos Special Regime
GMR	Galapagos Marine Reserve
NGO	Non-governmental organization
MAE	Ministry of Environment (Ministerio del Ambiente)

1.Introduction

During the late twentieth century a worldwide movement was initiated towards nature conservation and environmental sustainability. A significant milestone was the release of the influential Brundtland report in 1987, which shaped discussions on Sustainable Development. The report emphasized that environmental concerns cannot be detached from development efforts particularly in developing countries (Brundtland, 1987). Consequently, nature conservation has become a recurring theme in the field of International Development studies. Given the complex connections between poverty and environmental degradation, it is crucial to recognize that conservation cannot be viewed in isolation from poverty (Duraiappah, 1998). Additionally, Zingerli (2005) argues that current conservation programs can inadvertently cause social injustice and other forms of deprivation for communities who are dependent on the protected resources. This challenges the notion that conservation initiatives always result in positive outcomes for both the environment and local communities. This emphasizes the importance of critically assessing the potential social impacts and inequalities associated with these programs. Biodiversity conservation and sustainable development are part of an increasingly globalized understanding of nature and our relationship with it. The spread and growth of these systems have led to the establishment of institutions that mediate the interactions between humans and their environment.

One approach for nature conservation is the creation of protected areas, which have become an increasingly significant tool for controlling human activities. This also mediates people's interactions with particular areas and places that are regarded pristine and vulnerable from a globalized perspective. The management of protected areas imply the necessity for strong governmental structures to ensure effective nature conservation management. The creation of protected areas results in a clear separation between humans and their environment, treating them as distinct entities. This view has significant implications for individuals residing close to these protected areas (Tian et al., 2019; West et al, 2006). The circumstances of local community members are often shaped by external entities, primarily through decision-making authorities. One of the main factors behind this is the global conservation movement, that mediates often directly with national governments and is supported by funding from international donors. Managing protected areas in developing countries poses significant challenges due to prevalent conditions of poverty, rapid population growth and political instability. These local factors, coupled with powerful international forces, impact the functioning of protected areas. Therefore, it is crucial to incorporate both economic and

political factors when analysing the management of conservation policies, and the impact it has on local communities.

The economics of conservation is influenced by globalization and neoliberal reforms. A potential approach for the economic stimulant for the development of islands is tourism (Sheldon, 2005). This because islands deal with the challenge of a limited resource base of the territory and may have few resources or viable industries other than tourism to provide revenue and employment for the local population. Additionally, the declining value of agricultural and mining commodities in international markets, along with depleting fish populations and changing coastlines due to global warming, has made fishing less reliable (Sheldon, 2005). However, actual benefits for locals tend to be significantly lower than expected, as national governments also seek a portion of the available funds (Adams and Hutton, 2007). Moreover, tourism as a tool for economic development frequently leads to new issues for local communities around protected areas. One reason is that tourism frequently causes an unequal exchange of cultures and Westernization in the host society (Nash, 1996) and empowers the commodification of nature. In this way, local populations are exploited through the market mechanism (Büscher et al., 2012). This creates a complex situation for conservationists, who must navigate building alliances with neighbouring communities while simultaneously protecting areas from large-scale resource extraction and advocating for sustainable national policies. Additionally, the state holds significant benefits with the establishment of a protected area, as it enables the state to retain control and influence over natural resources. As a result, local disempowerment and environmental injustice are frequently caused by the emphasis on conservation and tourism earnings (Vaccaro et al., 2013). There are numerous stakeholders involved in and affected by conservation activities in a location, each with their own set of needs and wants. Despite the different perceptions among stakeholders, the majority and often powerful actors, are in favour of the establishment of protected areas. Nevertheless, local communities often hold diverse perspectives than those who manage and implement conservation efforts. This is mainly because of their reliance on the resources within and surrounding the protected areas. As a result, conflicts between different stakeholders emerge. The conflicts often revolve around the balance between conservation and human development among diverse stakeholders engaged in or impacted by the protection of an area (Naughton-Treves et al., 2005).

The implementation of territorial conservation policies is often complex and raises issues related to their compatibility. This has led to debates about the need to balance the interests of conservation and human development among different stakeholders. The Galapagos Islands, located in Ecuador, provide an example of such complexity. The increased recognition

of the ecological fragility and irreplaceable value of the Galapagos natural heritage and biodiversity have contributed to increased conservation efforts. Conservation policies aim to protect these ecosystems from degradation and preserve their biological diversity for future generations. For this reason, the Galapagos are surrounded by a marine reserve, which has been described as a distinctive "living museum and showcase of evolution" in the Pacific Ocean (UNESCO, 2023). Besides the marine reserve, the Galapagos National Park (GNP) was established in 1959 and aims to safeguard the archipelago's exceptional biodiversity. Encompassing 97% of the land area, the national park restricts human settlements to the remaining 3% on Santa Cruz, San Cristobal, Floreana, and Isabela, designated for urban and rural purposes (Galapagos Conservancy, 2023). At the moment of the creation of the protected area in 1959, only 500 were living in Santa Cruz (Black, 1973). Presently, Santa Cruz Island has the highest population density of the archipelago, with approximately 15,701 inhabitants (INEC, 2015). Like many small island territories, Galapagos is facing increasing challenges due to the isolated geography of the islands and the fragility of the environmental and ecological characteristics. This because they are increasingly vulnerable to natural hazards and sea-level rise caused by climate changes, as well as the global push for economic growth and globalization (Douglas, 2006). Additionally, the islands' global prominence as a tourist destination has led to a greater awareness of the need for sustainable practices and responsible tourism, fuelling the demand for conservation initiatives. However, these conservation efforts have led to challenges for islanders. These challenges include restrictions on the extraction of resources, socioeconomic stratification, pressures on public services, dependence on non-native crops and limitations on the expansion of infrastructure (Epler, 2007; Quiroga, 2012).

1.3 Justification of topic

Previous studies conducted on the Galapagos have focused on the conservation efforts of its biodiversity (Glynn et al., 2015; Jiménez-Uzcátegui et al., 2019; Phillips et al., 2012) and economic shifts (Epler, 2007). While progress has been made in integrating social sciences and humanities into conservation academics, the extent of implementation can still vary on landscape level. In other words, existing research falls short in giving an appropriate understanding of conservation practices' equality and inclusivity, particularly in respect to local communities. Factors such as institutional priorities, available resources and local contexts can influence the degree to which these disciplines are incorporated. In the case of Galapagos, conservation efforts not only serve to protect the environment but also contribute millions of dollars to its economy. This underscores the influence of political and economic factors underpinning conservation policies. The allocation of resources, power structures and

governance frameworks play crucial roles in determining the prioritization, regulation and execution of conservation efforts. Economic considerations, such as tourism development and resource extraction, can both support and challenge conservation goals. This creates complex interdependencies between environmental conservation and local living conditions. Therefore, it is important to understand the connections between conservation and human development. Particularly in the case of Galapagos where both global movements have an impact on how people perceive nature, political agency controls how conservation is conceived, and the tourism sector simultaneously serves as the primary economic engine and the biggest change agent. However, the perspectives of locals living close to the protected areas are often excluded, such as fishermen and farmers. Despite the importance of these issues, there has been little research on how conservation policies explicitly impact the living conditions and human-environment relations of people in the Galapagos Islands. Yet, similar political ecology studies on conservation policies have been conducted in other geographic areas around the world (e.g., in Pakistan, Butz & Cook, 2016; and Bali, Cole, 2012). As such, this research contributes to existing debates about the importance of including local perceptions in conservation policies in various settings and provides vital insights into how these programs might be altered and enhanced for different environmental and social circumstances. By filling this research gap in the local and broader discourse, the research contributes to a more informed and nuanced approach to conservation and sustainable development in the Galapagos and around the world.

This research on holds significant social and scientific relevance. Given the rapid environmental changes, increasing tourism activities and socio-economic transformations, there is an urgent need to examine the effects of conservation policies on the local living conditions. Additionally, it can contribute to conservation strategies involving the well-being and livelihoods of residents. Identifying challenges and opportunities can guide interventions and ensure the preservation of both natural and human ecosystems. The deep understanding of this topic will allow to clarify and contribute to debates around human-environmental relations. Moreover, this research contributes to political ecology debates around power dynamics shaping environmental resource management and distribution. Issues of social and environmental justice are both central in political ecology. Scholars debate how environmental changes and resource distribution affect marginalized communities (Adams & Hutton, 2007; Vacarro et al., 2013). This research contributes to the ongoing dialogue about the ability of such programs to reduce environmental inequities and create more equitable outcomes. Therefore, the findings have the potential to inform and influence discussions about developing sustainable and equitable conservation strategies that take into consideration local populations' needs and desires.

1.2 Research question and outline

This research aims to investigate how conservation policies shape the livelihood conditions of the local communities of Santa Cruz Island, the most populated and popular tourist destination in the Galapagos. This research will use a political ecology framework focusing on understanding how political and economic factors underpin the conservation efforts, in turn shape the living conditions in the Galapagos. In order to do so this research will answer the following research question:

How do political and economic factors tied to conservation policies shape the living conditions of the residents in Santa Cruz, Galapagos?

In order to answer the research question, the following sub-questions are answered:

- What are the political and economic factors tied to conservation policies?
- How do residents experience basic services (health, education, water quality)?
- How do residents experience their livelihoods and access to resources?
- To what extent have conservation policies led to social restructuring among residents?

1.3 Research outline

This research will begin to provide an overview of the political ecology theoretical framework and related theories and concepts used in this research. Subsequently, the methodology will be presented, to delve further into the use of data collection methods such as observations and semi-structured interviews. In order to analyse the data, this research uses a political ecology framework. Through this lens, conservation concepts are analysed via three dimensions: state, market, and culture. The first section of the results focuses on the political economy (state and market) dimension of conservation. This will be achieved by incorporating the perspectives and interests of various stakeholders involved in or impacted by conservation policies. The focus here is on exploring political and economic factors underpinning conservation policies and how power dynamics and economic valuation shape these policies. The second section focuses on how conservation policies shape the living conditions, livelihoods, access to resources and social structures (culture) of locals in Santa Cruz. Finally, the results are discussed, and conclusions are drawn based on the analysis.

2. Theoretical framework

This chapter aims to provide an understanding of the political ecology framework and its application in the context of protected areas. It explores the politics of conservation including the role of the state and its underlying power dynamics, the economics of conservation, particularly neoliberal conservation practices. Additionally, the final section will explore the cultural factors of conservation and the social consequences of it. By exploring these interconnected topics, valuable insights are gained into the complex power dynamics between conservation efforts, economic factors, and social implications of conservation policies.

In recent decades, the management of natural resources has acquired significant attention, stimulating debates about the role of institutions and the implications of human actions on the environment. The discourse about the role of institutions in the field of the natural environment has gained popularity following Garrett Hardin's influential work, "The Tragedy of the Commons" (1968). Hardin contended that governmental intervention in the management of natural resources was essential to counteract the tendency of individuals to prioritize their own self-interest, which could ultimately lead to the depletion of all natural resources. In contrast, Elinor Ostrom (2002) emphasized the importance of collective action and self-governance in managing common pool resources. Due to the increasing global awareness of environmentalism, modern conservation policies quickly became widespread. These policies also played a role in promoting territorial homogenization and cultural standardization (Sullivan, 2012), often overshadowing alternative pre-modern forms of territorial management. such as Ostrom's theory of the commons (Ostrom et al., 2002). Therefore, the expansion of territorial conservation practices reflects a significant cultural aspect of how urbanized Western societies relate to nature. It is important to note that conservation is not solely a response to environmental challenges, but also a product of the late modern era and its specific sociostructural context. Cultural changes were necessary in order to promote widespread acceptance and establishment of conservation practices in society (Harvey, 1989). Once this cultural change happened, the implementation of conservation was shaped by the interactions between political power and economic rationalization, as well as the need for it to be integrated into the market. Therefore, to understand the complex dynamics of conservation policies, particularly those related to protected areas, and their impact on community social conditions, I will employ a political ecology framework. This framework examines the social, economic, and political factors that shape human-environment relations. It explores the intricate relationships between local communities residing near protected areas, the political and economic forces driving conservation efforts, and the impacts of these policies on livelihoods.

2.1 Political ecology and conservation

Political ecology emerged in the 1980s, as a scholarly perspective that employed concepts of political economy to analyse environmental issues (Neumann, 2009). Political ecologists analyse environmental or ecological conditions as the product of political and social processes, across various scales ranging from the local to the global level (Bryant and Bailey, 1997). Thus, it engages an understanding of economic change, the politics of environmental action, and ecological outcomes, a set of relationships essential for conservation (Adams & Hutton, 2007). Political ecology is typically used in field-based empirical research, a localised regional approach. In this context, it is significant to examine the intricate connection between humans and the environment. In development studies, political ecology can be viewed as the convergence of two distinct academic disciplines. Firstly, it incorporates elements of political economy, which aims to understand the complex interplay between political and economic factors in shaping environmental problems. Especially the competing interests of various social actors with varying levels of power, as they strive for access to and control of natural resources. Secondly, it integrates an ecological analysis, which explores the interactions between species and their environment, as well as the relationships among different species (Greenberg & Park, 1994). It recognizes the significance of cultural transformations necessary for the acceptance and establishment of conservation practices within urbanized Western societies. By analysing the actions of diverse social actors operating at different scales or levels of analysis, political ecology aims to comprehend the complex dynamics that shape these changes (Bryant, 1992). Political ecology views the environment as a space where various social actors, who possess different levels of political power, compete for access to and control of natural resources (Bryant and Bailey, 1997).

The declaration and implementation of conservation policies serve as prime examples of this competition for environmental control. Protected areas establish boundaries and jurisdictions that determine who can be excluded. These areas are managed by social and institutional actors, often powerful, while other social groups, often less powerful, bear the impacts. In other words, local resource uses have been excluded, while tourists and scientists have been allowed in protected areas (Adam & Hutton, 2007). As a result, these actors are involved in complex and contradictory social relationships. Each of these social actors interprets nature, legitimacy, rights, and usage in distinct and culturally influenced ways. Consequently, political ecology has long focused on analysing the socio-ecological context of conservation policies (Neumann, 1992). By aligning ecological and social chronologies, political ecology underscores the interconnections between ecology and social factors. This approach contributes to our understanding of how these factors interact and shape the creation of

landscapes. It is important to recognize that conservation is not separate from culture; rather, exclusionary territorial policies are a modern means of socially constructing and politically controlling nature (Bromley, 1991) and landscapes (Hirsch and O'Hanlon, 1995). This process transforms places into spaces, indicating a change from a natural sense of connection to a more abstract and controlled idea. Likewise, Vaccaro et al. (2013) argue that the emergence of conservation is viewed as a social transformation that occurred within the broader context of a profound societal shift known as: the emergence of modernity (Polanyi, 1944). In this modern mode of production, close attention needs to be paid to the consolidation of the political (state) and economic (market) dynamics, and the fundamental cultural shifts that accompany every major social transformation (culture) (Vaccaro et al., 2013).

Through this lens, the following section is aimed at gaining a comprehensive understanding of the complex interactions between conservation by means of protected areas, the communities residing in proximity to these areas as well as political and economic factors. First, the politics of conservation is discussed touching on topics like governmentality and power dynamics. Next, the economics of politics is discussed including neoliberal conservation and commodification of nature. Last, culture and conservation are discussed by analysing social transformations related to conservation policies.

