

Columbia University  
School of International and Public Affairs

# **Financing Community Managed Forest Conservation: The Case of the Children's Eternal Rainforest**

**Capstone Workshop  
Final Report  
May 2018**

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# EXECUTIVE SUMMARY

The Children's Eternal Rainforest (CER) is a community managed forest in Monteverde, Costa Rica. It is one of the largest private reserves in Central America, covering 23,000 hectares of wet forest in one of the most biodiverse regions of the planet. The greater Monteverde Conservation Area, which the CER is part of, is home to 3.5% of the world's biodiversity, including 700 species of butterflies, 500 species of orchids, and 450 species of birds. It is owned and managed by a community-based non-profit organization, the Monteverde Conservation League (MCL).

Funds for the management of the forest come primarily from the Costa Rican government and two hydroelectric power plants as Payment for Environmental Services. These sources of funding have been insecure over the past years, and will likely remain so in the future. With this concern in mind, the Capstone Team was tasked to assess current funding sources, identify opportunities to strengthen their existing funding sources, and make recommendations for how to best address new opportunities. We also provide recommendations of how Engage Globally can attract funds and best serve as a partner for the MCL in the U.S.

There are several unique characteristics of the CER that create important opportunities to increase revenues of the MCL. Firstly, the unique story of the CER has the potential to attract more and bigger donors. The origins of conservation in Monteverde by the Quaker community, and the story of the consolidation of the CER through a fundraising campaign led by school children, are both compelling stories that can be leveraged to strengthen and expand the MCL's and Engage Globally's donor base.

Secondly, Costa Rica is a major ecotourism destination, due to successful conservation efforts and political stability. Foreign and local tourists already coming to the Monteverde area represent a “low hanging fruit” to attract more revenues from visitation to the reserve. Moreover, national commitments to reduce greenhouse gas emissions have opened the door for forest owners to obtain revenues from carbon emission offsetting.

Finally, global environmental concerns have slightly shifted the nature of projects where companies invest as part of their corporate social responsibility (CSR). Many companies are now seeking to invest in projects that not only have a social impact but also an environmental one. Because the MCL is a community-based organization, and its mission is to preserve and protect one of the most biodiverse rainforests in the world, there are a number of sectors the MCL or Engage Globally can potentially pursue as a good fit for attracting these kind of CSR funds.

The capstone team used several sources of information to compile this report. From January to March, we conducted desk research and interviews with fundraising and conservation experts from New York City. The team traveled to Costa Rica in March, where we conducted 15+ interviews. We met with policymakers in San Jose, staff and board members of the MCL, and guides and community members in Monteverde and La Tigra.

Our recommendations are focused on four areas: donations, private partnerships, visitors, and carbon markets. For increasing income from donations, we focus our suggestions on recapturing lapsed-donors, targeting people and organizations that have a common history with the MCL and CER like the Swedish school children who fundraised for the CER, the international Quaker community, sister organizations around the world, and the CER visitors. Attracting income from private partnerships is possible by reconnecting with organizations the MCL has already worked with, or with organizations whose businesses are linked to Costa Rica and/or forest

conservation, such as coffee companies, outdoor gear manufacturers and retailers, bird associations, and Columbia alumni enterprises. We recommend clearly defining the values that the private sector partner needs to espouse and identifying a key argument on how forest conservation and the CER impact their businesses and the communities they serve.

For increasing income from tourism, we identified several opportunities: improving the visitor experience in Bajo del Tigre, improving access and marketing efforts for San Gerardo as a very unique experience, increasing efforts to market visitations to the east side of the CER, and reopening the trail that connects San Gerardo to the east side.

Forest carbon markets are currently the most intangible opportunity, as accessing the carbon market through certified carbon credits requires an initial investment from the MCL. We recommend monitoring the evolution of the elements that today represent a limitation for the further development of opportunities for forest credits, such as the guidelines for implementation of the Paris Agreement that define the conditions for collaboration in international carbon markets, the implementation of REDD+ in Costa Rica and the additionality requirements, the implementation of CORSIA by the International Civil Aviation Organization, and FONAFIFO and World Bank ongoing negotiations regarding Payments for Ecosystem Services.

# ACKNOWLEDGMENTS

The Columbia SIPA Capstone team would like to extend our gratitude to our mentors, interviewees, participants, and advisors who made our research possible.

Our advisor **Ralph Schmid**, adjunct professor at SIPA, expert in forest management and conservation.

Our clients, particularly **Heather Heckel**, for her aid in organizing and executing this capstone workshop field visit. Without her efforts this project would not have been possible. Moreover, we truly appreciate for her constructive comments and editions to this written report.

MCL members for their collaboration with the field study: **Lindsay Stallcup**, executive director of the MCL; **Mark Wainwright**, board member; and staff members **Yúber Rodríguez**, **María Fernanda Rojas Murillo**, **Fabiola Peralta**, **Marcelo Rodriguez**, **Hernán Chacón**, **Geovany González** for their kind collaboration.

Costa Rica government officials: former Minister of Environment, **Dr. Edgar Gutiérrez**; **Jorge Mario Rodríguez**, director of FONAFIFO; **Gustavo Alvarado Chaves**, director of the management department at the Costa Rican Institute for Tourism; and **Alfonso Barrantes**, executive director of the National Forestry Office.

Our interviewees in San Jose and Monteverde: **Rafael Gallo**, **Anthony Goebel**, **Carlos Hernandez**, **Adolfo Quesada**, **Celia Harvey**, **Noelia Solano Guindon**, **Ricardo Guindon**, and **Oldemar** for their insights and collaboration.

Our exceptional guides in Monteverde **Alexa Stickel** and **Giuliano Salazar Gigli**, and our driver **Alex Jimenez Venegas** for showing us Monteverde through their eyes. We also thank

**Adrián Flores Águilar and Tania Hernández Gordillo** for making connections for us in Costa Rica.

International conservation experts **Felipe de Leon, Story Clark, Janice Periquet, Abby Schaeffer, Eric Palola, Brad Gentry, and Byron Swift** for contributing their unique perspectives and expertise in the fields of conservation finances and fundraising for conservation.

The independent study team at SIPA: **Diego De León Segovia, Andrea Cristina Ruiz Salmón, Sarah Cruz**; because their interest in forest conservation led to this Capstone Workshop, and for the many contacts they provided to us.

And lastly, Columbia University School of international and public Affairs for funding this project; along with the Picker Center Digital Education Group. Particularly the Picker Center's director, **Adam Stepan**. Their work in training us, and directing, and funding the audio-visual aspect of this capstone workshop were invaluable and our work would not have been possible without them.

# LIST OF ACRONYMS

BEN	Bosque eterno de los Niños
CER	Children’s Eternal Rainforest
CI	Conservation International
CORSIA	Carbon Offsetting and Reduction Scheme for International Aviation
FONAFIFO	Fondo Nacional de Financiamiento Forestal
GDP	Gross Domestic Product
GHG	Greenhouse Gas
ICAO	International Civil Aviation Organization
ICT	Instituto Costarricense de Turismo
ICRN	International Children’s Rainforest Network
INEC	Instituto Nacional de Estadísticas
IUCN	International Union for Conservation of Nature
MCL	Monteverde Conservation League
MCFR	Monteverde Cloud Forest Reserve
MIA	Master in International Affairs
MINAE	Ministry of Energy and Environment of Costa Rica
MRV	Measurement, Reporting and Verification
PES	Payment for Environmental Services
PPP	Purchasing Power Parity
SDG	Sustainable Development Goals
SIPA	School of International and Public Affairs at Columbia University
UNFCCC	United Nations Framework Convention on Climate Change
WCS	Wildlife Conservation Society
WWF	World Wide Fund for Nature

# I. INTRODUCTION

## 1) Goals and methodology of the Capstone Workshop

This report aims to identify and analyze current sources of funding of the Monteverde Conservation League (from here on, MCL), and propose mechanisms that the MCL and Engage Globally can use to strengthen income generation and achieve financial stability to preserve the Children’s Eternal Rainforest (from here on, CER).

The report authors are a team of graduate student-consultants currently enrolled in a two-year Master in International Affairs (MIA) and Master of Public Administration (MPA) at the School of International and Public Affairs (SIPA) at Columbia University. This report is the deliverable of a Capstone Workshop<sup>1</sup>, in addition to an audiovisual and written case study.

To achieve the goals of the capstone, we executed primary and secondary research. We implemented the following methodology:

- Research into current mechanisms of conservation finance and fundraising around the world. We interviewed international experts in the field and conducted secondary research using papers, conservation finance books, international organizations’ information, and interviews with experts. A complete list of the interviews executed for this report is attached in the Annex 1, 2 and 3.

