

A Business Plan for Tree House Retreat in the Amazon Rainforest, Ecuador

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Executive Summary

This document provides a business plan for Tree House Retreat in Sangay National Park, Morona Santiago, Ecuador. The retreat will be a tree house styled lodge developed on previously established private property within Sangay National Park- the first of its kind in the country. It will serve as a tourist destination with not only sustainable design and construction in mind, but as well as a location for those who are eager to explore and discover the mysteries of the Ecuadorian jungle and the varied ecosystems of its surroundings. The facility will offer accommodation with luxury touches at an upscale price, consisting of ten tree houses targeting upper-middle class North American, European and Asian tourists who are willing to experience the transcendent adventures and therapeutic vibes of the jungle. It will also have two accommodation facilities to target worldwide researchers and academics who would like to explore and investigate the local biodiversity and cultural richness of the area. The Retreat will deliver the value, amenities, and experiences required by these segments of travel consumers in such a way that is sure to exceed their expectations and promote sustainability in their travels and beyond.

The business plan for Tree House Retreat includes a detailed description of the property, the services, the products and the organization of the retreat. A marketing plan and a market analysis are two crucial sections of the plan that help to ensure the feasibility of the project. Market research and local growth trends show that the Sangay National Park is a new market with good prospects and expansion in both academic and tourist market segments. Sangay National Park was designated as a protected area in 1975; in 1979 it was etched as national park; and in 1983 was inscribed on the Unesco World Heritage List (U.N.E.S.C.O, 2014). Additionally, a meticulous study of nine destination competitors will provide the data to conduct a market and penetration analysis for the new property. Based on this analysis, market penetration should exceed 100% by 2020; and, according to estimated operating results, the facility will be profitable, and will generate a return for investors within the first five years of operation.

Section One: Company Description

1.1 Introduction

The retreat is a lodge facility located in the Ecuadorian Rainforest within Sangay National Park. It will be the first tree house lodge in the country and the fifth in South America. This business plan describes the service and products offered by Tree House Retreat, the sustainability aspects of the development, the rates, and the economic feasibility of the project. The facility is comprised of two main lodging facilities, ten independent tree houses and an Education Lodge. Both facilities will be equipped with furniture and luxury eco-friendly amenities. The accommodation package will include three meals per day, hiking trails, bird watching and other naturalist activities, and shuttle to and from the Macas airport. Additionally, It will provide high speed wireless internet connection, two meeting spaces, a restaurant, a lounge and a small boutique with souvenirs. Tree House Retreat will offer health and wellness programs, art workshops and educational sessions aimed at sustainability and local culture for all the guests on the premises. The educational and cultural activities will be a main part of the lodge attractions. Internships and study abroad opportunities will be encouraged to facilitate different educational programs such as biodiversity, conservation, and vertical agriculture.

The facility will mainly target North American, European and Asian tourists, students and researchers. The ten luxury styled tree houses will be marketed to tourists while the Education Lodge will be marketed to students, scientists and professors. Furthermore, The retreat will also have a detailed ecological waste management program. Tree House Retreat will be all about sustainability. It will use ecological and renewable sources for energy, water and waste disposal. The main source of energy will be solar panels, and harvested rainwater will be the central source of water. All waste will be composted, and recycled throughout the property. Garbage and recycled trash will be transported to the nearest landfill in Morona Santiago where it will be repurposed or degraded on site. Compostable toilets will be used as an alternative to a sewer or septic system, and grey water will be recollected for gardening purposes.

Socio-environmental sustainability will be the used business scheme inside the retreat. The retreat will charge centered on the market segments based on the shared-value pricing principle. The rates will be divided into two main groups: tourists and people that visit with an educational purpose. The tree houses will be mainly for tourist and the prices will range between \$250 and \$150 (per day per night). The Education lodge prices will range between \$100 and \$75 (per day per night) primarily to target students and researchers. The chosen rates are based on the economic sustainability of the lodge.

1.2 Concept

Tree House Retreat

Tree House Retreat is the name selected for the facility to reflect its nature, and its inspiration. The tree houses will be under the natural canopy surrounded by leaves in the heart of the Ecuadorian Jungle. The retreat is an independent, limited-service, boutique lodge located in Pablo Sexto County, Morona Santiago-Ecuador. It will be built with guadua cane, a resistant yet sustainable and endemic material. Local and independent interior designers will be in charge of the tree house interior, retreat space and guest room ornamentation. Each room will have a different style depending on the artist. Interior decoration will be inspired by the energy and good vibes of the rain forest. Additionally, Tree House Retreat will have a restaurant, two small conference rooms, and an outdoor lounge.

The retreat targets North American, European, and Asian tourists primarily interested in: sustainable tourism, eco-tourism, adventure tourism, wellness retreats, educational tourism, and cultural tourism. These markets were chosen based on the foreign arrivals statistics in Ecuador. The document states that 28% come from North America, 20% come from Europe and 4% from Asia. These markets represent 50% of the global tourist arrivals in the country (INEC E. Publicacion Estadisticas Llegadas Internacionales, 2012). Kawapi lodge and Sacha Lodge report that most of its tourists come mainly from the United States (55%), Europe (35%), Asia (5%), and Ecuador (5%) (Stronza), correlating the information about the foreign arrivals statistics in Ecuador. Yet, Tree House Retreat considers that the market selection is appropriated because the market is already demanding Ecuador. Even though, tourists from Asia represent only 4%, the actual political relationship between Ecuador and China is perfect for the proliferation of Asian tourists (Hogenboom, 2012) . Moreover, the facility targets researchers and academics from North America, Europe, and Asia for the Educational Lodge. Several partnerships such as: Association of American Geographers (AAG), National Association of Biology Teachers (NABT), the American Hotel and Lodging Association (AHLA), Erasmus Mundus Association, and the Eu-Asian Higher Education Association will be developed to secure the occupancy of the Educational Lodge. It will compete with upscale destination competitors by incorporating unbeatable sustainable practices, highland and jungle ecosystem adventures (due to the spectacular location), competitive prices, Namaste experience, and the peace and wonder of being in the soul of the Ecuadorian jungle. The Retreat will exclusively partner with Sangay National Park to create customized trails, expeditions, and conservation voluntarism throughout the location. This project is intended to be a sustainable lodge in every aspect.

1.3 Location

1.3.1 Morona Santiago



Figure 1: Ecuador’s map . Morona Santiago in blue. (Ministerio de Turismo, 2012)

Morona Santiago is the fifth state in the Ecuadorian Amazon located west of the Andes Mountain Range. Morona Santiago is the only amazonian state that has highlands and jungle in the same area. The weather, depending on the setting, is diverse with temperatures between 18 centigrade and 23 centigrade (65 Fahrenheit and 73 Fahrenheit); this type of weather is tropical-subtropical. Morona Santiago is located 600 to 2,200 meter above sea level, depending on the location. Morona Santiago’s economy is based in agriculture and tourism from the Sangay National Park and the Shuar Community (Morona Santiago On-line, 2011). The park was designated as a protected area in 1975; in 1979 it was etched as national park; and in 1983 was inscribed on the Unesco World Heritage List (UNESCO, 2014).

1.3.2 Sangay National Park



Figure 2: Above is the map of the Morona Santiago Province. In addition, the green sector represents *National Park Sangay*. (Ministerio de Turismo, 2012)

Sangay National Park has outstanding natural beauty and two active volcanoes, the park illustrates the entire spectrum of ecosystems, ranging from tropical

rainforests to glaciers, with striking contrasts between the snowcapped peaks and the forests of the plains. Its isolation has encouraged the survival of [native] species such as the mountain tapir and the Andean condor (UNESCO, 2014).

The park's stunning sierra scenery takes in three volcanoes; Tungurahua, El Altar and Sangay, over three hundred lakes, pristine páramo and native cloud forest. There's very little infrastructure for tourists and no marked trail system (Rough Guides, 2014). This national park is one of the few Ecuadorian National Parks that does not have logging facilities in the area. Therefore, the occurrence of foreign tourists is the lowest in comparison to the rest of National Parks in the amazon. Ecuadorian National Parks permit the construction of eco-facilities inside the premises if the property is privately owned.

Tree House Retreat will be located inside the county of Pablo Sexto – Morona Santiago, within the Sangay National Park boundary. At the moment, there is a road available from Macas to Huamboya; however, it is in poor condition. The Retreat can be accessible by car from Quito to Huamboya, 500 km away in about 8 hours or by plane from Quito to Macas in a 30 minute flight, plus one additional hour by car to Huamboya where the lodge is situated. The facility will be within the forest merged between the flora and fauna of the Ecuadorian Jungle. The site will be as remote as it can possibly be to get the atmosphere of peace and solitude that are part of the retreat concept.

1.4 Why a Tree House

Tree houses have been part of the human memory since primeval times. They have a different meaning for most of the people, usually memories related with childhood, fantasy leisure books, and friendship but most importantly they have been linked with magical sites, hideaways, and places to retreat and find inner peace. Tree House Retreat chose tree houses as its main structure because of the perceived emotions people have towards them. Nostalgia, creative design and its closeness to nature are part of the positive collection of perceived emotions. Additionally, people tend to identify tree houses as environmentally friendly structures, and yet sustainable. Many people will agree that tree houses are places filled with reminiscence and charm. Tree houses have an incredible ability to capture the imagination and transport us to happy childhood days, where youngsters spend time building and playing inside hideaways (Pearson, 2001; Bradley, 2011). Whatever the emotional impact, there is no doubt that being in a tree house is an entirely different experience than ground living (Pearson, 2001; Polo, 2002). Additionally, tree houses are retreats filled with creativity and uniqueness because they are usually part of a family's project or an adult refuge. Most of the times they are a secondary structure; a novelty, designed and built purely for the purpose of enjoyment (Bradley, 2011). Tree houses are eye-catchers of special aesthetic appeal that enchants any location. The design of a hideaway can be simple or complicated. That is not an important factor because in the end every design will be unique, and its originality will make it an exceptional hideaway.

Tree houses are a real involvement with nature, particularly if the location is completely remote. Tree houses are a direct connection with nature, and allow a lofty view of the surroundings (Bradley, 2011). These facilities are usually not only bounded by wilderness, but immersed in it every moment (Beckwith, 2009). Tree houses seem to be the best fit for the amazon lodge because it will be the first lodge with that type of structure; and the childhood nostalgia, creative design and lovingness to nature are a great part of the overall lodge concept. These characteristics will make a real difference in the core business model and also in the attracted demand.

1.5 Tree House Retreat

In the heart of the amazon basin in Sangay National Park, Tree House Retreat will be built in 3,000 square meters. The retreat will include ten tree houses; comprising of 30 square meters of construction each. Three tree houses will be premium suites. Five tree houses will be suites. And two tree houses will be family suites. The facility will have only ten tree houses due to its deep concern about carrying capacity and adversely affecting as little habitat and biodiversity on location as possible. Additionally, the tree houses will be widely spread throughout the property in order to avoid crowding. The tree houses will mainly target couples, small families and small groups of people. Several articles suggest that couples, empty nest folks or small families (no more than four people) tend to travel more than singles or large groups (Fairley, 2003; Lawson, 1991; Therkelsen, 2008).

An extended stay facility with fourteen double bedrooms will also be built to focus on the academic market. This facility will comprise of two blocks of 100 square meters each; with 7

bedrooms in each facility. The building will be named Education Lodge (E. Lodge). It will be located inside the premises but further from the tree houses as to avoid noise pollution. The number of bedrooms was based on the Montessori Education System, in which its founder Maria Montessori, considers that a class should contain between 28-35 people in order to be most efficient (Cavegn, 2015; American Montessori Society, 2015). The size of the Education lodge is also dictated by the carrying capacity of the property and the scale of the entire retreat. Additionally, Tree House Retreat will include: two small events facilities a lounge, and a front-desk/ panoramic restaurant as common areas between the Tree House Retreat and the Education Lodge. For the back of the house, a two floor laundry/ utility facility will be built to ensure the quality of service in the retreat.

The construction will start in November, 2016, and will plan to open its doors twelve months later in November, 2017. These dates were chosen based on the rainy and dry seasons in the Ecuadorian jungle (Adventure Life , 2014). The total building area is 870 square meters and will be distributed by sections in the property. The Retreat will meet all local regulatory, licensing and zoning requirements, which are severe in Sangay National Park. All the construction will have to be approved by the Ecuadorian Tourism Ministry (Ministerio de Turismo, 2012). According to an online architecture and planning calculator, the cost to build in the Ecuadorian jungle with Guadua cane and metal structure is approximately \$600 per square meter (Soria, 2013), counting the finishes. The total value of the construction is estimated at \$491,000. The value of the property is irreplaceable since it is a National Park and Unesco World Heritage Site.

1.5.1 Building Inventory

Ten tree houses	30 square meters each
Two accommodation blocks (seven double rooms per facility)	100 square meters each
Two meeting/event facility	25 square meters each
One lounge	15 square meters each
One two-floor facility for restaurant and reception	100 square meters each
One two-floor facility for laundry, utilities and storage	100 square meters each
One viewpoint	5 square meters each
One cliff swing	5 square meters each

1.5.2 General Characteristics

- All the buildings will be built with guadua cane over a metal structure, using a garnier limb (GL) to secure them. The garnier limb is a turn-steered limb, with a collar attached above the threads; that is capable of carrying an excess of 9,000 pounds to the tree stem.
- Solar energy will be the only source of energy.
- Mosquito net windows and doors will be placed in all buildings.
- Rain water will be harvested for all the facilities
- All the toiletries and cleaning supplies will be organic and sustainable in nature.
- Local food from the surrounding area and retreat property will be used for all meals.
- Plastic bags, and other plastic supplies such as plastic food dishes and cutlery will be banned from the property, using compostable bags instead.

- Bike trails and hiking trails, will be built with natural materials from the location.
- Legal and environmental permits will be followed according to the Ecuadorian National Park Regulations. Any additional environmental regulations seen fit will be put into place and adhered to by Tree House Retreat.

1.5.3 Room Mix

According to the most recent tourist profile, the average visitor is between the ages of 30 and 65 years old (INEC E. e., Publicacion Estadisticas Llegadas Internacionales, 2012). To appeal most to Tree House Retreat’s target market, the room mix will be 20% premium suites, 50% suites, and 30% family suites. The premium suites will include a king bed, a hammock and a bathing tub with panoramic views. The suites will include a queen bed, and porch. The family suites will include two queen beds, a sofa-bed and a porch. The rooms will be distributed by type of suite in the accommodation area (ten acres) in the jungle forest. The family suites will be in the back to minimize the noise. And premium suites and suites will be located in the front, surrounding the lounge. Due to the location, the facility will not allow pets; however, Tree House Retreat will have an agreement with a prestigious pet hotel for the guests who may need the service.