2.2 Politics of conservation

Political ecologists frequently emphasize that the environment is highly politicized, indicating that control over natural resources often stems from power struggles among diverse interest groups. In this sense, various "social actors with asymmetrical political power are competing for access to and control of natural resources" (Vaccaro et al., 2013). The creation of protected areas results in a redistribution and renegotiation of the political economy in a particular area. Therefore, Weber (2011) defines the emergence of the modern nation-state as the establishment of a bureaucratic system that exercises exclusive control over important collective areas in the name of the citizens. This imposition of governance, based on national territoriality, signifies a distinct form of control over territory and resources (Foucault, 2007). In this context, Foucault introduced the concept of **governmentality** in the 1970s and described it as:

"An ensemble formed by the institutions, procedures, procedures, analyses and reflections, calculations and tactics, that allow the exercise of this specific albeit complex form of power, the growing dominance of this type of power, and the gradual transformation of the state into a "governmentalized" entity". (Foucault, 1979, p. 62)

In this context, the policy governs social life and establishes a rationality for governing, known as a "regime of truth," where citizens are not controlled through repression and control but through the use of productive power. In simple terms, governmentality encompasses the mindset of both those in power and those in society, exploring how individuals are influenced and shaped by specific practices and discourses. Governmentalities become a reality through various practices (Zimmer, 2012). Dean (1999) highlights that governmentality encompasses the notion of mentalities, their associated attitudes, and their collective and cultural nature, while also considering the ways in which conduct is governed not only by formal authorities but also by individuals and society at large. Therefore, it involves the shaping of individuals' thoughts, desires, and actions, and the production of certain subjectivities and forms of selfgovernance. Scholars and theorists have built upon Foucault's concepts, examining the various aspects and diverse applications of governmentality across various academic fields such as political science, sociology, anthropology, and cultural studies (Burchell et al., 1991; Curtis 2002; India, 2008; Rose et al., 2006). The literature on governmentality has enriched the comprehension of the intricate dynamics between power and governance, offering insights into the ways individuals and societies are controlled and governed in different socio-political contexts (Sending & Neumann, 2006; Rose et al., 2006).

The concept of governmentality is closely intertwined with an examination of different power dynamics. Initially, power dynamics were often analysed from a structural perspective, focusing on hierarchical relations and the exercise of power by dominant actors (Weber, 1958). However, literature has embraced more nuanced and complex understandings of power, acknowledging its multi-faceted nature and its presence at various levels of society (Fraser, 1999; Bourdieu, 1989). In this context, John Allen states:

"Power as a relational effect of interaction is traced through relations of connection and simultaneity which, in turn, open up spaces for political engagement that a centred or radically dispersed notion of government may fail to register" (Allen, 2004, p. 31)

With this perspective, Allen challenges the conventional views of power as either centralized or decentralized and proposes a topological understanding of power as a relational effect of social interaction. Power is not simply imposed top-down or diffused everywhere, but rather its modalities are constituted differently in space and time. In other words, power emerges through social interactions and is influences by the capabilities, resources and relationships of individuals or groups. This view is crucial to include in understanding social inequalities, systems of oppression, resistance movements, and the dynamics of social change.

Power dynamics can be recognized as a fundamental element that governs the nature of interactions among stakeholders. External stakeholders often acquire unequal power to dictate material practices and discourses surrounding specific territories, resulting in the marginalization of local populations who might feel they have lost agency in determining and managing their own lives (Campbell, 2008). Therefore, research is mainly focused on concepts like land tenure (Hann, 2003) and collective action (Ostrom, 1990), which have recognized the behavioural and economic consequences that arise when land is removed from local jurisdictions and transferred to an external managerial entity, which lacks personal involvement and connection. This can result in illegal resource extraction and resistance from the local community, potentially causing conflicts with enforcement officers. Especially in developing countries, implementation and enforcement of regulations can be challenging, particular in remote areas where illegal activities persist. For example, if indigenous people are being forced off their land, then developing governments are being asked to act against the interests of their own citizens. This global perspective on the protection of specific areas is a form of governance that extends the dichotomy between nature and society, leading to the removal of humans from specific environments to prevent the "tainting" of nature with "unnatural humanity". Consequently, it can be argued that the creation of protected areas will reflect individuals adjusting to new relationships between nature and society under capitalism. Indigenous cultures that have subsisted on lands for generations and have their own cosmology to understand their surroundings often perceive conservationists as intruders as they consider themselves as part of the ecosystem, rather than attempting to control it (Adams & Hutton, 2007). However, regardless of indigeneity, asymmetrical power dynamics and discursive reframing of nature and people's relationships with it can lead to tensions among various stakeholders (Vaccaro et al., 2013). This shift in power can be explained by topological understanding of power. This shift has reshaped the way power exerts influence, allowing entities such as governments and NGOs to assert their presence through more nuanced forms of power, different from traditional ones. (Allen, 2016). Consequently, this also shapes people's lives in distinct ways. Moreover, intellectuals play a key role in shaping the dominant ideas and values of society (Gramsci, 2011). In turn, this influences people's belief about environmental issues and advocating for conservation policies. Also, political ecologists (Giordano, 2003; Sneddon, 2002) contend that the government's dual role as both a defender of natural resources and an agent of growth and development results in an inherently conflicting set of policy decisions. Even though trade-offs between government expansion policies and conservation organizations are common, there is a fundamental difference between the objectives of government expansion policies and conservation organizations, which may lead to conflicts between them.

2.3 Economics of conservation

Global **neoliberalism** has significant implications for conservation practices and policies worldwide. Harvey (2005) characterizes the current phase of neoliberalism as a period marked by increased "accumulation by dispossession." In his analysis, he explores the emergence of new enclosures affecting both social and ecological commons. In a process where certain individuals or institutions accumulate wealth and power by disposing others of their land, resources, or assets. It describes a form of capitalist accumulation in which economic and political elites exploit mechanisms. Overall, neoliberalism is an economic and political ideology that emphasizes the role of the market and private enterprise in shaping social and environmental outcomes. It promotes deregulation, privatization, and the reduction of state intervention in the economy (Thorsen & Lie, 2006). Literature on neoliberalism often explores its influence on policymaking, market dynamics, globalization, inequality, social welfare, individualism, and the restructuring of state institutions (Igoe and Brockington, 2007; Bryan, 2012; Rushton & Williams, 2012).

The rise of neoliberalism in the realm of conservation has given birth to a new concept known as neoliberal conservation. In this concept, scholars analysed how neoliberal principles and policies have underpinned conservation initiatives (Holmes & Cavanagh, 2016; Sullivan, 2006). Mainly because the need for economic sustainability and long-term viability of conservation policies became evident, protected areas often lack sufficient income to sustain their protection and maintenance. Protected areas rely on continuous funding from governments or external institutions to persist over time (Corson, 2010). To address this financial challenge, tourism and subsidies from governments, NGOs, or companies seeking environmental credibility have become integral to the management of protected areas (Igoe, 2010; Sullivan, 2012). Therefore, scholars examine the ways in which market-based approaches, privatization, and deregulation have influenced conservation strategies, natural resource management, and the allocation of environmental benefits and costs. Overall, scholars critique neoliberal conservation for its market-oriented and exclusionary tendencies, while also exploring alternative approaches that aim to promote social justice and sustainability, mainly through tourism, within conservation practices (Apostolopoulou & Cortes-Vazquez, 2008; Holmes & Cavanagh, 2016; Igoe and Brockington, 2007; Job et al., 2017).

Neoliberal conservation contributed to a new way of thinking about nature, viewing it as a provider of ecological services with benefits and costs. The aim of this perspective is to assign a financial worth to nature, either to demonstrate the costs associated with its degradation or

to emphasize the importance of its conservation (Vaccaro et al., 2013). This approach is often referred to as the commodification of nature. This is because the environment has been transformed into a 'pool' of natural resources (Sullivan 2017), which has become yet another commodity to be bought and sold in the global market (Hayden, 2003). This process has led to the deregulation of conservation, with increasing privatization and isolation of the environment (Hardin, 2011; Igoe and Brockington, 2007; Vaccaro et al., 2013). Scholars examine how the commodification of nature shapes environmental governance, economic systems, and social relations. They investigate the implications of treating nature as a commodity, including the potential for market failures, environmental degradation, social inequalities, and the marginalization of local communities. (Ioris, 2007; Burke & Heynen, 2014; Liverman, 2004). Additionally, scholars critically analyse the ethical and philosophical dimensions of commodifying nature and explore alternative approaches to conservation and resource management (Wasington & Maloney, 2020; Tallis & Polasky, 2009). The commoditization of nature was created by the integration of the 'natural' experience' of different social and cultural levels of the Western societies (Vaccaro et al., 2013). Especially in developing countries, protected natural areas are often being viewed as commodities that can be sold by governments, multinational organizations, or companies on international markets, often as a means to exert political or economic influence (Hardin, 2011). As this occurred in the globalized world, unequal distributions of wealth and cultural dialogues between developed and developing countries happened (Harvey, 1989).

Scholars argue that conservation policies serve as a means for the state to balance economic growth and environmental protection, often prioritizing economic growth over environmental concerns (Cordero, 2005; Scales, 2015). This can lead to tensions between conservation efforts and the interests of local communities, as well as questions about the legitimacy and effectiveness of conservation policies. Since conservation efforts frequently fall short of providing adequate support for local communities, tourism is often introduced to boost total earnings, create jobs, and improve living standards for host cultures. Consequently, different stakeholders can perceive their environment as valuable revenue-generating potential. This economic process has led to a redefinition of heritage, undermining the unique ways in which users perceive and interact with their environment. (Campbell, 2008).

2.4 Culture and conservation: neighbouring communities of protected areas

Conservation policies shape the availability and use of natural resources, impacting local communities' socio-economic conditions. Therefore, studies examine trade-offs and conflict that arise when conservation objectives clash with the livelihood needs of communities dependent on natural resources (Cobbinah, 2015; De Pourcq, 2017; Faith & Walker, 2002). Conflict mainly arises when influential actors, such as the state, organize and exert extensive control over protected territories and their resources. In contrast, less powerful social organizations often bear the negative effects. These communities frequently suffer the worst effects of territory rebranding, underscoring the necessity of environmental justice issues in protected area administration. In 1996, Robert Bullard (p. 493) defined environmental justice as that "all people and communities are entitled to equal protection of environmental and public health laws and regulations". Accordingly, the concept mainly focused on the fair treatment and equitable distribution of environmental benefits and risks. However, in 1999, Bullard added that environment can be everything, referring to both physical and cultural environment (Mohai et al., 2009). As a result, environmental justice and human rights movements are merged together as a global force for social change and democratization. Numerous studies have provided extensive evidence of disparities in exposure based on race, ethnicity, and socioeconomic status (Prindeville, 2020; Schlosberg & Carruthers, 2010).

2.4.1. Living conditions and conservation

In the proximity of protected areas, the living conditions of individuals are particularly shaped by the interplay of social and ecological dynamics, emphasizing the significance of socioecological relations in these specific contexts compared to other regions globally. Living conditions refer to the quality of life and wellbeing of individuals. Living conditions are linked to the following measurements: human development (healthcare and education) (Ülengin et al., 2011), livelihoods (White & Ellison, 2007), access to resources and cultural and social structures (Gough, 2004). It is believed that these variables are necessary to measure the living conditions, in turn people's wellbeing on the island.

2.4.2 Restructuring around protected areas

In the context of protected areas, common challenges are related to displacement, loss of traditional livelihoods, unequal distribution of benefits, and limited involvement in decision-making processes about the protected area (Scherl, 2007; West et al., 2006). If the local communities residing in natural parks are not completely removed, efforts are necessary to

educate and discipline them (Neumann, 2004; Adams and Hutton, 2007; Zimmerer, 2009). The unequal distribution of environmental benefits and burdens in protected areas becomes evident through the economic and cultural reorganization of rural areas. According to political ecologists Vaccaro et al., (2013), the protection of natural areas leads to a reorganisation across various domains, namely administrative, infrastructural, demographic, and economic. The administrative restructuring primarily involves establishing jurisdictional borders for the natural environment. Infrastructural changes are directed towards the development of necessary services, housing, and roads to manage and cater to tourism. Demographic changes relate to shifts in the local population, while economic restructuring focuses on transforming the productive structures of the area to align with the service-based economy. These changes are rooted in the Western ideology of separating nature and society. As a result, rural areas undergo significant economic and cultural transformations, causing cultural conflicts and marginalization of local communities' access to land and resources. Additionally, these 'new' rural areas add value to agricultural production by marketing to organic and traditional food sectors and incorporating a natural and cultural brand (Piermattei, 2013). The protection of natural areas involved reorganising rural regions based on urban social and cultural values.

Protected areas became new poles of attraction and development, resulting in a process of gentrification and selective urbanisation (Prados, 2009). Where gentrification describes the situation of wealthier individuals or businesses moving into a neighbourhood, often leading to rising property values, displacement of low-income residents, and changes in the area's character and culture (Lees, 2015). Selective urbanisation, on the other hand, refers to the intentional development and investment in specific areas of a city, usually driven by economic or political interests, while neglecting other neighbourhoods, which can result in uneven development and exacerbate socioeconomic inequalities. The increase of the value of land, and of ways of life often results in cultural conflict or in marginalization of locals and their access to the land and its natural resources. The process of environmental gentrification extends beyond national boundaries. Globally, there is a widespread desire for nature as a limited and highly prized resource, leading to the increased demand for peripheral rural areas by affluent urban populations. As a result, these rural areas become interconnected and incorporated into regional, national, and international management systems and markets (Godoy, 2001; Peters, 1994). However, this integration does not occur without significant economic, infrastructural, and cultural transformations taking place (Castells, 1996).

2.4.2.1 Cultural and sociocultural dimension

Additionally, conservation efforts intersect with cultural and sociocultural dimensions with local communities. Several studies have emphasized the incorporation of cultural identity, and community wellbeing into conservation practices (Agrawal, 1995; West, 2006; Hill, 2016). In these studies, emphasis is placed on the necessity for varied cultural values and practices to be recognized and respected in conservation approaches, avoiding the imposition of external conservation narratives that can jeopardize the cultural integrity and self-determination of local communities. In the context of protected areas, a Western model of conservation is imposed on local communities. The Western model of conservation institutionalizes the separation between human and nature. Therefore, it is highly probable that the perception of local communities and their relationship with nature will undergo significant changes. In this context, alienation theory examines the consequences arising from one of these changes: how social structures and systems can lead to a loss of control, identity, and meaning in people's lives. The theory is rooted in Karl Marx's work, alienation of labour, who examined the effects of capitalism on workers and their relationship to the means of production. According to Marx, workers under capitalism experience alienation from the products of their labour, the process of work itself, their fellow workers, and their own human nature (Byron, 2016). In his work, he highlighted the concept of class conflict, as the experience is a "loss of freedom", therefore Fromm stated:

"That condition when man does not experience himself as the active bearer of his own powers and richness, but as an impoverished 'thing' dependent on powers outside of himself." (Fromm, 1955, p. 59)

This concept by Marx can be linked to the Western ideology that nature and society are separate entities. This Western ideology can result in the alienation from nature. In other words, locals can feel disconnected from their surroundings. As a result, humans no longer perceive themselves as part of nature and learning from the complexities of it, they rather perceive themselves as separate entities that dominate and exploit it (Vogel, 1988). The inclusion of nature in the global market further strengthens this disconnection and exploitation and reinforces the commodification of nature (Büscher, 2022). Therefore, scholars often suggest re-establishing a harmonious relationship between humans and the natural environment and creating an equitable relationship that respects the inherent value of both (Dickens, 2002; Vogel, 1988). In the context of environmental justice, alienation theory can be applied to explore how marginalized communities may experience disconnection and estrangement from their natural environment (Sperber, 2003).

Within the context of conservation, it is important to consider how the unequal distribution of benefits, limitations on natural resource use, restrictions on traditional livelihoods, and the influx of tourism can contribute to the alienation of local communities. These factors, when examined together, shed light on the complex dynamics that impact the relationship between conservation efforts and the well-being of communities residing in the area. While conservation efforts may bring economic benefits through tourism and ecosystem services, these benefits are often not equally distributed among local communities. Instead, they are often captured by external stakeholders, such as tourism operators or large-scale conservation organizations. Meanwhile, the costs, such as restricted access to resources or displacement, are borne primarily by the local communities. This is because the protected areas lead to restrictions on resource use and land rights, affecting the livelihoods of local communities. Traditional activities such as hunting, fishing, and gathering may be prohibited or heavily regulated, limiting the economic opportunities for these communities. This can result in a loss of income, food insecurity, and increased dependency on external sources for sustenance. When a protected area is established, it is likely to attract some form of ecotourism that utilizes its natural resources. This mutual connection highlights the interdependence and coexistence of protected areas and ecotourism, with each contributing to the presence and development of the other. Besides serving as a source of income, it fosters social connections that introduce nature and culture to previously untouched regions and, facilitates the influx of visitors from distant locations. As a result, it introduces new perspectives and utilization practices to existing socio ecological landscapes while establishing new boundaries (West et al., 2006).

