

Tourism and the Galápagos Islands: Examining the Relationship  
Between Ecotourism and the Local Population

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## Chapter 1: An Introduction to the Islands and Ecotourism

The Galápagos Islands are a volcanic archipelago located in the Pacific Ocean, acclaimed worldwide for their unique wildlife and biodiversity. The islands have fascinated humans for centuries; they have been a hub for important biological and geological research since as early as the 19<sup>th</sup> century. The islands and the marine space surrounding them comprise the Province of Galápagos, one of 24 provinces in Ecuador. Various waves of humans have migrated to the islands throughout the years in order to pursue lucrative markets like whaling, and fishing (Bassett 37). The tourism industry is the most recent moneymaking industry that has emerged in the Galápagos. Since the natural environment in Galápagos is what draws the majority of tourists to the islands it is crucial to the tourism industry to protect it. The Galápagos Islands are often recognized as the first place on earth to embrace a relatively new form of tourism known as ecotourism. Ecotourism attempts to showcase the natural environment of a given location while actively promoting sustainability on both the environmental and social fronts. This paper will argue that ecotourism is no longer being practiced in the Galápagos Islands. It will draw on prior research as well as a qualitative survey conducted on the Island of San Cristóbal. It will also examine the impact that humans have had on the natural environment. Furthermore, this paper will convey the opinions of the local population regarding life on such an ecologically delicate, tourism dependent island.

In recent years Ecuador, like many other developing countries with unique and rich natural environments, has benefitted from ecotourism. For a long time tourism has only considered the traveling experience from the perspective of the traveler. What

ecotourism strives to do is to recognize the impact that the tourism has on the people and place that is being visited. Ecotourism is tourism that focuses primarily on the appreciation of the natural environment. However ecotourism's official definition emphasizes that the practice must have minimal impact on the environment and a sustainable relationship with the local population. According to The International Ecotourism Society (TIES), ecotourism can be quickly defined as, "responsible travel to natural areas that conserves the environment and improves the welfare of local people" (Honey 21).

The Galápagos Islands consist of thirteen main landmasses and many smaller islands and islets, four of which are populated by humans. On the islands of Santa Cruz, Isabela, Floreana and San Cristóbal there are over 25,000 permanent residents there today. Many of these people are very recent immigrants, having moved primarily from mainland Ecuador to the islands to benefit from the tourism boom that began in the 1980s. According to Carol Bassett's text *Galápagos at the Crossroads*, the majority of Galápagos residents had lived there for fewer than six years as of 2007 (Bassett 20). In 1926 Norwegians created Puerto Ayora on the island of Santa Cruz, which enabled small populations to make the move. Those that were living in the islands prior to the shift to tourism generally had moved there in hopes of making profit off of fishing. However since then, various organizations such as UNESCO and the Charles Darwin Foundation have pushed for the Ecuadorian government to place major regulations on fishing and other environmentally destructive practices in the Galápagos Islands. In 1959 the Ecuadorian government established the Galápagos National Park in order to limit human settlement in the future. 97% of all of the land in the islands is part of the national park.

Then in 1986 the national government declared that the 133,000 square kilometers surrounding the islands were a Marine Reserve and as a result the existing population in the islands needed to shift its economic focus towards something other than fishing (Honey 103).

In the early 1960s tourism to the Galápagos was only possible for travelers willing to ride on the cargo ships that went to the islands to bring supplies every three months (Honey 104). This almost guaranteed that all tourists visiting the islands during that period were interested in visiting the islands because of the natural environment. By the 1970s the local population of Galápagos had a total of five boats available for daily tours and four hotels on the island of Santa Cruz to accommodate the tourists.

Throughout the late 1970s and 1980s the number of tour boats in Galápagos increased dramatically. At that point immigration to Galápagos also increased significantly and with the immigrants came improvements in tourism infrastructure. Fishermen, particularly after the creation of the Marine Reserve, often converted their fishing boats into tour boats and families on the islands would transform their homes into hostels and restaurants (Honey 108). Residents of Galápagos adjusted their lifestyles accordingly as they understood tourism was becoming increasingly important to their survival. Today there are several different airlines that fly to Galápagos each day. According to Bassett “more than 174,000 people visited the Galápagos in 2007”. Tourism now contributes an average of \$418 million per year to the Ecuadorian economy (Basset 16). The Charles Darwin Research Foundation stated that the “gross income from tourism increases by about 14% each year” (Basset 16).

This research will examine the concept of ecotourism as a whole. It will acknowledge the official definition of ecotourism as defined by the Ecotourism Society. It will also consider Martha Honey's broader definition of the term as she has expanded upon the term to accommodate the maturation of ecotourism as a concept over time. In her book *Ecotourism and Sustainable Development* she created seven criteria to define ecotourism and this paper will focus primarily on three of them. The following three points are going to be the main factors that this research will consider when determining whether ecotourism is being successfully practiced in the Galápagos Islands. According to Martha Honey ecotourism must:

1. Minimize environmental impact. "Ecotourism strives to minimize the adverse effects of hotels, trails, and other infrastructure by using either recycled or plentifully available local building materials, renewable sources of energy, recycling and safe disposal of waste and garbage and environmentally and culturally sensitive architectural design. Minimization of impact also requires that the numbers and mode of behavior of tourists be regulated to ensure limited damage to the ecosystem"

The Galápagos are home to particular species of plants and animals that cannot be found anywhere else on the globe. Since human migration to the islands has been quite recent, the wildlife in the archipelago is practically unfazed by the presence of humans, which makes them exciting for tourists to observe. If the environment is the main pull factor for tourists it is pertinent, not only for the ecosystem but for the tourism industry as well, to preserve the authenticity of the natural environment. This research will examine the environmental impact that development in the islands has had.

2. "Build environmental Awareness: Essential to good ecotourism are well-trained, multilingual naturalist guides with skills in natural and cultural history, environmental interpretation, ethical principles and

effective communication. Ecotourism projects should also help educate members of surrounding communities, schoolchildren and the broader public in the host country. To do so, they must offer greatly reduced entrance and lodge fees for nationals and free educational trips for local students and those living near the tourist attraction”

Tourists are not permitted to visit a majority of the land in Galápagos National Park without a registered park guide. For that reason guides are very important in Galápagos tourism. They serve as the link that connects the tourists to the natural environment. If the guides cannot communicate effectively with tourists it could have a significant negative impact on the tourism industry. In 1998 a special law was created that ensured that all jobs in the islands be given to permanent residents. As a result the tour guide position opened to many individuals who had no prior experience in tourism. This investigation will address the impact that the law has had on tour guides in Galápagos. It is also important to encourage community involvement with the natural environment, particularly in Galápagos because a large percentage of the population has just moved there in the last decade. If people feel disconnected from their environment they will be less likely to care for it. This investigation will identify measures that have been taken towards environmental education and community involvement in Galápagos.

3. “Provide financial benefits and empowerment for local people: Ecotourism holds that national parks and other conservation areas will survive only if, as Costa Rican-based scientist Daniel Janzen puts it, there are “happy people” around the perimeters. The local community must be involved with and receive the income and other tangible benefits (potable water, roads, health clinics, etc.) from the conservation area and its tourist facilities. Campsites, lodges, guide services, restaurants, and other concessions should be run by or in partnership with communities surrounding a national park...Ecotourism further promotes the use of tour...agencies hotels, airlines and other related businesses owned by host

country nationals, so profits are more likely to stay in the developing countries” (Honey 22).