Premium Suites

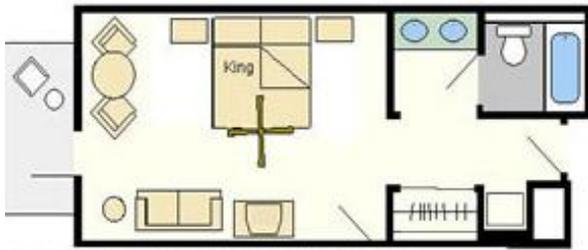


Figure 3: Animal Kingdom Lodge Premium suite (Disney, 2015)

Suites

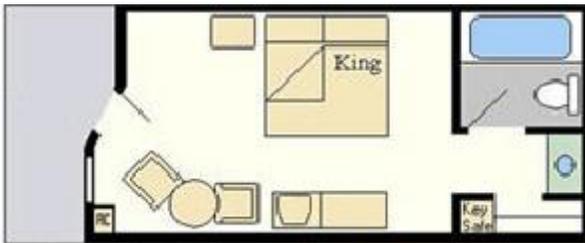


Figure 4: Animal Kingdom Lodge Suite (Disney, 2015)

Family Suites

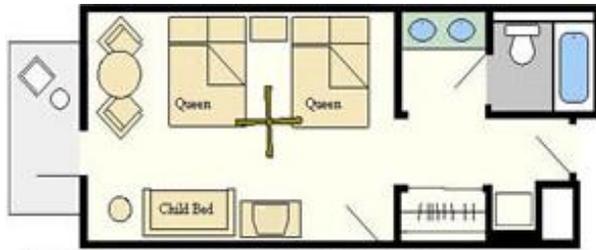


Figure 5: Animal Kingdom Lodge Family Suite (Disney, 2015)

The Education Lodge consists of two blocks with seven double rooms each. Each room will have two twin beds, table and two chairs, complete bathroom, and reliable wireless connection. Each room will be equipped with mosquito nets and clean linens every day.

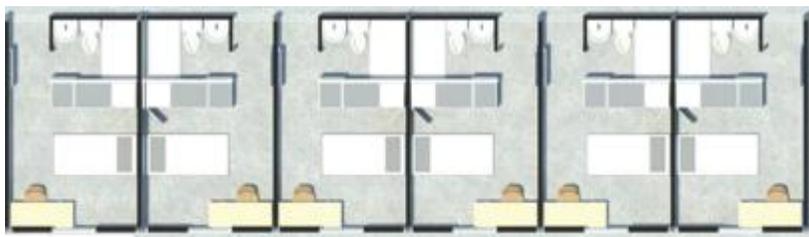


Figure 6 (Bulacion, 2014)

1.5.4 Food and Beverage

The Retreat will have a restaurant and lounge as part of its services. The restaurant will have a capacity of 40 guests; in 100 square meters (Ross, 2013). The restaurant, called Brisa, will be full service; it will serve a breakfast buffet, a two course lunch, and a three course dinner, non-alcoholic beverages are included in the meals. The lounge, called Luna Nueva, will serve snacks and both alcoholic and non-alcoholic beverages. The lounge will have a capacity for 20 people, in 50 square meters (Ross, 2013). Both Brisa and Luna Nueva will be decorated with the same theme as the rooms, all the furniture will be from bamboo, and the food will be from local sources. All the waste will be composted as a lodge regulation.

1.5.5 Infrastructure & Regulatory Restrictions

Strong growth control policies which aim to protect Sangay National Park also inhibit accommodation growth through park restrictions on construction and strict zoning requirements. Ecuadorian National Parks allow privately owned properties inside the park premises to develop their land accordingly. This an important current trend given the fact that, 95% of the National Parks have accommodations inside its borders; with Sangay National Park being the exception (INEC E. e., Publicacion Estadisticas Llegadas Internacionales, 2012).

However, The retreat will face several limitations while developing the lodge. Energy, water and sewer system are not yet available for Pablo Sexto County. Since Pablo Sexto County does not have a sewer system, all the grey and black water goes to private septic tanks. The facility will harvest rain water as a sustainable practice in the lodge. Taking in account all these limitations, The project sees them as a positive opportunity for in depth sustainable practices.

1.5.6 Property Diagram

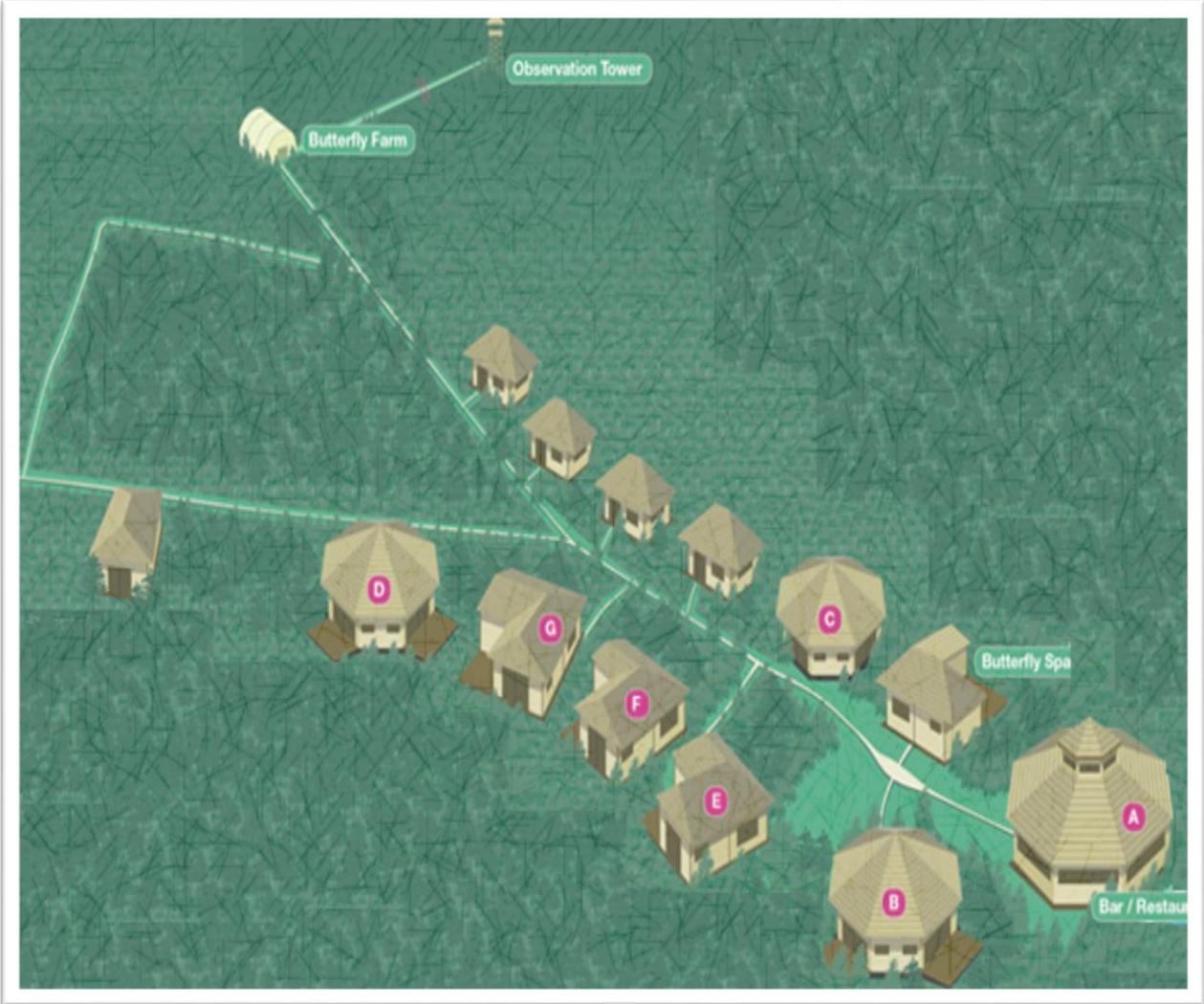


Figure 7: Property diagram (Bahamon, 2005)

Section Two: Tree House History

Tree houses have been part of human history from its beginning with habitation and recreational purposes. These structures were used as protective spaces, strategic hunting places, habitable areas and recreational settings(Beckwith, 2009). They were first found in South Pacific Cultures in the Antique Era. Several decades later, similar assemblies were found in Japan, Persia, and England. Tree houses started to propagate in Europe during the Renaissance Era and Modern Era. The American continent was the last continent to engage in tree houses during the Contemporary Era. Tree houses have been part of history in every Era in their different forms. They had been around for centuries now; however, it is less than a couple of decades ago that they have evolved into habitable areas not only for personal use but as an accommodation business too. The uniqueness of its structure makes them extremely appealing to the target market and generates a special bond with nature that creates the perfect scenery for eco-tourism.

Tree houses have long been used by the people of the South Pacific and Southeast Asia for living purposes. The Kombai and Korawai of the New Guinea, [native people from the region], traditionally lived in tree houses “like nests of giant birds” (Pearson, 2001). These structures were called “dobbos” and ladders were pulled up once inside to keep the enemy away (Beckwith, 2009). These populations chose to live among the trees to protect themselves from the dangers of being at ground level (Bahamon, 2005). Additionally, “records also document observation bridges in Japan, luxurious platforms in Persia and classical Rome, and popularized versions of tree houses were visible during Britain’s Victorian era” (Bahamon, 2005). For example, Caligula, the roman emperor, held parties and banquets in a giant tree house (Pearson, 2001). Nonetheless, it was not until the renaissance when the bourgeoisie thrived that the tree houses appeared all over Europe and later in America.

During the renaissance, an era full of art and enlightenment, the bourgeoisie generated the appealing and appearance of many types of eccentricities including tree houses. Plastic arts were in their best period, including architecture, hence, tree houses started to show up, mainly with recreational and retreat purposes. “In Tudor England, Queen Elizabeth I dined in a house in a massive linden tree” (Pearson, 2001). In the same way, several members of the Medici family competed with each other to create tree houses for their backyards (Pearson, 2001). Still, it was not until the Modern era when tree houses became popular. They were used in private settings but also as platforms for public enhancement.

The Modern Era characterized by progress, knowledge and reason was the main setting for the tree house’s rising in Europe. Tree houses were different structures, fresh brought from leisure fantasies perfect for public recreational activities (Pearson, 2001). One of the first tree houses “built in the seventeenth century is the Pitchford Hall in Shropshire, England, which is the oldest tree house still in existence” (Bradley, 2011). In 1653 the first recording of a tree house actually built into a hollow tree in Hampstead, England. It became an advertisement for the already locally famous Hampstead (Beckwith, 2009).

Another good example is “the great oak tree Chêne chapelle” in Seine-Maritime, Normandy, France built in 1669 (Bradley, 2011). And the Dancing Lime Tree House in Peesten, Germany, was built around 1760. It still serves as a platform for public functions (Nelson, 2004). “These structures represent only a small part of the rich history and ongoing public interest with tree houses” (Bradley, 2011). The modern era had several exemplifications of tree houses and different locations that already adopt them. However, the Contemporary Era made the tree house famous and known all over the world due to the publication of the book “Swiss Family Robinson”.

In the western world, tree houses were leisure fantasies until the Contemporary Era (Pearson, 2001). The availability of resources and knowledge made possible the construction of tree houses for anyone who wanted one. Most of them started as the idea of children playgrounds, adult retreats, and temporary lodging facilities but now they are considered permanent residences and even accommodation facilities with a business purpose.

“In 1813, the publication of the book “Swiss Family Robinson” by Johann Rudolf Wyss greatly influenced the building of tree houses, which was beginning to catch on across the world” (Beckwith, 2009). Additionally, in 1914 Phoebe Westcott wrote her book “The Practical Book of Garden Architecture”. The book describes how any person with “seven [simple] handyman skills may be able to design and build a tree house that is safe and satisfactory” (Beckwith, 2009). However, “While these structures have been available for community use for hundreds of years in Europe, it was not until 1998 that a tree house was first made to follow code for public use in the United States” (Bradley, 2011).

In 2013, tree houses became far more popular with the “Tree House Master” television show by Pete Nelson, one of the biggest tree house builders in the United States. He is the former president of the World Tree House Association, a network for tree house dreamer, builders, and residents. And once again in history tree houses are blooming. People want them in their backyards, or as accommodation facilities in their vacations, they come in different shapes, forms and functions.

The first records about tree houses started with the native population in New Guinea. Then several tree house-like structures were found in Japan, Egypt, Greece and Rome. In the Renaissance the first recreational tree houses show up inside the bourgeoisie and royal families. Later on, in the Modern Era they became really popular as private and public platforms for different activities. However, it was not until the Contemporary Era that tree houses started blooming again as habitable structures sometimes for family use, and some others with commercial drives. Tree houses have been around for centuries now, and every day they are settling down as a valid architectural structure for permanent residents or facilities. Its development has improved a lot with technology and more and more people consider them safe and even an environmentally friendly option for a house, permanent or temporary.

Section Three: Tree House Development

Tree house development has improved significantly in the last two decades. More recently, professionals from different fields have become increasingly interested in the creation of these. The advancement of technology and materials allowed people from all over the world to create and build their own houses with lightweight designs that do not affect the tree. “The basic idea of a tree house is a hideaway, a refuge among the greenery of the trees” (Tarling, 2014). However, there are critical “factors such as location, inclination, accessibility, light, ventilation, and views [that] influence the general composition, form, construction and structure of the project” (Bahamon, 2005). Therefore, the selection of materials and technology used in the tree house development is key to determining the success and long-term durability of the site.

The development is not an easy job, but since that technology is evolving every moment it is now possible to build cleaner and longer lasting structures for personal and commercial use. Technology has been one of the key factors in the tree house development with two main concerns including the structure weight and land conservation (Polo, 2002). For example, one of the biggest concerns is how to decrease the removal of trees in the chosen location. Therefore, an effective alternative to this concern is to build up to certain height (Polo, 2002). For this reason, tree house builders have to create and implement the use of the Garnier Limb (GL), or a lag bolt that ensures superior stability to the structure while causing minimal harm to the tree in high altitudes (Beckwith, 2009). The bolt is a “human-made, turn-steeled limb, with a collar attached above the threads; it is capable of carrying an excess of 9,000 pounds to the tree stem, and is used in the common scenario where load needs to be carried in the absence of an actual tree limb” (Bradley, 2011). This tool is widely used in tree house development. It allows tree houses to be built high and safe and take advantage of the leafy scenario. In Addition, this tool is completely resilient. Any wounds caused by a GL are effortlessly healed by the trunk to the point where this non-natural limb seems to become part of the tree (Beckwith, 2009). The GL permits the tree to keep growing and adjust the tree house in this process; also it allows the assembly to amend to the wind and natural movement of the tree. The GL has been a crucial tool for the satisfactory and safe development of tree houses but the materials used for building the actual tree house are as important as the structure. The materials will determinate the durability and reliability of the project.