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<sup>1</sup> “A Capstone Workshop is a live consulting project with an external client outside of SIPA. Each workshop partners a team of graduate students with a faculty advisor. The goal is to provide clients with innovative analysis and practical recommendations, while SIPA students gain experience by working on a real-world problem.” The faculty advisor for this report is Mr. Ralph Schmidt. “Capstone Workshops”. Accessed April 2nd, 2018. <https://sipa.columbia.edu/academics/capstone-workshops>

- A week-long investigative trip to Costa Rica where we met and interviewed various stakeholders related to conservation finance, including the former Minister of Environment, the former president of the network of private reserves of Costa Rica, the Executive Director of the Tropical Science Center, and the manager of the Monteverde Cloud Rainforest. A complete list of interviews executed for this report is attached in Annexes 1, 2, and 3.
- Research about the MCL, Engage Globally, and their work in the CER. We reviewed the annual reports of the MCL and historical documents about the organization, region, and founders. During our trip to Costa Rica we conducted various interviews and meetings with the MCL management team, a board member, and the environmental education program team. The capstone team visited the San Gerardo station and interviewed their managers and workers.
- For the tourism section, in addition to the field trip, we ran a qualitative analysis using *Nvivo*® software. The analysis reviewed 40 different online travel blogs, tour operators sites, trip advisor reviews, and birdwatching webpages to identify the perceived value identified by visitors to the CER, as well as opportunity areas. The list of articles and reviews included are listed in Annex 8.

In this report we present our main findings, analysis, and recommendations on how the MCL can develop can increase its revenues to achieve long-term sustainability. The report is organized in three parts: introduction, mechanisms and recommendations.

The introduction presents an overview of Costa Rica, its tourism sector, forest conservation, and the current state and financial needs of the MCL. Part II presents an analysis of the main mechanisms of conservation finance. For each mechanism, we introduce the current

situation of the MCL, the potential that the MCL and Engage Globally have to increase income from each mechanism and the main strategies they could use. The mechanisms that we have worked on are the following:

- A. Donations & Private Sector Partnerships
- B. Tourism
- C. Forest Carbon Markets
- D. Other Opportunities

In Part III, we present a summary of recommendations from each section and more general fundraising recommendations.

## 2) Background information

### **i) Country context of Costa Rica**

Costa Rica's economy depends heavily on its service sector, tourism, and new technology. The backbone of its commodity exports are bananas, coffee, sugar, and beef. Costa Rica attracts second highest level of foreign direct investment in Central America, after Panama, with 27% of the regional FDI.<sup>2</sup> Foreign investors are attracted by the country's political and economic stability, high education levels, and free-trade zones<sup>3</sup>.

Volcanic ash from some hundred-and-ten volcanoes (six of which are active to this day) and the dynamic climate in Costa Rica created diverse and complex habitats for flora and fauna, and fertile soils for agricultural production. This climate and favorable geographical location made

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<sup>2</sup> Comisión Económica para América Latina y el Caribe (CEPAL), *La Inversión Extranjera Directa en América Latina y el Caribe, 2017 (LC/PUB.2017/18-P)*, Santiago, 2017.

<sup>3</sup> Larraín, Felipe, Luis F López-Calva, and Andrés Rodríguez-Clare. n.d. "Chapter 6 Intel: A Case Study of Foreign Direct Investment in Central America,".

Costa Rica home to a great diversity of animals and plant species characteristic of an inter tropical zone which represents over 94,000 known species, and 5% of the known world biodiversity<sup>4</sup>.

### **Tourism in Costa Rica**

This one-of-a-kind biodiversity and opportune geographical location makes eco-tourism a key pillar of the Costa Rican economy. In the last 30 years, revenues from tourism grew almost 2,000% from \$117 million in 1983 to \$2.8 billion in 2015. Tourism revenue in Costa Rica's total exports has grown from 12% in 1984, to 23% in 2014. International revenues produced by tourism have exceeded those generated by the exports of coffee, bananas, pineapples and pharmaceutical products together<sup>5</sup>.

In 2015, tourism represented 5% of GDP, and generated 160,000 jobs, which was 7% of Costa Rica's total employment. Additionally, the Costa Rican Tourism Institute (ICT, for its name in Spanish) estimates that 450,000 additional jobs are related to the tourism industry<sup>6</sup>. The growth in tourism revenues is due to an exponential increase in the number of tourists visiting Costa Rica, staying longer periods of time, and spending more during their visit. From 1984 to 2015, the number of international arrivals to Costa Rica grew 800% from 273,900 to 2,666,608<sup>7</sup>.

### **Rainforests in Costa Rica**

Given the important role that nature-based tourism plays in the economy of Costa Rica, conservation of the natural environment is essential for the country's prosperity. Costa Rica had one of the highest rates of deforestation in the world during the 1970's and 1980's. However, that trend reversed after the National Forest Law was passed in the 1990s. The Costa Rican Forestry

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<sup>4</sup> MINAE, 2018

<sup>5</sup> ICT, 2017

<sup>6</sup> ICT, 2017

<sup>7</sup> Ibid.

Law N° 7575 of 1996 recognizes four environmental services from forests: biodiversity, water, aesthetic beauty, and fixation/retention of carbon. The same law established the creation of the National Forestry Financing Fund (FONAFIFO - Fondo Nacional de Financiamiento Forestal). Its general objective is to finance small and medium producers for the handling processes of reforestation, afforestation, greenhouse gases and agroforestry systems, and for the recovery of deforested areas, and the necessary technological changes in the use and industrialization of forest resources. It is also the organization responsible for raising funds to finance the payment for ecosystem services provided by forests, forest plantations, and other necessary activities to strengthen the development of the natural resources sector<sup>8</sup>. In 1997 Costa Rica implemented its first payment for environmental services (PES) scheme in the context of the Kyoto Protocol with the help of Norway. Since its implementation the PES was designed to eventually contribute to world carbon markets. It recognizes that forests produce environmental services and that there is a value to them, that must be compensated by the users.<sup>9</sup> Reducing the risks of deforestation reduces a potential source of CO2 emissions, but its financing depends on the availability of financial resources or economic retribution. The PES is funded by all Costa Ricans through a 3.5% tax on fossil fuels. It is also financed with a canon of water management, which is made by using natural sources, and with voluntary payments. Since its origins, the PES has protected or reforested 728,000 ha, equivalent to 14% of the total territory. Shortly after its implementation, in 1998 the government promulgated the Biodiversity Law, which encourages conservation and the use of natural resources. Between 1997 and 2015 there were 318 million dollars invested in PES related

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<sup>8</sup> “Financiamiento” - <http://www.fonafifo.go.cr/psa/index.html>

<sup>9</sup> “Pago por Servicios Ambientales” - <http://www.fonafifo.go.cr/psa/index.html>

to forests, 64% of which came from the fuel tax, 22% from the World Bank and the rest from other sources.<sup>10</sup>

In 1992, forest coverage was 32.9%, and 55.1% of the land was used for agriculture and grazing. By 2000, land used for agriculture had been reduced to 48.6%<sup>11</sup>, while forest coverage had increased to 46.5% of the country. By 2014, 52.4% of the territory was under forest coverage, representing a 59% increase in forest coverage since the early 90's.<sup>1213</sup> Since Costa Rica implemented environmental measures to reduce deforestation and GHG emissions from deforestation, emissions fell from 21.7 million tons of CO<sub>2</sub> equivalent<sup>14</sup> a year, to 1.8 million (tons of CO<sub>2</sub>eq/year) from 1988 to 2013 (representing a 92% reduction in emissions)<sup>15</sup>. Today, Protected Wildlife Areas (Areas Silvestres Protegidas) make up 26% of Costa Rica's territory, half of which constitutes a system of 28 National Parks. The remaining 13% includes biological reserves, forest reserves and wildlife refuges. There are also 32 biological corridors<sup>16</sup> that protect diverse natural habitats found throughout the country.

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<sup>10</sup> FAO 2016

<sup>11</sup> Reduction in agricultural land was largely due to the reduction in grazing lands and permanent pastures, which decreased from 1.79 million ha to 1.26 million ha in 2015. This was associated with a reduction in number of cattle heads due to structural adjustment policies that reduced direct support for cattle raising.

<sup>12</sup> National Forest Inventory 2014; cited in MINAE 2018

<sup>13</sup> According to FAO (2016) forest coverage increased by 7.5% from 1990 to 2015, and agricultural land decreased by 19.1% over 1990 to 2010.

<sup>14</sup> The term *CO<sub>2</sub> equivalent* is used to normalize all greenhouse gases in standard units based on the global warming potential of a unit of carbon dioxide over a specified timeframe (generally set at 100 years).

<sup>15</sup> MINAE, 2018

<sup>16</sup> MINAE, 2018

## ii) Monteverde Protected Area

The Monteverde Protected Area is globally recognized as one of the most bio-diverse areas in the world. Seven of Costa Rica's twelve life zones<sup>17</sup> are found in the Monteverde area. It makes up 0.0048 percent of global land surface area but is home to an estimated 4% of the world's biodiversity<sup>18</sup>. For example, it has 800 species of trees, 700 species of butterflies, 500 species of orchids, 450 species of birds (5% of world's birds), 121 species of mammals, 120 species of amphibians and reptiles, and 2500 species of plants<sup>19</sup>. The area is home to endangered species such as the Resplendent Quetzal, tapir, and ocelot.

The Monteverde Protected Area includes the Monteverde Cloud Forest Reserve, Santa Elena Cloud Forest Reserve and the CER (see Figure 1 below). It is the fifth most visited area of Costa Rica. 26% of all tourist packages sold to Costa Rica include a visit to Monteverde. 58.7% of visitors to Monteverde are from the United States, while Europeans account for 27.3% of visitors. In Monteverde, tourists participate in a variety of nature related activities, including: trekking (18.3%), flora and fauna observation (16.7%), bird observation (14.6%), and visiting a nearby Adventure Park (25.9%)<sup>20</sup>.