If the local population of a given area does not receive economic benefits from ecotourism, the industry will not be sustainable. There are different ways that communities can ensure that a significant amount of money remains within the local economy. Tourism revenue should stimulate the economy on an immediate level and should also fund development projects so that the local populations’ basic needs are met. Moreover, it is important to regulate the number of international interest groups in Galápagos to help ensure that more money remains in Ecuador for circulation.

This research will also consult a survey that was administered by the author to the local population of the island of San Cristóbal. There were 50 surveys conducted and all of the participants were residents of Galápagos. Of the 50 respondents, 25 were male and 25 were female. The ages of the respondents ranged from 16 to 86 years old. Survey participants were asked a series of fifteen questions designed to gain a better understanding of tourism in Galápagos from the local population’s perspective. Additionally, this research will consult a variety of existing literature about the Galápagos Islands as well as the country of Ecuador as a whole. In a region as fragile as Galápagos, sustainability is necessary. Since tourism is a relatively new concept in Galápagos, this research will prove valuable because it will examine the sustainability of the current tourism industry to date.

## Chapter 2: Human History of the Islands

Part of what has enabled the Galápagos to develop in such a naturally unique way has been the lack of human presence for a long period of time. The first officially documented human being to discover the islands was Fray Tomás de Berlanga in the year 1535. There is also speculation that several indigenous groups like the Chorreras, Valdivias and the Incas from the South American mainland made contact with the islands prior to 1535 but such theories have not been confirmed (Bassett 35). Berlanga of Panamá accidentally found the archipelago in 1535 in an attempt to sail to Perú. Subsequently, pirates, whalers and fishermen made stops in the Galápagos but never stayed long enough for the islands to be considered settled. The islands have very limited fresh water and for that reason were never considered an ideal place for human settlement. In 1832 the small South American country of Ecuador claimed the Galápagos as its territory. In 1833 the Ecuadorian government sent José Villamil to the island of Floreana to establish a colony of about 200-300 people. Throughout the remainder of the 19<sup>th</sup> century Ecuador established two more colonies on San Cristóbal and Isabela. These colonies were comprised almost entirely of convicts (Basset 41).

In 1835 Charles Darwin made his famous voyage to the Galápagos. This event was monumental in the history of the Galápagos because it brought global attention to the Islands for the first time. Charles Darwin's publications about his findings in Galápagos had a major impact on the biological community. His theories of natural selection inspired more scientists to examine Galápagos as an extremely valuable natural laboratory. However scientists did not yet understand just how fragile the islands' ecosystems were. In 1906 researchers from California captured and killed many different

species from the islands in attempts to make important scientific advancements. In the early 20<sup>th</sup> century there was very little understanding of conservation as a concept within the scientific community. In the following years it was increasingly apparent that humans can throw a balanced ecosystem off kilter. In 1925 ornithologist William Beebe conducted extensive research in the Islands and was worried about the fact that several species became or were close to being extinct (Basset 57). Although it was unintentional, scientists in the Galápagos in the early 18<sup>th</sup> century were quite harmful to the endemic wildlife (Bassett 56). By 1932 there was too much strain on the natural environment and Ecuador enacted several basic laws to protect the islands. In 1959 the Ecuadorian government officially declared the majority of the land a national park (Bassett 59).

In 1959 the International Zoological congress pushed to create a non-profit environmental conservation organization known as the Charles Darwin Research Foundation and in 1964 the foundation officially opened. The Charles Darwin Foundation (CDF) was originally created to monitor the scientific community's research as well as conservation efforts by the national park. Today the CDF strives to “conserve the biological diversity and natural resources of the Galápagos, and to create a sustainable society that understands the value of this bioregion and is committed to protecting it” (Charles Darwin Foundation). The mission statement evolved in order to accommodate the demographic changes that have taken place in the islands particularly in recent years. According to this statement the goals of the Charles Darwin Foundation are aligned with the definition of successful ecotourism. In 1978 Galápagos received more foreign recognition when UNESCO, a United Nations organization that focuses on environmental and cultural conservation declared the archipelago a World Heritage Site

(Basset 60). Today there are 962 different locations around the world that are recognized as UNESCO World Heritage Sites (World Heritage Centre).

During the 1960s many scientists moved to the Islands for research but the overall population still remained quite low. With the remainder of the population engaging in fishing the total number of people living in Galápagos in the 1960s was between 1,000 and 2,000. The population grew gradually in the following years and in the 1980s the islands experienced a population boom. During that decade the population jumped to about 10,000 people. Ecuadorians in particular saw the immense opportunities for economic gain in the islands and relocated with relative ease. In Galápagos there was a significant need for employment, a major contrast to the Ecuadorian mainland where many residents were either unemployed or underemployed (Epler 4). Tourism was on the rise in the 1980s in numbers that had been unprecedented in Ecuador in the past. According to the Ecuadorian National Census conducted in 2010 there are over 25,000 people known to be living in Galápagos today. In 1990 it was reported that around 40,000 visited the islands that year as compared to 2008 when 173,000 visitors passed through the Galápagos Islands (GNPS 2009).

As Martha Honey outlined in her ecotourism case study of the Galápagos, tourism to the islands is generally carried out in two different ways. The majority of foreign tourists experience the Galápagos via high-end luxury cruises that transport guests to several of the islands during the days and house them at night. In the late 1960s two cruise ships operated by Ecuadorian companies began providing the first official tours in the islands (Honey 104). By that point the existing economy in the islands relied almost entirely on the fishing industry and there was no tourism infrastructure on the

islands themselves. The former U.S. military base on the island of Baltra that was created under Franklin D. Roosevelt's presidency in 1942 (Bassett 58) opened its airport to commercial flights from the Ecuadorian mainland, which made the islands much more accessible to foreign tourists and wealthy Ecuadorians. A major appeal of the cruise-based tourism is that it has a very low environmental impact, which makes it ideal for ecotourism. However the cruises yield very little economic benefit for the local population. During the 1970s the popularity of the destination grew and local residents of the islands began investing in tour boats. At the beginning of the decade there were a total of 5 boats operating in the archipelago and the locals benefitted because they were so involved in the entire process. However in the latter half of the 1970s increasing numbers of mainland and foreign companies began offering cruises. By 1980 there were 42 different cruises operating in the Galápagos, the vast majority of which were not run by island residents (Martha 103-104). It became clear that Galápagos was a desirable destination for tourists from around the world and when more people moved there to accommodate the demand it prompted further increases in the volume of tourists.

The second type of tourism found in Galápagos is the land-based tourism. The land-based tourism industry includes revenue from hotels, restaurants, on-land tour companies, equipment rental companies and inter-island transportation. Land-based tourism developed as a result of the increased demands by tourists to visit the islands and was ideal for travelers with smaller budgets. Many *galapageños*<sup>1</sup> recognized this unique opportunity to participate in the industry in new ways. This is the pivotal point in which residents became necessary components of the thriving industry. Land-based tourism is

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<sup>1</sup> *Galapageño* is the Spanish term used to reference someone or something that is from Galápagos

much more economically beneficial to the local population because a larger percentage of the money generated remains within the islands' economy. However the land-based tourism generally generates a much smaller amount of capital while catering to a higher volume of tourists. According to Bruce Epler's study *Tourism in the Galápagos* those traveling on the cruise ships spend an average of 3 times more than the population staying on land (Honey 107). So although *galapageños* are benefitting from the tourism industry, a vast majority of the overall capital is going to outside interest groups. According to estimates by the Charles Darwin Foundation, land-based tourism and sea-based tourism each have the capacity to accommodate approximately the same number of tourists yet land-based tourism earns only 10% of what the cruises earn annually (Watkins et al., 5). Also, in contrast to the cruises, land-based tourism has a significantly higher impact on the natural environment. It is this component of the land-based tourism which does not align with the definition of ecotourism and also exacerbates the tension between the scientific community and the local population.