Since sustainability is not enough, tree house constructors are thinking and talking about zero energy building (ZEB) (Tarling, 2014). This type of building is not only sustainable but also protects and conserves the location. A ZEB facility only uses the energy that is generated by the same structure. A tree house can be built using environmentally-friendly and sustainable materials or be built using common materials, either way the success of the structure is determined by the materials and technology used. “A dwelling on a single pole with no footprint on nature” and the use of cradle-to-cradle certified furniture inside the tree house are valid materials for sustainable constructions (Tarling, 2014).

An eco-friendly tree house means using as much recycled and refurbished material as possible and keeping in mind their integrity and strength as safety is always a big concern (Pearson, 2001; Beckwith, 2009). It is also common that a tree house that uses pressure-treated

wood will probably last longer but might contain toxic chemicals (Pearson, 2001). In the end, there is a wide spectrum of materials that can be used depending on the owner's vision and style of the site. The most common used materials are wood, and reclaimed wood, they are visually sensitive and widely available (Laurens, Dufour, & Andre, 2007; Beckwith, 2009; Bradley, 2011). Moreover, materials such as tin, timber, cedar shingles, scrap metal and corrugated iron are often suitable for rooftops because it is low maintenance and durable (Greenberg, 2006; LeShane, 2008; Beckwith, 2009; Tarling, 2014;). Steel rings and stainless steel locks that adapt to the growth of the tree, or cedar pillars and taut steel wires are also useful for structure materials (Bahamon, 2005).

Bamboo sticks, cane, and rope are also important materials to consider; they provide unbeatable value for the money and can replace many tropical woods. For example, Bamboo has great tensile strength and is two times stronger than steel (Bahamon, 2005; Greenberg, 2006; Laurens, Dufour, & Andre, 2007). There are a wide variety of materials to choose from, but it is important to consider the weight of these for building and safety purposes. The chosen materials are the key for a successful tree house, these will determinate the durability, security and concept of it. The materials have to be selected wisely to avoid harming the tree, the environment around the building, or the building itself.

The creativity and initiative in building tree houses has augmented considerably during the last two decades especially because of technological improvements and wider options in materials. A meaningful variety of professionals inside the construction arts and science are sincerely interested in tree house development and design; hence, the tree house creation has evolved from primitive to extremely well developed and detailed. This transition could not be possible without the world's demand for tree houses. More and more people around the world have the desire to have a tree house or at least staying in one temporarily. The increasing demand of tree houses and tree house lodges can be due to in part from people's perception on the safety of new tree houses. People now feel safe staying in tree houses, as the materials and technology used implemented to build them are greatly improved.

3.1 Steps for Building a Tree House

Tree houses have existed for centuries, and like most of the circumstances in history things change and evolve. These houses have changed considerably during the past decades. They went from childhood playgrounds to luxury adult retreats; and from simple structures with reclaimed wood to extremely detailed structures with all the utilities and amenities needed for a comfortable stay. Most of the tree houses started with the basic concept a hideaway or a refuge. Therefore, It is important to choose a tree, a healthy one so that it can handle the construction. The tree will determinate the type of construction and the weight that can handle. Then, Building a platform solid enough to handle the weight of the tree house, but flexible enough to let the tree keep growing. After the platform is built, the builder has to wisely choose the materials for the roof, walls, deck, railings, doors and windows. Once the assembly is built and safe, the amenities and utilities can be added depending on the personal preferences and availability of them on the site. Finally, the builder can decorate and design the inside of the structure. Building a tree house can be a tough job, but in the end it will all be rewarded. When it is concluded the creator will be immersed inside nature and the heavy canopy, feeling the peace of the new hideaway.

Choose a Tree

The first step in building a tree house is to choose a tree and decide on which position the tree house will be built (Pearson, 2001). It is important to choose a healthy, mature, but relative young tree with a broad root system. As decay is the enemy when it comes to deciding where to build; it is fundamental to avoid trees overloaded with fungus, moss or rot (Gorman, 2006). The best species for tree houses are beech, fir, maple, ash, pine, hemlock, cedar, black locust and oak. These trees are deep-rooted with strong wood, durable, rot resistant and provide excellent stability (Gorman, 2006; Greenberg, 2006; LeShane, 2008; Beckwith, 2009). “Straight, young trees are ideal for tree house longevity” (LeShane, 2008). On the other hand, the worst species for tree house building are birch, buckeye, cottonwood, willow and poplar. These trees suffer from weaker wood or a short life span (Gorman, 2006).

It is also important to remember that a tree house can be developed in several different ways; around the tree, supported by several trees, suspended from several trees, on top of the branches, on the remains of the tree, or alongside a tree (Bahamon, 2005). However, the tree house has to follow the form of the tree, allow for growth and movement, all while keeping the structure lightweight (Pearson, 2001). Once the builder chooses the tree, the next phase will be to build the platform.

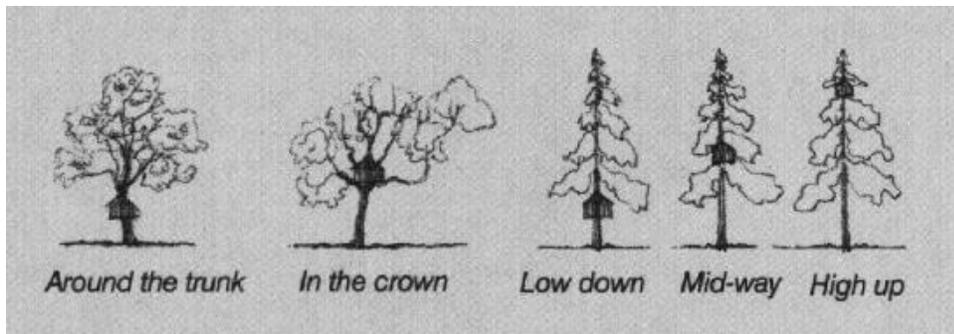


Figure 8: Tree House Positions (Pearson, 2001)

Building a Platform

The platform is the base element of almost any tree house. It provides a secure foundation for the rest of the structure. “The platform should be built close to the trunk, with diagonal bracing for extra strength if it is not supported by branches or posts” (Pearson, 2001). Since a tree house concentrates its whole weight onto a few points, those attachments have to be really strong (Gorman, 2006). Additionally, when numerous branches or trees support the foundation, junctions must be flexible to allow for tree sway (Polo, 2002; Gorman, 2006). The platform should be attached to the trunk with a stainless steel GL to prevent disease and rot; also the GL allow beams to move slightly, to keep a tree's swaying (and growth) from pulling apart the structure (Pearson, 2001; Polo, 2002; Gorman, 2006 Beckwith, 2009). Once the supporting structure is perfectly leveled, the flooring can be laid down (Laurens, Dufour, & Andre, 2007). The next step of the tree house will be the construction of walls, roofs and floors.

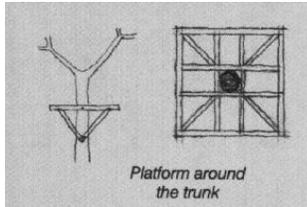


Figure 9: Platform around the trunk (Pearson, 2001)

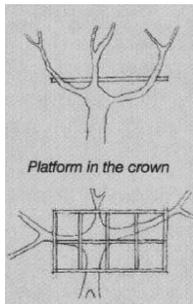


Figure 10: Platform in the crown (Pearson, 2001)

Floors and Roofs

Once the platform is built, the next step will be to assemble the floor, the walls and the roof. For the floor, the builder might use exterior plywood sheets or proper tongue-and-groove floorboards (Pearson, 2001). The walls can be both constructed in its original place or prefabricated on the ground and then hoisted up into position (Time-Life Books, 1978; Pearson, 2001; Polo, 2002). The roof can likewise be pre-assembled; however, “if branches are to penetrate it, or if it has an irregular shape, it is generally best to build it in [its original place]” (Pearson, 2001).

After the roof is in the right place, it can be covered with external plywood and finished with roofing felt, tar paper, local recycled shingles, thatch or palm leaves (Pearson, 2001). It is crucial to tighten all the bolts and screws for the reinforcement of the assembly (Laurens, Dufour, & Andre, 2007). the builder has to make sure that the structure is solid and waterproof to prevent rot and contretemps in the future. Moreover, “a deck can be part of the tree house platform, it could be extension constructed at a later date, perhaps at a different level and reached by a rope bridge or wooden walkway” but it always needs to be surrounded by safe railings (Pearson, 2001).

For tree house access, a basic wooden or rope ladder is fine if the House is not far from the ground, nonetheless, steps with handrails are better for higher tree houses. Sometimes it is possible to build a bridge or rope walkway from an adjacent tree, building, or area of high ground to increase the fun of the tree house (Pearson, 2001). Once the basic tree house is done, water, waste and energy installations can be added.

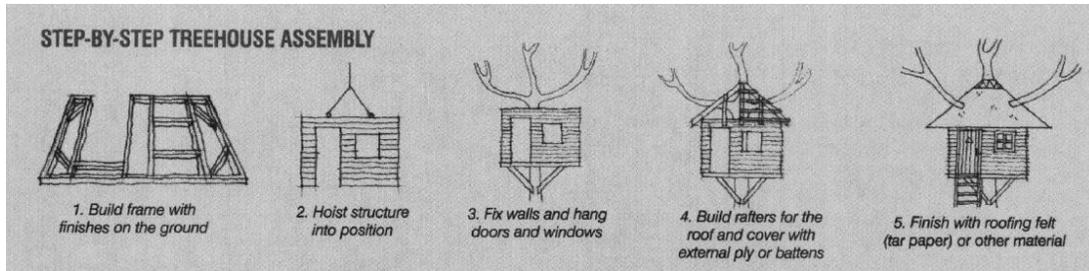


Figure 11 : Step by step tree house assembly (Pearson, 2001)

3.2 Utilities

As soon as the basic structure of tree house is complete, it is necessary to think about the amenities inside the site. Depending on the location and resources available, the builder has to choose what features or amenities inside the tree house he or she wants. After the selection of the tree house conveniences, it is necessary to figure out how to get water, energy, and deal with the generated waste. In some places where electricity and septic is available it is easy to incorporate them into the tree house. However, in remote settings where septic, conventional electricity and water sources are not accessible it is crucial to think about alternatives for these utilities.

There are now an increasing number of eco-friendly tree houses [where] water is collected and recycled, photovoltaic panels provide electricity, and double-glazed windows make for a comfortable and energy conserving interior (Pearson, 2001). Additionally, many isolated places use harvested rainwater as their main source of water, composting toilets for waste management and solar panels for electricity. These are not only viable substitutes but sustainable too, since they protect the environment and avoid the use of non-renewable energy or materials.

3.2.1 Water

Water is probably the most important resource to have inside a structure. Water is vital for drinking, eating, cleaning and personal purposes. In conventional locations, getting a water supply is fairly easy; however, in remote places and rural areas getting a water supply can be fairly complicated. For example, Inside the Ecuadorian Rain Forest there is no municipal water available. Thus, local communities usually channel its water from the nearest source; well water, or harvested rainwater (Bahamon, 2005). These systems can be as basic or as complicated depending on the project and necessities. Typically, most of the locations will get water from the closest source if there is one available or well the water with a straightforward pump; however, harvesting rain water can also be a good alternative and more sustainable if done it properly.

Water is crucial to any project; therefore, the site must be developed in the easiest and most energy efficient way to bring water to the location. Tree House Retreat will harvest rain water as their main source of water in the lodge. This method was chosen due to the lack of energy it requires and the fact that it does not disturb the biodiversity of the location.

The simplest rainwater collection device, can save thousands of gallons of tap water each year, and save money and energy (Banks & Heinichen, 2003). Harvesting rainwater can be completely feasible and viable with the right equipment. In order to build a proper catchment for

rainwater it is necessary to have a collection area, a transportation system and a storage facility. The size of these structures will depend on the capacity the retreat needs (Garden Gate Magazine, 2014). The system has to be developed by a specialist to save energy and efficiently use all the collected water.

The harvested rainwater in the retreat will be used for showers, and sinks. Additionally, it is important to filter the harvested water so it can be used safely. There are several treatment options, including microfiltration, UV sterilization and ozonation to treat rainwater without the use of chemicals or hazard elements (Banks & Heinichen, 2003). Most systems use an amalgamation of physical filters, and a UV-light chamber, which kills bacteria and other organisms by exposing them to high-energy ultraviolet light (Banks & Heinichen, 2003). Harvesting rainwater can be fairly easy; however, the system has to be as simple and easy to incorporate the filtration system before it gets to sinks and showers.

3.2.2 Energy

Energy is another crucial element inside the site, mainly for lighting. Having light inside and outside the tree house may prevent dangerous events for guests. In conventional locations getting an energy supply is fairly easy; however, in remote places and the countryside getting an energy supply can be truly complicated. Since electric power is often not a practical consideration in heavily wooded regions or rural areas, alternative methods such as solar, wind, and water can be the primary power source when electrical wiring is not available (Pearson, 2001; Bahamon, 2005; Greenberg, 2006; LeShane, 2008; Beckwith, 2009).

Heating and energy would be produced via the sun and the ground as well (Tarling, 2014). Solar energy and geodesic energy will be the main source of renewable energy used in Tree House Retreat. These sources are economic and also ecological since they do not use fossil fuels. Also, options such as oil lamps, gas containers, propane containers and kerosene lamps are also a viable alternative; however, they are not sustainable due to its pollutants (Time-Life Books, 1978; Greenberg, 2006). Additionally, a micro-hydro power source can be another keen-feasible option if there is constant water flow available. Micro-hydro power is the same as hydro power but the source may be less vigorous or farther from the point of use. “Micro-hydro power systems are relatively inexpensive and have virtually no noticeable impacts on surrounding ecology, they can be advantageous systems to use in areas where flowing water is available in smaller doses” (Beckwith, 2009). This system can run with as little as two gallons per minute running through its generator, and can supply a more continuous flow of energy than other alternative options. This system does not contaminate the air or water with pollutants, and it has a low cost related with its build (Beckwith, 2009).