3. Methodology

This chapter starts with discussing the initial choice of the study area. Next, the chapter explores the data collection and analysis methods that were used during the fieldwork. This is followed by the limitations and risks of the research including a reflection of positionality.

3.1 Study area

This research was carried out among residents of the most populated island of the Galapagos, Santa Cruz. In total Galapagos holds 33,042 residents, of which 15,071 live in Santa Cruz (Herrera, 2022). In Santa Cruz, most of the people live in the urban area of Puerto Ayora, others live in the rural highlands of Bellavista and Santa Rosa. Examining the most populated island provides a comprehensive overview of how the local community is navigating and addressing the challenges posed by conservation policies. Additionally, the location was selected based on the unique setting of biodiversity, making it an interesting location to research how conservation policies shape residents. The complex relationship between its human population and the rare environment and species offers a compelling context for examining how conservation efforts influence both human-nature relations and community wellbeing.

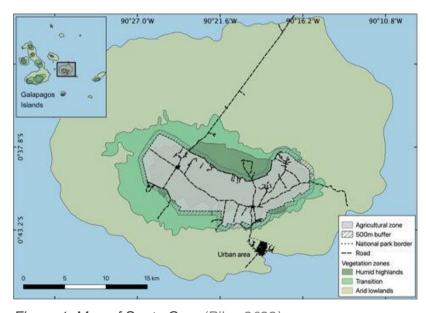


Figure 1: Map of Santa Cruz (Pike, 2022)

3.2 Data collection

The data collected for this research is qualitative in nature. In order to examine how conservation policies shape living conditions, a combination of informal conversations, observations, and semi-structured interviews were conducted.

3.2.1. Exploratory research

The first weeks of the fieldwork period were focused on exploratory research. Through informal conversations I aimed to better understand locals and their surroundings. Also, I focused on refining the research design and creating concise concepts based on real-life knowledge and circumstances. Furthermore, observations helped to enable descriptions of everyday experiences (Emerson, Fretz, & Shaw, 2011), and analyse how political and economic factors influence these experiences. In this way, I was able to explore interactions within the society to learn more about key insights, stakeholders and daily acts within the research site. Observations were mainly focused on the interactions and attitudes individuals had towards nature, each other and the conservation policies. During my fieldwork in Santa Cruz, I stayed with a farmer in the highlands for a few days. While working at the farm, I actively participated in daily activities and had the opportunity to engage with new people, learn about their thoughts, opinions, and lives on the island. Additionally, I had informal conversation with people I met on the streets and those I met through people I knew while I was staying the city of Puerto Ayora.

In addition, the research aimed to observe how local communities responded to the transformation in economic growth and tourism impact, not only on the island's locals but also on the towns and overall infrastructure. One can readily perceive the influence of the tourism industry by walking through the area and seeing the many tourism shops, visitors and tourist vendors. Observing life and wildlife in the highlands provides valuable insights into various conservation efforts, local agricultural-based livelihoods, and the impact of tourists on popular wildlife spotting areas (see example of observation in appendix 2). More specifically, it was analysed how individuals' attitudes were towards the rules made by the national park (GNP), expressions and type of interactions individuals have towards the natural environments and their overall connection with nature. For example, the constant presence of park rangers patrolling and safeguarding the areas further implies ongoing institutional conservation efforts, as they interact with both tourist and locals. Also, I participated in events coordinated by NGOs and governmental entities that aimed to foster sustainable practices. Most of these events were organized on 'pelican bay' square and aimed to increase sustainable awareness among tourists and residents. For example, an event about I attended food waste (see flyer in appendix 3). During my time as an observer, I had the opportunity to witness the daily lives of many residents and interact with various community members who hold significant roles. By attending local community events, and sharing meals and activities with residents, I was able to closely observe the interactions between tourists and locals on a daily basis. These observations were conducted in different areas on the island: Puerto Ayora (urban), Bellavista (rural) and Santa Rosa (rural). Since Puerto Ayora is the most populated area of the island, observations were mainly done here. Observations were mainly done in the tourist centre where tourists and locals interact and reside, as well as the suburbs, which are inhabited solely by locals.

3.2.2 Semi-structured interviews

In order to develop a deeper understanding of the residents and industries on Santa Cruz, I gathered data from various residents, such as those employed in tourism, fishing, and agriculture, using semi-structured interviews. Additionally, interviews with community intellectuals such as the priest and a high school teacher were conducted to explore the dominant ideas and values shaping the community (Gramsci, 2011). Semi-structured interviews were used since it allows the researcher to delve more deeply into valuable information (Hennink, Hutter, & Bailey, 2020). The interview questions are based on the framework provided by Vacarro et al. (2013). This political ecology framework categorizes changes communities experience in four different dimensions: administrative, demographic, economic and infrastructural. The questions primarily focused on individual livelihood choices, their experiences of living on the island in recent years compared to before, and how the presence of protected areas potentially impact them. The purposive sampling technique was used to select interviewees representing different sectors, livelihoods, age and time spent on the island. Additionally, respondents were recruited through a snowball effect, with initial contacts leading to recommendation for other contacts (Knott et al., 2022).

Interviews were carried out in both Spanish and English. Although some participants spoke English, it was noticed that residents could express their experiences better in Spanish since their English was often limited. Therefore, I decided to conduct most interviews in Spanish. During most of the Spanish interviews, I was accompanied by a local who spoke Spanish and English in case there was something I did not understand. The interviews were conducted mostly in people's homes, at times most convenient to them. In total, I conducted 18 semi-structured interviews. An overview of the respondents and their characteristics can be found in Table 1. The diverse group of participants include people from the tourism industry, fishing community, artisan (associations), agriculture, naturalists, the church, government planification, education, and conservation employees working at NGOs and GNP. The interviews were conducted with both participants born on the island and immigrant participants

who have lived on the island for varying periods of time, ranging from 8 months to 45 years. To address issues of informed consent, respondents were asked for permission to use the interviews and recordings for the research both before and after the interviews were conducted.

3.3 Data analysis

The primary focus of the exploratory research analysis was on the notes derived from observations, informal conversations, and my fieldwork journal. In appendix 2, an example of fieldnotes is shown. The notes were organized into themes centred around politics, economics, conservation policies, and cultural values. This process involved identifying patterns and connections between the data to create a more comprehensive understanding of the research topic. Additionally, the data collected from semi-structured interviews was analysed using qualitative data analysis techniques. This involves a systematic process of coding, categorizing, and interpreting the data to identify key themes and patterns that emerge from the data. To facilitate the analysis process, the recorded interviews were transcribed, and Spanish interviews were translated by the author. The English transcriptions were analysed with the help of NVivo. NVivo is a software program designed for qualitative data analysis. The program was used to organize, code, and analyse the interview transcripts in order to identify patterns, themes, and relationships. Initially, deductive coding was employed to analyse the transcripts. Deducted coding includes applying the predetermined categories like the livelihood's assets, economic and political factors influencing living conditions and humanenvironment relations. The conservation analytical framework provided by Vacarro et al. (2013), including the administrative, demographic, economic, and infrastructural restructuring used in the interviews were linked to the livelihood capital assets, economic and political factors. Afterwards, an inductive coding strategy was applied to study patterns, themes, and categories that were not initially captured by the predetermined codes. This enabled a more flexible and exploratory investigation.

3.3 Conceptual framework

Socioeconomic change in societies is shaped by the complex interplay between ideas, institutions, and power dynamics shaping a local community (Gramsci, 2011). For this reason, it is crucial to carefully consider the integration of the market and the state (comprising the economy and politics) as well as the significant cultural changes that occur during major social transformations (culture) (Vacarro et al., 2013). Therefore, this study adopts a political ecology framework to examine the potential living condition outcomes of the conservation policies on

residents of Santa Cruz (figure 2). The political ecology framework's primary focus is on the interactions between nature and society. It identifies and explores power relation between various actors, institutions, and stakeholders. The framework can be essential for determining the uneven power relations between players, allowing one to adequately explain the unequal distribution of access and control over environmental resources. The claim made by Harvey (1993, p. 25) that "all ecological projects are simultaneously political-economic projects and vice versa" is acknowledged when using this paradigm. Political and economic decisions regarding conservation thus have a significant impact on the rate and magnitude of positive and/or negative consequences on communities. Exploring how the political and economic factors influence society, in turn living conditions, aims in fostering awareness and appreciation of how diverse institutions, actors and stakeholders, needs and perspectives are recognized and incorporated into the management of protected areas.

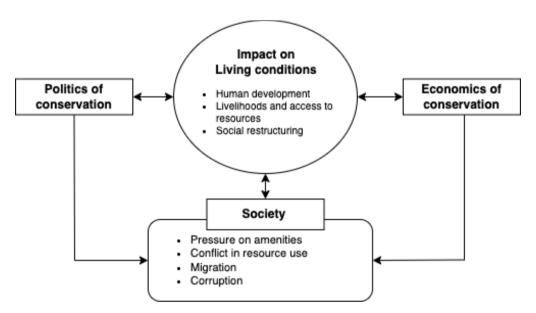


Figure 2: Conceptual model of political ecology framework by Sarah van Druten

3.4 Limitations and Risk of the research

The findings of this research are limited by several factors. Although some participants spoke English, the language barrier could pose challenges since the main language spoken on the island is Spanish. To address this, I arranged for a local resident to assist with some of the interviews. While having an additional person may add an extra layer to the communication process, it was ensured that the interviews were conducted accurately and without any misunderstandings. Moreover, the ability to discuss the topics in their native language helped to enhance the comprehensiveness of the answers and facilitate a deeper understanding of

the topic (Becker, 1996). Secondly, the limited time frame and economic resources constrained this research to a specific protected area, rather than comparing all the areas in Ecuador. This limitation may affect the generalizability of the findings to other areas, particularly in the context of this unique location. Yet, this research still provides valuable insights into the specific area studied. Unfortunately, I was unable to interact with participants from current political institutions, which could exclude valuable insights and diversity of experiences. Therefore, potentially overlooking critical aspects that contribute to the effectiveness and impacts of conservation policies on living conditions. Incorporating this perspective would have provided findings about the current challenges government entities have to deal with and the importance and underlying reasons for implying these policies. This could have been achievable with additional time and greater economic resources. The perspective could have provided a more holistic view on how political actors influence the environment and living conditions of locals. As a result, this limits the generalizability and depth of the findings. However, among the residents a wide variety of stakeholders from different backgrounds are included representing a broad range of perspectives. For example, people who have worked closely with government authorities. Still this research aims to focus on the locals' perspective of conservation policies.

3.4.1 Reflection of positionality

The nature of qualitative research, which is subjective, necessitates a thoughtful consideration of the researcher's position as well as that of the participants and how these factors influence the data that is collected (Hennink et al., 2020). First and foremost, my cultural background and assumptions could have an impact on the research. Although I prepared on cultural practises beforehand, as a young woman from the Netherlands, it was clear I was not from the area. However, I noticed local people were open and willing to participate in talking to me both informally and during the interviews. Still, from the perspective of the participants, cultural differences may have provided an issue in terms of trust and giving accurate information. In other words, there may be a cultural distance between myself and the participants in this research. Residents may have given different information in how their attitude towards the natural environment is, creating a more optimistic perception of it. In order to make the participants feel at ease during the interviews, they were mostly conducted in their homes, or other preferable locations. To further address this, I engaged in informal observations and conversations to gain a better understanding of the local culture and the participants' perspectives. Yet, it was noticed during the interviews that people were not afraid to provide their critical opinion about the current political and economic situation on the island. Throughout the research process, I continuously reflected on my positionality to ensure that the findings are not biased. Overall, these limitations do not negate the value of the research findings, but rather highlight the importance of acknowledging and addressing potential biases and limitations in the research process.

Table 1: Participants of semi-structured interviews

NR.	Code	Occupation	Duration on island	Date	Duration interview
1	T1	Tourism industry	8 months	14-3-2023	26:04
2	T2	Tourism industry	20 years	18-3-2023	28:24
3	Т3	Tourism industry	22 years (born)	19-3-2023	30:00
4	NP1	National Park Guide	26 years (born)	28-3-2023	24;30
5	NP2	Conservation researcher	29 years (born)	3-4-2023	34:08
6	NP3	Former Research Naturalist	45 years (born)	3-4-2023	50:00
7	NGO1	Employee NGO	42 years (born)	4-4-2023	27:36
8	F1	Fisherman (former president cooperative)	30 years	22-3-2023	40:43
9	F2	Fisherman son & agriculture student	26 years (born)	15-3-2023	56:40
10	F3	Manager fisherman cooperative	28 years	28-3-2023	48:55
11	E1	Former high school teacher	34 years	29-3-2023	1:06:25
12	E2	Volunteer in conservation awareness education	15 years	3-4-2023	23:06
13	A1	Artisan (president artisan cooperative)	20 years	17-3-2023	37:54
14	A2	Craftsman	33 years	24-3-2023	31:42
15	A3	Agriculture + tourism	27 years	28-3-2023	31:24
16	P1	Priest church	25 years	23-3-2023	48:26

17	C1	Store Employee	5 years	21-3-2023	26:43
18	DP1	Development Planification	12 years	27-3-2023	59:38
		employee			

4.REGIONAL FRAMEWORK

This chapter will give an overview of the geography, environment, political, and societal situation of Santa Cruz and the Galapagos in order to better comprehend the framework in which the conservation policies take place and in which residents currently live.

4.1 Geographic context

The Galapagos Islands, comprising of 13 islands, are located in the Pacific Ocean at about 972 km from the shore of mainland Ecuador. Santa Cruz is situated in the central region of the archipelago and is the most populated island. The island itself spans an area of 992 km2 and is predominantly volcanic in nature, rising to about 900 meters above sea level. Of the total land area on Santa Cruz, about 707 km2 are designated as protected, forming a continental surface area that is safeguarded from human activities (figure 4). This protected area is separated from the non-protected area by a buffer zone covering 152 km2. The remaining portion of the island is available for human settlement. Rural areas, including Santa Rosa and Bellavista, in the highlands are more centred towards agriculture practices. This is because of the humid landscape and soil conditions. Situated on the southern coast, Puerto Ayora serves as the primary urban centre and tourist hotspot of the island (Herrera, 2022).

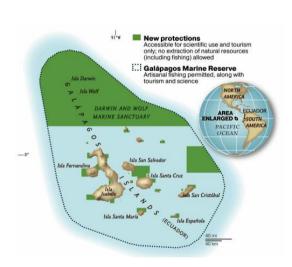


Figure 3: Galapagos Marine Reserve (Galapagos Conservation Trust, 2023)



Figure 4: Santa Cruz, land use (Sierra & Feng, 2018)

4.2 Protected areas

In order to protect the archipelago's unique ecosystem, the Ecuadorian government established the Galapagos National Park in 1959, covering 97% of the land area. Later on, the islands were designated a UNESCO World Heritage Site in 1978 and a Biosphere Reserve in 1984, emphasizing the need for balancing conservation and sustainable development. To put further instructions on the island, the Galapagos Special Law (GSL) was created in 1998. This law implemented severe restrictions to immigration, new restrictions to mitigate invasive species, and created the Galapagos Marine Reserve (GMR) (figure 3). In 2022, the marine reserve was more than doubled to 133,000 km2. Over the years, the Galapagos Islands have faced challenges, including invasive species and habitat degradation. To address these issues, extensive eradication programs have been implemented to restore the islands' ecosystems. The Galapagos National Park Service, the Charles Darwin Foundation, the government and local communities play vital roles in conservation efforts. They focus on habitat restoration, scientific research, environmental education, sustainable tourism practices, and community engagement (Galapagos Conservancy, 2023). Today, the Galapagos Islands remain a globally recognized centre for conservation and scientific research. These efforts aim to protect the islands' unique biodiversity and maintain the delicate ecological balance. With ongoing conservation initiatives and collaborations among various stakeholders, the Galapagos Islands continue to serve as a living laboratory and a testament to the importance of environmental stewardship.