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<sup>17</sup> Life zone is a method of classification of areas with similar plant and animal communities. It uses indicators such as mean annual biotemperature (logarithmic), annual precipitation (logarithmic) and ratio of annual evapotranspiration to mean total annual precipitation (Leslie Holdridge concept).

<sup>18</sup> "Biodiversity". Accessed April 8th, 2018. <http://www.reservamonteverde.com/biodiversity.html>

<sup>19</sup> "The Children's Eternal Rainforest". Accessed April 12th, 2018. <https://www.alive.com/lifestyle/the-children%C2%92s-eternal-rainforest/>

<sup>20</sup> ICT, 2017.

### **iii) Children's Eternal Rainforest / Bosque Eterno de los Niños**

The Children's Eternal Rainforest<sup>21</sup>, also known as the Bosque Eterno de los Niños (BEN), is the largest private reserve in Costa Rica. It makes up 23,000 hectares spread among the three provinces of Puntarenas, Guanacaste, and Alajuela. It is located between 1,476 to 5,900 feet (450 to 1,800 meters) above sea level on the continental divide between the Pacific Ocean and the Atlantic Ocean. There are distinct climates on its two slopes: a hot, dry climate on the Pacific side and cool, wet climate on the Caribbean (Atlantic) side. The CER consists of both primary and secondary forest<sup>22</sup>.

The CER directly benefits the adjacent preserves by extending the conservation area, by providing clean water to the surrounding regions and to hydroelectric dams to generate electricity<sup>23</sup>. Provides a steady flow (useful to humans during the dry seasons), diminishes the erosion/sedimentation in the reservoir.

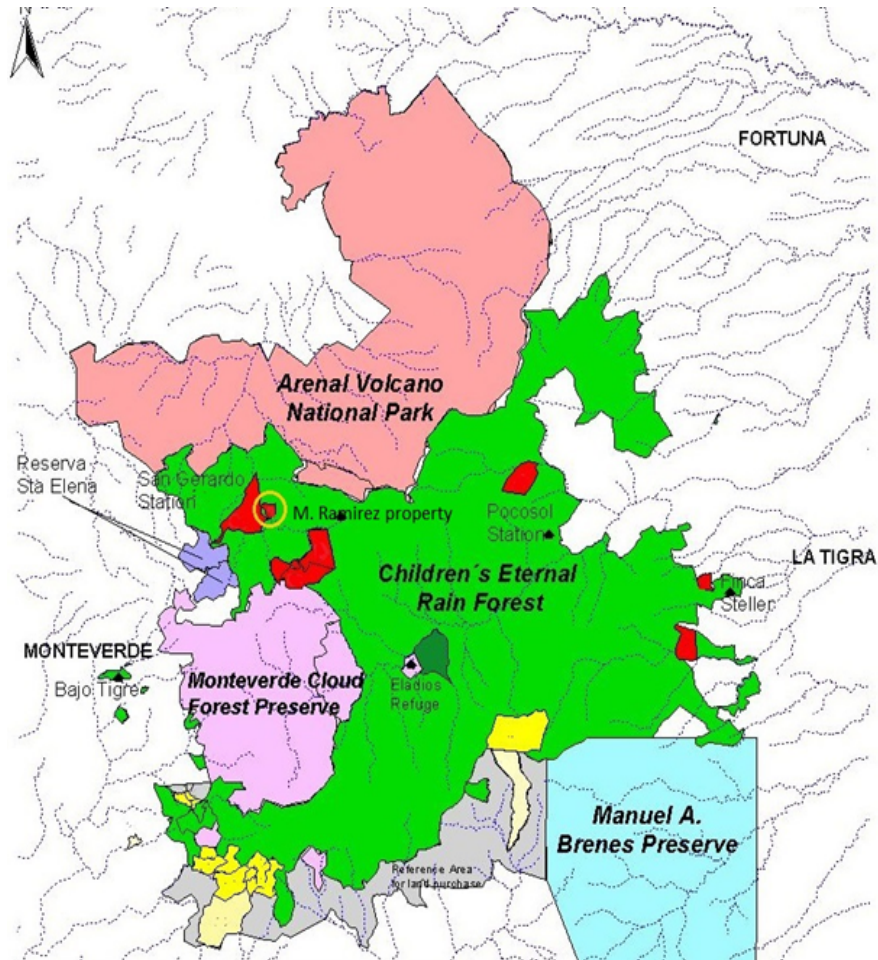
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<sup>21</sup> Will be referred to as CER throughout this document.

<sup>22</sup> Interview with Giuliano Salazar Gigli, March 2018.

<sup>23</sup> Interviews with Mark Wainwright and Lindsay Stallcup, March 2018.

Figure 1. A map of the Arenal-Monteverde Protected Area



### Conservation efforts in Monteverde

In 1951, a group of eleven Quaker families from Alabama relocated to Monteverde. These Quaker families decided to leave the U.S. after four of the community members were jailed for refusing to enlist in the army after being drafted for the Korean War. They selected Costa Rica because it had abolished its army, which aligned with the pacifist Quaker philosophy, and because of Costa Rica's welcoming immigration policy.<sup>24</sup> After settling, the Quakers opened the

<sup>24</sup> "Quakers in Costa Rica". Accessed April 9th, 2018. <http://www.quakersintheworld.org/quakers-in-action/257/Quakers-in-Costa-Rica->

Monteverde Friends School and invested in a dairy farm (which is still in production), but also set aside a large parcel of land on a mountaintop to protect the community's watershed. Even though the Quaker community was actively clearing land for pastures and agricultural production, the "Watershed Property" was cared for and protected from squatters, and became, de facto, the first private reserve<sup>25</sup>.

In the 1970s, U.S. biologists George and Harriet Powell went to Monteverde for doctoral research. Their research found that rapid deforestation in the area was endangering a great number of species. They started an active fundraising campaign to buy primary forest lands and protect them from deforestation. Wolf Guindon, one of the first Quaker immigrants, knew the forest very well and worked with the Powells to negotiate land purchases with the local community. Building upon these efforts, the Tropical Science Center eventually founded the Monteverde Cloud Forest Reserve and integrated the watershed property through a lease agreement in which the land is leased to the Tropical Science Center for administration and maintenance<sup>26</sup>.

In the 1980s the Monteverde community became concerned about the protection of the lands that were not part of the existing Cloud Forest Reserve. The forests on both Pacific and Atlantic slopes (Peñas Blancas Valley) were under the threat of deforestation. A decision was made in 1986 to create a non-profit organization, the Monteverde Conservation Leagues (MCL, to purchase new lands for conservation and to develop reforestation and environmental education programs. Many members of the Quaker community are members of the MCL<sup>27</sup>.

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<sup>25</sup> "History of Monteverde and the Quakers". Accessed April 9th, 2018.

<https://monteverdetours.com/history-of-monteverde.html>

<sup>26</sup> Ibid

<sup>27</sup> Interview with Noelia Guindon, March 2018.

The story of the creation of the CER is unique in its community-driven approach. Initially, MCL was funded through fundraising campaigns, followed by a debt-for-nature swap that allowed MCL to grow and provided funds for its operations and expansion of its programs to include environmental education and protection<sup>28</sup>.

In 1987, American biologist and Monteverde resident, Sharon Kinsman, visited schools in Sweden to raise awareness about tropical rainforest conservation. The children at one of these schools, Fagerviks primary school, started fundraising for rainforest conservation and contributed to the purchase of six hectares of rainforest. This initial fundraising success gave the CER its name and led to the creation of the non-profit organization Barnens Regnskog by Eha Kern (the Swedish teacher) and her husband to continue contributing to rainforest conservation. Barnens Regnskog was able to raise \$2 million for land purchases as well as to obtain grants from the Swedish International Development Agency (SIDA). These funds supported reforestation, environmental education, the guard program, and construction of a hydroelectric project for the MCL's San Gerardo biological station. Sister organizations inspired by the story of CER's founding story were created around the world - in the USA (The Children's Rainforest U.S.), in the U.K. (Children's Tropical Forests), in Germany (Kinderregenwald Deutschland e.V.), and in Japan (Nippon Kodomo no Jungle)<sup>29</sup>. These NGOs have become an informal network of sister organizations of the Children's Eternal Rainforest, dedicated to raising awareness about rainforest significance and preservation and fundraising for the continued protection and maintenance of the CER<sup>3031</sup>.

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<sup>28</sup> Leslie J. Burlingame. "History of the Monteverde Conservation League and Children's Eternal Rainforest." (May 2016).

<sup>29</sup> Leslie J. Burlingame. "History of the Monteverde Conservation League and Children's Eternal Rainforest." (May 2016).

<sup>30</sup> MCL Annual Report, 2016 & 2017.

<sup>31</sup> "About CTF" - <http://www.magikbirds.com/ctf/aboutctf/aboutctf.htm>. Accessed April 30 2018.