Solar panels are also a good alternative to generate energy. They are stress-free to handle and if the location has a good exposure to continuous sun they can be effective. This system is also free of pollutants for the environment; however, the solar panels can be expensive to install. They need to be located perpendicular towards the sun with no shade over them. “Solar energy requires little maintenance. They are a silent producer of energy that produces zero carbon emissions. Once the solar panels have been installed and are working at maximum efficiency

there is only a small amount of maintenance required each year to ensure they are in working order” (Becken, 2005).

Finally, wind energy is another good alternative of sustainable energy. The wind flow when "harvested" by modern wind turbines, can be used to generate electricity. It is not viable in dense rain forest habitat because too much biodiversity will be lost in order to place the turbines. Also, wind plants can be noisy and the initial investment can be considerably higher (Becken, 2005). Therefore, the retreat will use water or solar energy as their main source of energy. The decision will depend on the availability of a water source, if it is too far, solar panels will be the best option.

3.2.3 Waste

Waste management is the biggest challenge in remote locations. Many locations around the globe lack sewer systems and septic tanks are too hard to build due to the type of ground. Therefore, it is crucial to find alternative solutions that are environmentally friendly and economically available. The waste management in the lodge will be divided into three sections; black water, grey water and kitchen waste.

The black water problem will be treated by using a composting toilet (Polo, 2002; Greenberg, 2006; LeShane, 2008). “In a composting toilet human wastes are mixed with kitchen and garden wastes in a larger container where they decompose into a rich fertilizer” (Time-Life Books, 1978). Once the fertilizer is ready it will be used as a fertilizer for ornamental plants or sold to an outside vendor.

The grey water will be recollected and later used for watering the gardens and plants in the property. This action will be possible and non-hazardous because all the amenities provided in the lodge are environmentally-friendly, and hand-made with natural and organic materials only.

Kitchen waste will be separated into organic waste (that will be composted with the bathroom waste), aluminum, and glass. Aluminum and glass will be reused or recycled to maintain the cradle to cradle philosophy of the lodge. Cradle to cradle is a term used to describe that an artifact, material or component has a succeeding life or a second chance after its first application. Additionally, plastic bottles, and plastic containers will be banned from the property to avoid the use of this material. The waste management will be handled in the most sustainable and environmental way possible, always respecting the environment and the location.

Section Four: Organization and Management

4.1 Management

Tree House Retreat will be managed by a single on-site manager. A full time, bilingual assistant innkeeper will be hired to assist with management duties. This support position is important to maintain reservations and inventory planning within the facilities. In addition to being in charge of daily operations, these positions will handle marketing initiatives and facilitate the planning of on-site events. Management will be responsible for oversight of general accounting duties, and having all the documentation ready for the off-site accountant. The off-site accountant will be in charge of payroll, government taxes and other federal requirements. An accounting service will be out sourced at low cost, and removing this duty from the management department will allow more time for other priorities.

Lodge Policy:

Check in 3pm

Check out 11am

Children allowed (children under six years old free of charge)

Pets are not allowed

Minimum night stays on holidays.

Rates based per person.

Reservation must be secured with a credit card deposit (MasterCard, Visa, American Express, Dinners Club, and Discovery) in the amount of the first night of stay.

Cancellation policy:

100%	6 months before the tour
80%	5 months before the tour
60%	4 months before the tour
50%	3 months before the tour
25%	2 months before the tour
0%	1 month or less before the tour

4.1.2 Front Desk and Guest Services

The front desk will have a two-shift receptionist/concierge. The front desk clerks will work a 7 am to 3 pm shift and the evening shift will be from 3 pm until 11 pm. The front desk will be in charge of regular duties communicating with housekeeping, answering phones, making reservations, guest check in and check out, coordinating shuttle service, and assisting customers. The front desk will be in charge of guest statistics and surveys about quality.

5.1.3 Housekeeping

The facility will have three housekeepers. The staffing level will be adjusted for holiday variations. The daily shift will run from 7 am to 3 pm to handle laundry, stay over's, clean dirty rooms and prepare rooms for new arrivals. Given the location of the retreat it is likely to be challenging to find staff that lives nearby. This difficulty may be lessened by providing shuttle service to pick up staff from the neighboring areas, if needed.

4.1.4 Food and Beverage

The facility will hire an executive chef, one kitchen assistant, one steward, two waiters and one bartender for the restaurant and lounge. The restaurant and lounge staff (except for the Chef) will share tips and ten percent mandatory service charge in accordance to Ecuadorian law.

4.1.5 Maintenance

The maintenance department will be out sourced from the local community surrounding Sangay National Park. The maintenance program will take turns being on call after hours, and they will receive the corresponding profit portion for the worked hours during a year.

4.1.6 Sustainability Manager

The manager in this position will be in charge of the environmental policy and all the trails and attractions inside the lodge. The sustainability manager will also be in charge of the educational programs and the research of grants for conservation and preservation of certain areas in the park. He or she will be also be in charge of the carbon off set program and a future vertical agriculture plan for the facility. The sustainability manager will be also in charge of hiring two tour guides for Tree House Retreat activities.

Guides must be able to identify and point out the native flora and fauna, detect signs of rare species, identify bird calls and other animal sounds, respond to guests' questions about flora and fauna, be informed of ecological concepts (including theories of Pleistocene refuge, evolutionary and co-evolutionary mechanisms, etc.), and discuss a range of cultural and archaeological matters (including the customs, traditions, and contemporary challenges of the indigenous people from Sangay National Park Achuar). Guides should also ensure that their tourists are well informed of environmental problems, and the relations between economic growth, deforestation, and ecotourism as an alternative. The guides will be bilingual, and must have well developed social and problem-solving skills. Someone from the area will be hired to promote social sustainability.

4.2 Environmental Policy

No plastic packaging allowed
Soft beverages will be purchased in bulk or in glass containers
Monthly staff social development program
Solar energy will be used where possible

Local sourcing of food, materials and staff when appropriate
Rainwater harvesting
Sustainable education programs
All procedures will be paperless

Section Five: Marketing Plan

5.1 Products & Services

The facility will offer ten independent tree houses and fourteen double guest rooms equipped with furniture and luxury eco-friendly amenities such as: soap, shampoo, conditioner, body lotion and repellent. Each room will have 400 thread count Ecuadorian pima cotton linens, pillow top mattresses, hammock (premium suites), fan, and a safe box. Additionally, under previous request, guests can ask for a 2,000 thread Pima Cotton robe and bamboo flip-flops. The retreat will come with high speed wireless connection, two meeting spaces, a restaurant, a lounge and a small boutique with souvenirs. It will also have a viewpoint from one of the highest trees in the property and a swing to appreciate the canopy and the environment from a different perspective.

The tree houses will be divided into premium suites, junior suites and family suites. The premium suites will be developed under 30 square meters. They will have king bed, a hammock, coffee table with two chairs, full bathroom with a panoramic view of the canopy, and an outdoor porch. The junior suites will be developed under 25 square meters. They will have a king bed, coffee table with two chairs, full bathroom, and an outdoor porch. Finally, the family suites will be developed under 30 square meters. They will have two queen beds, a sofa-bed, and coffee table with four chairs, complete bathroom, and an outdoor porch. All the suites will provide clean and drinkable water, daily Housekeeping, three meals per day and tree House activities all day long.

5.1.1 Services

The retreat will provide a wide variety of services and activities for tourists and students who stay at the lodge. It will offer three meals per day - per guest. The breakfast will be served as buffet. The lunch will be a two-course meal and dinner will be a three-course meal. Water will be unlimited; however, soft drinks such as soda, juice, tea or coffee and alcoholic beverages will be extra charge. The facility will provide binoculars and hiking poles for certain trails at no extra cost. An educational and used book library will be available in lobby with a vast selection of books in different languages. Additionally, The retreat will have a boutique shop with clothes, souvenirs, eco-friendly toiletries, and organic snacks. Guided tours and guided expeditions to Sangay National Park will be the icon of Tree House Retreat.

An educational component will be a main focus of most of the programs, including the bird watching, frog watching-singing and night hikes. Furthermore, Tree House Retreat will provide a complementary shuttle from the Macas airport, hiking poles, binoculars and rubber boots to guest if needed. Tree House Retreat firmly believes in sustainability; therefore, most of the lodge activities will include in the guided tours pamphlets and signs around biking and hiking trails to prevent lost of fauna and flora in the park.

Hiking tours will include trekking to the Tiricio Mountain Chain to see world class biodiversity, and enjoy the Sangay National Park lakes and waterfalls. Moreover, hiking trails and guided tours to the lakes and waterfalls will be offered all year long. The retreat also offers

hiking and biking adventures to the Sangay National Park hot springs. Expeditions to Sangay Volcano and Altar Volcano will be also presented; these include all meals and luxury camping. In October, Tree House Retreat will release the Ozogoché Lake tour to watch how thousands of birds (Cuvivies) commit suicide during this month.

The facility recommends spiritual and wellness workshops. Yoga retreats such as Ashtanga, Hatha, Iyengar, Vinyasa, Yoga), workshops, and wellness workshops are offered as retreats in the premises. Agricultural workshops such as learning how to do a hydroponic garden, learning how to recognize wild edibles, and learning how to juice properly will also be part of the available sessions. Additionally, Tree House Retreat presents art workshops such as photography, painting and drawing as daily sessions in the Retreat and Education Lodge.

Outdoor and wilderness workshops for those more adventurous, including workshops on survival skills, wild edibles, and strange plants of the Amazon will be also offered. It offers a vast amount of services for all types of personalities and kinships; but all the workshops and activities are meant to bring peace and mindfulness to the guest.

5.2 Pricing

The facility has set three different types of rates depending on the target. It considers Rack Rates, Education Lodge rates and discount rates for the tourism and education markets. Tree House Retreat and E. lodge will charge a per person per day rate, this model is based on the competitors of the surroundings. The retreat will charge \$250 per person at rack; \$150 per person at rack if they are staying in the E. Lodge, and both rates will be lessened by 25% in the case of a discount rate. The E. Lodge will charge \$100 per person to students, academics, and researchers with a valid student ID from partner Universities, and the rate will be diminished by 25% in case of a discount rate. Discount rates will only be apply in groups larger than six people. These rates have an advantage over the competition not only price wise but as a whole package.

5.3 Promotions Plan

Packages will be one of the retreat's sale approach. "A package tour is a combination of the many components of a vacation such as transportation, accommodation, sightseeing, and meals which are sold to customers at a single price" (Mak & Sheldon, 1987). Many travelers perceive set tour travel to be cheaper than independent travel; yet, it is a good sales strategy. "56% of travelers believed that package tours were cheaper than similar travel arrangements booked separately and only 11% believed them to be more expensive" (Mak & Sheldon, 1987). For the reason above, Tree House Retreat will offer packages that include three to four nights, and all meals, workshops at a pre-determined price.

The authenticity of the Tree House Retreat, being the first tree house facility in the country, provides a competitive edge for the tourism package (Kane, 2004). "Authenticity rates very highly with tourists on the 'Benefits' scale, and is a major incentive in bringing tourists back to the area" (Kandampully, 2000). Therefore, the retreat will not only offer packages inside its premises but in partnership with other locations in Ecuador to make the experience unique to its guest. It will make special agreements with the facilities and tours in other advertised places in

Ecuador. Cialcotel, Boutique Hotels in Ecuador, will provide the accommodation in the rest of the locations in the country. This boutique hotel chain is well known for its forceful.

List of Packages

- i. Quito – Morona Santiago
3 days – 2 nights Quito
4 days – 3 nights Tree House Retreat
- ii. Morona Santiago – Galapagos
4 days – 3 nights Tree House Retreat
5 days – 4 nights Galapagos Island Hopping
- iii. Imbabura – Morona Santiago
3 days – 2 nights Imbabura
4 days – 3 nights Tree House Retreat
- iv. Morona Santiago – Cuenca
4 days – 3 nights Tree House Retreat
3 days – 2 nights Cuenca
- v. Morona Santiago – Train
4 days – 3 nights Tree House Retreat
3 days – 2 nights Cuenca

5.3.1 Penetration Strategy

The promotion and publicity of the retreat will be exclusively online due to the internal environmental policy. The penetration strategy will start with media announcements in social media such as: Facebook, Instagram, and Twitter. Once the public is intrigued about Tree House Retreat, the lodge will advertise its packages in outdoor-focused websites and retreat finders websites. Websites such as clymb, backcountry, retreatsonline, retreatfinder, womenquest, bookyogaretreats and roadtrippers, will be the primary carriers of the Tree House Packages. Also, the facility will be present in the brochure and website of Sangay National Park.

5.3.4 Growth Strategy

The retreat is based on economies of scale. It won't grow more than ten tree houses and the Education Lodge because of the maximum carrying capacity of the common areas. Tree House Retreat is deeply concerned with carrying capacity and the effects of it in such a pristine area. Eventually, the facility plans to grow by creating the same scheme of business and services in a different location.

5.4 Distribution Plan

The distribution plan is one of the main segments and crucial components in the marketing plan. It consists of four main stages: First a press release; second, developing partnerships with sustainable tourism organizations; third, developing partnerships with educational organizations, and fourth, developing a joint application with Sangay National Park to merge efforts and promote the park and Tree House Retreat together.

The distribution plan will begin during the construction phase with press releases going out through selected media and Tree House Retreat web site. The advertising and publicity of Tree House Retreat will be on-line only due to Tree House Retreat internal environmental policies. The advertising will be in five different languages: Spanish, English, French, Japanese and Asian.

Tree House Retreat will have online-booking capabilities through their website as well as be present on Expedia, Trip Advisor and other accommodation search engines; however, the guest could only book directly through Tree House Retreat website. The retreat will become a member of the Ecuadorian Chamber of Commerce, Adventure Travel Trade Association (ATTA), Global Sustainable Tourism Council (GSTC), Ecuadorian Association of Ecotourism (Asociación Ecuatoriana de Ecoturismo), Environment and Society Foundation (Fundación Ambiente y Sociedad), Dutch Development Association (Organización Holandesa de Desarrollo -SNV), International Galapagos Tour Operators Association (IGTOA), International Task Force on Sustainable Tourism Development (UNEP), Provincial Chamber of Tourism (CAPTUR), and National Tourism Association (OPTUR) to make tourism partnerships and generate demand from these associations. Developing these partnerships is essential to maintain flowing demand and update information and features regarding sustainable practices. Yet, developing additional partnerships with educational institutions will be the next step in the distribution plan.

The services will be advertized in various academic associations that may be interested in extended stay expeditions for investigations, dissertations or general research studies. The retreat considers these organizations vital to the demand of E. Lodge. Additionally, the facility considers important to spread via word of mouth about the E. Lodge in Sangay National Park to more academic and non-profit organizations involve with sustainable development. The main academic associations to be targeted will be Association of American Geographers (AAG), National Association of Biology Teachers (NABT), the American Hotel and Lodging Association (AHLA), the Erasmus Mundus Association and the Eu-Asian Higher Education Association (EAHEP). Tree House Retreat will target universities and higher education institutes in Europe, Australia, and China.