4.3 Governance of protected areas

The province consists of several inhabited and uninhabited islands and is administered by the Galapagos Governing Council (Consejo de Gobierno de Galapagos). However, the first permanent institutional settlement on the island was The Charles Darwin Foundation (CDF), a Belgian scientific institution. The Galapagos National Park (PNG) established its offices in 1969, while the Autonomous Province of Galapagos and local municipalities were created in 1979. In 1959, the CDF was assigned the task of determining permitted and restricted uses of the protected area, such as scientific research and tourism. The Ecuadorian government entrusted the management of tourism to the CDF and multinational tour operators in order to limit the threat of temporary visitors. The islands are designated as a protected area and a global environmental asset by UNESCO, enabling international scientific governance alongside Ecuador's symbolic and partial economic control. Promoting the Galapagos Islands as a tourist destination aimed to boost their reputation and reap multiple benefits, including attracting researchers, tourists, and securing donations and international sponsorships

(Celata & Sanna, 2012). However, in the 1990s concerns about the Galapagos' unsustainable growth paradigm led to its listing on the 2007 List of World Heritage Sites in Danger. The scientific community suggested management approaches that the local government put into practice to solve social-environmental challenges. This event led to an expansion of the human-nature system and underscored the significance of incorporating this perception. The management of protected areas and human activities has benefited greatly from the conceptualization of the Galapagos as a "complex human-nature adaptive system," which has also been incorporated into the creation of rules and management guidelines to address human-environment interactions holistically (Gonzales et al., 2008). Accordingly, human activities are managed under a new legal framework established by GNP authorities, the Galapagos Governing Council, and the Inter-institutional Management Authority (AIM, Spanish acronym). as a result of changes to the GSL that took effect in June 2015 and followed national policies regarding territorial management (Llerena et al., 2015). The Management Advisory Council (PMAC, Spanish acronym), which replaced the Participatory Management Board (JMP, Spanish acronym), where decisions were made by consensus, was the vehicle for this new strategy's consultative orientation. The Ministry of Environment (MAE), in conjunction with the Galapagos Governance Council (CGREG, Spanish acronym) and other public organizations like the GNP, make final decisions under the new governance model. In other words, national and local level administrative structures are combined.

At the national level, the political landscape in Ecuador has witnessed alternating periods of political stability and challenging transitions. The Ecuadorian court has long been plagued by political interference, inefficiency, and corruption. At present, Ecuador finds itself amidst a political crisis as the newly elected President Lasso attempts to navigate the changes implemented by his predecessor, Rafael Correa, who was in charge the past decade (HRW, 2022). Social inequality, economic worries, and issues with resource management are only a few examples of the variables that have an impact on the political climate.

4.4 Human dimension of conservation in Galapagos

After the discovery of the Galapagos Islands in 1535, the islands were exploited by whalers and pirates for their resources which resulted in the introduction of non-native species and ecological disturbances. Due to the physical and climate conditions of the islands, there was limited permanent presence on the islands for several decades. It was not until Charles Darwin's visit in 1835 that the islands gained international attention, because he made ground breaking observations that contributed to "the Evolution Theory". As time passed, various groups of people, particularly Europeans, began to engage in the colonization of several

islands. As collectors of natural products expanded and the island's population grew, concerns about the islands' future started to arise. At the time the Galapagos National Park was established in 1959, there were merely 500 inhabitants residing there (Black, 1973). This is a crucial step towards conservation and the regulation of human activities. Ever since, the Galapagos Islands have been referred to as the "pristine sanctuary of Darwinian nature" by naturalists, scientists, and the tourism sector (Hennessy & McCleary, 2011). Due to this advertising, the islands are now well-known as a place for nature tourism, which is now a major factor in socioeconomic and demographic growth (Quiroga, 2014). By 1974, the population had increased to 1,577, including 197 individuals engaged in farming and 198 people employed in other sectors. Migration from the mainland to Santa Cruz gained momentum from the 1980s onwards. In 1982, the registered population rose to 3,154, with 253 individuals working in agriculture and 1,098 in the public sector and services (INEC, 1984). By 2015, the population had reached 15,071 inhabitants. The Galapagos Islands are experiencing a yearly population growth of approximately 6.4%, surpassing the growth rate of 2.1% observed in mainland Ecuador. Population growth in Santa Cruz is even greater due to being the economic and tourist hub of the Galapagos (Epler, 2007). This increase can be attributed to a combination of natural population growth and migration to the islands, which are becoming increasingly appealing as a desirable location for both employment and residency (Discovering Galapagos 1). From the 1970s onward, the Ecuadorian government and private companies actively promoted (eco)tourism as an alternative economic activity. This led to a significant upsurge in tourist numbers, growing from 4,500 in 1970 to 17,000 in 1982 and a staggering 275,817 in 2018 (Herrera, 2022). Therefore, tourism plays a crucial role in the economy of Santa Cruz, as it accounts for 80% of the income of people and contributes to the island's economic growth. Apart from tourism, other economic activities on Santa Cruz include agriculture and fishing. However, agricultural land has witnessed a gradual abandonment as the number of farmers has decreased from 700 in 1998 to 150 in 2012 (Celata & Sanna, 2012). These farmers face challenges in competing with imported products from the mainland and limited resource availability.

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¹ https://www.discoveringgalapagos.org.uk/



Figure 5: Mural artwork showing four pillars contributing to development located at 'Plaza Pelican Bay'. Photo: Sarah van Druten, 26-3-2023

The image depicts the past, present, and future of Santa Cruz Island. It encompasses the essence of four important sectors that have shaped and propelled the island's development: fishing, agriculture, tourism, and science. The mural recognizes the historical significance of the island's early settlements, which revolved around fishing and farming. These sectors laid the foundation for the local economy and overall growth of the island. In more recent times, the fields of science and tourism have experienced rapid expansion, bringing about substantial benefits and impactful contributions to both the economic and educational aspects of the island's development. Each of these four pillars is represented in the artwork, symbolizing their individual importance and the harmony in their coexistence.

4.5 Conclusion

This section provided a regional overview of the subject topic by summarizing significant findings from published studies on the environment, societal, and political circumstances of the archipelago. The management of biodiversity conservation in the Galapagos has become more complex due to the intimate interaction of biological processes and human activity. The sustainability of the islands is under threat from overfishing, social and environmental disputes, population growth-driven economic expansion, a booming tourism industry, and weak institutional procedures. New methods to comprehend human-environment interactions have been considered as a reaction to this. The next chapter will give an understanding on how locals are shaped by conservation policies underpinning the political and economic factors by exploring the results of this research.

5. Political ecology of conservation in the Galapagos

In the political ecology framework of conservation, it is crucial to carefully consider the integration of the market and the state (comprising the economy and politics) as well as the significant cultural changes that occur during major social transformations (culture) (Vacarro et al., 2013). Therefore, the first section explores the politics of conservation (state) and the economics of conservation (market). Also known as the political economy of conservation, focusing more on the relationship between political and economic forces and their influence on societal outcomes. In doing so, the politics and economics of conservation will be discussed in exploring how a diverse range of actors is involved in or affected by conservation policies in Santa Cruz. The second section provides an exploration of culture and conservation by including the perspectives and experience held by residents. The analysis will focus on the consequences of conservation policies on basic services, livelihoods and access to resources and the social restructuring.

5.1 Political economy of conservation

5.1.1 International organizations and global community

Global organizations and researchers have been involved in the protection and conservation of the archipelago ever since Charles Darwin visited the Galapagos Islands. The reserve and the Galapagos National Park were established as a result of intense worldwide pressure and with assistance from international conservation-promoting groups (like WWF). It should be mentioned that international support for conservation totals millions of dollars. Consequently, international groups continue to be involved and committed to the conservation effort today by supporting conservation activities, visiting the islands, and keeping an eye on the conservation efforts.

5.1.2 Government authorities

Despite being affected by the international conservation agenda, the Galapagos Islands officially belong to the state of Ecuador. Which establishes the rules and regulations governing the islands. Institutions on the Galapagos are primarily dedicated to preserving the renowned nature and wildlife of the archipelago. With a strong focus on environmental conservation, these formal bodies, including the Galapagos National Park (GNP), play a crucial role in enforcing laws and regulations to safeguard the unique ecosystem and prevent disruptions.

The creation of the GNP reserve in 1959 was a response to concerns about the degradation of the islands' unique ecosystems and biodiversity, which were being threatened by human activities such as fishing, hunting, and the introduction of non-native species. The primary goal of GNP is to preserve the biodiversity of the archipelago, and to achieve this, it enforces strict regulations that impact the way local inhabitants interact with their environment. Since 1998 the Galapagos are ruled according to the Special Law of Galapagos (GSL) (Registro Oficial No. 278, Law 67, Ecuador). The primary aim of the law was to protect the marine resources of the Galapagos from commercialized and illegal fishing. This law combines conservation and social policy goals and includes provisions to address issues such as uncontrolled growth of the tourism industry and immigration. Additionally, the law was introduced to promote partnership between the government and the non-profit sector (Heslinga, 2003). As can be seen in figure 6, GSL mainly focuses on environmental protection, sustainable tourism, fishing regulations, land-use planning, invasive species management and waste management.

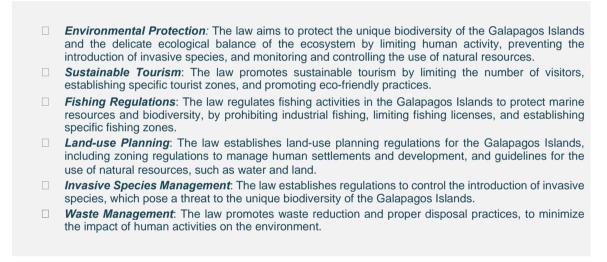


Figure 6: Summary of main aspects of the Galapagos Special Regime (Ecuadorian Government, 2020)

According to research that reflects the perceptions of local authorities, limiting fishing licenses to Island residents is one of the most effective strategies (Hoyman et al, 2013). Yet, policies that were viewed as ineffective are: funding of collaborative research, funding research on sustainable development, the promotion of entrepreneurship through native crafts, and the use of quarantines. A development planner who was involved during the planning process in the 1980s, emphasized the inefficacy of the law, with the following statement:

"But the law [GSL] didn't go that way, that way. There was never an awareness, a way to go, to go thinking that in that way you could raise people's awareness, but rather on the contrary, to see what trade-offs they want in exchange for these restrictions. And there were some. This is curious because there were certain demands from the population to be compensated for these restrictions, to such an extent that there was a moment when the law said that if you are a Galapageño [resident Galapagos], then you could partner with someone who wants to invest capital for a tourist enterprise. And that society, like anywhere in the world, is according to the laws of economics. Capitalist, you have to invest in proportional parts of the capital. So, if I want to be a partner and I want to have half of the capital." (Translated from Spanish, 27-3-2023)

This statement draws attention to the GSL's implementation and implies that it did not place a strong priority on educating the public about environmental issues. Instead, it appeared that negotiations for trade-offs and rewards for the imposed limitations were the focus. As a result, as the limits tightened, people demanded more and more compensation. This illustrates a capitalist philosophy in which capital is invested in a partnership in proportional portions. The development planner emphasized that the lack of communication regarding the importance of conservation policies from the government, have resulted in conflicting situations and resistance. Resistance against these policies include construction parts of their houses without permissions, throwing garbage on the streets instead of paying their garbage fees and visiting protected areas after closing hours. Therefore, he advocates for an approach in which locals are educated on the importance of this preservation. They assert the need for "an environmental education that does not come from here to the population, but an environmental education that is generated within the population" rather than coercive laws and regulations.

While these regulations help protect the Galapagos ecosystems, they also have an impact on the livelihoods of many residents, changing the way they earn a living. The local population on the island has been impacted by the inadequate implementation of sustainable development measures. Consequently, tension arises between the conservation goals of the park and the needs and aspirations of the human communities. The creation of the Galapagos Marine Reserve has restricted fishing practices and locations, causing fishermen to work on larger boats and fish in areas further from the island, which is more costly and less sustainable (Ecuadorian Government, 2020). This has led to a decline in the fishing industry, which many locals blame on GNP's conservation efforts. These regulations have altered the way of life for farming and fishing communities and have left many feeling like they are forced into a service-based economy. As a result, some inhabitants don't support conservation policies because they associate nature's success with the demise of their former livelihoods.

Overall, the control exercised on the islands was emphasized in the interviews, not only within protected areas but also in human-inhabited areas. A man who is involved in both agricultural practices and tourism, and who lived on the island for 33 years said:

"There is a lot of control here. It's like every car you see here has a permit from the government to be here, so every activity you go out to do somewhere there is a permit. In this case the National Park controls many of these things, like in areas of the National Park and in areas of the town." (Translated from Spanish interview, 28-3-2023)

Other respondents highlighted the political control in general: "Everything revolves around control, so that those who politically lead have greater benefits and prosper themselves". According to this statement, power dynamics play a crucial role in shaping the distribution of benefits. The statement implies that people in positions of political leadership exert control in order to gain advantages for themselves, implying an unequal distribution of power and resources.

Furthermore, the fact that local government representatives in the GNP are frequently chosen from national government organizations was constantly emphasized throughout the interviews. This might cause a gap between the decision-making procedures and the demands of the local population. Many interviewees voiced a particular viewpoint, arguing that the management of the islands should be in the hands of people who have grown up on the island and have strong ties to the neighbourhood. A retired naturalist who grew up on the islands talks about this and added his concern on the loss of voice of long-term islanders.

"You know, by this point. Now, if we raise our hands up, we can't even elect our own mayor, we are minority[..] They just came, you know, and as we have to be welcoming. Now the mayor, the one is today still wanting this not from here. He's not from here. He was he was not born here. He was married a girl from Galapagos" (3-4-2023)

The statement suggests the lack of autonomy that residents may feel under pressure to accept decisions made by outside parties without having much autonomy or influence over governance issues. The absence of representation may cause a widening gap between the community's opinions and the decisions made by the government, as well as the national authorities managing local issues, potentially impeding conservation and sustainable development initiatives. Therefore, residents, especially those who have stayed on the island for a longer period, feel that the island should be managed by locals. Locals, in their opinion,

would be better able to make decisions that prioritize the needs and sustainable development of the Galapagos Islands since they would have a deeper awareness of the region's problems.

One respondent working in the tourism industry highlighted another issue relating to the national focus of the political economy by stating: "all the money doesn't stay in Galapagos, all the money goes abroad and it goes to the mainland. Because the government itself is national." He later added that the mayors can't do anything about it because they are controlled by big tourism companies who are powerful. Another respondent, a craftsman who have been on the island for 33 years, said: "All the politics, all the laws are made from the outside, with people who have other knowledge, other capacity, other influences, and who have money for ships, for hotels". He emphasizes the role of external actors with varying knowledge, capacities, and financial resources in creating conservation-related policies and laws. It implies that these external factors influence the conservation political economy, perhaps leading to decisions and policies that may not fully accord with the interests and viewpoints of local people. He also emphasized the instability of institutions, with changing governments and the conflicting policies in conservation and human development.