With the advent of land-based tourism there has been a shift in who visits the islands and what their motivation is for the visit. Ecuadorians are offered discounted flights to the islands and also extremely discounted park entrance fees. Today foreigners pay \$100 per person to enter the islands whereas Ecuadorian nationals pay \$6. This has opened up Galápagos tourism to a wider range of people. According to Epler, in 1975 none of the tourists to visit the islands were Ecuadorian as compared to 1996 when 16,000 nationals visited them (Honey 104). Today many Ecuadorians visit the islands for brief vacations in order to take advantage of the beaches and, in some cases, to visit family. For many of these travelers, nature tourism is not the primary concern (Bassett

72). The cruises are able to provide comprehensive tours to customers and have access to many more islands than the small inter-island boats. The inter-island boats only provide access to Santa Cruz, San Cristóbal, Isabela and Floreana, the four islands that are populated by humans. As a result many tourists staying on land are less focused on the natural environment. As travel prices decreased more Ecuadorians visited the island for relaxation rather than to experience the flora and fauna (Bassett 72).

It is arguable that the quality of tour guides varies greatly when comparing sea-based tourism and land-based tourism in Galápagos. Since most of the cruise ships that operate in the islands are owned by mainland and foreign companies, most of the guides on the cruises are either foreign or from the mainland as well. However on land, as previously stated, this is not the case. In 1998 the Ecuadorian government established the Special Law of Galápagos and part of the law stated that only official residents were allowed to work in the archipelago. The law's primary intentions were to limit migration to the islands and to protect the population that already existed there. The Special Law lowered the requirements that were necessary for people to become national park guides. When the government lowered the tour guide requirements it was intended to empower the local community that at the time was struggling with major changes in the focus of the economy. However it has had a negative impact on the quality of tourism on the islands because many of the guides lack the depth of scientific knowledge that many tourists seek. Many of the guides also do not speak English, which deters a number of foreign travelers from choosing land-based tourism for an ecologically oriented experience (Bassett 19). As a result the land-based companies cater to a population of tourists that visit the islands for a variety of reasons. These companies offer services like

bike rentals, kayaking trips, scuba diving training etc. in an effort to make the land-based tourism seem more appealing (Bassett 72).

In 2007 UNESCO declared the Galápagos Islands to be a Heritage Site in Danger. The influx of immigration and tourism in such a short period of time put additional strain on the natural environment. In that same year the Charles Darwin Foundation released a document entitled “Galápagos at Risk” outlining the risks that the islands face both environmentally and socially. In the text, Watson et al. highlight the fact that the current tourism industry in Galápagos is not sustainable. Historically the economies of the Galápagos have been boom and bust economies. For example the fishing industry on the islands was once extremely lucrative. Fishermen were able to make tremendous profits selling sea cucumbers and spiny lobsters internationally but this came to an abrupt end when the resources were depleted. Now tourism is in its booming stage once again but some speculate that it is a dead end road. The “untouched” natural environment is what draws tourists but it can only remain that isolated for so long. Watson et al. point out that the markets are already transforming as more people visit the islands for reasons other than the flora and fauna. It is increasingly common that tourists, particularly those engaging in land-based tourism in Galápagos will visit the islands for recreation, sports and higher end accommodations. The more *galapageño* companies invest in new markets like “adventure tourism”, the more they depreciate the value of the islands (Watson et al. 9). When people are visiting Galápagos simply to surf, kayak and camp on the beach, the Galápagos are suddenly in competition with destinations like Hawai’i and Costa Rica that offer similar attractions (Bassett 81). Watson et al. also point out that demands from tourists are beginning to shift. He states that “this new type of visitor is

often more selective in terms of required comfort and is better served by multinational tour operators” (Watson 9). In order for *galapageños* to keep up with these changes in demand they will have to significantly develop the infrastructure on the islands. Even if this development could be done in a sustainable way there is simply not enough space in Galápagos for major tourism development. Only 3% of the land is set aside for human development and the permanent residents take much of that up already.

### Chapter 3: The Galápagos Islands Today

The fieldwork for this study was conducted on the island of San Cristóbal located in the southeastern part of the archipelago. San Cristóbal is geologically one of the oldest islands of the Galápagos. In 1869 the Ecuadorian government sent Manuel Cobos to create Progreso, an official settlement on San Cristóbal. The island was suitable for settlement at the time because of *El Junco*, the large freshwater lake located in the crater of an extinct volcano in the highlands (Bassett 29). A few hundred prisoners went with Cobos at the time of the settlement and served as a labor force in agriculture and infrastructural development on the island. Cobos immediately took advantage of the vivacious natural environment and concentrated on developing a functional primary sector in San Cristóbal. He established farms and plantations in the highlands and in doing so introduced a large number of exotic species to San Cristóbal. Introduced species can have highly detrimental impacts on ecosystems because the endemic species of that ecosystem often do not have adequate defense against the new organisms. Mammals such as goats, pigs and dogs are some of the most threatening species that

continue to exist in Galápagos today and have played parts in pushing certain endemic plants and animals toward extinction.

The island of San Cristóbal changed at the beginning of the 20<sup>th</sup> century when sizeable groups began migrating to the island. The new migrants settled along the southwestern coast of the island and that settlement became a port by the name of Puerto Baquerizo Moreno. As Puerto Baquerizo Moreno thrived in the 1950s, Progreso became obsolete. Though agriculture continued on the island during that period, it was not a main focus of the local population (Bassett 40). Progreso still exists today but it has very little influence on the island. Today it is less expensive for locals to buy goods that have been shipped to the islands from Guayaquil than to eat produce from the highlands.

Puerto Baquerizo Moreno is now the capitol of the province of Galápagos. San Cristobal is the second most populous island in the archipelago after Santa Cruz, with almost 6,000 documented residents. While Santa Cruz is considered the center of all tourist activity in the archipelago, San Cristóbal is seen as the governmental hub because it is where all provincial government activities take place. In recent years the tourism infrastructure on San Cristóbal has improved significantly in order to accommodate the ever-increasing number of tourists. However population increases have been so large that infrastructural expansion cannot keep up with the demand.

Many Ecuadorians move to San Cristóbal to take advantage of economic opportunities there. It is reported that the population of the archipelago as a whole increases by six percent each year. San Cristóbal is less densely populated than Santa Cruz and as a result is a desirable destination for newcomers. In 2007 president of Ecuador, Rafael Correa announced that there is a serious need to restrict all migration to

the islands. His announcement came shortly after the Charles Darwin Foundation released “Galápagos at Risk”. The Galápagos National Institute (INGALA) was assigned to address the immigration issue and in 2007 began its 18-month plan to remove as many illegal immigrants as possible. INGALA is struggling to control immigration to the islands because many of the people that are deported move back almost immediately. According to estimates in 2007 there were about 5,500 people living illegally in the archipelago (Epler 36).