In an effort to spread the word about Tree House Retreat, it will develop an interactive tool to facilitate the visit and the exploration of Sangay National Park. Also, The retreat will develop a smartphone application of Sangay National Park that will include a section of the facility as the main lodging facility in the park. This application will have a reservation feature, a compass features, the main hiking and biking trails inside the property. In accordance with lodge policy, it will be crucial to incorporate technology not only with the Park but also with the partner organizations in order to try and continue towards a more sustainable system of tourism.

In conclusion, the distribution plan will start with websites and press releases in selected media channels. Partnerships with sustainable tourism organizations and educational organizations will be generated to create more demand. Finally, the lodge will create an interactive application together with the National Park Sangay as a marketing and educational tool for both facilities.

Section Six: Market Analysis

Sangay National Park visitors

“Sangay National Park is located in the central Andes and is the largest area of unaltered wild land in Ecuador's eastern Cordilleras” (McGinley, 2014). [It] is the only park in Ecuador and South America that has two significant ecosystems in its premises, the highlands and the jungle. It was declared a World Heritage Site by UNESCO in 1983 (UNESCO, 2014). the park has over 22,000 visitors per year; however only 602 visitors were registered as foreigners (INEC E. e., Estadística de sitios visitados , 2012).

The park lacks accommodation facilities inside its premises. Visitors prefer to stay in other national parks where they can find accommodation and guided tours. For example, Yasuni National Park has a total of 8,512 visitors per year, and 6,272 are foreign visitors, more than 70% of the total visitors. Also Cuyabeno National Park and Biological Reserve that has a total of 11,207 visitors per year, and 8,692 are foreign visitors, more than 77% of the total visitors. This fact has to do with the availability of accommodation inside the park premises.

Ecuador's National Parks receive a total of 201,104 foreign visitors per year; currently Sangay National Park gets less than 1% due to its lack of accommodation and guided tour packages into the park. Additionally, Ecuador's National Parks have increased 65% in the total amount of visitors to National Parks during 2011- 2012 (INEC E. e., Visitas Parques Nacionales, 2012). The park has three tourism information points; one in Riobamba, the second in Macas and the third in Pablo Sexto. Sangay National Park is not currently well marketed; however Tree House Retreat sees this fact as an opportunity not only for developing the lodge, but also to increase the community monthly salaries by increasing the amount of tourist dollars are in these areas.

6.1 Target Market Profile

6.1.1 Tourist Profile

The target markets are tourists between 35 and 65 years old, mainly from United States of America, Canada, The European Union, Japan and China. In 2010, 170,000 tourists came to Ecuador from Canada and United States of America with ages between 50 and 70 years old; additionally, 100,000 tourists came from Europe and Asia with ages between 50 and 70 years old (INEC E. e., Publicación Estadísticas Llegadas Internacionales, 2012).

Ecuador receives approximately one million tourists per year, with a sustained growth of 7% per year. 27% of the tourists came from USA and Canada, 19% came from Europe and 4% came from China; these three segments represent more than 50% of the total tourist profile. Additionally, Ecuador receives 201,104 foreign tourists a year to National Parks alone, excluding Galapagos (INEC E. e., Publicación Estadísticas Llegadas Internacionales, 2012). This information is central as it shows that those countries are actually interested in visiting Ecuador. Blue and white-collar people represent 10% of this tourist section. Therefore, Tree House Retreat will define its tourist segment as North American, European and Asian eco-tourists between thirty five and sixty five years old who are interested in an up-scale ecotourism experience in Ecuadorian jungle.

According to several studies, an eco-tourist traveler is someone seeking enjoyment of some relatively undisturbed phenomenon of nature that is not satisfied with just a natural experience. These amateur naturalists usually spend a lot of time outdoors; many are avid photographers and keen backyard birdwatchers (Stronza, 2001). An eco-tourist traveler wants to be environmentally responsible, expects to interact and engage with the natural environment, and is prepared to be physically and intellectually challenged in doing so (Weiler & Richins, 1995; Wight, 1996). Extreme eco tourists are not only more environmentally responsible but enhance the environment visit. The level of interaction with the environment that was both intense and active often demands a high level of physical stamina and provides rich rewards (Weiler & Richins, 1995).

Eco-tourist markets are among the fastest –growing in tourism. Travel trade markets and general tourists are interested in products and services that are environmentally and sensitive to the world (Nvight, 1996). Tree House Retreat distinguishes between difficult, moderate, and easy itineraries for its guest. “Difficult” programs include hikes that last several hours or even days, either on rugged trails, or through primary forest, carrying equipment, sleeping in tents, and eating basic food. “Moderate” programs include hikes that last up to four hours, with canoe rides and a basic box lunch, usually returning to the lodge by nightfall to sleep in cabins, but sometimes camping overnight in tents. “Easy” programs typically feature hikes of no longer than two hours on well-marked trails, canoe rides, returning to the lodge for meals and overnight sleep (Stronza). Therefore, Tree House Retreat considers amateur naturalist and soft eco-tourists as its main target market. This market suites the physical and motivation profile to visit the Ecuadorian Jungle and the retreat.

6.1.2 Researcher’s Profile

The retreat will not only target eco-tourists, it will also target scientists, students, and professors as its second objective market. The educational market will be targeted mainly to fill the demand of E. Lodge. Ecuador receives more than 79,000 academics and scientists per year. And, Ecuador receives 115,000 students per year. These two groups represent 20% of the total tourist segment (INEC E. e., Publicacion Estadisticas Llegadas Internacionales, 2012). Tree House Retreat sees this fact as an opportunity since the location is perfect for natural science and environmental research. Taking in account that a vast amount of universities around the globe lack natural laboratories, Tree House Retreat will give them the opportunity to investigate hands on in a pristine environment. It will target academics and scientists to generate a scholar opportunity for investigation and study abroad groups. The facility will focus on academics from North America, Europe, Australia, and Asia. It will create extended stay packages for these groups and will incorporate a small social volunteerism program per each expedition that arrives to the Lodge.

6.2 Competitive Set Selection

The competitive set was selected based on their similarities to Tree House Retreat in terms of amenities, location, room size and services. The competitive set comprises of nine locations in Ecuador, and thirteen locations internationally. The competitive set comprises of nine locations in the Ecuadorian Jungle, 60% of the locations have an all-inclusive system and 40% of the locations charges separate for food and accommodation. 50% of these locations are completely remote; therefore, customers can only arrive by boat, plane, or private cars.

The competitive set internationally comprises of thirteen locations that include one or more tree houses, 30% in Latin America which are non-inclusive and are part of a hotel or resort, 15% in Africa which are all inclusive and are located far away from main cities, 15% in Asia and 40% in Unites States of America which are non-inclusive and are mainly vacation rentals or bed and breakfast. Eco-tourist's top expectations on the destination include uncrowded places, new experiences, and wildlife viewing (Nvight, 1996). Additionally, 90% of these locations offer eco-adventures as their main activities for guests. According to several studies of eco-tourist preferences, activities such as hiking, rafting, canoeing, cycling, kayaking, and wildlife viewing are the top factors that influence travel destination choice (Nvight, 1996).

All the competitive set offers some type of accommodation. Some of the lodges are more luxury than others but in general they offer basic amenities and running utilities. These facts are important since numerous studies identify that most eco-tourists "support the need for conventional accommodation" (Nvight, 1996); however, eco-tourists also include camping and fixed-roof options as accommodation. Lodges and cabins are the top ranked accommodations for eco-tourism (Wight, 1996; Nvight, 1996). Also, eco-tourists expect basic utilities such as running water, electricity, showers and washrooms (Nvight, 1996).

Most tourists prefer "middle -range levels of luxury" (Penaranda, 2010). Hence, the data for the competitive supply table was collected through emails, phone interviews with staff, and internet research for those that either could not be reached or were not willing to share information. Market segmentation was estimated based on Ecuadorian competitors only because they will be the direct competition against Tree House Retreat.

Table 1: Competitive Supply Table: Occupancy, Average Daily Rate, Revenues per Available Room of Competitors in Ecuador

Competitive Supply Table: Occupancy, Average Daily Rate , Revenues Per Available Room of Competiros in Ecuador											
Name	Rooms	Days open	Available Annual Rooms	Percentage Occupancy	Occupancy Index	Occupied Rooms	Average Room Rate	Average Room Index	Annual Room Revenue	Revenue Per Available Room	Revenue Per Available Room Index
La selva	18	360	6480	80%	1.13	5184	700	1.21	3628800	560	1.36
Hamadryade	5	360	1800	90%	1.27	1620	740	1.28	1198800	666	1.62
Kapawi	18	360	6480	60%	0.84	3888	600	1.04	2332800	360	0.87
Napo WildLife Center	16	360	5760	70%	0.98	4032	600	1.04	2419200	420	1.02
Sani	14	360	5040	70%	0.98	3528	560	0.97	1975680	392	0.95
Yachana	18	360	6480	60%	0.84	3888	506	0.87	1967328	304	0.74
cuyabeno Lodge	10	360	3600	70%	0.98	2520	300	0.52	756000	210	0.51
Hourani Lodge	5	360	1800	60%	0.84	1080	450	0.78	486000	270	0.66
Sacha lodge	26	360	9360	80%	1.13	7488	600	1.04	4492800	480	1.17
	130		46800	71%		33228	580		19257408	411	

Table 2: Competitive Supply Table: Occupancy, Average Daily Rate, Revenues per Available Room of Competitors International

Competitive Supply Table: Occupancy, Average Daily Rate , Revenues Per Available Room of Competiros Internationally											
Name	Rooms	Days open	Available Annual Rooms	Percentage Occupancy	Occupancy Index	Occupied Rooms	Average Room Rate	Average Room Index	Annual Room Revenue	Revenue Per Available Room	Revenue Per Available Room Index
Treesort , OR	18	360	6480	80%	0.79	5184	250	0.79	1296000	200	0.97
Harads, Sweden	6	360	2160	90%	1.27	1944	550	0.95	1069200	495	1.20
Lodge Limon, Costa Rica	3	360	1080	60%	0.84	648	150	0.26	97200	90	0.22
Tree house Point , Washington	6	360	2160	70%	0.98	1512	195	0.34	294840	137	0.33
The Human Nest , California	1	360	360	70%	0.98	252	150	0.26	37800	105	0.26
The Heritage Machan	3	360	1080	60%	0.84	648	410	0.71	265680	246	0.60
Finca Bella Vista, Costa Rica	8	360	2880	70%	0.98	280	200	0.35	56000	19	0.05
Inkaterra, Peru	1	360	360	60%	0.84	216	400	0.69	86400	240	0.58
Arau Amazon , Brazil	2	360	720	80%	1.13	576	476	0.82	274176	381	0.93
Cedar Creek, WA	1	360	360	70%	0.98	252	325	0.56	81900	228	0.55
Sanya Nashan, China	4	360	1440	70%	0.98	1008	96	0.17	96768	67	0.16
Tsala Treetop Lodge, South Africa	10	360	3600	60%	0.84	2160	330	0.57	712800	198	0.48
Loisaba Wilderness , Kenya	4	360	1440	70%	0.98	1008	600	1.04	604800	420	1.02
	67		24120	101%		15688	317		4973564	206	

Table 3: Competitive Supply Table: Market Segmentation Ecuador

Competitive Supply Table: Market Segmentation							
Name	Tourist Demand	Tourist Index	Occupied Rooms	Academic Group Demand	Academic Group Index	Occupied Rooms	
La selva	60%	1.15	3110	40%	0.84	2074	100%
Hamadryade	100%	1.91	1620	0%	0.00	0	100%
Kapawi	20%	0.38	778	80%	1.67	3110	100%
Napo WildLife Center	20%	0.38	806	80%	1.67	3226	100%
Sani	50%	0.96	1764	50%	1.05	1764	100%
Yachana	10%	0.19	389	90%	1.88	3499	100%
cuyabeno Lodge	50%	0.96	1260	50%	1.05	1260	100%
Hourani Lodge	100%	1.91	1080	0%	0.00	0	100%
Sacha lodge	60%	1.15	4493	40%	0.84	2995	100%
	52%		15300	48%		17928	

6.3 Market Growth Analysis

6.3.1 Tourism Segment

The facility chose different data sets as indicators to measure growth in the Ecuadorian market. The data chosen was selected from the Ecuadorian Institute of National Statistics (INEC) based on individual criteria. Since, the retreat will be located in a National Park, it is essential to take into account the statistics about the number of tourists visiting Ecuadorian National Parks. The facility chose the number of tourists visiting National Parks as its first indicator, and weighted it with 15% of the total rate. The second indicator is the number of tourists visiting Sangay National Park weighted with 15%. It is crucial to decipher the fluctuation of visits during the past five years because tourism into National Parks is an emerging market in Ecuador. Additionally, Tree House Retreat considers the number of tourists that arrived to Ecuador in the last five years to also be an important indicator of growth.

Tree House Retreat weighted the number of tourists visiting Ecuador with 10%. The retreat considers that the numbers of Tourists from United States of America is also relevant since they represent 60% of the target market; therefore, this indicator is weighted 25%. Another essential financial indicator is the billions of dollars generated by tourism. This economic indicator shows the billions generated from tourism in general, and it is weighted 15%. And, the economic indicator that shows the billions generated billions from tourism only from United States of America, Canada and Europe is weighted 20%. Consequently, the set of the previously mentioned indicators will be the base for the market growth rate.

List of economic indicators for the Tourism Segment

Visit to National Parks

Visit to Sangay National Park

Number of Tourist Arrivals

Number of Tourist Arrivals from United States of America

Billions from Tourism

Billions from Tourism from United States of America, Canada, Europe and Asia

6.3.2 Academic Group Segment

A different data set of indicators was chosen to measure growth in the academic market. The data is from the Ecuadorian Institute of National Statistics (INEC) database. Since the retreat intends to target academics and researchers as its second objective market the following indicators will reflect the market fluctuation in that market. Ecuadorian Institute of National Statistics (INEC) website divides its tourist entrance by visitor motivation. Therefore, the facility chose the number of professionals, scientists and intellectuals as the first indicator and weighted it with 60%. The second indicator is the student's arrivals to the country weighted with 40% in the academic group segment rate. As a result, the set of the previously mentioned indicators will be the base for the market growth rate.