Furthermore, this research emphasizes the prevalence of corruption and instability of government authorities. Respondents highlight the unequal distribution of revenues and government spending as a direct result of these issues. Government funds are mainly generated from taxes and the entrance fee of the Galapagos. The \$100 entrance fee all tourists must pay upon arrival on the islands is aimed at benefiting the development of the region. The GNP receives a huge portion of the charge, namely 40%, the Galapagos municipalities also receive a significant portion of it (20%)(see figure 7). The significant part given to the GNP, and other stakeholders like Ministry of Environment, the marine reserve and pest control, highlights the importance placed on conservation efforts and gives the park a lot of control over plans and initiatives. While the national government receives most gains and hence influence through the Ministry of Environment, the National Institute, and the GNP, local governments acquire some authority through their part. By allocating a significant portion to the local government, there seems to be an effort to empower and involve local authorities in managing tourism revenue and addressing community-specific requirements. However, a fisherman son who grew up on the island, talked about the problem on the management of funds gained from the entrance fee. He said:

When you come in here and you pay \$100, you pay. Before, when, when before there was a change in the law, then all 100 \$ stayed here in Galapagos. Imagine, that is quite a lot of money. Millions. And what happened to that money? I mean, corruption. The end. Because when there

was money, things weren't done properly. That is, they didn't fight for the people. (Translated from Spanish interview, 15-3-2023)

The respondent states that corruption emerges as a central issue, indicating the mismanagement of funds. This could be linked to powerful actors exploiting their positions for personal gain, undermining the interests of the local population and conservation initiatives. The statement explains that when money was at issue for human development purposes, certain groups or individuals put their personal interests ahead of the wellbeing of the people. Another respondent gave an example of a corrupted project for developing roads on the island: "Roads should be made of good material and really. Corruption has made that out of 2 million they invest only 500.000 \$ in roads with very bad materials. Corruption is everywhere." Overall, it can be concluded that corruption on the island have contributed to the lack of development of living conditions. Since the available budget for was not managed properly. Furthermore, a respondent who grew up on the island and is working in the tourism industry said: "Now the new government [new president of Ecuador] is trying to remove corruption and try to bring in new people to help control, to lead to an improvement, but there is always going to be corruption and that will never stop. That is real." This statement underscores the persistent challenge of national government corruption that influences the local conditions. While the new government aims to address corruption and introduce fresh perspectives, the enduring nature of this issue suggests its deep-rooted presence in the political system.

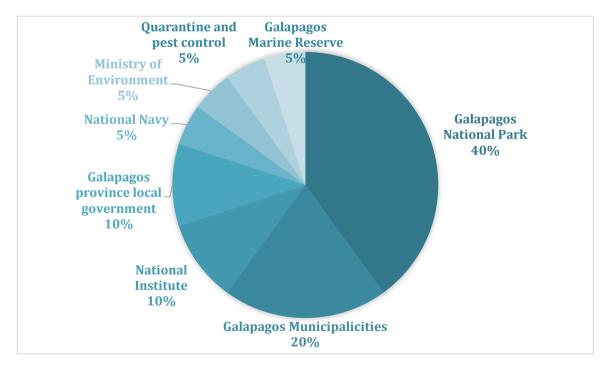


Figure 7: Distribution of earnings from entrance fee (Drumms, 2005)

5.1.3 NGOs

Both National and International NGOs are closely involved in the politics and economics of the natural areas in Santa Cruz. The island hosts several international NGOs as well as smaller local NGOs. The majority of NGOs work in conservation, but there are also a few local NGOs that focus on other aspects of life in the Galapagos. Nevertheless, their limited budget restricts their ability to make a substantial impact (Epler, 2007). Consequently, the primary focus of NGOs and most of international funding on the island is directed towards nature conservation. Therefore, along with governmental authorities, conservation NGOs form a vital network of stakeholders dedicated to the conservation management of Galapagos.

The Charles Darwin Foundation is an NGO and scientific research institution dedicated to the study and conservation of the Galapagos Islands' unique ecosystems and biodiversity. The organization supports research, contributes scientific knowledge, involved in decision-making and aids in the management and protection of the Galapagos Islands in cooperation with the Ecuadorian government, especially the GNP (Lerrena et al., 2015). However, over time the weakened relationship between CDF and the local community can be seen as a result of the organization's preference for conducting scientific research over being actively involved in local organizations and institutions (Reck, 2017). Due to its uniqueness, the Galapagos ecosystem is getting a lot of attention. The media pays close attention to a species that is in risk of extinction all over the world, but especially in Galapagos. However, you rarely ever read or hear about the concerns that the inhabitants confront, such as the lack of medical staff at the hospital, water shortages or droughts. Locals feel that the government and the world community only care about conservation and not the islanders, as a result of the absence of a local population-focused politics. This was highlighted during an interview with a fisherman who talked about environmental activists and NGOs facing fewer restrictions compared to residents who receive penalties for environmental violations. He said:

"He [resident] takes a knife, and he cuts a mangrove branch, they prosecute him and they put him in jail for three years. But a conservationist who is in an NGO comes, goes and builds his house there and cuts down all the trees and does whatever he wants. The owner of the red mangrove hotel comes and takes and knocks down all that are there and they don't do anything to him. The National Park is not a problem, it's a matter of putting in land, taking out land causing a tremendous environmental impact for them, right?" (Translated from Spanish, 22-3-2023)

The political and economic interests of conservation are further underscored by the fact that the work of scientists and conservation organizations is not only focused on preserving the ecosystem in the Galapagos, but also generates millions of dollars annually for the local economy and is a significant source of economic growth (Taylor, 2009). The GNP and foreign non-governmental groups, whose logos are easily recognized by visitors on the islands, are responsible for most of this spending (Mathis & Rose, 2016). The importance placed on conservation economically may cause people to put their own financial interests ahead of the needs and goals of their communities, escalating existing imbalances of power.

5.1.4 Tourism industry

The commercial sector on the island is mainly dedicated to the tourism industry, namely 80%. Revenues generated not only support the Galapagos province, but also contribute to Ecuador's economy. Although the Galapagos islands only received 10% of all international tourists in Ecuador, the total tourism receipts amounted for approximately 55% (Epler, 2007). Additionally, tourism revenues play a crucial role in funding conservation initiatives by providing substantial financial resources (Self et al., 2010; Epler, 2007). Therefore, tourism serves as a vital stakeholder that actively contributes to the financing and support of conservation efforts. Conservation policies are necessary to mitigate adverse effects of tourism and ensuring sustainable tourism practices that minimize harm to the environment. In this context, a respondent highlights the power of the tourism companies, since they provide money for conservation efforts. He said:

"The state does not give a lot of money to conservation institutions. The ones who give them a lot of money are the tourism companies. So, if the institutions receive funds from tourism." (Translated from Spanish interview, 27-3-2023)

Instead of the state providing most of the conservation funding, the tourism industry makes a sizable financial contribution. However, this might imply that in order to keep receiving funds, conservation organisations may be tempted to put the needs and interests of the tourism industry first. This connection with the tourism sector may influence decision-making and resource distribution in conservation programs, potentially creating a power imbalance where the financial interests of tourism overruling other interests. In this context, the president of the artisan association, emphasized the imbalance in benefits of profits gained from the natural environment by tourist activities. He emphasizes the need for the development of living conditions supported by the tourism industry in the following statement:

"The tourism sector is taking advantage of nature. The tourism sector sells nature and has resources and is the most important sector in Galapagos. Of course, but the social part does not exist. They don't invest or they don't, or they are not co-responsible with the environment and society. So I think that the, the tourism company should be concerned that the community is also

trained so that the community also has good access to health services, which will also allow them to guarantee their health, their tourists and their services." (Translated from Spanish interview, 17-3-2023)

Overall, respondents expressed the imbalanced growth of the tourism industry, emphasizing the current state as unsustainable. Particularly considering that it has led to a rapid increase in population that is straining local resources, an increase in economic inequities, and social conflict primarily brought on by job market competitiveness and differences in viewpoints between year-round residents and migrants on the island. Therefore, respondents expressed a critical viewpoint on the economic dynamics of conservation in the Galapagos Islands. A craftsman, whose parents have been early settlers, and have been residing on the island for 33 years, experienced the transformations on the island closely. Given this perspective, he compared the island's economy to a 'Galapagos hen with golden eggs' with the following remark:

"It is like a Galapagos hen with golden eggs that is being squeezed to lay more eggs but they do not feed it and the hen ends up being us who are being plucked. We are the feathers and they are plucking the goose, but Galapagos gives them. So that's how it is true." (Translated from Spanish, 24-3-2023)

Through this statement the respondent is pointing out the exploitation by the island's economy and the imbalance of benefits generated from the island. He expressed that despite the financial contributions, there is a lack of support and investment for islanders. Most opinions among respondents emphasized the benefits received by outside parties. Stakeholders that were specifically mentioned were the national government of Ecuador, international tourism companies (especially cruise ship companies that solely visit the islands without contributing financially to the local economy) and temporary migrants capitalizing on the comparatively higher salaries available in the region.

5.3 Culture and conservation: Local perspectives and social restructuring

Despite the difference among actors, the majority, especially those with power, are in favour of the current conservation policies. Nevertheless, local communities often hold diverse perspectives on this matter due to their reliance on the resources within and surrounding the protected areas (Naughton-Treves et al., 2005). Residents of Santa Cruz are affected by the conservation efforts on the island since they are limited towards a territorial area of only 133 km2 of the total 992 km2 (Herrera, 2022). This priority for conserving the pristine nature of the island, has resulted in the view that human residents of Santa Cruz are not part of this idealized vision. Mainly because external actors have overlooked how long-lasting impacts of conservation are modified to day-to-day activities of residents. Consequently, the interplay between conservation and human development in the Galapagos presents a complex challenge. Numerous local activities were prohibited, and in some cases made illegal, when tourism and conservation were combined in the globalized term of ecotourism. It was marketed as a solution to the Galapagos' conservation disputes. However, the results of this research show that residents feel not only limited by the protected areas, but also feel controlled with regards to the areas they perceive as their living space. Additionally, respondents' main concerns stemmed from the government's priority towards maintaining control over and protecting natural areas rather than other critical issues such as environmental education and raising living conditions. The main challenges that shape living conditions of residents revolve around the conflict of resource use, migration and natural population growth, and pressures on facilities. The next section will explore how living conditions are shaped in terms of basic services, infrastructure, livelihoods and the access to resources, and social restructuring.

5.3.1 Basic services and infrastructure

Municipalities struggle to cope with the rising demand for basic services due to the rapid population growth, falling behind in meeting the increasing needs (Epler, 2007). Basic services and infrastructural development on the island over the past years have been selective towards the areas where tourist come. Although there have been overall developments on the general infrastructure, the poor quality of these have been highlighted. A person engaged in agriculture who also participates in tourism for additional income, expresses this unbalanced development and favoured towards areas visited by tourists. He states:

"The government puts more emphasis on controlling what is natural, what is here as a protected area, but there is no emphasis on educating people in schools that rubbish should not be thrown in the street or how to conserve your area. Also, to be able to say well. Invest in a better standard of living like water.[...] Because there is no clean water. So. There is not that one. That balance. That balance is more tilted towards seeing sites or protecting sites that generate money, in this case in tourism. So, if you go to the National Park and you go to a visitor site, it's in perfect condition. But if you go to a neighbourhood where the infrastructure is not there, it's not even finished or there's the sewage system that it is. I don't think it works. It's a problem." (Translated from Spanish interview, 28-3-2023)

The participant's account of an imbalance is consistent with an unbalanced allocation of resources, with more emphasis placed on safeguarding tourist destinations than on investing in vital infrastructure and public health services for nearby populations (figure 8). National parks may include well-maintained visitor destinations, but the infrastructure and basic services in the surrounding communities is sometimes lacking. A retired naturalist who grew up on the island adds:

"We are still living in a third world when we have the most beautiful islands in the planet [...] people who live here we don't have the right in order to live better or what we don't have the right to drink drinkable water or what there is not there is not why we are blamed just to have sewage problems when there is a people they have been investing millions on getting rid of rats in other islands." (3-4-2023)

Tourist-populated area

Neighbourhood mixed with hotels, restaurants, tourist shops mainly tourist visit. Tourists, locals, business people reside in this area.



Local neighbourhood ' la cascada'





23-2-2023

Figure 8: Contrasting infrastructural development of areas, photos: Sarah van Druten

5.3.1.1 Basic services

Healthcare quality

There are restrictions on healthcare services in Santa Cruz and in the neighbouring islands. Medical facilities are relatively basic, and access to specialized care and medical professionals is limited. Residents frequently need to wait while dealing with health difficulties before a temporary medical visitor comes to the island. In case of serious medical conditions, patients are transferred to the mainland for treatment. The COVID-19 pandemic has emphasized the vulnerability of the healthcare system on the island (Villacis & Carillo, 2013). Almost all respondents highlighted healthcare issues, especially that of cancer and digestive problems caused by contaminated water and high exposure to sunlight due to the island's location below the equator. A fisherman emphasized the priority towards curing a sealion while healthcare for humans is limited, he claimed:

"Here we have a little sealion that came and was run over by a bicycle, not a car, but a bicycle. And guess what? Suddenly, 40 scientists show up to take the little sealion to the United States for treatment on steroids. Here the man gets sick. There is no way to take him even to Cristóbal [other island with better hospital], [...] It's fine to take care, but there has to be a preference for the human being. There shouldn't be a 100% preference for this little animal." (Translated from Spanish, 22-3-2023)

Education and skills

The Galapagos provide educational services to the local population through primary and secondary education. However, due to the small population and limited resources, the range of educational options are more limited compared to larger urban areas. The shift in Santa Cruz's economy towards a tourism-driven model has led to an increased emphasis on English language in education. However, a development planner who played a crucial role in the island's development in the 1980s put forth an argument against this effort. He highlighted a discussion he had during the planning of the island, and especially on preparing the population for locally based tourism, as opposed to relying solely on tourism brought by cruise ships. He talked about a discussion he had planning the island:

"We have to educate the population so that in 12 years we have the first bilingual generation. Nobody asked that question here. No one has. And surely this has been the case since 88, when this law [GSL] was created. [...] this population could already be bilingual. They were able to relate to a tourist activity, to know what locally based tourism is. But time was lost. We are in 2023. The law is 25, 35 years old and absolutely nothing has been done like the one I am giving as an example." (Translated from Spanish, 27-3-2023)

The statement stresses the lack of human development on the island. Mentioning the GSL and the passage of several decades without appreciable advancement shows a gap in the execution of programs intended to promote human development. Therefore, not enough effort has been put into ensuring that the local people have the information and skills necessary to participate effectively in tourism-related activities and gain from conservation initiatives. Consequently, migrants who have better English language skills often secure employment opportunities over long-time locals residing on the island. Furthermore, there is no university located on the Island. However, during observations a university building in disuse was encountered. The building is abandoned due to insufficient capacity of professors (figure 9). Although there is a university on another island, San Cristobal, it mainly hosts international students interested in conservation studies of animals and nature as it is too expensive for residents. For this reason, if people on the island want to study, the parents must send their children to the mainland of Ecuador or elsewhere. In addition to the challenges posed by the cost and logistical challenges of relocating to the mainland for higher education, a former high school teacher underscored the issue of education quality in Santa Cruz. Specifically, one of the significant concerns is that individuals fail to meet the entry requirements due to a lack of adequate skills and knowledge necessary to pass the entrance exam of universities located on the mainland.



Figure 9: Abandoned university campus (blue/ white buildings on the left and right and recreation area with roof in the middle) (Google streetview, Aug 2021)

5.3.1.2 Infrastructure

Since the establishment of GNP in 1959, the island has undergone significant expansion to accommodate the increasing number of tourists and residents, resulting in a higher demand of services, roads, and buildings. Because of Ecuadorian subsidies (obtained from tourism taxes), Puerto Ayora now has more paved streets, businesses, and essential amenities such as electricity, transportation, and fuel (Epler, 2007). Despite the development of infrastructure on the island, almost all the respondents highlighted the poor quality of public services, especially of the water. Pollution and inadequate infrastructure have impacted the water quality, resulting in limited access to clean water for the island's inhabitants (Mateus & Quiroga, 2022). The island's poor infrastructure and lack of adequate sanitation systems also contribute to the issue. As a result, the islanders face serious health risks. Despite developments to the sewage system, respondents assert that water quality has declined over time.