This chapter of the paper will focus on the definition of ecotourism in relation to the Galápagos Islands with particular focus on San Cristóbal. However, the other three populated islands will also be mentioned. As previously stated, the 3 main criteria within Honey’s definition of ecotourism are as follows: Ecotourism must (1) be environmentally sustainable, the human impact must be limited; (2) include high quality environmental education for both tourists and the local population; (3) channel funding directly into development for the local population; the local population must benefit financially and their basic needs must be met (Honey 22). This chapter will address those 3 components to the definition subsequently.

1. As is expected in the Galápagos Islands, environmental conservation is a major concern especially since the human population in the archipelago is so large. Ever since humans first made contact with the islands they have been transporting introduced species that are harmful to the endemic ones. As of 2007, 60% of the plant species that are endemic to the archipelago are identified as threatened. Scientists have been able to identify a total of 561 different introduced species in the Galápagos, some of which are

considered very harmful to the environment. It is expected that the number of introduced species will increase because of how routine transportation to the islands has become. Over 30 flights land in the Galápagos each week, all of which could potentially be carrying at least one unintentionally introduced species. On Aerogal Airlines flights, the carry-on luggage is sprayed in hopes of eliminating any undetected insects before landing and afterwards all checked luggage is thoroughly searched by a trained dog. The dogs are trained to find any organic material that could be of potential harm to the endemic species. The eradication of introduced species has become one of the top priorities for the Charles Darwin Foundation, the provincial government, and various other NGOs working in the islands. Some NGOs provide volunteer opportunities to foreigners looking to have a positive impact while visiting the Galápagos. Locals are allowed and encouraged to kill any goats or pigs that they find in the wild for their own use at any time. Recently the government in San Cristóbal announced that all domestic dogs must be kept inside of homes for a period of time while they dispersed poisonous meat across the island with the intention of targeting stray dogs.

In 2001 an Ecuadorian oil tanker called the *Jessica* spilled 160,000 gallons of diesel oil and 80,000 gallons of bunker oil into the ocean off the Galápagos coast. The tanker was carrying the oil to tourism ships when the accident occurred. The accident significantly impacted marine life in the area and served as a reminder of how quickly the ecosystem in the Galápagos could be harmed. It was also a point when the Galápagos was under international scrutiny and efforts were underway to increase regulation in the islands. Furthermore, because there is no adequate wastewater treatment system, humans in the Galápagos are creating a serious pollution problem. Wastewater is heavily

polluting certain aquatic areas in the archipelago because of the fact that there is no adequate wastewater treatment system. Freshwater in the archipelago is minimal and the recent influx of immigrants has put a substantial strain on freshwater supplies. When freshwater is extracted from the ecosystem it causes saline levels in the remaining water to increase, which in turn negatively impacts the fragile ecosystem (Walsh).

There is evidence that the Galápagos is heading in a sustainable direction when it comes to infrastructural development. There is a wind farm on the island of San Cristóbal that has the potential to provide 80% of Puerto Baquerizo Moreno with electricity. Now there are plans to add a second wind farm on the island of Baltra. In addition, there have been aggressive efforts to improve waste management in the islands (Bassett 21). Residents are required to separate their rubbish into organic, inorganic and recycling bins and failure to do so results in a fine issued by the *galapageño* government. There has also been discussion of converting all existing vehicles in Galápagos to entirely electric-fueled. Finally there have been efforts to encourage organic farming in Santa Cruz which, if implemented on a large enough scale, should result in a decrease in the cost of perishable foods, a decrease in reliance on imports from the continent and finally a boost to the local economy.

2. This component of ecotourism's definition addresses education and specifies that quality education should be provided to both tourists and locals. The two subcategories will be addressed subsequently.

Ecotourism suggests that there is great value in educating tourists during their stay at an ecotourism destination. Educated tourists are less likely to negatively

impact the environment during their stay and will most likely pass on information that they learned during the trip once they leave. In the Galápagos, the most direct route of education for tourists is through the naturalist guides that work for the Galápagos National Park. In 1998 the Ecuadorian government enacted the Special Regime Law for the Galápagos that was specifically designed to protect residents of the Galápagos. The law's primary goal was to restrict further migration to the island but was also meant to help keep locals from losing out to international and mainland tourism companies. Part of the law made it much easier for former fishermen and other locals in need of employment, to become tour guides. The new guidelines stated that guides only needed a high school diploma as well as basic knowledge in biology, ecology, geology and English (Basset 19). While the law provided immediate benefit to locals it has also proven to be negative in the way it has impacted the quality of tourism in the islands. Although it is illegal, many Ecuadorians that are not residents of Galápagos have found ways to work in the islands. As a result many *galapageño* guides lose jobs to illegal immigrants who are actually better educated for the job.

There are a few educational facilities that tourists (as well as locals) can visit without needing a tour guide. The Galápagos National Park Interpretation Center is located on the island of San Cristóbal and is a great resource for anyone curious about the Galápagos. The center provides visitors with comprehensive information about the islands' geological history, biological history and social history. Some components in the Interpretation Center are interactive and all text is in Spanish and English. The final room in the Interpretation Center addresses the current status of the Galápagos Islands. It shows aerial snapshots of human expansion in the islands and gives information about

environmental conservation efforts that are currently in place. Tourists on the island of Santa Cruz are also free to visit the Charles Darwin Research Station at any time. The station is primarily there for research but it is also a place for tourists to see and learn about unique and endangered species.

It is crucial to educate the local population about environmentalism in order for ecotourism to successfully take place. Locals must have a well-rounded understanding of what ecotourism means. During my visit to the islands I paid attention to any mention of ecotourism. In a local bakery in San Cristóbal I found an ecotourism handout. Inside there were facts, maps, diagrams and interactive games geared towards educating local residents about ecotourism as a concept. During my visit in Isabela I attended a free presentation about ecotourism that was open to everyone on the island. The men presenting broke down the definition of ecotourism and emphasized the need for harmony between tourists, local residents and the natural environment. The presentation included a film with familiar imagery from the islands, games and an open period for discussion. During the discussion it became apparent that many of the *galapageños* had been unfamiliar with the term ecotourism beforehand. The locals that attended the presentation seemed quite engaged and the presentation was well organized and well executed. Afterwards I spoke to one of the men who gave the presentation. He told me that although there was a relatively good turnout to the presentation in Isabela, no one showed up to the presentation he gave the day before in San Cristóbal.

Another educational event that I witnessed was in San Cristóbal. The government put on a free entertainment event for the local community. The show was called “Mi Pana el Lobo Marino” which translates to “My Friend the Sea Lion”. The people of San

Cristóbal are in close proximity to sea lions everyday. At the event there were several performances by locals and between each performance the announcer provided the crowd with educational videos, facts and trivia about sea lions. The idea behind the event was to educate the public about sea lions and emphasize the importance of conservation. The more locals learn about species like sea lions and their importance to the bigger picture, the more likely they will be to protect them. Many members of all ages from the community attended the event.