List of economic indicators for the Academic Group Segment

Non migrant entrees by segment (professionals, scientist and intellectuals)

Non migrant entrees by segment (students)

6.3.3 Economic Indicators Conclusion

After examining the results from the Growth of Economic Indicators table the outlook seems propitious for a business development. The numbers were positive and they forecast optimistic growth in both target markets. The calculation of economic indicators shows the rates for each segment based on the set of indicators chosen. The growth factor for the tourism segment is 24%. Tourists visiting Ecuadorian National Parks represents 2% of the total growth. Additionally, tourists visiting Sangay National Park represents 18% of the total growth. This has to do with the recent development of roads, and advertising about Sangay National Park.

Revenues from tourism (from United States of America, Canada and Europe) represent 1% of the total growth. However, the number of tourists visiting Ecuador, the numbers of tourists from United States of America, and the billions of dollars produced by tourism represent less than 3% of the total growth. Even though, the overall growth rate is encouraging for the tourist segment. On the other hand, the growth rate for academic demand is 7%. The number of professionals, scientists and intellectuals represent 3% of the total growth. The student's entrance represents 4 % of the total growth. The academic market total growth is also encouraging, but more discreet. Hence, both markets have positive growth rates, and can be a good predictor of the success of Tree House Retreat.

Table 4: Market growth of Economic Indicators: Tourism Segment

		Economic Indicators											
		weight	0.15	weight	0.15	weight	0.1	weight	0.25	weight	0.15	weight	0.2
Tourism Segment	Years	Visits to National Parks		Visits to Sangay National Park		Foreign visits to Ecuador		Visits from United States		Bilions from tourism		Bilions from tourism (USA, Canada and Europe)	
	2013					1366269	0.07419	250785	0.01097	1038	0.04743		
	2012	997148	0.63576	22496	2.78593	1271901	0.11469	248064	0.0268	991	0.00101	700.9	0.14676
	2011	609593	0.0709	5942	1.57007	1141037	0.08971	241590	-0.0301	990	0.0102	611.2	0.06037
	2010	569233	0.02427	2312	0.29742	1047098	0.08116	249081		980	0.15159	576.4	0.04213
	2009	555747	0.01461	1782	0.21555	968499				851		553.1	
	2008	547747		1466									
	Average Growth		0.18638		1.21724		0.08994		0.00256		0.05256		0.08309
	Weight growth		0.02796		0.18259		0.00899		0.00064		0.00788		0.01662
													24%

Table 5: Market growth of Economic Indicators: Academic Segment

Economic Indicators						
		weight	0.6	weight	0.4	
		Profesionals, Scientifs and intellectuals (visits)		Students (visits)		
Years						
2013	185672	0.02105	239803	0.21393		
2012	181844	0.08805	197542	-0.0091		
2011	167129		199357			
Average Growth		0.05455		0.10241		
Weight growth		0.03273		0.04097		7%

6.4 Market Growth Projections

Projections of market growth, applies the calculated growth rates to the market, projecting performance annually through 2021, based on the assumption that Tree House Retreat will open for business in November 2017. Given the level of influence of each segment on the overall market demand, the cumulative growth rate for the first year is approximately 15%, which is good considering Ecuador is a developing country and tourism is its emerging industry. The growth rate for the tourism segment will likely fluctuate from year to year, the calculated average market growth of 24% is applied for the first three years, and then the average market growth decreases to 15% for the next three years. The reason of this fluctuation is due to the end of the Ecuadorian World Wide Tourism Campaign in December 2019 (Penaranda, 2010). These rates are applied to each of the six years, with the assumption that some years will have higher growth, some lower, assuming no crucial changes with the demand.

The growth rate for the academic segment will likely fluctuate from year to year, the calculated average market growth of 7% is applied to each of the six years with the assumption that some years will have higher growth, some lower, but this rate is unadventurous and average for this market, assuming no unforeseen disruptions or booms in demand. Hence, the growth of demand forecast fluctuates from 15% during the first two years, 16% on the third year and 12% in the last three forecasted years. The growth factor is positive during the whole forecast; however, projections do not include induced or unsatisfied demand. There is also no indication of factors in the next five years that may lead to significant induced demand, except for Ecuadorian World Wide Tourism Marketing Campaign that has been going on from 2013 to 2019.

Table 6: Growth of Demand Forecast

Year	Tourism Demand	Growth Factor	Mix of Demand	Academic Demand	Growth Factor	Mix of Demand		
2015	15300		46%	17928	0.53954	33228	1	
2017	18972	24%	50%	19183	7%	50%	38155	15%
2018	23525	24%	53%	20526	7%	47%	44051	15%
2019	29171	24%	57%	21963	7%	43%	51134	16%
2020	33547	15%	59%	23500	7%	41%	57047	12%
2021	38579	15%	61%	25145	7%	39%	63724	12%
2022	44366	15%	62%	26905	7%	38%	71271	12%

6.5 Market Penetration Analysis

The competitor penetration analysis reveals which hotels enter each market segment most successfully. The market penetration analysis is divided in two segments; the tourist market and the academic market. The Hamadryade Lodge in Tena has the highest penetration rate in the tourist segment, capturing 275% of its fair share. Additionally, the Hourani Lodge has the second highest penetration rate in the tourist segment, capturing 183% of its fair share. The Hamadryade Lodge and the Hourani Lodge have only five rooms available to guests. Therefore, their penetration rate is relatively high compared to the rest of the market due to the limited amount of accommodation space and the ideal location.

The Hamadryade Lodge is located 30 minutes away from Quito in an exclusive place. The Hourani Lodge is located 4 hours away from Quito, and available only by plane- a reason why it is more appealing for extreme eco-tourists. In the academic segment, Napo Wildlife Center Lodge captures the largest amount of its fair share with 146% penetration rate. Moreover, Yachana lodge has the second highest penetration rate, capturing 141% of its fair share. Due to the large amount of rooms, compared to the rest of the market, these two lodges can capture the academic demand because of the need of accommodation for an entire group. Therefore, facility penetration rate is based on the market and its growth projections, which will reach 100% penetration rate by its fourth year.

The retreat occupancy will fluctuate from 60% in its first year to 100% by its sixth year of operation. The over occupancy expectations is due to market growth in the whole tourism market in the Ecuadorian Jungle. The following table shows the projected market penetration for Tree House Retreat over the course of its first six years of operation. To ensure realistic expectations, the new hotel is projected to reach the calculated penetration rate by its fourth year.

Table 7: Market Penetration for the First Five Years of Operation

2017-2021 Open Year-round		Estimated Market Penetration For First Five Years of Operation								
Room Nights in the Market	46800									
Caoba Tree House Boutique Lodg	8640									
	55440									
New Hotel Fair Share Supply	15.58%	Tree House Retreat								
	2017		2018		2019		2020		2021	
Fair Share of Supp	15.58%		15.58%		15.58%		15.58%		15.58%	
Tourism Demand	18972	50%	23525	53%	29171	57%	33547	59%	38579	61%
Penetration	90%		95%		97%		100%		105%	
Demand Captured	2661	49%	3483	53%	4410	57%	5228	59%	6313	62%
Fair Share of Dem	2957		3666		4546		5228		6012	
Academic Demand	19183	50%	20526	47%	21963	43%	23500	41%	25145	39%
Penetration	93%		98%		98%		98%		100%	
Demand Captured	2780	51%	3135	47%	3354	43%	3589	41%	3919	38%
Fair Share of Dem	2990		3199		3423		3662		3919	
Total Demand	38155	100%	44051	100%	51134	100%	57047	100%	63724	100%
Penetration	92%		96%		97%		99%		103%	
Demand Captured	5441	100%	6618	100%	7764	100%	8817	100%	10232	100%
Fair Share of Dem	5946		6865		7969		8890		9931	
Market Daily Roo	154		154		154		154		154	
Market Annual Ro	55440		55440		55440		55440		55440	
Market Occupancy	69%		79%		92%		103%		115%	
(X) Tree House Bo	24		24		24		24		24	
Total Annual Room	8640		8640		8640		8640		8640	
Projected Hotel Occupancy	63%		77%		90%		100%		100%	

6.6 Rate Analysis

The rate is determined using an Average Daily Rate (ADR). As shown in table 9, the retreat is projected to reach 100% total market penetration by 2020. Based on this level of performance, 2020 was selected as a representative year for the ADR analysis. The following ADR table uses the average estimated occupancy of the first two years and the number of room nights captured in each segment as the basis for establishing the average daily rate and estimated revenue. Therefore, the average estimated occupancy would be 70%.

In regards to seasonality, there is only a one-rate-period-designed rendering to similar rate structures used by other hotels in this market. According to rate schedules posted on competitor websites, rack rates in amazon lodges are generally a yearlong rate. Each hotel studied in the competitive set has a slightly different rate configuration, but they all have a one-year period rate pattern.

The rack rates in the competitive set range from \$300 to \$740 per room per night inside this market. However, the retreat will set its rack rates from \$200 to \$500 depending on the market segment. The rates were configured using Excel to establish an Average Daily Rate between \$200 (tourist segment) and \$500 (academic segment) and thereby tying the competitors with the lowest Average Daily Rate in the competitive set. The facility wants to link price with the experience, thus, it will charge rack rates but E. Lodge will have a different rack rate to encourage education and research in the property. Discount rates are also available depending on the number of guests and demand of the property.

Table 8: Average Daily Rate Calculation

Average Daily Rate Calculation							
Representative year : 3th year							
Market Segment	Year						
Rates are per person	2019						
			TREE HOUSE		ACADEMIC LODGE	TOTALS	
			SINGLE	DOUBLE	SINGLE	DOUBLE	TOTAL
TOURIST	4410						
Percentage of Distribution			0.15	0.45	0.2	0.2	1
Room nights at Rack	0.8	529.2	1587.6	705.6	705.6	3528	
Rack Rates		250	500	150	300		
Revenues at Rack		132300	793800	105840	211680		
Room nights at discount	0.2	132.3	396.9	176.4	176.4	882	
Discount Rates		190	380	115	230		
Revenues at discount		25137	150822	20286	40572		
Total Segment Room Nights		661.5	1984.5	882	882	4410	
Total Segment Revenues		157437	944622	126126	252252	1480437	
Segment A.D.R		238	476	143	286	335.7	
ACADEMIC	3354						
Percentage of Distribution				0.6	0.4		1
Room nights at Rack	0.6			1207.44	804.96	2012.4	
Rack Rates				100	200		
Revenues at Rack				120744	160992		
Room nights at discount	0.4			804.96	536.64	1341.6	
Discount Rates				75	160		
Revenues at discount				60372	85862.4		
Total Segment Room Nights				2012.4	1341.6	3354	
Total Segment Revenues				181116	246854.4	427970.4	
Segment A.D.R				90	184	127.6	
TOTALS	7764						
Percentage of Distribution			0.09	0.26	0.37	0.29	1
Total Revenues		157437.00	944622.00	307242.00	499106.40	1908407.4	
Total Room Nights		662	1985	2894	2224	7764	
A.D.R.		238.00	476.00	106.15	224.46	245.8020866	
REVPAR						220.8804861	

Section Seven: SWOT (Strengths, Weaknesses, Opportunities, Treats)

Strengths:	Weaknesses:
<ul style="list-style-type: none"> • Natural Attractions • Cultural Attractions • Recreational Activities • First Tree House Retreat in Ecuador • Unprecedented biodiversity • The property has more than 100 lakes and unlimited hiking trails. • Sustainable practices • Inside Sangay National Park 	<ul style="list-style-type: none"> • Distance from Quito • Place is too remote • Information about Sangay National Park is not well developed yet. • Tough restriction and limitations to develop inside the Sangay National Park.
Opportunities:	Threats:
<ul style="list-style-type: none"> • Be the first Tree House Ecological Sanctuary in Ecuador • Develop a Sustainable Brand in hotel Management • Develop a sustainable community starting from the Lodge. 	<ul style="list-style-type: none"> • Sustainability of businesses and tourist attractions • Lack of tourism and visitor traffic • Lack of monetization and fees • International competition

Section Eight: Financial Projections

The financial projections of Tree House Retreat are crucial to understand the success of the project. The financial projections are based on the gross room revenue and occupied room night figures from the Average Daily Rate table. The income statement will be developed based on the industry averages. It contains figures for revenues and expense items founded on the Ecuadorian industry and police regarding payroll and expenses in general. This section will include a statement of estimated operating results, an annual payroll, and net present value table to proof the economic feasibility of the project. The estimated operation result shows numbers based on 70% occupancy and 24 rooms. The figures are available per occupied room (POR) and per available room (PAR). It includes payroll numbers based on table 9. The rest of the numbers are estimated average industry figures from Ecuador. The net present value (table 10) contains figures in initial investment based on an Ecuadorian Construction Pro-forma attached in appendix 1.