### 3) Current situation of the MCL

At present the MCL manages four sites within the CER that are open to the public, including two field stations:

- *Bajo del Tigre Reserve* is located in Monteverde, on the Pacific slope and makes up 30 hectares. Its elevations range from 1020 to 1380m above sea level. It is located in the rain shadow of several hills producing a seasonal dry forest. It contains primary and secondary forests and a former pasture regenerated with native trees.
- *San Gerardo field station* is located on the Caribbean slope and can be accessed via a 3.5 km hike through the Santa Elena reserve. It consists of mainly a premontane rainforest at 1200 meters above sea level and about 4000 mm of rain per year with a very limited dry season. The lodge can accommodate up to 20 people.
- *Pocosol field station* was acquired in 1991. It is located on the Eastern Caribbean side and can be accessed from La Tigra. It is at a lower elevation than San Gerardo at 720 m above sea level. The Pocosol field station is currently closed because its infrastructure was damaged by Tropical Storm Nate in October, 2017. It is reopening in May, 2018.
- *Finca Steller Education Center* is located on the Eastern Caribbean slope. Currently Finca Stellar is used to implement environmental educational programs in neighboring schools. Additionally, it has the native tree nursery<sup>32</sup>.

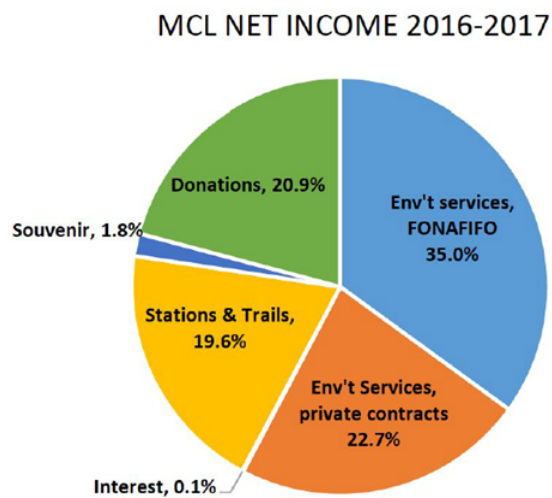
To maintain these sites and preserve the forest, in 2017 the MCL generated a total income of \$299,266,337 colones that is equivalent to USD \$526,062<sup>33</sup>. These revenues were collected

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<sup>32</sup> Monteverde Conservation League- <https://www.acmcr.org/content/stations-and-trails/finca-steller/>

<sup>33</sup> We used the exchange rate determined by the Central Bank of Costa Rica to April 10, 2018 (1 dollar = 568.88 colones).

from five resources. The main source of income is payments for ecosystem services, which represented 57.7% of the net income for the 2016-2017 fiscal period. This figure includes Payments for Environmental Services (PES) from the National Fund of Forest Finance (FONAFIFO) (35%) and private contracts with the National Consortium of Electrification Companies of Costa Rica - CONELECTRICAS and INMAN (22.7%). Following PES, were donations (20.9%), visitation to stations and trails (19.6%) and souvenirs sales (1.8%)<sup>34</sup>.



Source: MCL Annual Report 2017

The PES has fluctuated over the years, affecting MCL financial flows, as they have been threatened by legal and political issues. Some of these issues involve the cessation of payment for ecosystem services from two hydroelectric companies, CONELECTRICAS and INMAN. In 2017 there were settlements in favor of MCL in both of these cases. However, lawsuits related to environmental services and land disputes continue to be a threat<sup>35</sup>. Also, in 2017 the President of the Costa Rica and the Ministry of Environment and Energy overturned a modification to the

<sup>34</sup> Monteverde Conservation League, 2017. Annual Report.

<sup>35</sup> Interview with Lindsay Stallcup, March 2018.

Forestry Law that, if applied, would have reduced funding to the MCL. With the new ruling, MCL can maintain their income from this source.

Donations represented 20.9% of the revenues in 2017. The donations allowed MCL to pay for critical projects and expenses including: salary for the executive director and environmental educator in La Tigra; funds for environmental education field trips and materials; infrastructural improvements at San Gerardo, Pocosol, Bajo del Tigre, and Finca Steller; purchase of critical field equipment; replacement of one vehicle; the complete redesign of their website; new signage; and the purchase of emergency response equipment. From donations for Land Purchase and Protection (LPP), 50% is set aside for future land purchase, 40% is used for protection of the BEN, and 10% is designated for their endowment fund.

The visitations to the Bajo del Tigre Reserve and the San Gerardo field station generate 19.6% of the total income. Although there was some visitation in Pocosol prior to closing the station, and later in the form of day visits and camping, the closure of the Pocosol resulted in a net loss in tourism for 2016-17. The reduction in Pocosol visitation corresponded with a 60% increase in visitation to the San Gerardo station.

In 2017, MCL had approximately 23% more paid daytime entrances than in 2016, a 50% increase since 2013. It received 4,062 day-time visits and 2,608 night walks. Compared to the neighboring Monteverde Cloud Forest Reserve, which receives 96,000 visitors per year, this represents modest visitation. According to the Executive Director of the MCL, increasing daytime visitation represents “their biggest opportunity for economic growth at Bajo del Tigre”. Night walk visitation dropped by about 10% in 2017.

## i) Financial needs and goals of the MCL

Unfortunately, the majority of these sources are subject to fluctuations. This is why the main goal of the MCL is to achieve long term financial stability to preserve the CER and its biodiverse ecosystem<sup>36</sup>. The MCL is looking for means to increase their revenues for the following purposes: expand the environmental education program, increase maintenance and protection operations in the rainforest, promote research activities, purchase new land, and grow their endowment fund<sup>37</sup>.

The Environmental Education Program is running in La Tigra, on the East Side of the CER. The program consists of providing environmental education talks and workshops in 17 schools in and around the town of La Tigra. In 2017, these schools received a total of 51 talks and 10 workshops on a variety of topics. Moreover, in 2017, they carried out 31 field trips, bringing a total of 621 students and 143 adults to the CER. In addition to working directly in schools, the Environmental Education Program represented the MCL in various activities in the communities surrounding the CER<sup>38</sup>.

Currently, the Environmental Education Program has only one full time environmental educator who designs and implements the education activities. Because of limited funds, they can only provide classes once a month in each school. One of the priorities of the MCL is to expand the Environmental Education Program. They aim to hire more educators to increase the number of classes per month in each school, and expand the number of schools they work with<sup>39</sup>.

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<sup>36</sup> Interview with Lindsay Stallcup, March 2018.

<sup>37</sup> MCL, 2017; and Interview with Lindsay Stallcup, March 2018

<sup>38</sup> Interview with Maria Fernanda Rojas Murillo, March 2018.

<sup>39</sup> Interview with Maria Fernanda Rojas Murillo, March 2018.

Regarding the protection of the rainforest, in 2017, the MCL had five guards for the entire forest surface area of 23,000 hectares, four based in La Tigra and one in Monteverde. The main responsibility of the guards is to patrol the forest to deter hunting activities. The MCL would like to hire more guards, since the protection of the forest is one of their priorities<sup>40</sup>.

The maintenance workers maintain the trails and borders. They assist in providing environmental education to visitors and area residents, serve as guides on the long trails and support researchers. Together with the CER guards they rescue hurt and orphaned animals and monitor species through reports, photographs, motion-sensing cameras, and plaster casts of footprints. The activities of this program are essential for the conservation and protection of CER, especially in terms of maintaining limits with neighboring properties by clearing property lines and making or repairing fences<sup>41</sup>.

The CER is an important center of biodiversity that holds great promise for research<sup>42</sup>. Research in the CER is an opportunity to explore, quantify, and expose the ecosystemic services that the CER provides to the community, Costa Rica, and the world. This could help to attract more visitors, donors, and partners. It is also important to identify the threats of climate change and the activities that could be done to minimize harmful impact. Currently, US and Costa Rican universities are doing research projects in the CER. In 2017, 20 projects were conducted by faculty, graduate and undergraduate students. However, the MCL does not have the resources and organizational capacity to more fully support this research or to aggregate findings<sup>43</sup>.

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<sup>40</sup> Interview with Hernan Chacon, March 2018.

<sup>41</sup> History of the Monteverde Conservation League and Children's Eternal Rainforest. Leslie J. Burlingame, May 2016.

<sup>42</sup> Interview with Lindsay Stallcup, March 2018.

<sup>43</sup> Interview with Lindsay Stallcup, March 2018.

Regarding land purchases, there are some pieces of private land inside the CER that the MCL would like to purchase. These tracts have been identified as particularly important for biodiversity, as capable of being reforested, and as having owners who would like to sell. Reforesting these lands would require that the MCL build a second nursery, hire two staff, and conduct research. Nonetheless, land purchases are not in their immediate priorities due to more urgent operational needs, like hiring more guards to protect the reserve against poachers and illegal loggers<sup>44</sup>.

In the long term, the MCL wants to expand the endowment fund. The endowment fund expansion would provide the MCL a cushion in case they lose important financial resources through legal cases, drops in tourism, drops in donations, or a change in the environmental service payment scheme.

## ii) Fundraising priorities

The MCL has partnered with Engage Globally for fundraising since 2017. Engage Globally is a registered non-profit organization 501(c)(3) based in Washington, D.C. It supports community-led sustainable development, collaborating with local leaders who have innovative ideas to address challenges in their communities. Their funding and technical assistance “empowers communities to educate their youth, develop economically, and conserve the environment”<sup>45</sup>.