Figure 10: Garbage on the streets at Puerto Ayora, photos: Sarah van Druten, 18-3-2023

Additionally, a notable contrast can be observed between the vibrant tourist hub and the neighbourhood just a few blocks away. The main differences are related to unfinished houses, garbage on the streets and some places without paved roads (figure 10) During the process of observation it was noticed that in Puerto Ayora, particularly in the outlying areas of the town, a significant number of houses remained incomplete. This was not due to ongoing construction work, but rather because the homeowners could not afford to complete the construction. However, it was found that the main reason for this was to evade taxes. Homeowners would construct only the ground floor and live in that area, leaving the second floor with incomplete walls. By doing so, they avoided or reduced taxes since the house was not considered fully constructed. The problem of garbage is related to the fact that all garbage needs to be exported from the island in order to be processed. Therefore, the government charges a fee for each bag of waste that an individual or company disposes. As a result, people throw away

garbage onto the streets. A fisherman's son, who has lived on the island his whole life, explained this by using the Latin American expression "Viveza Criolla²":

"as they say in the 'Viveza Criolla', they don't understand. This term must be believed. It's as if it doesn't matter to me anymore, and I'll take whatever I want. So now, the system of deep garbage collection. So, there are people who, for not paying or who knows what, use cheaper bags, those that are not official, so to speak, and they throw the garbage wherever they want, in the high areas, on the roadsides." (translated from Spanish, 15-3-2023)

The term "Viveza Criolla" refers to a cultural mentality in which people attempt to manipulate or get around laws or norms in order to benefit themselves (Sadow, 2020). In this perspective, it undermines conservation policies for garbage. Even though the government intend to combat these attitudes with signs claiming to not throw garbage on the street (figure 10). Still, this attitude can be a serious obstacle to conservation efforts. The declaration stresses the significance of putting in place a system, including enforcing fines, to combat this conduct and guarantee adherence to waste management policies. The act of resisting the fines can be seen as a manifestation of power dynamics, reflecting how one actor's power or influence interacts with and affects the behaviour of others involved.



Figure 11: Sign at the border of the national park: "!prohibido botar basura, escombros, maleza, excremento de perro!" (translation: prohibited to throw garbage, debris, weeds, dog excrement") Photo: Sarah van Druten, 18-03-2023

² **Definition "Viveza Criolla":** In Latin America, there is a tendency for individuals to engage in certain actions or behaviors based on the belief that it will benefit themselves, even though they are aware it may be detrimental to others, leading to a sense of accomplishment and satisfaction due to the uniqueness and exclusivity of such actions. "if I do this in this way, something can happen

because of it, it will be good for me" (Sadow, 2020)

5.3.2 Livelihoods and access to resources

The availability and accessibility of natural resources for livelihoods in Santa Cruz, are influenced by conservation policies and regulations. In order to keep the islands in their "natural" state, invasive species were to be eliminated, fauna had to be managed, and local agriculture is to be suppressed (Hoyman et al, 2013). Conservation policies may conserve the Galapagos Islands' unique habitats and wildlife. Hence, it restricts activities such as farming and fishing in restricted areas. Particularly given that only a portion of the island is accessible to humans.

5.3.2.1 Access to resources

During this research, I noticed that respondents held a critical view in terms of access to resources. Most of the respondents emphasized the control the GNP has over the island. This can be observed by GNP guides patrolling around the island and correcting people's behaviour in line with the conservation rules. Yet, observations have emphasized that some locals feel like they don't need to comply to these rules. For example, visiting the beach outside opening hours and camping in nature without asking for permission to the government. Many choices require government approval, yet locals perceive this as unnecessary, as they believe they possess the insight to determine what is optimal for a place they call home. During this research, the control on livelihoods was especially emphasized by the fisherman. A fisherman's son emphasized the existence of power disparities over resource access in the context of conservation initiatives, he states:

"For example, the year before, a year ago, they wanted to close Darwin [part of the Marine Reserve] for good because it is a sanctuary, that is, the sanctuary. The thing about the sanctuary is interesting because there were some guys from an NGO [...] In other words, they skipped all the processes of participation, that is, all the real laws, because they skipped all of them, they went straight to the top and the top made him [Galapagos mayor] sign. They convinced him to sign. I'm sure they have money and that he should sign to close as a totally sustainable sanctuary. [...] in agriculture I've never heard that they go and say here you're not going to plant anymore because this is going to be part of the Galapagos Natural Park, [...] so that's why a year ago we went to protest and everything, right." (Translated from Spanish interview, 15-3-2023)

This statement concludes that the decisions were concentrated at the top, and prominent parties with financial resources were able to influence the decision in their favour. The statement also compares the circumstances of the fishing sector to other industries, such as agriculture, where equivalent interventions or limits are not frequently put in place. It highlights

the distinctiveness of the conservation context, where some places are recognized as being crucial for overall conservation, resulting in constraints on resource access and exploitation. Another respondent, a development planner, also emphasized the imbalance in the access to resources and livelihood opportunities: "this proposal to create the marine reserve, those who are restricted are the fishermen, but the tourism sector is indirectly favoured". Fishermen, who rely on marine resources for a living, face restrictions, whereas the tourism industry benefits from the protected environment without experiencing comparable constraints. An additional problem in this regard is that it becomes more difficult for fishermen to capture fish, resulting in increased pricing. However, due to market pressures, increasing the price of fish is not viable. People will buy fish from the mainland if it is too pricey on the island. As a result, they are caught in market dynamics that keep the price low.

5.3.2.2 Livelihood restructuring: Towards a service-based economy

Economic restructuring around protected areas is common as community production shifts towards service sectors to accommodate conservation efforts (Vaccaro et al., 2013). This trend of moving away from traditional livelihoods towards service sectors is evident in the Galapagos. The shift illustrates the process of shifting from a farming and fishing economy that is self-sufficient to one that depends on income generated by tourism and other conservation practices, as can be observed in Santa Cruz. While certain residents perceive that conservation and tourism have constrained their traditional lifestyles, others embrace the opportunities afforded by these industries.

This research shows that the growing demand for tourism-related activities is impeding the availability of high-quality land for agricultural production in communities surrounding protected areas. As a result, agricultural land is being converted for profitable service-based activities, this is in order to stay competitive in the market and meet market demands. For example, a mandarin and orange famer, now predominantly focuses on servicing tourists by providing fresh orange juice and tours around the property rather than satisfying local consumption demands during conversations with local farmers. In addition, I had the chance to speak with a farmer's son who has lived on the island for 27 years. He had the desire to work in agriculture for local consumption, but he was forced to seek employment in tourism in order to supplement his income. He also emphasized the prevailing economic situation, which has led to the conversion of certain agricultural land for the profitable coffee production to export, prioritizing it over local food production. This emphasizes the difficulties experienced by neighbourhood farmers in upholding agricultural practices designed to satisfy the immediate requirements of the island. Because of this a lot of products, even fresh fruit and vegetables, are imported from the mainland. The economic benefits of tourism are reflected

in this trend, but it also raises questions about the availability of land for sustainable agriculture and local food security.

Some residents have shifted to service-based jobs, while others have diversified their income streams to maximize profitability. However, some respondents feel forced into a service economy to serve tourists as a result of the rules designed to safeguard the Galapagos flora and fauna, which have changed the farming and fishing sectors. Rather than depending on the Galapagos nature for their survival, many islanders have shifted their perception of the thriving ecosystems. They now view nature as a means to generate income, contrasting with the traditional ways of life it once represented. Some of the islanders never held this perception. Particularly, those who migrated to the island with the intention of capitalizing on the pristine environment for economic gain. Furthermore, a conservation researcher working at the GNP expressed concerns about the shift towards the service industry:

"I think people adapted very quickly. So much so that one of the studies that I had access to was that the arts that are practiced in Galapagos were being transmitted to the next generations. [...] So all these arts that used to be, were transmitted from generation to generation. Nowadays they are no longer being transmitted and old fishermen are being lost who could not transmit their art to their children and ended up changing fishing for tourism, because the son will dedicate himself to tourism, not to fishing. So all these things have been lost due to the evolution we have been going through." (Translated from Spanish interview, 3-4-2023)

Traditional skills, passed down through generations, have long been an integral part of many communities, embodying their cultural heritage and contributing to their unique identity (Inglis, 1993). However, as the researcher emphasized his concerns, there has been a growing concern over the gradual disappearance of these traditional skills within the community caused by a shift towards the service economy.

Overall, the trend towards a service economy resulted in an increased cost of living and pressures among community members due to increased competition for jobs. The increased competition among people was also highlighted in this study. This is because jobs on the island are limited and individuals from the outside are often preferred. Hiring decisions are generally driven by their greater educational qualities or reduced labour expenses. However, before residents did not need to spend a lot of time getting ready for specific jobs because of the self-sufficient which they were raised. A craftsman who lived on the island for 33 years, explained how the GSL changed these dynamics, he claims:

"Now the law [GSL] is in place, they have changed, there are no more settlers and there is no more respect for the people who made this land, because before it was like that, before this was respected, priority was given. The people from here were in charge. If there was a disagreement, a politician would say boys, people, people, let's claim for this. And the people were only one family claiming for the same thing now." (Translated from Spanish interview, 24-3-2023)

Furthermore, this statement emphasizes the effect of conservation policies had on the societal dynamics. It points to a perceived decline in respect for the local community's historical connection to the land. The change in authority and priority is evident, reflecting altered power dynamics and diminished collective agency among residents. This illustrates the potential impact of conservation policies on societal relationships and community cohesion. A conservation researcher added his future concern regarding this issue by claiming that "in the next 15 years things are going to be so difficult here that many of us are going to have to leave here to look for a place where we don't have so many restrictions and where life is not so expensive. [...] it is very expensive and there are many limitations that prevent you from developing".

5.3.3 Restructuring of cultural and social dimension

Thousands of tourists visit the islands to see the unique biodiversity of the Galapagos. Consequently, the non-human life in the Galapagos Islands has altered the perspectives of many locals, who now view conservation efforts as a business strategy to ensure future revenue, particularly for the government, tourism organizations, and even conservation organizations, rather than as a fight to preserve the inherent value of unique wildlife (Quiroga, 2009). In other words, the relationship between people and their environment has changed, placing more emphasis on monetary gain of the natural environmental and seeing wildlife as icons, rather than valuing the fundamental essence of the natural world. This perception conflicts with that of residents who have lived on the island before this upsurge in tourism. These locals have strong ties to their surroundings and see it as more than just a means of subsistence. Despite the relatively recent human presence on the Galapagos, the long-term islanders hold significant importance in their cultural, personal, and historical identities. However, there is a sense of loss and disenchantment to their surroundings caused by the changes brought about by conservation policies.

Multiple key informants discussed the differences in perceptions of newcomers and long-term residents. One reason for this is the diverse combination of cultural identities on the island. This has an impact on the many perspectives held by island residents regarding their natural

environment and environment in general. Different cultures include both colonizers, indigenous people, city residents, and people from other parts of Ecuador as well as people from other countries. During my fieldwork, I observed a notable division in how individuals defined themselves, particularly evident among colonizers and Galapageños. Colonizers and Galapageños expressed a sense of pride in their 'status' as long-term inhabitants of the island. Especially since it is now impossible to obtain this status. A variety of ideas and attitudes towards the environment and its conservation are influenced by the varied cultural origins. This diversity was highlighted by the manager of a fishermen cooperative, who talked about the attitude of an Ecuadorian kid from the city towards animals on the island:

"So, when you see a child coming from the mainland, you see them wanting to kill birds, throwing stones at birds, at iguanas. It's the normal instinct of a city dweller from the mainland." (Translated from Spanish interview, 28-3-2023)

The results from the interviews emphasized the differences between island natives and recent immigrants. Long-term residents stressed that this is because they are unfamiliar with the island's former state, they claim that newcomers lack a sense of obligation to preserve it. Another reason for the different perception might be because some of them might only stay temporarily and are only there to gain money and leave in the end.

The interview highlighted the perception long-term residents have towards newcomers. They argue that newcomers lack a sense of commitment to preserve the island's past state because they are unfamiliar with the island. Others contend the different attitude is because some of the migrants just stay temporarily and are merely there to make money before leaving. Long-term residents emphasized the strong sense of community that once existed on the island. During this period, a strong social cohesion prevailed, leading to mutual care among people for one another and their surroundings. A former high school teacher, who has lived on the island for 34 years, highlighted the social cohesion which used to be prominent on the island by using the term 'minga':

"Minga. You see, minga is we all collaborate, everyone to do that. Everyone does. For example, here in this neighbourhood, you say, "Let's have a minga to clean up the sports field. Who brings paint? What are we going to paint? Who brings brooms? [...] That's what a minga is. So, in the past, there were even mingas to build things, maybe a classroom for a school. Look, they would bring blocks, I would bring cement, because I'm a constructor, but I wouldn't charge you, it's not a minga like that. So maybe we need to go back to doing things like that." (Translated from Spanish interview, 29-3-2023)

The term "minga" demonstrates how community cohesion once resulted in a sense of solidarity and shared responsibility for their surroundings. The diminished sense of community have resulted in a reduced willingness to assist one another, and a decline in maintaining clean and pristine spaces. Another respondent, a development planner, emphasized the social restructuring mainly resulted from the current "the social composition that is marked by a class division". He mentioned everyone used to be equal, and that resulted in more social cohesion, even though "the foreigners were different from the nationals, but they lived open". He compared it to the situation now, where there is more class division and competition among the residents; he stated:

"Everyone needed everyone. Everybody gave each other a hand. And then it seemed to be the ideal society. But now, for example, it is no longer! There is a lot of social difference and competition." (Translated from Spanish interview, 27-3-2023)

The local priest also emphasized the loss of social cohesion on the island. He claims that one reason for this is the loss of cultural identity within the community:

"In this time you see that the community is growing, but it is growing without history, without identity, without solidarity, without respect and love for creation. Much less with the identity that you can say I am Galapageño and I have rights, [...] you have the duty to take care of your environment, because if we continue like this, we are going to disappear with everything we have here." (Translated from Spanish interview, 23-3-2023)

The priest stressed the observed loss in the community's connection to its history and identity which may suggest a lack of awareness or respect for the cultural and traditional values associated with the Galapagos. Therefore, feeling disconnected towards their environment. The issue was emphasized by other key informants, including the high school teacher and the development planner, as they discussed the prevailing condition on the island where residents has shown a diminished concern for their environment.

5.4 Conclusion

It can be concluded that environmental protection is prioritized by government agencies and organizations, with the goal of enforcing regulations and preserving biodiversity. Furthermore, international support for conservation and funding from the tourism industry, results in development that both prioritizes tourism and conservation efforts. This stresses how political and economic factors shape the direction and focus of conservation policies. This calls into question that conservation efforts may take precedence over human development in decision-making processes on the island. While efforts are made to protect Galapagos biodiversity, human needs are often neglected. The results emphasize the difficulties of balancing these divergent perceptions and interests. The main challenges of locals revolve around increased pressure on facilities and the conflict of resource use influencing their livelihoods. Also, development in healthcare, education and water quality is limited. In general, development have been focused on fulfilling demands of tourists. Residents express their resistance and non-compliance to some of the conservation policies. Finally, the results underscore a social restructuring influenced by newcomers with differing perspectives and weaker connections to the islands compared to long-term residents.

6. Discussion

After exploring the research domain and the results of this research, this chapter shifts the attention to a discussion of the findings, the research's limitations, and a wider evaluation of the consequences that go beyond the scope of this research. This chapter explores into the details the findings, examining their importance using the political ecology framework.

6.1 The Galapagos Paradox: negotiating conservation and human development

Conservation policies have significant implications for living conditions and the well-being of residents close to conservation areas. This research aims to shed light on the balance between conservation and human development, providing insights that can inform the creation of policies supporting sustainable livelihoods, poverty reduction, and social justice in the Galapagos and similar locations globally. Therefore, using a political ecology framework, this research explores how residents are shaped by conservation policies. By analysing political and economic factors of conservation policies, it was found that residents in the Galapagos are mainly constrained by the conflict over resources, pressures on public facilities and economic interests stemming from external stakeholders. The emphasis on nature conservation, coupled with institutional instability, has led to a prioritization of investment in conservation efforts, often at the expense of developments in living conditions. Additional findings pertain to the transformation of livelihoods and social structures among islanders. Livelihoods of residents have been pushed towards the service sector, due to restriction on resource access. Social structures on the island used to exhibit a stronger sense of connection to their surroundings, which manifested in a profound expression of care and responsibility. However, there has been a noticeable decline in their level of concern in recent times. Therefore, it can be concluded that conservation efforts and human development are constantly interacting in complex ways. The interrelated nature of these components emphasizes the importance of comprehending the frequently conflicting and interconnected interactions.