Table 9: Statement of Estimated Operating Results

Statement of Estimated Operating Results							
Based on	24	rooms					
Percentage of Occupancy	70%						
Average Daily Rate	245.8						
RevPar	220.88						
				AMOUNT	RATIO	POR	PAR
REVENUES							
	Rooms			1507245.60	0.90	245.80	172.06
	Food			16747.17	0.01	2.73	1.91
	Beverage			33494.35	0.02	5.46	3.82
	Other Food & Beverage			33494.35	0.02	5.46	3.82
	Rentals and other income			83735.87	0.05	13.66	9.56
	Cancelation Fee						
TOTAL REVENUES				1674717.33	1.00		
DEPARTMENTAL EXPENSES							
	Rooms			376811.40	0.25	61.45	43.02
	Food And Beverage			150724.56	0.10	24.58	17.21
	Telecommunications			35000.00	0.02	5.71	4.00
	Other departmental Expenses			40000.00	0.03	6.52	4.57
TOTAL DEPARTMENTAL EXPENSES				602535.96	0.36	98.26	68.78
TOTAL OPERATED DEPARTMENTAL PROFIT				1072181.37	0.64	174.85	122.40
UNDISTRIBUTED OPERATING EXPENSES							
	Administrave & General			10000.00	0.01	1.63	1.14
	Payroll			292600.00	0.19	47.72	33.40
	Marketing			13000.00	0.01	2.12	1.48
	Property Operation and Maintenance			15000.00	0.01	2.45	1.71
	Utility Cost			25000.00	0.02	4.08	2.85
	Training			20000.00	0.01	3.26	2.28
	Loan Payment			112000.00	0.07	18.26	12.79
TOTAL UNDISTRIBUTED OPERATING EXPENSES				487600.00	0.29	79.52	55.66
INCOME BEFORE FIXED CHARGES				584581.37	0.35	95.33	66.73
FIXED CHARGES							
	Property Taxes			134453.72	0.08	21.93	15.35
	Insurance			83735.87	0.05	13.66	9.56
TOTAL FIXED CHARGES				218189.58	0.13	35.58	24.91
INCOME BEFORE RESERVE				366391.79	0.22	59.75	41.83
Reserve for Capital Replacement				16747.17	0.01	2.73	1.91
NET PROFIT				349644.62	0.21	57.02	39.91

Table 10: Payroll

PAYROLL		
	Monthly	Annualy
General Manager	3500	49000
On site Manager	2000	28000
Secretary	1000	14000
Front Desk (2)	1600	22400
House Keeping (3)	2100	29400
Chef	1800	25200
Cooking Assistance	900	12600
Steward	800	11200
Waitress (2)	1600	22400
Bartender	800	11200
Guides (2)	1800	25200
Sustainability Manager	3000	42000
TOTAL	20900	292600

Table 3: Net Present Value

		0	1	2	3	4	5	6	7	8
	Revenues		\$ 1,686,300	\$ 1,703,163	\$ 1,720,195	\$ 1,737,397	\$ 1,754,771	\$ 1,772,318	\$ 1,772,318	\$ 1,772,318
	Variable Charges		\$ 619,284	\$ 619,284	\$ 619,284	\$ 619,284	\$ 619,284	\$ 619,284	\$ 619,284	\$ 619,284
	Fixed Charges		\$ 705,790	\$ 705,790	\$ 705,790	\$ 705,790	\$ 705,790	\$ 705,790	\$ 705,790	\$ 705,790
	Depreciation		\$ 48,947	\$ 48,947	\$ 48,947	\$ 48,947	\$ 48,947	\$ 48,947	\$ 48,947	\$ 48,947
	Profits before Taxes		\$ 312,279	\$ 329,142	\$ 346,173	\$ 363,375	\$ 380,749	\$ 398,297	\$ 398,297	\$ 398,297
	Taxes		\$ 71,824	\$ 75,703	\$ 79,620	\$ 83,576	\$ 87,572	\$ 91,608	\$ 91,608	\$ 91,608
	Depreciation		\$ 48,947	\$ 48,947	\$ 48,947	\$ 48,947	\$ 48,947	\$ 48,947	\$ 48,947	\$ 48,947
	Cash Flow		\$ 289,402	\$ 302,386	\$ 315,501	\$ 328,746	\$ 342,124	\$ 355,636	\$ 355,636	\$ 355,636
	±investment	\$ (489,472)								
	± Working Capital	\$ (292,600)	\$ (168,630)	\$ (170,316)	\$ (172,019)	\$ (173,740)	\$ 263,216	\$ 265,848	\$ 265,848	\$ 265,848
	Cash Flow	\$ (782,072)	\$ 120,772	\$ 132,070	\$ 143,481	\$ 155,007	\$ 605,340	\$ 621,484	\$ 621,484	\$ 621,484
	Present Value	\$ (782,072)	\$ 120,772	\$ 132,070	\$ 143,481	\$ 155,007	\$ 605,340	\$ 621,484	\$ 621,484	\$ 621,484
	NPV	896424.13								
	IRR	29%								

Section Nine: Conclusion

This business plan explores the creation of Tree House Retreat in the amazon rainforest in the Ecuadorian Jungle, located in the Sangay National Park. It will be the first Tree House Retreat in the country with its main objective to be the first entirely sustainable destination in Ecuador. The lodge is designed for those who are eager to explore and discover the mysteries and benefits of the Ecuadorian jungle. The retreat will offer lodging with luxury touches targeting worldwide tourist and researchers as its main business. This summary will highlight the key facets of the project including: the tree house development, the service and products, the rates and discounts, the economic feasibility of the project, and the sustainable aspects of it.

The facility will adopt a tree house type of structure for its lodging capability because it blends the environment and its surroundings to perfection. The retreat consists of ten tree houses targeting upper-middle class North American, European and Asian tourists. The increasing demand of tree houses and tree house lodges has certainly increased considerably in the last three decades. This trend has to do with the perception of safety of the new tree houses. Now people are safer staying in tree houses because of the materials and technology implemented to build them.

These structures have evolved from primitive to extremely well developed and detailed. They can easily be comfortable, sustainable and chic all at once. The retreat will be all about sustainability too; so, it will use ecological sources for energy and water. The main source of energy for the lodge will be solar, and the main source of water will be harvested rainwater. Waste management will include compostable toilets, and a recycled grey water system installed throughout the property. However, ecological tree houses do not mean simple tree houses; it will offer the best amenities and services to its guest.

Sustainable accommodation will be offered at an upscale price. The lodge will provide two main types of accommodation. Ten independent tree houses and fourteen double guest rooms equipped with furniture and luxury eco-friendly amenities such as; soap, shampoo, conditioner, body and sun lotion and insect repellent. Each room will have 400 thread count Ecuadorian pima cotton linens, pillow top mattresses, hammock (premium suites), fan, and a safe box. Both types of accommodations will include three meals per day, hiking trails, bird watching activities, rubber boots, and shuttle to and from the Macas airport. The facility will come with high speed wireless connection, two meeting spaces, a restaurant, a lounge and a small boutique with souvenirs. Furthermore, it will have a viewpoint from one of the highest trees on the property and a swing to appreciate the canopy and the environment from a different perspective. The prices will vary dependent on the target market and the season.

The retreat will mainly target upper-middle class tourists and universal researchers and academics willing to investigate the biodiversity and the cultural abundance. The prices per night will vary depending on the market to which the guest belongs. The tree house suites will be mainly for tourists and the prices will range between \$250 and \$150 per night. The E. Lodge prices will range between \$100 and \$75 per night primary target to students and researchers. Discounts will be available for groups larger than ten people. The discount will consist of 25% off the rack rate in any type of accommodation. The prices are based per person/per night. This

choice was based on the competitors of the area, who have the same rate scheme. The rates have a competitive advantage over the competition not only price wise but also as a whole package. The rates are the most important part in the feasibility study because they will determine the success and the return on investment of the project.

The financial projections and penetration analysis suggest that three years after its opening Tree House Retreat will be a successful project. The retreat's market penetration should exceed 100% by 2020, the project will be profitable, and will generate a return for investors within the first five years of operation. Given the level of influence of each segment on the overall market demand, the cumulative growth rate for the first five years is approximately 12%; which is good considering that tourism is the emerging industry in Ecuador. The facility has a positive Net Present Value and a positive Internal Rate of Return of 29%. This rate is exceptional considering that the average Internal Rate of Return of a healthy lodging business is 15% (Collier & Gregory, 1995). The return of investment will be by the fifth year and after that it will be only profits. Overall, the financial projections are positive and bode a successful business not only in the financial aspect but also a great model of sustainable business in the region.

The Retreat will adopt sustainable practices as its core strategy. The lodge will use renewable solar energy as its main source of energy. Additionally, it will harvest rainwater to supply the water needs in the facility. It will also have a detailed ecological waste management program. Educational and cultural activities will be a main part of the lodge's attractions. Internships and study abroad opportunities will be encouraged to facilitate different educational programs such as biodiversity conservation and vertical agriculture. Furthermore, Tree House Retreat will employ its workforce from the Pablo Sexto community, and educate and train them to form a successful team for the lodge. Plastic will be banned from the premises because of pollution awareness.

In conclusion, Tree House Retreat will offer sustainable lodging to tourists and researchers as its core business. The increasing demand of tree house lodges is due in part with its perception of increased safety and the idea of being immersed in nature. Guests feel safe staying in tree houses due to the materials and technology implemented. The prices per night/ per person will range between \$100 and \$250 depending on the market segment. And these prices promote a successful financial projection. The retreat will be a profitable project by its second year, and it will always maintain sustainable practices as its core business scheme. The retreat will be absolutely engaged with environmental and community programs in the surroundings to assure sustainability not only inside the retreat in Pablo Sexto Community.

Appendix

PRESUPUESTO					
Profesor: SR: OHALLORAN Obra: (x) TREE HOUSE RETREAT		Casas del Arbol (10)	300.00		
		Lodge	200.00		
		Cobachas Eventos (2)	50.00		
		Recepcion y Restaurante	300.00		
		Lounge	20.00		
		AREA TOTAL	870.00		
* The budget is written in spanish, since the proyect will be in Ecuador, and the constructor does not speak english					
ITEM	DESCRIPCION	UD.	CANT.	P. UNIT.	TOTAL
MOVIMIENTO DE TIERRAS					
1	Limpieza del terreno a mano	m2	870.00	0.75	650.33
2	Replanteo	m2	870.00	0.97	840.42
3	excavacion de plintos y cimientos	m3	67.50	6.76	456.30
4	Relleno compactado	m3	435.00	5.45	2,371.19
5	Desalojo de tierras y escombros de terreno	m3	200.00	6.46	1,292.00
					5,610.23
ESTRUCTURA					
6	Replanto H.S. 140 kg/cm2	m3	7.88	104.83	825.54
7	Plintos y zapatas H.A. 210- kg/cm2	m3	13.20	128.45	1,695.51
8	hormigon en cadenas	m3	3.30	217.00	716.10
9	cimientos de piedra	m3	16.50	45.20	745.80
10	hormigon en cuello de columnas	m3	2.11	225.30	475.38
11	hormigon en columnas	m3	16.50	225.30	3,717.45
12	hormigon en escaleras	m3	2.50	235.40	588.50
13	hormigon en muros	m3	4.80	155.00	744.00
14	hormigon losa	m3	20.00	295.30	5,906.00
15	dinteles .12*.15*1.1	u	20.00	8.45	169.00
16	bloque alivianado 40*20*20 tim. Y estibado	u	5,000.00	0.70	3,507.50
17	acero de refuerzo	kg	936.15	1.65	1,544.65
18	malla electrosoldada 4*15	m2	1,500.00	3.97	5,955.00
					26,590.43
MAMPOSTERIA					
19	Mamposteria paredes de bloque	m2	1,000.00	11.76	11,764.50
20	bordillos tinas de bano	u	30.00	26.47	794.16
21	lavanderia	m2	2.00	144.90	289.80
22	poso de revision instalaciones electricas	m2	10.00	90.98	909.77
23	cajas de revision	gl	3.00	90.98	272.94
					14,031.17
ENLUCIDOS					
24	Enlucidos de fajas	m	500.00	3.08	1,542.00
25	Enlucido vertical y horizontal	m2	1,000.00	6.30	6,300.00
26	masillado de losa	m2	500.00	6.65	3,324.00
					11,166.00
ACABADOS PISOS Y PAREDES					
27	contrapiso de hormigon simple 180 kg/cm2	m2	300.00	16.39	4,916.25
28	Masillado contrapisos	m2	300.00	6.65	1,995.00
29	Cerámica importada en pisos	m2	300.00	45.00	13,500.00
30	Cerámica importada en paredes	m2	300.00	45.00	13,500.00
31	Porcelanato	m2	500.00	65.00	32,500.00
32	Mezon de marmol en baños	m2	24.00	155.00	3,720.00
33	Piso de madera en gradas	m	100.00	72.00	7,200.00
34	Piso flotante	m2	200.00	32.00	6,400.00
35	Barredera de madera 10 cm.	m	200.00	7.20	1,440.00
36	Barredera de ceramica	m	200.00	4.50	900.00
37	Barredera de porcelanato	m	200.00	7.40	1,480.00
					87,551.25

CARPINTERIA METAL/MADERA					
38	Muebles bajos de cocina	m	20.00	256.00	5,120.00
39	Muebles altos de cocina	m	20.00	256.00	5,120.00
40	Muebles bajos de baño	m	30.00	230.00	6,900.00
41	Mesones de granito	m	30.00	185.00	5,550.00
42	Closets con puertas	m	30.00	420.00	12,600.00
43	Puerta principal	u	1.00	560.00	560.00
44	Cerradura	u	1.00	320.00	320.00
45	Puertas interiores tamboradas	u	30.00	350.00	10,500.00
46	Cerraduras	u	30.00	65.00	1,950.00
47	Pasamanos hierro C / mangón madera	m	50.00	186.00	9,300.00
48	Ventanas de aluminio y vidrio	m2	100.00	113.00	11,300.00
49	Puertas de baño vidrio templado	u	30.00	350.00	10,500.00
50	Extractores de baño	u	30.00	60.00	1,800.00
					81,520.00
RECUBRIMIENTOS					
51	Pintura caucho int. 2 manos con estuco	m2	700.00	4.95	3,465.00
52	Pintura caucho ext. 2 manos con textura	m2	300.00	5.20	1,560.00
53	Pintura en techo con estuco	m2	100.00	4.80	480.00
54	Gypsum en techos	m2	100.00	25.00	2,500.00
					8,005.00
CUBIERTAS					
55	Impermeabilización cubiertas	m2	300.00	18.90	5,670.00
					5,670.00
AGUA POTABLE					
56	Salida agua fría cobre	pto.	100.00	49.00	4,900.00
57	Salida agua caliente cobre	pto.	100.00	49.00	4,900.00
58	Salida medidores cobre	pto.	1.00	49.00	49.00
59	Salidas para lavadoras cobre	pto.	6.00	49.00	294.00
60	Tubería cobre 3/4 plg.	m	400.00	6.70	2,680.00
61	Tubería cobre 1/2 plg.	m	400.00	5.20	2,080.00
62	Distribuidoras y columnas	m	60.00	5.74	344.40
63	Aspirador PVC 110 mm	u	96.00	9.66	927.36
64	Válvula check 1/2 plg.	u	6.00	22.00	132.00
65	Llave de control 1/2 plg.	u	30.00	18.00	540.00
66	Llave pico de jardinería	u	6.00	19.00	114.00
67	puntos en cobre para gas	pto.	6.00	49.00	294.00
68	caldero	u.	1.00	4,800.00	4,800.00
69	Ayuda albañilería	gl	2.00	230.00	460.00
					22,514.76
APARATOS SANITARIOS					
70	Lavaplatos	u	2.00	180.00	360.00
71	Grifería y accesorios	u	2.00	180.00	360.00
72	Lavamanos	u	30.00	156.00	4,680.00
73	Grifería y accesorios	u	30.00	180.00	5,400.00
74	Inodoro tanque bajo	u	30.00	350.00	10,500.00
75	Accesorios de baño	jgo	30.00	25.00	750.00
76	Griferías ducha	u	30.00	220.00	6,600.00
77	Rejillas para sumideros de piso	u	50.00	15.00	750.00
					29,400.00
AGUAS SERVIDAS					
78	Canalización PVC 110 mm	pto	96.00	15.76	1,512.96
79	Canalización PVC 55mm	pto	112.00	9.20	1,030.40
80	Bajantes A. Servidas PVC 110mm	m	60.00	5.98	358.80
81	Bajantes A. lluvias 110mm	m	60.00	5.98	358.80
82	Canalización ext. pvc 110mm	m	54.00	6.98	376.92
83	Canalización ext. pvc 160mm	m	12.00	6.98	83.76
84	Ayuda de albañilería	gl	5.00	230.00	1,150.00
					4,871.64