Currently, Engage Globally is providing resources to fund the MCL’s environmental education program. It is also looking for new donors, partners, and strategies to support the MCL

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<sup>44</sup> Interview with Mark Wainwright, March 2018.

<sup>45</sup> Engage Globally - <https://www.engageglobally.org/>

to increase their financial resources. Engage Globally is a good partner for fundraising in the US, as they can provide a deduction for federal income tax purposes for donors.

Figure 2: Fundraising Priorities for Monteverde Conservation League and Engage Globally

<b>Activity</b>	<b>Approximately cost (USDS)</b>
<b>Short Term Priorities</b>	
<b>Environmental education programs</b>	\$20,000 - \$200,000
<b>Hiring of Costa Rica program coordinator for Engage Globally</b>	\$50,000
<b>Medium Term Priorities</b>	
<b>Purchase of several tracts of land and reforestation</b>	\$100,000 - \$1 million
<b>Support of research opportunities in collaboration with local researchers: bats and climate change; camera traps for animal census; climate change impacts on forest health and resilience; etc.</b>	TBD
<b>Long Term Priorities</b>	
<b>Increase Endowment Fund</b>	\$10,000,000

**Box 1: Financial model of Monteverde Cloud Forest Biological Reserve**

The private reserves in Costa Rica have different ways to finance their operations. One of the most successful private reserves in Costa Rica is the Monteverde Cloud Forest Biological Reserve, located directly adjacent to the CER. This reserve has 10,500 hectares and its \$1,200,000 yearly operational cost is completely financed by the income from visitors to the reserve. In 2017 they received 94,000 thousand visitors, which brought them an income of USD \$1,900,000.<sup>46</sup>

<sup>46</sup> Source of this information is a phone interview with Carlos Hernandez, Executive Director of the Monteverde Cloud Forest Reserve. April 2018.

## II. FUNDING OPPORTUNITIES FOR THE MONTEVERDE CONSERVATION LEAGUE

### A. Partners and donors

Donations and partnerships are an important and underutilized source of funding, representing 20.9% of MCL's revenue<sup>47</sup>. In 2017, the MCL received \$72,639.19<sup>48</sup> in donations and grants, which represented only 82% of projected donations for that year. In order to ensure the long-term sustainability of the CER, the MCL needs to more effectively utilize donors and partners. This section will investigate the potential for reactivating lapsed donors and partners, as well as gaining new ones that share common values with the MCL. We will then provide strategies for soliciting donations and partnerships from the mentioned organizations.

### A.1 Donors

#### 1) Background situation: The strategic importance of donors for the CER

There are two important questions to be answered when thinking about fundraising, who to ask for money, and how to ask for money. Over the course of our investigation, our team interviewed fundraising experts from the Nature Conservancy, Natural Resources Defense Council, Conservation International, The Wildlife Conservation Society, and Nature and Culture International to assess how the MCL can best do this<sup>49</sup>. Based on the advice of these experts, we

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<sup>47</sup> Monteverde Conservation League, 2017 Annual Report

<sup>48</sup> 296,024,305 colones

<sup>49</sup> Interviews with Abby Schaefer (NDRC), Story Clark (CI), Janice Periquet (TNC), Byron Swift (Nature and Culture), Venkat Iyer (WCS), January-March 2018.

recommend that the MCL concentrates on eliciting donations from lapsed donors (people who have donated in the past but have lost contact with the MCL), groups that have a connection to the history and mission of the MCL, like Quaker groups, and visitors of the CER.

**Lapsed donors** have a high success rate when implementing fundraising strategies. According to our experts, it is more cost-effective to reconnect or retain lapsed donors than to create new collaborations. When an individual or organization feels personally invested in the success of a project, they are more likely to become long-term donors rather than give a one-time donation. The MCL should utilize the unique history of the CER to leverage a connection with the International Children's Rainforest Network, the original Swedish student fundraisers and the founding Quaker Community. These three groups are the low hanging fruit that the CER must capture to become truly eternal. The MCL should acknowledge these lapsed donors' contribution. They need to be reminded of why they donated and what the impact of their last donation was. These groups create a rare, unconventional network that could potentially capture international attention if a public campaign was executed successfully. We have provided individualized promotional material targeting each group and strategies and public campaigns based on their challenges and strengths. Each lapsed donor should be paired with a cultivation plan based on donor characteristics. Each group's historical connection should be leveraged to create a fundraising plan that engages the organization or individual in a new activity in their partnership.

**Historical connections** with past stakeholders should be rebuilt with networks that have an emotional or personal relationship with the Monteverde area. Because the founding members of the MCL were Quakers, the MCL should build their fundraising strategy to target the international Quaker community. Our recommendation for this strategy is to begin with a message of strong appreciation for the Quaker contribution to the MCL and to gradually build a feeling of

accomplishment, pride, and recognition from the entire international Quaker community. If Quaker donors are presented with the right publicity and personalized message, there is a high potential for donors from Quaker environmental organizations, universities, friends schools and community groups. Each association or individual donor needs an individualized strategy to connect them personally to the mission of the CER.

**CER visitors** should be a priority because they are engaged directly with the CER, have a travel budget, and are a captive audience for appeals for fundraising. There were 6,670 visitors to Bajo del Tigre in 2017 and yet, according to the 2017 MCL Annual Report, there was only \$99 worth of donations taken at Bajo del Tigre's donation boxes<sup>50</sup>. That is 1.5 cents per visitor and a clear sign that visitors are not being leveraged as potential donors. At the end of a tour is the opportune time to ask for donations. The visitor is at peak engagement and has the added social pressure of being asked in person by staff or their guides. During an interview with Forest Conservation Finance and fundraising expert, Story Clark, if people are ever going to donate for forest conservation, the moment they are standing in front of the forest, is when they will be most compelled to do so.

There are many ways that the MCL can elicit donations. They could ask passively with a donation box as they do now, have staff ask directly, collect contact information and then ask via email or phone call, or have visitors enroll in a membership program (detailed further below). Looking at the question of how to ask for money, our experts gave us a clear answer, focus on the uniqueness of the CER and its story. The "Case for Support" for the CER rests on its status as a biodiversity epicenter, aided by its compelling origin story of contributions from Wolf Guindon and the Quaker community, and children from around the world. On the biodiversity side of the

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<sup>50</sup> Monteverde Conservation League. 2017 Annual Report.

equation, the CER needs to leverage the fact that it is the largest private forest reserve in Costa Rica that is home to not only an incredible number of rare bird species, but also keystone species such as jaguar, puma, and tapirs that live in the reserve. Focusing on these prominent animals is an effective way to get the attention of donors. The origin story of the CER offers a differentiating factor from most other reserves that were founded by private parties or NGOs with scientific ambitions.

We suggest planning a public outreach program to renew and reconnect with all CER/MCL relationships with past/current organizations. This would include reaching out with up to date information, events, promo films and newsletters about the CER/MCL/Engage Globally.

We recommend requesting each of the organizations listed in the next section to update their websites, individual donor network and partners with the most recent work being done in the CER. In the annex, we have provided a short media impact assessment with engagement data on the top sites that mention the “Children’s Eternal Rainforest”. We recommend using this analysis to prioritize which partners are most active with their online presence and would be the most beneficial and time efficient to continue posting on.

## 2) Strategies for current donors

We have reviewed the annual budget, current, and past donors from the 2017 Annual Report and have a number of suggestions on how to leverage their current partnerships to broaden the MCL’s network and increase the sustainability of the MCL’s funding sources. We have provided an analysis starting with the MCL’s large U.S. donors moving to smaller donors with renewal potential, and finally, listed opportunities we identified with the in-kind non-monetary donors.

### **a) International Children's Rainforest Network (ICRN)**

The International Children's Rainforest Network (ICRN) is a group of non-profit organizations whose underlying mission was to support the CER's initial funding in 1993. The formation of the network was sparked by Eha Kern and her decision to create the first associate of the ICRN in Sweden, the Barnens Regnskogl. The founding members of the ICRN included NGOs from Sweden, Great Britain, the USA, Japan, and Canada. Today, the MCL keeps about half of these relationships in good standing and continues to receive donations from Germany, UK and the USA. We recommend reaching out to the other associations of the ICRN.

Active ICRN Donors:

- "Friends of the Rainforest": Children's Rainforest Club in the USA
- Kinderregenwald Deutschland: Children's Rainforest NGO in Germany
- "Children's Tropical Forests UK": Children's Rainforest Club in the UK

In-Active/Potential ICRN Donors

- "Barnens Regnskog": Children Rainforest Club in Sweden
- "Nippon Kodomono Jungle": Children Rainforest Club in Japan
- "Fundación Benasís": Children's Rainforest Association in Switzerland

### **b) Friends of the Rainforest**

Friends of the Rainforest is a non-profit organization founded in 2002 by Rachel Crandell, as Monteverde Conservation League, US (MCL-US). MCL-US was instrumental in buying 270 strategic hectares in the CER. Under Rachel's leadership, the MCL-US was a reliable partner for pushing money from US donors to the CER. After Rachel's death in 2009, the MCL-US continued operating but refocused themselves on creating education and travel programming for American audiences and away from direct contributions to the MCL. (Appendix 1)

While the Friends of the Rainforest was the MCL's biggest donor with \$60,000 of contributions for repairs to Pocosol Station in 2017, the MCL is already aware of the problems associated with the Friends of the Rainforest and it is advisable to continue their strategy of accepting grants while minimizing their association with the organization.