The Special Regime Law for Galápagos of 1998 identified the need for reformation of the Galápagos Islands' educational system. The government of Galápagos is still in the process of creating the Integrated Educational Reform for Galápagos (IERG), the new educational model that would be designed to accommodate the uniqueness of living in the archipelago and would encourage more involvement in conservation efforts by locals (Mendieta et al. 29). The educational system as it stands there today is limited. According to Epler, "Public schools are over-crowded and under-funded; graduates are frustrated and ill-equipped to compete with better educated and more experienced foreigners and mainlanders who secure employment as guides, crew members, and administrators" (Epler 40). INGALA has identified the *galapageño* educational system as a tool that could potentially be used in the effort to eliminate illegal immigrants from the islands. The logic is that if the education is better for the locals there will be less of a demand for skilled labor and thus fewer immigrants (Epler 57). The idea is to alter the educational system in such a way that graduates will be prepared to work in the islands afterwards. In the 2008-2009 school year there were 6,278 students enrolled in school across the four populated islands and 80% of them are in

public schools (Mendieta 31). One is unable to determine whether the ineffectiveness of the educational system in the Galápagos comes from problems in the curricula and/or from the schools' general lack in funding and resources. Carol Bassett stated in *Galápagos at the Crossroads* that in 2009 the Galápagos school system had recently made funding cuts to environmental education. She later elaborated that although environmental education in the archipelago is sub par, it is still improving and many children are learning things about the environment that they can now teach their parents (Bassett 20, 73).

3. The final component that must be considered has to do with the flow of capital within the Galápagos tourism industry. Are *galapageños* getting a significant percentage of the money that Galápagos tourism brings in? Is adequate money being put towards sustainable infrastructure development for *galapageños*? According to Epler, a great deal of money is generated annually by tourism but only a small percentage of that money remains within Galápagos. Epler's study showed that the total amount of money produced by tourism in Galápagos each year is \$418.8M and that includes both cruise and land-based tourism. When examining the division of money within the industry he found that the largest percentage of the total income goes to tourism boats and ships, about \$120M (29% of total). Since the majority of the ships are foreign owned the largest percentage of income does not even stay in Ecuador, let alone in Galápagos. The second highest amount of money goes to foreign interests as well, tourists spend \$108M (26%) on international flights. Next, about \$105.8M (25%) from tourists is spent in the Ecuadorian mainland. The only flights to Galápagos leave from Ecuador so many

tourists will stay in the major cities and will spend money there before and after their trip. \$37.7M (9%) goes directly to the airlines, which transport tourists and locals to and from the islands. During the high season of tourists there are over 30 flights per week that land in either Baltra or San Cristóbal (Walsh 138). Epler broke down that \$24.6M (6%) goes towards international retail agencies and only \$22.8M (5%) goes directly to the tourism businesses on the islands themselves. Epler also concluded from data collected in 2005 and 2006 that 84% of the revenue spent by tourists in the islands themselves goes directly to cruise ships while 9% accounts for on island expenses and 7% goes to hotels (Epler 20).

Epler's study helps highlight the economic imbalance that exists between the land-based and cruise-based tourism in the islands. Land-based tourism is dominated by *galapageños* while the cruises are typically owned and operated by foreigners or Ecuadorians from the continent. In 2006, Taylor et al. released data that showed the breakdown of boat ownership in Galápagos. In 2005 foreigners owned 6.5% of all boats in Galápagos, 54.5% were owned by mainland Ecuadorians and *galapageños* owned 39%. It is important to note that this data includes day tour boats, which are considered part of the land-based tourism industry, and 83% of all of them are owned by *galapageños*. *Galapageños* only account for 18% of the luxury tour boats, which generate the most capital (Epler 12). Although *galapageños* are key players in the tourism industry it is important to note that they control the least lucrative parts of the industry.

Martha's definition of ecotourism suggests that conservation areas should allocate some of the money that the park receives from tourists for social development. The

Galápagos National Park receives an average of \$10.5 million from the park entrance fees that all tourists visiting the islands must pay. Of that 10.5 million approximately half goes directly to the park. Another 10% of the total funds goes to the Galápagos National Institute (INGALA), the governmental organization designed to regulate development in the Galápagos. 25% or just over \$2.5 million from park entrance fees in the Galápagos goes to municipalities. The remaining two categories that receive funding from the park entrance fees are provincial administration and the *galapageño* navy and they account for 10% and 5% of the total respectively. Martha stressed that healthcare, potable water and functional roadways are of utmost importance and should be provided to the populations living in ecotourism destinations. Some of the survey respondents pointed out that healthcare and water quality need significant attention and improvement in Galápagos.

Infrastructural development in the Galápagos has not kept up with the requirements of the booming population. According to Walsh et al.'s article entitled "Community Expansion and Infrastructure Development: Implications for Human Health and Environmental Quality in the Galápagos Islands of Ecuador", there are currently no island-wide wastewater treatment plants on any of the four populated islands. The current strategy for wastewater disposal in the Galápagos is to dump it directly into the ocean or else inject it into the volcanic rocks. Both methods result in contamination of the ground water that serves the local populations. Fresh water is limited in the Galápagos and the small reserves are highly polluted with wastewater. As a result many *galapageños* suffer from a variety of ailments tied to contaminated water. Walsh et al. identified "acute diarrheal diseases [as] the second most frequent cause of morbidity in

the Galápagos” (Walsh et al. 139). The article eventually concluded that not enough cohesion exists between the GNP and the local population and as a result the situation is at somewhat of a standstill. There is no concrete plan to make infrastructural development more sustainable and there is also very little involvement by the public to move infrastructural development plans forward (Walsh 155). Watkins et al. point out that the illegal immigrants of the Galápagos are a drain on public services because of the fact that they are not taxed and therefore they do not contribute financially (Watkins et al. 17).

Having considered the raw data and previous research in Galápagos it is also important to consider the situation as it stands today. It is clear that tension lies in the fact that one portion of the population sees great benefit in economic development while the other views it as completely destructive. On the sparsely populated island of Isabela the island-wide slogan is “Isabela: Growing for you”<sup>2</sup>, implying that growth should be seen as positive and progressive. However on San Cristóbal the slogan is “San Cristóbal: We conserve that which is ours”<sup>3</sup> which puts much more emphasis on the idea of conservation to achieve the best possible outcome. The following chapter will analyze the qualitative survey that the author conducted in San Cristóbal in June and July of 2012. Input from locals who experience the effects of Galápagos tourism daily is of significant value. Ecotourism acknowledges not only the travelers but the people living in the destination as well. The survey will help determine whether the population living in the Galápagos sees its livelihood as sustainable.

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<sup>2</sup> The slogan as it appears on various signs and benches is “Isabela: Creciendo por ti”

<sup>3</sup> In San Cristóbal the slogan is “San Cristóbal: Conservemos lo nuestro”

#### Chapter 4: San Cristóbal Case Study

In order to determine current public opinions in San Cristóbal I created a unique survey and administered it in June and July of 2012 in Puerto Baquerizo Moreno. All fifty of the respondents were approached in public and were given the option to participate in the survey. It was decided ahead of time that 25 of the respondents would be male and 25 of the respondents would be female. Keeping the number of responses intentionally balanced between males and females helps make up for the possibility that in San Cristóbal one gender may be in public spaces more often than the other. The respondents for this survey all fell between the ages of 16 and 88. Over half (58%) of the respondents are 16 to 40 years old. To simplify the analysis of the data, respondents were divided into age cohorts that are at 5-year increments. Table 1 shows the breakdown of respondents by age cohort as well as the gender breakdown within those cohorts:

Table 1

Age Cohorts (years)	Number of Respondents	Ratio of males/females
16-20	4	2/2
21-25	9	5/4
26-30	6	2/4
31-35	4	3/1
36-40	6	2/4
41-45	7	4/3
46-50	3	1/2
51-55	2	0/2
56-60	3	2/1
61-65	1	1/0
66-70	2	1/1
71-75	1	1/0
76-80	-	-
81-85	1	0/1
86-90	1	0/1

Before the survey began each respondent was informed that their identity would be protected and that their responses would be published anonymously. Subsequently, each respondent was assigned a number 1-50 and will be referred to in this paper by their given number. The idea behind assigning numbers to the respondents is that it hopefully elicits more honest responses from each person, particularly when responses pertained to sensitive issues. The questions were open ended and some answered with concise responses while others provided detailed opinions. Along with opinion-based questions respondents were asked to provide basic demographic information. This includes their age, gender, place of birth, their highest level of academic education and the number of years that they have lived in Galápagos. The survey was conducted entirely in Spanish and will be translated to English for the purpose of this paper. A copy of the survey appears in Appendix I.