INSTALACIONES ELECTRICAS					
85	Tuberia conduit 1/2 "	m	1,000.00	2.25	2,250.00
86	Tuberia conduit 3/4 "	m	1,000.00	2.68	2,680.00
87	Tablero control 8-24 ptos.	u	6.00	570.00	3,420.00
88	Acometida principal	m	45.00	18.00	810.00
89	Acometida telefono flex. 35mm	m	45.00	14.00	630.00
90	Iluminación	pto.	100.00	35.00	3,500.00
91	Salida para teléfonos	pto.	60.00	21.00	1,260.00
92	Central telefónica	u	1.00	1,500.00	1,500.00
93	Salidas especiales	pto.	8.00	29.00	232.00
94	Conmutados escalera y pasillos	pto.	56.00	25.00	1,400.00
95	Sensores de movimiento	u	50.00	89.00	4,450.00
96	Salidas antenas T.V. Cable	pto.	30.00	35.00	1,050.00
97	Tomacorrientes	u	100.00	26.38	2,638.10
98	Tomacorrientes 220 v.	pto.	10.00	26.81	268.10
99	Timbre intercomunicador	pto.	1.00	78.00	78.00
100	portero electrico	gl	1.00	680.00	680.00
101	Alarmas	gb	1.00	5,600.00	5,600.00
102	Piezas eléctricas	gb	4.00	980.00	3,920.00
103	Luminarias	u.	100.00	25.00	2,500.00
104	ayudas de albanileria	gb	1.00	255.00	255.00
					39,121.20
OBRAS EXTERIORES					
105	Cisterna con equipo hidroneumatico	gb	1.00	5,800.00	5,800.00
106	Equipo contra incendios	gb	1.00	7,800.00	7,800.00
107	Limpieza permanente de la obra	m2	870.00	1.80	1,566.00
					15,166.00
CERRAMIENTO EXTERIOR					
108	Perta peatonal	u	1.00	290.00	290.00
109	Cesped con tierra de abono	m2	86.00	4.20	361.20
110	Adoquinado	m2	100.00	12.49	1,249.00
111	Subase de adoquinado	m2	100.00	3.74	374.00
112	Puerta principal con motor electrico y control remoto	u	1.00	3,500.00	3,500.00
					5,774.20
				TOTAL:	356,991.88
				costo/m2:	410.34

ITEM	DESCRIPTION	UD.	CANT.	P. UNIT.	TOTAL
	Muebles				
1	Cama Queen (Casas del Arbol)	u	13.00	1,000.00	13,000.00
2	Cama Queen (Lodge del Investigador)	u	28.00	800.00	22,400.00
3	Ventiladores de techo	u	27.00	200.00	5,400.00
4	Hamacas	u	20.00	150.00	3,000.00
5	Mesa de Te y sillas	u	10.00	150.00	1,500.00
6	Escritorio y Sillas	u	14.00	100.00	1,400.00
7	Juego de Cama (Pima Cotton)	u	100.00	80.00	8,000.00
8	Cortinas	u	42.00	90.00	3,780.00
9	Extras Dormitorios	u	30.00	100.00	3,000.00
10	Colchones	u	41.00	700.00	28,700.00
11	Decoraciones	m2	25.00	500.00	12,500.00
					102,680.00
	Cocina				
12	Cocina Industrial	u	1.00	1,500.00	1,500.00
13	Horno Industrial	u	1.00	1,000.00	1,000.00
14	modulos de cocina	u	2.00	400.00	800.00
15	Ollas y Demas	u	2.00	500.00	1,000.00
16	Juego de Platos (100 Comenzales)	u	1.00	2,000.00	2,000.00
17	Mesas	u	20.00	200.00	4,000.00
18	Sillas	u	80.00	50.00	4,000.00
19	Juego de Bar	u	200.00	20.00	4,000.00
20	Juego de Vasos	u	5.00	500.00	2,500.00
21	Decoracion	m2	100.00	30.00	3,000.00
					23,800.00
	Recepcion y Eventos				
22	Decoracion	m2	100.00	30.00	3,000.00
	Sillas y mesas	u	100.00	30.00	3,000.00
					6,000.00
				TOTAL:	132,480.00
				costo/m2:	55.87
				Costo total	489,471.88
				Costo Total/m2	562.61

References

- Lets go Green*. (2005, September 11). Retrieved from How Do Composting Toilets Work?: <http://www.letsogreen.com/how-composting-toilets-work.html>
- Sun - Mar* . (2007, December 31). Retrieved from Composting toilets: The enviromental solution : <http://www.sun-mar.com/index.html>
- Mirrored Treehouse Hotel Makes You Invisible in the Forest . (2010). *Gizmodo*.
- Morona Santiago On-line. (2011, June 16). Macas , Morona Santiago , Ecuador .
- Adventure Life* . (2014, October Eight). Retrieved from Activities and Weather : http://www.adventure-life.com/amazon/amazon_weather.php
- Cuyabeno Lodge* . (2014, October 18). Retrieved from Cuyabeno Lodge Rates : <http://www.cuyabenolodge.com/reservations.htm>
- Garden Gate Magazine*. (2014, August 01). Retrieved from How to Harvest Rainwater: <http://www.gardengatemagazine.com/52droughttolerant/>
- Imagine Ecuador Adventure Travel* . (2014, October 18). Retrieved from Amazon Rainforest Tours, Jungle Tours Ecuador: http://www.imagineecuador.com/amazon_rainforest_jungle_tours.html
- United States: A.O Smith water heater instaled in Nasville for Animal Planet's Treehouse Masters . (2014). *Mena Report*.
- American Montessori Society*. (2015, April 22). Retrieved from Montessori Education : <http://amshq.org/Montessori-Education/FAQs>
- Water Well Basics* . (2015, February 25). Retrieved from Well Owner : <http://www.wellowner.org/basics/>
- Allen, B. (2011). The classroom environment: The silent curriculum. *Doctoral dissertation, California Polytechnic State University San Luis Obispo*.
- Bahamon, A. (2005). *Tree Houses : Living a Dream* . New York, New York : HARper Collins .
- Banks, S., & Heinichen, R. (2003, August/September). *Mother Eart News* . Retrieved from Build a Rainwater Harvesting System: <http://www.motherearthnews.com/homesteading-and-livestock/rainwater-harvesting-system-zmaz03aszgoe.aspx?PageId=6#ArticleContent>
- Baudoin, V. (2008). Biloxi Treehouse Project . *Cityscape*, 127-130.

- Becken, S. (2005). Harmonising climate change adaptation and mitigation: The case of tourist resorts in Fiji. . *Global environmental change*, 381-393.
- Beckwith, K. (2009). *Vintage Point Lodges: A Sustainable Treehouse Resort* . Washington DC : Corcoran College of Art and Design .
- Bradley, W. (2011). *WIND INDUCED STRESSES ON TREEHOUSE STRUCTURES*. Fort Collins, Colorado: Colorado State University.
- Bulacion, N. (2014, December 11). *Arquitectura y Construccion* . Retrieved from Un hotel Sustentable : <http://revistaarquitectura.com.ar/wordpress/>
- Cavegn, T. (2015, April 22). *White Bear Montessori School* . Retrieved from What is the Student Teacher Ratio at a Montessori School?: <http://www.wbms.org/blog/what-is-the-student-teacher-ratio-at-a-montessori-school>
- Collier, P., & Gregory, A. (1995). Investment appraisal in service industries: a field study analysis of the U.K. hotels sector. *Management Accounting Research*, 33-57.
- Dahles, H. &. (1999). Entrepreneurs in Romance Tourism in Indonesia. . *Annals of Tourism Research*, 267-293.
- Disney, P. &. (2015, March 2). *Walt disney World* . Retrieved from Disney's Animal Kingdom Lodge: <https://disneyworld.disney.go.com/resorts/animal-kingdom-lodge/>
- Embacher, H. (1994). Marketing for Agri-tourism in Austria: Strategy and realisation in a highly developed tourist destination. *Journal of Sustainable Tourism*, 61-76.
- Fairley, S. (2003). In search of relived social experience: Group-based nostalgia sport tourism. *Journal of Sport Management* , 284-304.
- Fernandez, K. (2014). Meet a master and get some tips for building your own treehouse . *Boys Life* , 22-25.
- Gokovali, U., Bahar, O., & Metin, K. (2007). Determinants of length of stay: A practical use of survival analysis. *Tourism Management*, 736-746.
- Gorman, J. (2006). Extreme Tree Houses . *Popular Mechanics* , 85-89.
- Greenberg, D. (2006). *Treehouses in Paradises* . New York : Abrams .
- Himmel, R. (2014, February 18). *How To Write A Business Plan*. Retrieved from Entrepreneur : <http://www.entrepreneur.com/how-to-write-a-business-plan>
- Hogenboom, B. (2012). Depoliticized and Repoliticized Minerals in Latin America. *Journal of Developing Societies*, 133-158.

- Hottola, P. (2005). The metaspatialities of control management in tourism: Backpacking in India. . *Tourism Geographies*, 1-22.
- INEC, E. e. (2012, December). Estadística de sitios visitados . Quito , Pichincha , Ecuador .
- INEC, E. e. (2012). *Informacion Economica* . Quito : Ecuador en Cifras .
- INEC, E. e. (2012, Diciembre). Publicacion Estadísticas Llegadas Internacionales. Quito, Pichincha, Ecuador.
- INEC, E. e. (2012, December). Visitas Parques Nacionales. Quito , Pichincha , Ecuador .
- Jones, P. (2002). *Indroduction to Hospitality Operations* . London : The Tower Building .
- Kandampully, J. (2000). The impact of demand fluctuation on the quality of service: a tourism industry example. *Managing Service Quality: An International Journal*, 10-19.
- Kane, M. J. (2004). Package adventure tours: Markers in serious leisure careers. . *Leisure studies* , 329-345.
- Kinnaird, M., & O'Brien, T. G. (1996). Ecotourism in the Tangkoko DuaSudara Nature Reserve: opening Pandora's box? *ORYX* , 65-73.
- Laurens, A., Dufour, D., & Andre, G. (2007). *Treehouse Living* . New York : Abrams .
- Lawson, R. (1991). Patterns of tourist expenditure and types of vacation across the family life cycle. *Journal of Travel Research*, 12-18.
- LeShane, K. (2008). A leafy Retreat . *The enviroment Magazine* , 44-46 .
- Lundberg, D. (1984). *The Hotel & Restaurant Business*. New York : Van Nostrand Reinhold Company Inc. .
- Mak, J., & Sheldon, P. J. (1987). The Demand For Package Tours: A Mode Choice Model . *Journal of Travel Research* , 13-17.
- Martinez, E., & Raya, J. (2008). Length of stay for low-cost tourism. *Tourism Management*, 1064-1075.
- McGinley, M. (2014, October 09). *Sangay NAtional Park Ecuador*. Retrieved from The Encyclopedia of Earth: <http://www.eoearth.org/view/article/155858/>
- Milman, A. J. (1999). The impact of security devices on tourists' perceived safety: The central Florida example. *Journal of Hospitality & Tourism Research* , 371-386.
- Ministerio de Turismo, E. (2012). *BArometro Turistico 2012*. Quito: Ministerio de Turismo Ecuador.

- Ministerio del Ambiente, E. (2014, September 30). *Ministerio del Ambiente* . Retrieved from <http://www.ambiente.gob.ec/areas-protegidas-3/>
- Mok, C. &. (2000). Expenditure-based segmentation: Taiwanese tourists to Guam. . *Tourism management*, 299-305.
- Murray, S. (2015, January 22). *Small Business Plan Sample* . Retrieved from Your Business Pal: http://www.yourbusinesspal.com/small_business_plan_sample.html
- Nvight, P. (1996). North American Ecotourism Markets: Motivations, Preferences, and Destinations. *Journal of Travel Research*.
- Pearson, D. (2001). Home Sweet Treehouse . *Mother Earth News*, 22.
- Penaranda, F. (2010). *Informe Proyeccion del Turismo para el Ecuador 2020*. q: Ministerio de Turismo- Ecuador .
- Pizam, A. P. (1980). The vacation farm: a new form of tourism destination. *Tourism marketing and management issues*, 203-216.
- Polo, M. (2002). Steel treehouse. *The Canadian Architect* , 12 .
- Ross. (2013). How to Create a Restaurant Floor Plan. *Metro's New York Food Service Publication*.
- Rough Guides, E. (2014). Parque Nacional Sangay . London , England.
- Ruiz-Ballesteros, E. (2011). Social-ecological resilience and community-based tourism An approach from Agua Blanca, Ecuador. *Tourism Management*, 655-666.
- Scott, D., & Scott, K. (2012). *The Complete Guide to the National Park Lodges* . Guilford: Morris Book Publishing .
- Soria, L. (2013, November 29). *REIVAX Constructora* . Retrieved from Costos de construcción de una Vivienda: <http://www.constructorareivax.com/blog/2013/11/29/costos-de-la-construccion-de-una-vivienda/>
- Stevens, K. (1998). Tree houses of the Hamptons. *New york Time Magazine* , 90.
- Stronza, A. (n.d.). The Kapawi indigenous-corporate Partnership for ecotourism in Ecuador. *Stanford Graduate School of Business*.
- Syz, F. (2012). Luxury Treehouses at Center Parcs. *Trade Journals*.
- Tarling, S. (2014). Treehouses branch out: the latest high-end treetop retreats . *FT.com*, 1-34.

- Taylor, E., Hardner, J., & Stewart, M. (2009). Ecotourism and economic growth in the Galapagos: an island economy-wide analysis. *Environment and Development Economics*, 139-162 .
- Therkelsen, A. &. (2008). Construction of self among mature couples. The Meaning of Holiday Consumption . *Journal of Consumer Culture*, 269-292.
- Time-Life Books, E. (1978). *Cabins and Cottages*. Alexandria: Time-Life Books.
- UNESCO, W. H. (2014, January). Sangay National Park. Ile de Paris , Paris , France .
- Weiler, B., & Richins, H. (1995). Extreme, extravagant and elite: a profile of ecotourists on Earthwatch expeditions. *Tourism Recreation Research*, 29-36.
- Wight, P. (1996). North American Ecotourists: Market Profile and Trip Characteristics. *Journal of Travel Research* , 2-10.
- Williams, J. (2003). *Current Issues and Development in Hospitality and Tourism Satisfaction* . New York : The Haworth Hospitality Press.
- Wilson, S. F. (2001). Factors for success in rural tourism development. *Journal of Travel research*, 132-138.