**c) Kinderregenwald Deutschland (KD)**

*Kinderregenwald Deutschland* (KD) has been raising funds for CER's land purchase and protection through German schools and private organizations since 1990. In 2017, KD sent more than 9,700 Euros, and it continues to actively participate with the CER. In April 2018, the general assembly elections were held and last month, the organization visited Monteverde and began renovation work at Bajo del Tigre. Since the KD assembly is still active compared to other associations in the ICRN, leveraging this relationship as a connection to the other members of the ICRN would benefit the CER network. Although the other associations in the ICRN may not be active at this time, if the CER boosted publicity with the KD, then they could use this campaign to reach out to past contacts of the ICRN.

We have provided a list of KD's partners that the MCL does not current utilize and we recommend asking the KD assembly to support their collaboration. These include the American School of Madrid and the Fundacion Benasis, a non-profit Swiss conservation organization. KD currently actively collaborates with two school groups; the Children's Rainforest Team at Edith-Stein School and the "Kakadus der Grundschule Kuppelnau". We would recommend organizing excursions and projects directly with these two school groups. We recommend connecting with Fundacion Benasis through Audrey Leumann who founded the organization in May 2007, after a four months' stay as a volunteer in Costa Rica.

d) *Children’s Tropical Forests* (CTF)

Children’s Tropical Forests (CTF) is a UK charity dedicated to the protection, conservation and regeneration of the world’s tropical forests by means of active fundraising, education and direct action in the forests themselves.<sup>51</sup> We recommend continuing to partner with the CTF and increasing the CER’s visibility by contributing more information to be posted on their website about their current projects.<sup>52</sup> We also suggest reaching out to the CTF director to connect to their other project partners directly to open a more active conversation about financing.

Box 2: Edith Stein School Ravensburg & Aulendorf

*The Edith Stein School Ravensburg & Aulendorf* are part of the original network of schools that supported the founding of the CER. Currently the group, “Achtalschule Baienfurt” is focusing on environmental education and promotion of biodiversity.<sup>53</sup> At the Agricultural Gymnasium, the Baalfurt School of Secondary Education, Professors Meret Heiß, Evelin Reichle and Carina Geier are working on projects to highlight biodiversity and promote the students' knowledge of nature. We recommend reaching out to the KD to connect directly with these three student groups, the “Achtalschule Baienfurt”, the Agricultural Gymnasium and the Children’s Rainforest Team at Edith-Stein School. After connecting with the students, the CER could expand their partnership with international children through student projects, international field trips and student summer internships. When reaching out to these groups, the MCL and CER should pitch the engagement with descriptions of the long-lasting contribution the school has already made and how they could continue the legacy of their fellow students that had worked on fundraising for CER in the past.

<sup>51</sup> “Children’s Tropical Forests | About Us”. Accessed April 9, 2018. <http://www.tropical-forests.com/who-are-we/>

<sup>52</sup> “Children’s Tropical Forests | Monteverde Cloud Forest”. Accessed April 9, 2018. <http://www.tropical-forests.com/projects/monteverde-cloud-forest/>

<sup>53</sup> “Edith-Stein-Schule Ravensburg & Aulendorf | Haus- und Landwirtschaftliche, Gewerbliche und Kaufmännische Schule”. Accessed April 9, 2018, <http://www.ess-rv.de/>

### 3) Strategies for lapsed and potential donors

Based on our research, we identified two important groups of lapsed and potential donors that could be contacted for donations. These groups are the Swedish School Network and the International Quaker Collaboration. In this section we provide more detail about the donors inside these two groups, and the strategies the MCL should apply to connect with them.

#### **i) International Children’s Rainforest Network**

The International Children’s Rainforest Network was originally inspired by Eha Kern’s Swedish class of 4th and 5th graders in the 1980s. Roland and his fellow classmates are now professionals working across Europe and internationally. The capstone team has reached out to Eha Kern and interviewed her via skype, collecting information on the initial fundraising and reopening the link between the MCL and the original school children. Eha Kern has been open to reconnecting the CER with the school children from her 4th and 5th grade classes. We have collected five of the original children’s contact information, which can be found in Annex 4. Both Engage Globally and the MCL could connect with this network of lapsed donors with a message of appreciation and gratitude to make a long-lasting relationship.

- a) ***Swedish School Network, Fagerviks School:*** It is still famous around the world for starting the international children’s funding movement for the MCFR and the CER. The school is mentioned in numerous articles and books online. For example, the school is featured prominently in *It's Our World, Too!: Young People Who Are Making a Difference*, by Phillip Hoose<sup>54</sup> and *Green Encounters: Shaping and Contesting Environmentalism in Rural*

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<sup>54</sup> “Children’s Tropical Forests | About Us”. Accessed April 9, 2018. <http://www.tropical-forests.com/who-are-we/> .

Costa Rica, by Luis A. Vivanco<sup>55</sup>. We recommend contacting the school's director to reconnect and start another fundraising project with current students at Fagerviks School.

- b) **Goldman Environmental Association:** Eha Kern and Roland, Kern's student, were awarded the *Goldman Environmental Prize* in 1983. We recommend using our report and audio-visual case study as a platform to connect with the Goldman Environmental Association and create a "revisit" project that would use our materials and interviews with the original Swedish school children. It is a common practice for associations to revisit a past award and make a short segment of "where are they now?". This "Award Revisit" would increase visibility, provide a natural reconnection with both the original children fundraisers and the International Children's Rainforest Network.

## ii) International Quaker collaboration

Quaker collaborations in the United States provide an optimal partnership for potential donations due to their connection to the Quaker founding of the MCL and the Monteverde community. There are a number of organizations, friends' schools, original founders and universities that should be contacted to utilize the historic connection of the Quaker network. Some of them are described below:

- a) ***Quaker international environmental organizations:*** They focused on different elements of environmental sustainability, conservation and biodiversity. Potential international Quaker organizations for the CER to partner with include:
- Quaker Earthcare Witness is one of the most important conservation organizations in the international Quaker community. We have included specific recommendations for how the

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<sup>55</sup> Luis A. Vivanco, *Green Encounters: Shaping and Contesting Environmentalism in Rural Costa Rica* (Berghahn Books, 2007).

MCL should create this partnership including how to apply for environmental Quaker grants.

- *Friends World Committee for Consultation*, is an international project working to create a global Quaker sustainability movement. The FWCC is putting together Quaker case studies on Sustainability in Action. We recommend providing material to FWCC on CER and Monteverde to add to their resources and promote visibility.<sup>56</sup> We have included additional recommendations on how to leverage their sustainability toolkit in the Annex.
  - The *Friends Committee on National Legislation* (FCNL)<sup>57</sup>, which advocates on environmental issues in Washington, DC.
  - *American Friends Service Committee* (AFSC)<sup>58</sup>, whose projects have environmental dimensions within a social context.
  - The *Quaker Institute for the Future*<sup>59</sup> provides research on the ‘right relationship’ between humanity and ecosystems.
  - The Quaker United Nations Office (QUNO)<sup>60</sup> promotes projects surrounding sustainability and natural resources.
- b) ***The Monteverde Friends School:*** It should be used as a base to create sister school partnerships with the intention of spreading awareness of the CER mission and the strong Quaker history and impact in the Monteverde region. The CER should work to strengthen their ties to the local children in the Quaker community to incentivize the Friends School to become more involved in the CER financial efforts. The MCL should consider

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<sup>56</sup> Quakers And Climate, “Quaker Case Studies: Sustainability in Action,” *QUAKERS & CLIMATE CHANGE WORLDWIDE* (blog), January 16, 2018. Accessed April 9th, 2018.

<https://quakersandclimatechange.com/2018/01/16/quaker-case-studies-sustainability-in-action/>

<sup>57</sup> <https://www.fcnl.org/> Accessed April 9th, 2018.

<sup>58</sup> <https://www.afsc.org/> Accessed April 9th, 2018.

<sup>59</sup> <http://www.quakerinstitute.org/> Accessed April 9th, 2018.

<sup>60</sup> <http://www.quno.org/> Accessed April 9th, 2018.

sponsoring field trips for the Monteverde Friends School children and their parents once a month to build a stronger relationship with the Quaker community.

- c) ***Monteverde Quaker Community:*** It is a close, direct connection to the international Quaker community, which should be utilized to attract Quaker donors. The MCL should reach out directly to the Quaker community members by attending the Friends Meeting. Although some MCL general assembly members attend meetings regularly, a short presentation or speech could be given by a MCL board member or executive director to reconnect the Quaker community with CER's mission. Sparking this discussion could inspire Quaker initiative and connections that would generate a broader connection with potential international Quaker donors.