All fifty respondents were asked the following question: What are some aspects about Galápagos that you dislike? This question was designed to gauge whether the local population's needs are being met in 2012. As stated earlier, if the needs of the people living in a tourist destination are not being considered, ecotourism in that location will fail. The survey showed that among the 50 respondents the most commonly mentioned dislikes about Galápagos had to do with lack of environmental awareness and adequate environmental education, limited access to healthcare, problems with the national park, dissatisfaction with the *galapageño* and Ecuadorian governments and complaints about immigration issues (some identified dissatisfaction with the strict immigration laws while others saw the high volumes of recent immigrants to be that which is problematic).

Eleven of the fifty respondents stated that environmental issues were of particular concern when considering areas that they thought could be improved in Galápagos. The responses focus mostly on concerns with pollution as well as with an overall lack of environmental awareness among the local population. Respondent number 16 is a 22-year-old male and he expressed that above all else he dislikes “that many people in Galápagos do not care about the environment. If it weren’t for the park the people would probably destroy the natural environment...many people here only care about themselves”. Others, like respondent number 50, are upset by the amount of litter that many *galapageños* deposit in the urban areas. Within the boundaries of the national park pollution regulations are strictly enforced. However in the populated zones several respondents claim there is a blatant disregard for the environment. Respondent number 47, a 23-year-old woman who has lived her entire life in San Cristóbal expressed that she is troubled by the way locals treat the natural environment but she does not believe they are entirely to blame for the problem. In addition she stated, “The government must pay more attention to the people of San Cristóbal. If the government is not taking care of the public, the public will not take care of the island”.

Six of the respondents said that one aspect about Galápagos that they dislike is the low quality healthcare. Of those respondents 4 were male and 2 were female. While all 6 of the respondents acknowledged that there is a hospital on the island they pointed out the fact that there are no doctors on San Cristóbal with any specializations. This means that when *galapageños* need medical care that cannot be provided by a general practitioner, they must fly to the mainland for treatment. Respondent number 2 is a 66-year-old female and she claimed that the inadequate healthcare in Galápagos is her most

prominent complaint. She said that, “because I am an adult I need doctors with specializations and that does not exist here. I spend all my money just going to the continent for doctor’s appointments”. Respondent number 10 is a 54-year-old female and she also commented on the limited healthcare. She too dislikes that *galapageños* must rely on the commercial airlines for some medical care and points out that “in certain times, particularly during the high season for tourists, there is not sufficient space on the flights...residents do not have priority on flights to and from Galápagos”. It is possible that this could create some resentment towards the tourists. Priority is only given to *galapageños* if there is a medical emergency. In the event of a medical emergency, locals must wait until the next commercial flight leaves the island. Respondent number 23 is a 67-year-old male and he shared a personal experience after identifying the lack of medical care as his most important complaint. He said, “we recently had a scare where the doctors here misdiagnosed my daughter and we thought it was a grave emergency. Turns out she was alright but if that ever happens again we’re buying the next ticket to leave the island permanently”. Respondent number 23 went on to say “they say they’re building a hospital with specialists but I don’t really believe it because they’ve been saying that for two years now”.

Twelve respondents also stated that they believe either the government of Galápagos or those in charge of the national park are to blame for certain problems in Galápagos. Some respondents simply stated that the government is not doing a good enough job while others elaborated more. Respondent number 37 is a 73-year-old-male and he said that his biggest issue with the current situation in Galápagos has to do with the Ecuadorian government. He said that the federal government “does nothing to ensure

that the money generated by tourism in Galápagos is distributed fairly amongst the inhabitants. Galápagos is in a state of touristic exploitation by 5 or 6 multinational companies. The inhabitants are the true owners of this economy”. While he feels that the economy is not being regulated enough, other respondents expressed the contrary. Respondent number 41 is a 30-year-old female and at the point when the survey was conducted had lived in Galápagos for a year and a half. She claimed that she does not like that “the people in power can send people back to the continent. They no longer allow people to become residents”. For her, the governmental restrictions on immigration are a major issue and the regulations continually become stricter as illegal immigration continues.

Other respondents directed their complaints on restrictions towards the Galápagos National Park. It is in the best interest of those in the provincial government of Galápagos to comply with any rules created by the National Park because the park is what draws in tourists. Respondent number 7 is a 28-year-old female who has lived her entire life in Galápagos and is currently in her final year of university. When asked about her dislikes she stated: “I don’t like that the national park has put so many restrictions on us. Before we could go to any beach or any place that we wanted...before we could fish...now we need permission to do anything”. Having lived there her whole life respondent number 7 has witnessed almost 30 years of change regarding Galápagos National Park’s regulations. From 2002 to 2009 there were 14 different directors in charge of the Galápagos National Park (Bassett 18). This indicates instability within the parks management, which residents of Galápagos may notice.

Eight of the fifty respondents replied that issues regarding the recent influx of immigrants are causing problems in Galápagos. Some respondents pointed out that with the increase of the population there has also been an increase in crime. Respondent number 18, a 32-year-old male said that he had originally moved to Galápagos to find work and to escape the chaos of the populous city of Guayaquil in Ecuador. He said that today in Galápagos, “you see more and more delinquency. Now people will rob you in public places. When I first arrived that did not happen. You could sleep outside safely with all your belongings and nothing would happen to you”. Others say that the increase in immigration has made it more difficult to find jobs each year. Respondent number 26 said that, “adolescents (from Galápagos) are using drugs much more often and I think it’s because of a lack of job opportunities or education”. Employers in Galápagos are often more likely to hire recent immigrants because they will typically work for lower wages and in many cases are more educated (Epler 59).

Three respondents stated that an aspect that they dislike about Galápagos is the lack of potable water. All three of the respondents that fell within this category are female. Respondent number 2 and respondent number 10 both found their biggest concerns to be with both the lack of potable water and the lack of quality healthcare. Respondent number 10 said, “What has not improved much is the water. They have been trying to start a campaign for clean water on the island for years but it still hasn’t happened”. Respondent number 2 said that the drinking water in San Cristóbal is “horrible” and “very dirty”. One cannot drink directly from the faucets because the plentiful bacteria and parasites that infest the water can be deadly. Residents must either boil the water or opt to spend two dollars on water that has been partially treated. The

treated water is commonly said to be suitable for drinking however many *galapageños* still boil it because they feel that it is not consistently clean. As of now there is no official wastewater treatment in San Cristóbal. Nearly all wastewater is released into the ocean near Puerto Baquerizo Moreno and this has had detrimental consequences to the surrounding marine life. Freshwater is also quite limited in Galápagos. Residents must be very conservative in their water use simply because there is a limit to the amount of freshwater that is available at one time. At times there are water shortages and residents are forced to restrict use until supplies are restored (Epler 40). Much of the drinking water in Galápagos is imported from the mainland.