6.1.1 Political economy of conservation in the Galapagos

The creation of the Galapagos reserve resulted in changed power relations between different groups and the socio-ecological landscape. International organizations used to manage the Galapagos. However, power was transferred from these organisations to the state's control, as they pressured the state to establish the reserve for environmental purposes. As a result, both NGOs and the government have significant influence over conservation policies and decision-making processes in Galapagos since the establishment of the Galapagos reserve. Therefore, the state acquired significant control and authority over 97% of the designated area, while also exerting influence over the remaining inhabited 3%, thereby limiting local options and autonomy. The state's power over both inhabited and protected areas points to the political component of conservation, as government policies and regulations play a crucial role in determining the equilibrium between the rights of residents and environmental protection. Furthermore, the national governmental wield more authority than local ones, resulting in a loss of local empowerment. This is in line with studies on political ecology who argue that conservation efforts often involve establishing jurisdictional borders and exclusionary rights, which allow external actors to exert greater administrative control over the territory (Vaccaro et al., 2013). Political ecologists agree that the environment is heavily politicized, with control over natural resources being shaped by power struggles among different interest groups. This involves competing social actors with uneven political power competing for access to and control of these resources (Vacarro et al., 2013). It frequently happens that certain players, like the government or organizations, have considerably greater control and power than other, smaller groups, such those who reside in or near conservation zones (Matis & Rose, 2016).

Although the Galapagos Islands have prioritized conservation efforts, yet tourism has grown quickly and became a significant economic factor. The tourism sector developed after the state realized its economic potential, leading to noticeable changes in migration, demographics, infrastructure, and the local economy. As a result, tourism has replaced other economic factors as the main source of growth, changing the way many locals live. The tourism industry accounts for most of the economy on the island, both through the money people spend on their travel and on the islands, as well as through the entrance fee to the Galapagos National Park (GNP). Most of the conservation activities are supported in part by a portion of this income. Therefore, tourism also became a powerful factor influencing both the social, political, economic, and ecological landscape.

The combination of tourism and conservation results in an environment of change where outside actors have an impact on the socioeconomic structure of the islands. In this context,

nature and wildlife of the Galapagos are treated as commodities for sale on the market. This concept aligns with economic principles where individuals and businesses make choices to maximize their profits (Smessaert et al., 2020). Consequently, benefits and burdens of tourism and conservation are unevenly distributed, with economic advantages disproportionately favouring external entities disproportionately. This because revenues frequently departs the islands and leave locals with limited agency thus failing to support local participation. These findings support existing theories claiming that market-based conservation, particularly in the realm of tourism, is vulnerable to exploitation by those who possess significant economic, political, or social capital, granting them greater access to such markets (Fletcher, 2012). Within this framework, power is critical in shaping and influencing market-based conservation. Certain actors, such as the tourism industry and the state, exploit and control conservation markets. These actors use their position to gain greater access, control, and influence inside these marketplaces, potentially leading to maximize profits and marginalize locals. According to power dynamics theories, power not only drives the highlighted exploitation but also determines the structure of market-based conservation, influencing benefits and costs for diverse stakeholders (Campbell, 2008). In the context of the Galapagos, findings show that benefits from conservation policies are driven by market forces where benefits from conservation are unequally distributed. The benefits generated often go to external stakeholders. This is mainly done through the state, who uses taxed and earnings from entrance fees, for projects on the Ecuador mainland, and international tourism organizations benefiting from the generated revenues. Additionally, the problem of corruption contributes to the unequal distribution of benefits. Corruption becomes also notable in the establishment of living conditions on the island, where allocated budgets often fail to be used efficiently.

Power, in the view of Foucault (1991), is not an absolute possession but rather a component of social relations between people or groups. This covers the ties between producers and customers, workers and capitalists, conservationists and the local population, as well as the Galapagos tourism sector. Power relationships between people, organizations, and institutions are constantly being exercised and reinforced. Power and influence continue via actions and behaviours, which shape the life of the Galapagos residents. The Ecuadorian government and the GNP use a variety of tactics to advance the environmentalist cause and control how people behave and make conservation-related decisions. Subsequently, these actors are influenced by global movements and international organizations on safeguarding the unique biodiverse situation of the Galapagos. This emphasis on conservation by international and national forces influences residents' attitudes toward their environment. Yet, power is not only exercised through authoritative organization. Corruption demonstrates how power is also used by individuals who navigate and use these systems for personal

advantage. This exposes the complex dynamics of power relations that Foucault's theory seeks to uncover.

Furthermore, the government shaped residents by indirectly including economic dynamics in conservation policies. The government enforced restrictions and legislation without explaining their conservation relevance to the residents. Instead, an indirect type of governance arose, where businesses needed to partner up with Galapageños to start a business on the island. As a result, money was indirectly offered to residents in exchange for collaboration with commercial interests. This strategy demonstrates how the government used economic incentives to influence behaviour of locals and achieve conservation goals. In this context, they exercised a sort of power that operated not just through explicit authority, but also through economic systems and common interests, in turn, influencing behaviours, mirroring the principles of governmentality theory. This theory sheds insight on how local behaviour and interactions with the conservation sector are influenced by legislation and incentives (Dean, 1999; Rose et al., 2006). In this view, the natural environment is often perceived as a source of benefit or value which influences the behaviours and choices residents have towards conservation and their environment in general.

The perception of locals towards conservation policies varied. Some locals feel constrained while others sought opportunities brought about by tourism. Criticisms of extensive control by the Galapagos National Park (GNP) were common. The state's overwhelming control over resource management was acknowledged; ironically, they observe that this very control is subjected to mismanagement and corruption, claiming 'there is no control'. The main reason for this, asserted to be the unequal distribution of economic, human, and conservation development. For example, the territorial restrictions the GNP places on fishermen in contrast to other sectors and the growing commercial opportunities for these same territories. This finding is in line with studies that assert the expansion of capital-based production, which claim that it results in unequal distribution of consequences and benefits, both geographically and socially (Harvey, 2005). Lack of environmental education and differing perspectives between long-time residents and newcomers contributed to these dynamics, along with changing social structures and decreased social cohesion affecting environmental concern discussed in the section 6.1.3.

6.1.2 Conservation and human development: a conflict of interest

The complex interplay between conservation and human development in Galapagos affects various stakeholders differently based on their roles, perspectives, and interests. This complexity results from the wide range of stakeholders involved, each of whom has a different agenda, resulting in a conflict of interest. These views result from the influence of international conservation organizations, the Ecuadorian state's alignment with both conservation and economic interests, and the tourism sector's reliance on the health of the environment for economic growth. The emphasis on conservation that is driven by tourism may cause funds, resources, and attention to be directed toward projects that appeal to tourist interests. While protecting the distinctive environment is a top priority for conservationists and academic organizations, the local population encounters difficulties as a result of the few chances for employment and the constraints imposed by conservation efforts. The emphasis on environmental conservation and the development of a tourism-friendly island, has overshadowed investment in local services resulting deterioration of living conditions. Particularly given the influx of individuals and the finite resources within the island context. Therefore, conservation and human development are constantly in tension and interacting in complex ways. It is challenging to imagine one component without considering the frequently contrasting relationships it has with the other components. It can be concluded that in the Galapagos conservation development is prioritized over human development. Diverse development studies have repeatedly characterized nature conservation as a threat to human welfare, highlighting how local communities are excluded and denied their rights to resources, thus undermining their livelihoods (Brown, 2002; Godet & Devictor, 2018). Conservation efforts have been used as a tool to intensify already existing power disparities in politics and the economy and a tactic for external actors to generate revenue from the islands (Rose & Carr, 2018). Therefore, conflicts with local development objectives arise as a result of the unequal power granted to certain actors through the intersection of global conservation initiatives and tourism sectors (Robbins, 2012). The power relations at play, as defined by Foucault, underscore the nature of influence and governance, emphasizing the ongoing efforts that shape people's behaviour and choices towards conservation. This corresponds to the discussions among political ecologists, who emphasize the role of power dynamics and capitalist interests in driving the process of commodifying nature (Vacarro et al., 2013). Understanding the connections between different stakeholders become especially evident in the case of Galapagos, where both global movements have an impact on how people perceive nature and conservation is necessary, political agency controls how conservation is conceived, and the tourism sector simultaneously serves as the primary economic engine and the biggest change agent.

6.1.3. Culture and conservation: Local perspectives on living conditions and social restructuring

The political and economic factors that are tied to conservation policies influence the living conditions of people and how they perceive their surroundings. In the Galapagos, different actors are competing over the access of these surroundings, the environment, as a commodity to be sold to tourists eager to experience the unique landscape, as an ecosystem in need for conservation, or as a resource to be used (fishing, agriculture etc.). Galapagos' unequal power structures prevent equal access and benefits to the island's natural riches among different stakeholders. Residents have to adjust as a result of the state and GNP exercising authority and implementing restrictions to these areas. Yet, tourists can visit these similar areas for a given price. The diverse viewpoints on the ongoing challenges of managing conservation at Galapagos stem from a multitude of factors, including the complex interplay of economic interests within the tourism industry and the broader political landscape at both national and international levels. These varying perspectives arise due to the distinct expectations held by different stakeholders for the islands' future. Consequently, the diverse range of expectations and approaches has given rise to several unintended consequences particularly that of the living conditions on the island.

6.1.2.1 Basic services, livelihoods and access to resources

Conservation policies in the Galapagos have brought about significant transformations in basic needs, livelihoods, and access to resources on the islands. The transformation of livelihoods towards a service-based economy has been necessitated by limited resource access due to conservation efforts (Stronza, 2019). For example, fishermen are restricted to certain areas that are further away, resulting in higher expenditures. However, they are unable to raise prices of their catch, as customers easily choose cheaper imported fish from the mainland. Consequently, market pressures have determined fish pricing, and therefore a lot of fishermen look for other options to make a living. Furthermore, the emphasis on tourism and conservation has overshadowed investments in crucial services like healthcare, water quality, and education (Mathis & Rose, 2016). Nash (1996) attributes this to governments prioritizing tourist-friendly areas within local communities while avoiding the development of neighbourhoods that will not yield quick returns. This scenario underscores the trade-off between tourism-driven development and essential services. Therefore, scholars claim that tourism can become problematic when exploited to spur development (particularly for developing countries), as not all participants benefit equally from tourism income, leading to wealth stratification, in addition to declining agency among locals (Hayden, 2003; Stronza, 2019). This could clarify why living conditions in the Galapagos have either remained stagnant or deteriorated, rather than improved. Additionally, locals have been limited to fishing areas, agricultural practices, and must deal with other territorial restrictions. In contrast, tourists and commercial activities are open for these spaces. This disparity highlights the unequal allocation of influence and benefits, when foreign interests take precedence over the well-being and local livelihoods. This finding underscores the necessity of assessing the societal implications of conservation policies and how power dynamics influence these outcomes.

Prioritization of conservation efforts have led to both transformational changes and inequities, highlighting the many difficulties encountered by residents. As mentioned before, the unequal power dynamics have had an impact on how resources are allocated. As a result, more powerful actors are benefiting from the Galapagos nature, while residents encounter limited development possibilities. Residents have less say in how resources are distributed, which results in environmental injustices including limited livelihood opportunities leading to economic disparities, neglect of basic services and human development. This unequal distribution also impedes the agency and participation of locals. Political power dynamics and socioeconomic injustices intensify communal tensions, fostering a contentious atmosphere. Especially among long-term residents, Galapageños, who are in the minority on the island. This research emphasizes the considerable difference in perception between long-term residents and newcomers. This finding suggests that experiences and backgrounds shape different perceptions significantly. Particularly in a diverse setting like Galapagos where various cultures live together on limited land. This unexpected finding complicates the research by demanding a deeper investigation into the complexities of the different perspectives. Also, it shows the importance of considering different perspectives in future research. To further draw conclusions an examination of the underlying factors that shape these different viewpoints is necessary.

One of the consequences of the unequal allocation of power and authority, is the increasing number of islanders that are expressing displeasure with both the Galapagos National Park (GNP) and associated conservation policies. This discontent has led to an increase in the disregard among islanders for certain conservation restrictions. One of these outcomes is the disregard of beach opening hours or refusal to pay waste processing fees. There is resistance against power structures that impose garbage processing costs on residents. Instead of paying the costs, residents put their garbage on the streets or use different bags to avoid fees. The local resistance against power structures imposing conservation policies provides insights into power dynamics and conservation policies. These findings agree with the theory proposed by Allen (2004) on relational power, which emphasizes how power disparities can influence societal actions and judgements. In this case, power is generated through collective action

emerging from social interaction and connection concerning conservation policies. It emphasizes the necessity of identifying and dealing with the complex power dynamics that affect the adoption and application of conservation policies. This research obtains a greater understanding of how power imbalances can cause resistance and non-compliance, ultimately influencing the trajectory of conservation efforts. Notably, the research also revealed a strong sense of social cohesion there used to be on the island. This was characterized by the tradition of 'mingas,' where social relationships and interactions used to result in individuals coming together to support each other and suport their environment. Both examples highlight the significance of collaborative efforts and shared agency in shaping power dynamics within a community or society. In the context of political ecology studies, it underscores the complexity of interactions between social actors, their environment, and resource management strategies.

The marginalization of residents in resource distribution not only results in limited development opportunities but also extends beyond mere actions, contributing to an increased sense of alienation among the local population. This because their access and control over resources diminishes, correlating with alienation theory, which emphasizes individuals' isolation from the means of production and decision-making (Byron, 2016). In essence, the loss of empowerment among the island's long-term residents, particularly long-term residents who are in the minority, contributes greatly to the community's growing sense of alienation. The loss of empowerment can be linked to changing dynamics caused by conservation policies and tourism. Residents are excluded and alienated from decision-making processes as traditional ways of resource consumption and livelihood are changed. This move not only increases their sense of alienation, but it also exacerbates the community's power imbalances. The territorial constraints and limitations imposed on natives while favouring tourists emphasize power asymmetries among various parties. The conflict over resources and limited access for local practices such as fishing, and agriculture demonstrate the challenged essence of the government and the unequal distribution of decision-making authority. This also explains the changing human-environment relations that the islanders experienced over the past years. In the context of environmental justice, the alienation theory explains how these long-term residents may experience disconnection and estrangement from their natural environment (Sperber, 2003). The next section will delve deeper into the transformation of humanenvironment relations on the Galapagos.

6.1.2.2 Human-environment relations

Recent studies spanning various fields of political ecology indicate the existence of inherent contradictions between economics and the environment, which are particularly pronounced in developing regions at both global and local levels (Rainer, 2016; White et al., 2017). Political ecology views nature and the environment as fundamentally connected to the politics of capital accumulation and class struggle (Robbins, 2019). This can be explained by the social restructuring that occurred in Santa Cruz, where there was previously a sense of equality and unity among people. Which resulted in a strong social cohesion in the community and fostered a sense of responsibility for their surroundings. However, transformations in social dynamics and power relations have led to the erosion of equality and harmony, giving rise to struggles between different social classes. Harvey (1989) underscores the importance of recognizing diverse cultural values, including the fragmentation of identities that arise from the modern era. The fragmentation of the society has resulted in increased competition for jobs and the tension regarding resource distribution within society. Especially as resources are very limited in the island context. Therefore, rather than being purely driven by local ecological conditions, the way communities interact with and depend on ecological systems is influenced by more significant political and economic pressures that function on a global scale.