Also, connecting with local Quaker Founders' contacts, such as Wolf Guindon's family, provide an ideal opportunity for a partnership with the CER to bring Quaker donations from around the world. Wolf Guindon was one of the founding members of the MCL and a famous Quaker conservationist. This capstone project has captured a professional interview with Ricardo Guindon, Wolf's son, that could be used to advertise to international Quaker donors. The footage of this full interview will be available on the Picker Center website as an addendum to their Audio-Visual case study. Additionally, we are currently creating a short promo film with both Ricardo Guindon and Noelia Guindon, Wolf's granddaughter, that could also be sent to potential Quaker donors to incentivize them to partner with the MCL. More information about Ricardo is in Appendix 2.

- d) ***U.S. based friends schools*** vary greatly, both in their interpretation of Quaker principles and in how they relate to formal organizations that make up the Society of Friends. However, most Friends schools are similar in their missions which seek: to provide an

academically sound education while also instilling values of community, spirituality, responsibility and stewardship in their students. Because a Quaker education endeavors to be a socially responsible one, Friends schools' curricula emphasize service, social action and experiential learning. Quaker educators believe that community, responsibility and stewardship is learned by experience. Friends School education encourages students to get out into the local and international community for service projects. Friends schools have a deep commitment to environmental sustainability and they take pride in teaching eco-friendly policies by practice not just theory.

- e) ***U.S. Quaker university partnerships:*** They are either American Quaker universities or founded by Quakers. A different marketing approach should be used to approach each of the 16 U.S. Quaker universities. For advocating to schools that are founded by Quakers but do not follow a strictly Quaker curriculum, the MCL should reach out to the Quaker founders directly. Johns Hopkins University and Cornell University are the most prominent examples of universities founded as a Quaker institution and currently non-denominational. If the founders are deceased, contact the Quaker community at the university or the local Friends Meeting to find a currently active Quaker connection in the academic community. Universities following the Quaker traditions in their curriculum are either affiliated, sponsored by, or associated with a specific Friends church and community. For example, Barclay College in Haviland, Kansas is associated with the Friends church, Earlham College is affiliated with Western Yearly Meeting, while George Fox University is affiliated with Northwest Yearly Meeting of Friends.
- f) ***Fairhope Friends Meeting:*** The Fairhope Friends Meeting is the religious, community organization and place of worship where the founding Monteverde Quakers originated

from. There is a strong potential donor for the CER in Fairhope, Alabama because of its historic connection as the original founders' homeland. After the majority of Fairhope Quakers moved to Costa Rica, the Friends School was closed and the group continued informally in the small meetinghouse. Fairhope Friends formally began again in 1967, as Fairhope Meeting Independent. Fairhope Friends remains independent, but affiliated with the Friends General Conference, and contributes financially to Monteverde. Many members lived in Monteverde at one time, and though they have returned to Fairhope, they have relatives in Monteverde.<sup>61</sup> Monteverde remains active and cooperates with the Ohio Yearly Meeting.<sup>62</sup> We recommend contacting the Fairhope Friends Meeting through their active Facebook group or the author of a recent article paralleling the Fairhope Quaker community to their Monteverde counterparts. Laura Melvin is a member of Fairhope (Ala.) Meeting. She has published in various magazines and is the author of the book *Public Secrets and Justice: A Journal of a Circuit Court Judge*.

To partner with both local and foreign Quaker organizations that were described above, we recommend the following strategies:

- ***Develop the CER-Quaker collaboration strategy:*** The MCL should consider three theories when contacting potential partners in the Quaker community. The three theories are focused on; 1) spiritualizing nature, 2) naturalizing religion, and 3) separating faith from the environment entirely.<sup>63</sup> When creating a public awareness campaign for Quaker donors, promotional material, donation letters, one-pagers and social media should target specific

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<sup>61</sup> "100 Years of Quiet Tenacity," *Friends Journal* (blog), September 1, 2017. Accessed April 9th, 2018. <https://www.friendsjournal.org/fairhope-monteverde/>

<sup>62</sup> "Quakers in Alabama," Encyclopedia of Alabama. Accessed April 9, 2018. <http://www.encyclopediaofalabama.org/article/h-2069>

<sup>63</sup> Os Cresson, "Quakers and the Environment: Three Options | NontheistFriends.Org". Accessed April 9, 2018. <http://www.nontheistfriends.org/article/quakers-and-the-environment-three-options>

Quaker audiences, focusing on the two groups that spiritualize nature and naturalize religions. Promos can be tweaked slightly to incentivize different types of Quaker groups to partner with the CER.

- ***Develop a global Quaker youth social campaign:*** Targeting young adults interested in environmental and climate change issues could spark an international fundraising movement. This could be accomplished by advocating the CER’s mission with young Quaker leaders in the Monteverde area. The MCL should create a mini publicity campaign to reconnect young adults in the Quaker community to their founders’ success in conservation. The MCL Assembly includes a number of young members that have strong Quaker ancestry. Empowering these young people to connect to the CER and the international Quaker community could create donor partnerships worldwide similar to the Swedish students’ success.
- ***Elaborate a CER-Quaker engagement plan:*** This plan should target the international Quaker community by connecting them to the story of the CER. We have created a one-pager (found in Annex 5) to promote Quaker partnerships. There are two components to the potential of engaging Quakers abroad to the MCL. The CER largely originated from the effort of Wolf Guindon, and the character of the Quaker community in Monteverde, like the search of consensus on important matters, infuses the MCL to this day. Moreover, Quaker traditions more generally naturally promote an eco-friendly lifestyle, utilizing natural processes, limiting electricity and using only daylight.<sup>64</sup> During the 20th century, *Earthcare* became an important focus for Quaker witnesses introducing phrases like ‘right

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<sup>64</sup> “Green Building and Quaker Beliefs – Friends Center”. Accessed April 9, 2018. [http://www.friendscentercorp.org/?page\\_id=648](http://www.friendscentercorp.org/?page_id=648)

relationship’ and ‘right-sharing’ into their core values.<sup>65</sup> The Quaker history and connection to the MCL, and the Quaker lifestyle are an optimal landscape to pitch the CER’s mission.

#### 4) Strategies for foundations and large private donors

In the fundraising world, foundations and wealthy individuals are the big fish. Acquiring a big commitment from a foundation or individual is unlikely but if the MCL is lucky and strategic it can receive large contributions or grants to support its long-term goals such as the endowment fund. As mentioned above, when targeting foundations, the MCL must make use of its core assets: the CER’s unique origin story, the presence of keystone species in the CER, and the world class biodiversity richness.

According to Kim Elliman<sup>66</sup>, CEO of the Open Space Initiative, during an interview with the Capstone team, these foundations would be most promising to contact:

- The National Audubon Society, the Massachusetts Audubon Society, and the American Bird Conservancy (for a focus of migratory birds)
- The Education Foundation (for environmental education)
- William Penn Foundation (for the Quaker connection)
- Wheaton Foundation
- Overbrook Foundation

In order to make appeals to these types of institutional donors the MCL will have to follow a more structured path. Each foundation has a different set of guidelines for grant applications, so

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<sup>65</sup> “Environment and Sustainability”. Accessed April 9, 2018. <http://www.quakersintheworld.org/quakers-in-action/21/Environment-and-sustainability>

<sup>66</sup> Interview with Kim Elliman, April, 2018.

the MCL will have to study their websites and make sure that the CER is applicable to the foundation's project requirements. The MCL can apply directly to the foundations and try to make contacts with employees or donors of the foundation. If the MCL can organize for a representative or influencer of the foundations to visit the CER their case for support would be stronger. Most of these grants processes take months to be completed and are competitive, therefore we recommend that in the near term the MCL focuses on the other options presented.

## 5) Strategies for CER visitors

Membership Based Fundraising Models provide many advantages in connecting with long-term donors. A method of conservation fundraising that has been proven effective by conservation organizations like the Wildlife Conservation Society (WCS) and the San Diego Zoo is the membership model. The idea behind a membership model of fundraising is that visitors to a park would have the opportunity to support the park in the long-term in exchange for tangible benefits, such as free admission, discounts on special offers, or receipt of periodic news about the park. The membership can be valid for a year or for a lifetime, depending on the nature of the park or institution dispersing the membership. Interested parties that have not yet visited the park could also become members through an online process.

There are several clear benefits to this model. First, the organization receives the revenue from the membership now, even when the benefits promised by a membership would be realized over the course of a year or lifetime. Second, if a visitor or browser of the internet purchases a membership, the organization receives the money without necessarily having to assume the costs of the promised benefits of the membership. A membership may promise unlimited admissions or discounts on merchandise but the average member will realistically visit no more than once or

twice per year. Third, membership allows the organization to build a sense of community and push for action based on membership status.