Two of the respondents stated that the tourists themselves are of particular focus when considering the aspects that they dislike about Galápagos. Respondent number 13 is an 88-year-old female that has lived in Galápagos her entire life. When asked about her education she explained that there was no educational system in Galápagos when she was a child and therefore she has no formal education. She said that her parents taught her a little at home but that she learned most about reading and writing from the small number of scientists and tourists that would visit the island. She also said that when visitors would come her family would open their homes to them and give them a place to stay. She said it was fascinating having foreigners visit because she could learn about the outside world while the visitors were interested to learn about her. She explained that, “the tourists have changed. They used to be curious about me and now they just come here and completely ignore me. I don’t like that so many people come now because they do not come with the intention to be tranquil”. Respondent number 47 expressed similar feelings when she said, “they come just to see the islands, animals and other flora and

fauna. Sometimes they may want to learn about the customs but that's not very often... There are many cultures here but the tourists are not interested".

Eight of the respondents claimed that they could not identify anything that they dislike about Galápagos. Some of the respondents stated that they were unable to think of anything that they dislike while others asserted that they like everything about Galápagos. Of those eight respondents, four were born in Galápagos and have lived their entire lives there. Their responses could have to do with the fact that they have never lived outside of islands and therefore have more difficulty comparing it with another place. Additionally, three of the eight respondents that reported there is nothing that they dislike about Galápagos have lived in Galápagos for one year or less.

Survey respondents were also asked to give an opinion on their quality of life. The phrasing for respondents who had moved to Galápagos during their lifetime was the following: Since you moved to Galápagos do you feel as though your quality of life is better, worse, or the same as before you moved here? The phrasing for respondents that were born in Galápagos was the following: During your lifetime do you feel as though the quality of life is better, worse or the same as before? 17 of the respondents were born in one of the Galápagos Islands and the remaining 33 respondents moved to the islands at varying points during their lifetimes. 41 of the 50 respondents said that they felt their overall quality of life had improved. Of those 41 respondents, 14 were born in Galápagos. That means that 14 of the 17 respondents that were born in Galápagos felt that their quality of life within the archipelago has improved during their lifetime. Respondent number 8 is an 82-year-old female that was born on the island of Isabela and now lives in San Cristóbal. She spent her entire life living in Galápagos. She said that

her situation is definitely better and that, “before if you lived outside of the continent<sup>4</sup> you would suffer very much...now things are marvelous here. Before there was nothing to eat and we had to wait for the boats that came every two months with food and water. Now there are stores and you can get anything you need”.

Respondent number 37 is a 73-year-old male that has been living in Galápagos for the last 50 years. He stated that during those 50 years he feels as though quality of life in Galápagos has gotten worse. He is one of two respondents to state that quality of life is worse. Respondent number 37 said that it is worse because,

“Before, everybody cultivated the earth and we had so much fresh food. Money did not matter in those times because everything was traded. For example if you gave me two chickens I’d give you chocolates. The only food that was imported from Guayaquil was dry foods like rice and pasta. The society used to be like one big family...we didn’t have the touristic influence. Now life is more conflictive and expensive. All of the flights that come each day bring many illnesses that we didn’t have in the past”.

It was 1962 when respondent number 37 arrived in Galápagos as part of the Ecuadorian navy stationed in Galápagos. At that time tourists could only access the islands through the cargo ships that periodically went to the islands and thus tourists had very little impact on the social landscape. The population at that time relied almost entirely on the fishing industry and was able to limit monetary exchange within the community. For respondent number 37, isolation was a highly appealing aspect about Galápagos in the 1960s and the loss of isolation has been socially and economically detrimental.

Another question in the survey addressed the educational system in Galápagos and asked survey participants to identify what subject they believed to be the most important to teach children living in Galápagos. 23 of the respondents said that they

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<sup>4</sup> *Galapageños* refer to mainland Ecuador as “*el continente*” which is Spanish for “the continent”

believe English and languages in general are the most important subject matter to be taught to children in Galápagos. Several of the respondents specified that foreign languages are particularly useful in Galápagos because of the high volume of foreign tourists that visit. Respondent number 30 said, “English is the most important to learn because of all the tourists. I think the government should make a program for adults to learn English too because many of us don’t know it and classes are very expensive”. Many of the adults living in San Cristóbal do not know English. Only one out of all fifty respondents answered, “yes” when asked if they could speak English. The one respondent to affirm that he speaks English immigrated to the islands from Germany and was the only survey participant to have migrated from somewhere outside of Latin America. Twenty respondents said some variation of, “a little”, “somewhat”, or “the basics” when asked if they could speak English and 29 respondents said they cannot speak any English at all.

Fourteen of the respondents stated that they believe environmental education to be the most important subject matter to be taught in schools in Galápagos. Respondent number 16 is a 22-year-old male and he believed that environmental education in Galápagos needs great improvement. He said, “many people in Galápagos do not care about animals and they do not care for the endemic species...many people here are ignorant”. It is possible that these respondents see how closely linked environmental conservation is with the tourism industry and thus with the economy of Galápagos. Four respondents said that education on tourism is of most importance for children in Galápagos and two respondents said that the schools should focus primarily on science.

Survey participants were asked to ponder a hypothetical situation in which all tourism to Galápagos has been stopped. They were asked to explain what they would do in the event that something like that actually happened. Eight of the fifty respondents stated that if tourism were to stop in Galápagos they would continue to live there and seek new markets to pursue that do not depend on tourism. Respondent number 14 spoke from experience and said, “some years ago my husband left his job as a fisherman to work in tourism because something like that happened in the past. So if it happened to tourism we would do something similar”. Respondent number 36 elaborated on his plan and said, “I would look for other ways to make money because you can’t just sit around and wait. I would become a fisherman or work as a boat captain, or as a chauffer”. These respondents felt certain that they would be able to continue living in Galápagos after tourism ended by making adjustments and finding new sources of income.

Ten of the fifty respondents stated that they would also remain in Galápagos if the tourism industry collapsed but added that the collapse would not affect their lives and they would be able to continue living as they do now. These ten respondents answered that they work as the following: business owner, construction worker, seamstress, maid, doctor, student and professor. Respondents 9, 27, 28 and 30 explicitly said that tourism does not have any influence on their profession. Respondent number 27 is a 26-year-old male who works in construction. He said that if tourism to Galápagos were to stop “it would not affect my life. It would probably affect the people that work with the tourists but I don’t interact with them...I wouldn’t need to do anything because I don’t work for the tourists”. Respondent number 30 is a 51-year-old seamstress that similarly responded, “it would not affect me because of my profession. It would affect the people

that are working in the restaurants, markets and souvenir shops”. These respondents feel that tourism’s influence on the islands’ economy would not be strong enough to affect the entire population.

Six of the fifty respondents said that they would leave Galápagos if there tourism was no longer there. All of the respondents who said they would leave the islands also said that they believe their professions depend on tourism. These six respondents work as the following: hotel employee, homemaker, business owner, trash collector, construction worker, and police officer. Eleven of the respondents said that they are not sure what they would do if they were in that situation. Respondent number 2 said, “I don’t know what I would do...I would not be able to work...I would have to sell my house and survive off of that money”. Three of the respondents said that if tourism were to stop they would contact authority figures and make efforts to bring tourism back. Respondent number 29 said, “I would ask the authorities to let tourists come here because they spend a lot of money and help our economy”. This response implies that respondent number 29 would expect tourists to only stop coming to Galápagos if it became prohibited.