Therefore, Vacarro et al. (2013) argue that rural areas undergo significant economic and cultural transformations. The main reason for this is the implementation of urban social and cultural norms related to conserving the rural natural area. In Santa Cruz, this is true as international organizations, and the national government were responsible for the development of the island. The urban values were imposed on a community which have been dependent on the island's resources for years. Studies on governmentality argue that the enforcement of conservation policies may have an impact on how people see and interact with their (natural) surroundings by influencing their behaviour, beliefs, and subjectivity (Curtis, 2002). In Galapagos, locals expressed concerns about the growing commercialization of the environment even though some locals like other parts of the modernization. It demonstrates how power dynamics, which are primarily influenced by the control and movement of capital within socio-political contexts, have a significant impact on the link between nature and society. During the interviews it was noticed that most locals have a strong connection and sense of pride towards their home, the island, attempting to protect its natural beauty and stand up for the needs of the neighbourhood. However, it is noteworthy that non-human nature is given priority over its human residents in the commercialization of the Galapagos Islands. Animals and plants are viewed as more relevant, since this natural environment represents the marketed, easily consumable Galapagos Islands (Mathis & Rose, 2016). Because of this

human-environment positioning, the government, the tourism industry, and the GNP all profit from this imagined landscape of "pure nature". However, there is a frustration among residents towards the GNP as a result of the unequal power connections between the residents and the institutions in charge of conservation and the unequal distribution of benefits, which leads some locals to resist and break various conservation rules. Although respondents feel that conservation is vital, they believe that humans should be given more priority than there is now.

Many of the negative effects resulting from conservation policies are intertwined with Western ideas of 'wilderness' and the accompanying goal of establishing conserved areas free of human impacts, occupancy and influence (Adam & Hutton, 2007; West et al., 2006). Such spaces can be imposed because, while conservation organizations may occasionally portray themselves as fighting to save biodiversity from the never-ending expansion of human economies, conservationists typically have significantly more resources and political influence than the rural communities whose lives they affect (Holmes & Cavanagh, 2016). The studies of human-environment relations within the field of political ecology includes analysing the impact of global climate change on policy initiatives and political issues related to sustainability, globalization, and neoliberal management (Liverman, 2004). These factors have had significant impacts on the human-environment relations. The process of globalization, increased interconnectedness and global economic integration, have led to the expansion of the Western ideology that humans and nature should be separated.

To promote a more harmonious human-environment relationship and restore a sense of community and connection to the island, efforts should be made to strengthen social cohesion and enhance the residents' bond with their natural surroundings. Therefore, this research emphasizes the importance to include environmental education in reshaping the cultural identity that has diminished over the recent years. This has led to a decline in the level of environmental stewardship and overall care for the surroundings. Therefore, a development planner specialized in protected area management, remarked it is needed to implement "environmental education that is generated within the population". Instead of imposing strict policies and regulations without providing adequate education on the reasons behind them, individuals should be encouraged to foster a sense of responsibility and collective action within the population. In 2008, a team of conservation biologists already wrote: "There is a clear need in Galapagos to abandon the historical perspective of the separation of humans from nature, which only exacerbates conflicts between conservation and development" (Gonzales, 2008, p. 17). In this manner, it is essential to encourage an understanding of how nature and human beings can coexist in a mutual beneficial relationship. Yet, the potential for political and economic factors shaping the island communities remains. It is necessary to include a greater

emphasis on the agency and decision-making of the residents themselves, rather than institutions that have heavily influenced the nature-society relations shaped. Particularly considering the island's constrained human habitation and unique island context, allowing for more tensions over resources.

6.2 Reflection on development studies

This study provides a better understanding of the complex interactions that exist between environmental conservation, economic development, and community well-being, impacting broader debates and discussions in the field of development studies. It emphasizes the government's importance in conservation policies and the tourism industry's major financial support, which can influence the direction and focus of development programs. The research calls into question the extent to which conservation policies overshadow the demands of local communities by emphasizing potential trade-offs between conservation and human development. Also, the research determines the potential disparities and power dynamics that result from conservation efforts by looking at access and control over resources, and how the cost and benefits of conservation are distributed. Therefore, this research contributes to make conservation policies more inclusive, democratic and fair while also considering the various requirements and viewpoints of locals.

6.3 Limitations and future research

While the methodology employed and the comprehensive data analysis undertaken are robust, it remains crucial to acknowledge certain inherent limitations. The limitations provide insights into the boundaries and scope of the research, assisting in the identification of future research, and improving understanding of the consequences of the results.

First, the generalizability of the results is limited by the specific setting of this research: the situation of the Galapagos Islands. Given the exceptional biodiversity found in the Galapagos and the reliance of its economy on conservation efforts, it is particularly crucial to emphasize the significance of this situation and the distinct circumstances in political and economic factors. Therefore, this should be carefully considered when projecting the results to other locations or situations with differing socio-cultural and ecological dynamics.

It is also critical to note the limitations that developed during the data gathering and analysis. Conducting interviews in Spanish, my non-native language, presented certain problems that impacted the overall research process. Despite every effort to ensure appropriate communication, interpretation and the help of natives who both spoke English and Spanish,

nuances may have been overlooked due to potential language limitations. These constraints may have altered the depth and richness of the data collected, potentially impacting a thorough grasp of the participants' opinions. Despite these difficulties, it is crucial to emphasize that procedures were made to limit potential biases or misinterpretations, and the data continue to provide useful insights into the research subject. Especially, since I noticed that participants were able to better express themselves in their native language, this contributed to a more indepth overview of local experiences.

Furthermore, this research aimed to assemble a varied participant group while primarily emphasizing the viewpoint of the local community. Still, it is important to recognize that the findings might not accurately reflect the variety of experiences and viewpoints within the larger context. First, it is essential to recognize that the findings and conclusions generated from this research may not fully capture the whole range of perspectives and experiences linked to the research topic's political and organizational dimensions. Notably, the inability to connect with political and official institutions as a result of unforeseeable events such as the earthquake and political upheaval impacted the research process. Because of these circumstances, the state's allocation of resources and objectives evolved, limited opportunities for direct contact. As a result, this research primarily focuses on the perspective of residents regarding the impact of conservation policies on their living conditions. Although some respondents were involved in the politics or organizational structures of conservation efforts, their input may not have fully represented the broader organizational experiences, as their perspectives were primarily centred on their own individual experiences rather than providing a comprehensive view. Furthermore, to obtain a comprehensive understanding of how conservation policies shape the wellbeing of the community, it was crucial to incorporate the perspective of residents who have been on the island for an extended duration. Therefore, the research primarily focused on respondents who had been residents for more than 25 years, although a small number of individuals with shorter tenure on the island were also included. However, it is important to note that these newer residents may not have witnessed or experienced the same extent of changes and transformations in the local environment and community dynamics.

It is important to acknowledge these limitations and recognize that the findings predominantly reflect the residents' perspective. Despite being mentioned, these limitations do not diminish the overall reliability of the findings in answering the primary research issue. Future studies could aim to include a more diverse participant groups by including a wider range of stakeholders comprised of organizations, policymakers, and other pertinent actors. This broader inclusion of stakeholders involved in political and economic dynamics can provide a more comprehensive understanding of the complexities surrounding the shaping of living conditions by conservation policies. The inclusion of a more diverse participant group will also

contribute to delving into the unexpected findings related to different perspective among long-term residents and newcomers offering a promising avenue for future investigation. Furthermore, future studies could investigate methods and techniques to improve the coexistence of humans with the environment, fostering better living circumstances coexisting with nature.

Conclusion

The importance of biodiversity conservation has been necessary and recognized among policy makers around the world. Similarly, this type of development is increasingly capturing public's attention and has become a subject for academic debate. Scholars in development studies and governance should consider their position and the effects conservation policies could have on individuals. The objective of this research was to explore and explain how residents of Galapagos, Ecuador, are shaped by the conservation policies underpinned by political and economic factors. This has led to some interesting findings in the field of political ecology research and the importance of understanding the relationship between humans and their environment. Conservation policies in the Galapagos are aimed and based to protect the unique biodiversity, limit human activities, and at the same time attract thousands of tourists every year. Therefore, the economic and political factors that underpin the conservation policies play a crucial role in the way conservation policies shape local living conditions in the Galapagos.

The creation of the Galapagos reserve fundamentally altered the balance of power in the archipelago, transferring influence and power from locals to international organizations and eventually to the Ecuadorian government. In this way, the government and NGOs gained control over the region by establishing the reserve and enacting new laws and regulations for the area. Conservation efforts were weakened by the upsurge of tourism, drastically affecting the social, political, economic and ecological landscape. This has contributed to migration, population increase, rapid development of a tourism-friendly island, and the transition to a market economy, all of which have a significant shaped the lives and prospects of locals. This has led to a complicated situation on the Galapagos, where many stakeholders are competing for access to natural resources. Especially since the resources are limited to the small area of the island, with only 3% available for human use. However, due to the unequal power relations, not everyone has the same opportunities to act and develop. People with limited political and economic power—in the case of Galapagos, the locals—become less of a priority while a variety of economic factors and powerful individuals have the ability to direct expansion.

Conservation and human development tensions remain, represented by the prioritization of conservation development over local well-being. The Galapagos' focus on conservation is evident in its policies, yet the rapid rise in tourism adds a new dimension. The state's growing economic interest in tourism's income has driven its expansion alongside conservation, as it resulted in economic development and tourism also funds conservation efforts. However, this has overshadowed investment in local services, resulting in a deterioration of living conditions on the island. The established tourism industry, mainly supporting the islands' economy, further reinforces power dynamics, exacerbating inequalities.

These unequal power dynamics in political and economic factors of conservation policies have resulted in a social restructuring on the Galapagos. The transformation of nature into commodities influenced by market forces coupled with a strong political priority of conserving the islands, has shaped the local human-environment relationship. Although these conservation policies give the environment top priority, they unintentionally marginalize the residents of the island, changing livelihoods and resource access. The emphasis on business ventures and tourist attractions over vital services like infrastructure, healthcare, and education further increases the inequality. As seen by the non-compliance with conservation-related expenses, these power dynamics contribute to a contentious environment and resistance among inhabitants. The results demonstrate how power inequalities can affect social actions and responses and are consistent with the relational power theory. Furthermore, the unequal resource distribution among island residents not only hinders growth potential but also increases sentiments of alienation. Particularly, long-term residents' declining sense of empowerment greatly adds to their escalating sense of alienation towards their environment. This research clearly illustrates the critical perspective of locals towards the management of conservation policies on the island, but it also raises the question of diverse perspective among residents, particularly, between long-term residence and newcomers. This has altered the interactions between humans and the environment on the Galapagos. Therefore, in order to effectively address conservation concerns and advance human development, a holistic approach is necessary. An approach that takes into account not only ecological factors but also the complex socio-political dynamics at play. This research emphasizes the demand for a more equitable and inclusive strategy that recognizes the complex power dynamics entailed in conservation efforts and works to balance the interests of all parties concerned.

While locals have a strong sense of connection to their community and the environment, the commercialization of the Galapagos Islands has frustrated and incensed some of the locals. As evidenced by the conflicts between the government, the tourism sector, Galapagos National Park (GNP), and the local populations, these power dynamics have led to an unequal distribution of rewards and control. In contrast to the broader tensions between capitalism, class conflict, and ecological sustainability, conservation measures and economic pressures have a significant impact on human-environment relationships. Efforts should concentrate on strengthening environmental education, establishing a sense of responsibility among the populace, and promoting a more coexisting relationship between humans and their environment. However, the influence of political and economic factors on island communities remains, highlighting the need for greater resident agency and decision-making in shaping nature-society relations amidst the unique challenges and limited island resources of the Galapagos.

This research sheds light on the complex relationship between political processes, environmental protection, and social well-being in the Galapagos. Conclusions extend beyond the specific case study of the Galapagos, explaining the interplay of power dynamics between conservation policies and human development in various context. The transformations brought about by the establishment of the Galapagos reserve and other conservation policies serve as an example of how conservation efforts may significantly transfer power away from native populations and toward outside actors like governments and international organizations. This shift in power relations has wide-ranging consequences on the social, political, economic, and ecological environments. The development of tourism as a counterbalance to conservation efforts adds a challenging element because economic considerations usually conflict with environmental objectives, putting local welfare and basic services at risk.

The unequal distribution of power and influence among stakeholders illustrates how resource competition and commercialization can result in the disadvantage of some people and can emphasize a Western human-environment relations. This has consequences for areas where conservation efforts and economic interests, particularly tourism, come together potentially escalating disparities and weakening local control. The conflict between national conservation objectives, often influenced by international objectives, and regional demands highlights the need for an all-encompassing strategy that considers the complex interactions between social, economic, and political elements. The case study also reveals the need for a more inclusive and participatory approach by emphasizing the transforming effect of conservation policies on neighbouring residents. The opposition of the Galapagos inhabitants serve as a reminder

of the value of emphasizing community engagement, environmental education, and cultivating a feeling of responsibility for their environment. This highlights the importance of taking into account local settings in conservation policies and mirrors more general concerns between conservation and human development.

Based on these conclusions, future research should consider the involvement of the perspective of local communities in line with organizations, policymakers, and other relevant political and economic stakeholders. This will contribute to a better understanding of the complex interactions that are ties conservation policies measures to the shaping of living conditions. Further research is needed to determine the causes of the distinctive perceptions of long-term residents and newcomers. Future research could also investigate innovative strategies and techniques that support a coexistence of humans and the environment, resulting in better living conditions alongside the natural world.

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Appendices

1. Interview guide for semi-structured interviews

<u>Introduction</u>

- 1. Can you tell me something about yourself? (Occupation, age, nationality etc.)
- 2. How much time have you been in Santa Cruz?
 - o If not born here, reason to move here?

Restructuring per dimension:

Demographic

- 3. Can you tell me something about the change in population during your time in Santa Cruz?
 - o benefits/ drawbacks of change for local community
 - o change in cultural habits and traditions towards nature

Administrative

- 4. Can you tell me something about the conservation regulations over the years?
 - o benefits/ drawbacks of change for local community
- 5. What do you think about the relationship between development of conservation efforts and the development of the local community on the island?
 - o influence of the state and market

Infrastructural

- 6. Can you tell me something about the development of facilities and amenities over the past years? (electricity, water, healthcare, education, infrastructure)
 - o benefits/ drawbacks of change for local community

Economic

- 7. Have you noticed any changes to the local economy?
 - Change in traditions/ labour market
 - o benefits/ drawbacks of change for local community

Closing questions

- 8. Do you have any recommendations on how the government can create/ manage the conservation of biodiversity?
- 9. Is there anything you would like to ask me about the research?

2. Observations of fieldwork logbook: example

Date: 18-3-2023 15:00 – 17:00 (2 houra)

Location: Neighbourhood" Cascada" Puerto Ayora

Activity: Visit to outskirts of the city Puerto Ayora

Description and photographs

During the visit to the outskirts of Puerto Ayora on March 18, 2023, several key observations were made regarding the living conditions and the influence of conservation policies in Santa Cruz. The neighbourhood visited is called 'la cascada' (translated to: waterfall), because of the hill (see photo 2), where water comes down when it is raining a lot, can be dangerous for people living close the hill. At the same time the hill is used a border separating the neighbourhood from the national park. Some of the streets in bad quality, not asphalted. Poor infrastructure and narrow roads. At the moment of visiting not encountered a lot of people on the streets. Most of human activity is in the touristic city centre. Houses contain flags of different political parties they support, 3 months ago there were elections (see photo 1).

The cascada neighbourhood displays a mix of informal residential houses, houses are made out of garbage, and formal houses. Many houses were not finished, only first stage was build/ not painted, streets small and roads. Garbage on the streets. Even on house made out of garbage.





Photo 1: flags of political parties and half constructed building Photo 2: stone wall separating national park and neighbourhood, vulnerable for flooding when high rain fall.

Questions/ Follow up with

Why are there so many unfinished houses in the neighbourhood?

What are the social and economic factors influencing the living conditions of the residents in the neighbourhood?

Reflections

The observations included limited economic resources, resulted in people not finish their houses (to avoid tax), and finish houses when they have money. People live in the outskirt mainly to sleep but are during the day in the city centre, could be true why there are almost no shops in the neighbourhood.

3. Flyers of events

3.1 Event on food waste

Translation:

Join from Galapagos

to the biggest hour for the planet.

Let's learn how to avoid food waste.

The ingredient that makes the difference, is you!

Starting at 19h00

Oficial blackout 20h30-21h30

Pelikan Bay Plaza, Santa Cruz





3.2 Event on item exchange (clothes, furniture, shoes, electrical equipment, bags etc.)