The content produced by this survey provides insight into the perspectives of *galapageños* regarding the current situation in Galápagos. Today in Galápagos, the majority of decisions are ultimately made by authority figures running the Galápagos National Park because of the fact that environmental conservation is seen as the biggest concern. The government in Galápagos also participates but the final decisions are left up to the park personnel. However this survey has showed that many *galapageños* are dissatisfied with the Galápagos National Park and/or the government. Other respondents

identified environmental degradation and lack of environmental awareness to be their main concern. Respondents who gave these answers could possibly have been criticizing the national park's conservation efforts or else may have been pointing out an area that they feel is lacking in the *galapageño* educational system. The survey also showed that an overwhelming number of *galapageños* are not well equipped to participate in tourism because of language limitations.

## Chapter 5: Looking Towards the Future

Historically there has not been a cohesive relationship between the different interest groups in Galápagos. Some people view tourism as the most important part of Galápagos while others see scientific advancement as the most crucial. Some people's livelihoods have been crippled by environmental restrictions while others recognize the restrictions as the only way to protect the wildlife. This lack of cohesion is arguably the biggest problem that Galápagos faces. The archipelago has supported human life for a relatively short period of time and as a result is a promising candidate site for implementing sustainable urban development. At the same time that development should have little impact on the environment, the conservation process should not excessively limit the human population.

From a purely scientific standpoint, human settlement in Galápagos is entirely negative. The scientific community's main focus is to preserve the unique ecosystems and biodiversity in the archipelago and the rapid development has hindered their efforts. George Schaller, a prominent biologist working in the archipelago made his opinion clear when he said, "There are certain natural treasures in each country that should be treated

as treasures, and it is up to conservation organizations to fight on behalf of these special places... Their purpose is not to alleviate poverty or help sustainable development. Their purpose must be to save natural treasures” (Epler 40). That being said, this study has shown that lack of education, resources and familiarity with Galápagos National Park and its goals may explain why locals feel so disconnected from the environment. It is the scientific community that is the driving force behind the Galápagos National Park and it is also the park that has the final say in any governmental decisions regarding the islands. The Galápagos National Park has the power to change education in Galápagos to encourage more participation by locals. The more involved people are, the more likely they will be to care for the resource that employs them. In the case of Galápagos it is all of the biodiversity that both directly and indirectly keeps many residents employed and therefore conservation is in the best interest of all parties involved. Seeing as there are no plans to eliminate settlements in Galápagos it is up to the GNP to restructure the current system to allow more interaction between the park and the towns.

Tension between the scientific community and the settlers of Galápagos existed long before the tourism boom. Fishermen in the archipelago made substantial profits off of species like sea cucumbers, spiny lobsters and sharks and the CDF made significant efforts to prohibit it. The CDF was eventually successful and all such fishing was made illegal. The fishermen whose livelihoods depended on selling their goods abroad suffered tremendously and eventually revolted in the 1990s. They became violent and targeted the CDF specifically. Their frustration stemmed from the fact that they felt they had little control of their own futures and were at the will of the CDF. Frustrated locals continued protesting throughout the 1990s and some of the tension was quelled after the

passage of the Special Law in 1998. Locals felt more comfortable knowing that there was a law in place that was meant to protect their interests. The law gave locals a sense of financial security and with that, the protests stopped. However as the situation in Galápagos evolves, the laws should evolve as well. There has not been civil disobedience in the archipelago since the 1990s but social stratification is on the rise. Higher volumes of residents bring increased rates of crime and drug-use and also limit the availability of employment and resources that can be distributed (Epler 40). The socioeconomic statuses of Galápagos residents were once relatively equal but now as population size increases, equality decreases. The key is to acknowledge areas of imbalance early to keep things in Galápagos running as smoothly as possible.

Like most people around the world, *galapageños* have expressed that they want adequate healthcare, job security, quality education, and a government that addresses their needs. With the amount of money generated by tourism each year in Galápagos, these improvements should be possible. Up until now the Galápagos National Park's strategy regarding urban development has just been to limit it spatially. The idea was that the park would grant settlers their unprotected land and would have no involvement afterwards. As a result settlers are forced to establish residence in the most cost effective way, which generally means in a very unsustainable way. If the Galápagos National Park were to participate more in the development process they would have more control when it comes to environmental sustainability. If the park invested in renewable energy in the islands the long-term environmental impact will decrease dramatically. *Galapageños* would then recycle money back to the national park when they pay their energy bills.

Investment in renewable energy will also decrease the islands' dependence on goods from the outside so that more money remains in the local economy.

Investing in the improvement of the educational system in Galápagos could be the most important step that the GNP takes in terms of creating a long-term positive relationship between scientists and the local population. With the increase in social stratification there is an additional increase in stratification when it comes to access to quality education. The public schools are particularly underfunded and when the children educated in those schools grow up they are more likely to be a drain on the local economy rather than an asset. Some survey participants expressed that they believe the lack of access to quality education has led to increases in crime in the archipelago. Several also stated that they feel most people who do not care for the environment are simply "ignorant" and did not have access to environmental education. If more people living in Galápagos realized just how much their presence influences the environment it is possible that environmental degradation would decrease. In the years that followed Charles Darwin's visit to Galápagos many other scientists visited to collect samples. In doing so the scientists unintentionally put major strains on the balanced ecosystem. At that point scientists had no understanding of the concept of conservation and as a result did not realize that their actions were extremely harmful to the environment. The same is the case with the local population of *galapageños*. Once information is made available people will generally make adjustments to their actions in order to achieve the most positive outcome. The educational system must include significant focus on environmental education, tying in the fact that almost the entire economy of the archipelago depends on conservation.

The relatively short history in terms of human presence in Galápagos puts the archipelago in a promising position. The Galápagos community has an opportunity to set a model in Galápagos that can serve as an example for societies worldwide. There are several very different groups in the archipelago with varying needs and desires. As history has shown both in the archipelago and around the world, tension arises when people's needs and desires are ignored. Ecotourism is possible in Galápagos but it cannot be considered successful yet. The key ingredient for success in Galápagos is compromise.

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Appendix I San Cristóbal Survey Questions

Age:

Sex: Male  
Female

Birthplace:

Highest level of education:

1. Number of years living in the Galapagos Islands:
2. Do you speak English? Does anyone else in your family speak English?
3. **(For respondents who were not born in the Galapagos)** Where did you live before you moved to the Galapagos Islands?
4. **(For respondents who were not born in the Galápagos)** What was your reason for moving to the Galapagos Islands? Do you enjoy living here? Why or why not?
5. Quality of life:
  - a. **(For respondents who were not born in the Galápagos)** Since moving to the Galápagos Islands, do you feel as though your quality of life has improved, gotten worse, or stayed the same?
  - b. **(For respondents born in the Galápagos)** During your lifetime in Galápagos do you feel as though quality of life has improved, gotten worse or stayed the same?
6. How many times have you visited the Galápagos Islands National Park?
7. Have you visited any other islands other than where you live? Which ones?
8. Have you visited the Charles Darwin Research Station? What is your opinion on the environmental conservation work that is being done there?
9. What do you think most tourists are hoping to see/do when they come to the Galápagos Islands?
10. What is your profession? Do you feel that tourists are important to your profession?
11. How do tourists influence your daily life?
12. If tourists were to stop coming to the Galápagos Islands one day, what would you do? Do you feel that your daily life would be impacted?
13. What subject do you think is most important to teach students in Galápagos?
14. What are some aspects about the Galápagos Islands that you like? What are some aspects that you dislike and would change?
15. How have the Galápagos Islands changed during the time that you have lived here?