### Box 3: WCS Membership Model

The WCS Membership Model drives admission and other audience-driven revenues from the Bronx Zoo in New York City. Membership and auxiliary services are one of the largest sources of unrestricted operating support, and are critical to WCS's financial health. In FY 2016 these sources provided \$74.7 million, 29% of total revenue and almost a third of general operating revenues.<sup>67</sup> Membership alone provided \$13.8million of unrestricted funds for the WCS in FY 2016. The cost of membership services for WCS in the same year was \$2.1million, or 15% of membership revenues. This cost includes the fulfillment of benefits and marketing costs of obtaining memberships. The net gain from membership dues for the WCS is therefore \$10.8million or 85% of revenues<sup>68</sup>. The WCS has an advanced membership system with several layers. Visitors can choose to support the work of the WCS zoos, aquariums, or both. They can then choose between an individual membership, a couple membership, or a family membership. Once they clarify what type of membership they are interested in, the visitor can choose between up to 3 levels of membership that vary in price and benefits. For example, if a visitor is interested in a family membership supporting both zoos and aquariums, they are presented with a basic option that offers unlimited admission for a family for 1 year for \$259.95, a "Plus" option offering unlimited admission and special attractions for a family and a guest for \$299.95, and a "Conservation Supporter" option with all the above benefits plus free parking for \$379.95. The last option is noted to be the "best value" and comes with the added status of the "Conservation Supporter" title. The stratification of membership levels allows the WCS to push supporters to pay more for memberships while still capturing potential contributors who are less interested in additional benefits above free admission. It might seem far-fetched to compare the MCL with the WCS (the Bronx Zoo). But the Monteverde-Arenal area is a world renown biodiversity area,

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<sup>67</sup> Wildlife Conservation Society, 2017 Annual Report

<sup>68</sup> Wildlife Conservation Society, 2016 Annual Report

which receives more than half a million visitors per year, and the CER is the heart of the area. The potential is substantial.

The MCL Membership Model will leverage existing visitors to Bajo del Tigre and San Gerardo station by giving them the option of making a lasting contribution to the preservation of the forest. In 2017 Bajo del Tigre had 6670 visitors whose involvement with the CER ended with their tour and a \$23 admission fee. In San Gerardo, there were 2,632 bed nights. To take advantage of this, a well-organized effort should be designed to convert visitors into members. At both Bajo del Tigre and San Gerardo, the time spent in the CER is an opportunity for staff and guides to convey the importance of the MCL's work and ways in which visitors can aid the MCL in its efforts, becoming a member could be one of the more marketable options for visitors.

There are opportunities to create membership systems for both international tourists and for local community members. For international tourists, the MCL should follow WCS's example and offer a membership plan that offers unlimited entrances to the CER trails and discounts to San Gerardo and Pocosol as a basic membership. For a higher-level membership the MCL can offer nights at San Gerardo for free or access to special activities like a hike from the Pacific side to the Atlantic side of the reserve. For local people a membership would be a way to allow them to make a long term effective contribution if they want to.

Getting the right price points for these memberships is important. Seeing as the price of admission for a guided tour of Bajo del Tigre is only \$5 less than the adult entry admission at the Bronx zoo, we can use their model as a template. The MCL could offer a stratified pricing system for membership, charging \$50 for a year-long membership and offering unlimited entrances for that year, and \$125 for a life-time membership. This could be offered as an alternative to buying

normal admission for a family for example. Another option could be that a family completes their tour and is then offered a membership to take advantage of their proximity to the work, in this case the price of the membership would have to consider the money that they have already spent on admission. In either scenario, the ask for a membership should be part of the data collection process, when the guest is asked for their email, phone number, and address.

The membership should include a newsletter with news not only from the CER, but also from Monteverde. It can include news on new research being done, new trails/hikes, and events that have happened or will happen in the near future. This would be a good way to help people who have visited maintain connections to the town and the CER.

It would be at the discretion of the MCL management to decide how to handle membership renewals.

## A.2 Private sector partnerships

Private sector partnerships can be a significant source of funding for ongoing operations of the MCL and Engage Globally. In this section, we review the current and past situation of the MCL's private sector partnerships, the potential to develop partnerships, and the strategies to achieve them. We identify various industries as well as individual enterprises that could be of interest and open to partnerships.

Before contacting each business, we recommend to clearly define the values that the private sector partner needs to espouse, to agree on the objectives of the partnership for all parties, and to identify specific ways in which a given enterprise can partner with the MCL or Engage Globally. We also recommend identifying a key argument on how conservation impacts their business and how the CER impacts communities, Costa Rica, and the world.

### 1) Current situation

For the purposes of this report, the private sector is defined as for-profit businesses that are not owned or operated by the government. Private-sector partnerships are contractual relationships established between the for-profit businesses and the nonprofit sector, government, or other organization, that are mutually beneficial. There are many different types of public-private partnerships depending on the industry and the objectives of each participating party.

Well-designed public-private partnerships can be a powerful way to combine the management and allocation strengths of the private sector with the knowledge of the public sector. Today, especially in light of the Sustainable Development Goals (SDG) agenda, partnerships

between different stakeholders are recognized as being crucial to tackling global challenges such as climate change mitigation and adaptation, poverty, and hunger elimination.

When it comes to conservation efforts, the participation of for-profit companies has been small-scale and has mostly come in the form of philanthropy. There is an unmet demand for financing conservation: an estimated USD 200-300 billion per year would need to come from the private funds to meet this demand<sup>69</sup>.

According to our research, currently the MCL and Engage Globally do not have an active and consistent private sector partnership that significantly contributes to the financial sustainability of the two organizations. In the past, there was a collaboration with Whole Foods and New Chapter through the Friends of the Rainforest network<sup>70</sup>. This partnership with Whole Foods and New Chapter generated approximately \$1 million that was channeled towards land purchases for creation of wildlife biological corridors<sup>71</sup>.

One current partner that MCL works with is the ***Greater Good Network***, a for-profit company owned by CharityUSA LLC. The Greater Good network operates several click to donate online retail websites, including The Hunger Site and The Rainforest Site, that push revenue from advertising partners and sales of items to charity partners. The Greater Good Network has high visibility and online presence with its various websites having hundreds of thousands to millions

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<sup>69</sup> Huwyler, Fabian, Jurg Kappeli, Katharina Serafimowa, Eric Swanson, and John Tobin. 2014. "Conservation Finance: Moving beyond Donor Funding toward an Investor-Driven Approach." Credit Suisse, McKinsey & Company, WWF.

<sup>70</sup> Interview with Mark Wainwright, Monteverde, Costa Rica, March 2018.

<sup>71</sup> "The Children's Eternal Rainforest - Preserving biodiversity for future generations". Accessed April 10, 2018. <https://www.alive.com/lifestyle/the-children%C2%92s-eternal-rainforest/>

of likes on Facebook. Greater Good claims to have contributed over \$50 million to charities since its inception in 2009<sup>72</sup>.

The Rainforest Site is the subsidiary that contributes to the CER. When a user is shopping on the Rainforest Site, advertisers will pay the site for every click on a page where their ad appears. The value of these clicks is not clear and can range from .7 cents to 30 cents per click. This money primarily goes to the Rainforest Trust to fund land purchase and protection. According to the Rainforest Site, through 18,074,826 clicks enough money to preserve 3,657.3 Hectares of forest was raised in 2017<sup>73</sup>. There are also pages where guests can donate directly to NGOs<sup>74</sup>. For the MCL there is a page where guests are given the following options:

- “Purchase and protect 100 square feet of rainforest, for \$5.50”
- “Purchase and protect 300 square feet of rainforest, for \$16.50”
- “Purchase and protect 500 square feet of rainforest, for \$27.50”
- “Purchase and protect 1000 square feet of rainforest, for \$55.00”
- Make a monthly gift

It is unclear how much of this “gift” goes directly to the MCL, but the website claims that 100% goes to the MCL through the charity arm of Greater Good, GreaterGood.org. So far MCL has received \$539 from Greater Good.

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<sup>72</sup> “About GreaterGood”. Accessed April 10, 2018.

[https://therainforestsit.greatergood.com/clickToGive/trs/about-greatergood?link=ctg\\_trs\\_about-greatergood\\_from\\_partners\\_MegaNav](https://therainforestsit.greatergood.com/clickToGive/trs/about-greatergood?link=ctg_trs_about-greatergood_from_partners_MegaNav)

<sup>73</sup> “Results — How You're Helping”. Accessed April 10, 2018.

<http://therainforestsit.greatergood.com/clickToGive/trs/daily-results>

<sup>74</sup> “Protect Critical Costa Rican Rainforest ”. Accessed April 10, 2018.

<https://therainforestsit.greatergood.com/store/trs/item/81453/protect-critical-costa-rican-rainforest>

## 2) Potential private partnerships

### **Corporate Social Responsibility (CSR) - Sustainability Framework**

One of the mechanisms that can be leveraged for private partnerships is corporate social responsibility (CSR). While there are various definitions of CSR, according to United Nations Industrial Development Organization (UNIDO), CSR is a mechanism through which companies integrate social and environmental concerns in their business operations, strategy, and interactions with stakeholders. The International Organization for Standardization published the Guidance Standard on Social Responsibility, ISO 26000 in 2010 which defines CSR as:

“Social responsibility is the responsibility of an organization for the impacts of its decisions and activities on society and the environment, through transparent and ethical behavior that:

- Contributes to sustainable development, including the health and the welfare of society;
- Takes into account the expectations of stakeholders;
- Is in compliance with applicable law and consistent with international norms of behavior, and
- Is integrated throughout the organization and practiced in its relationships.”

There are many different CSR strategies that an enterprise decides to pursue, such as strategic business management concept, charity, sponsorships, partnerships, and philanthropy.

The global influence and power of multinational corporations (MNCs) has been rising in the past couple decades. Today the revenues of some of the corporations are comparable to or even exceed the government revenues of some countries. A study released in 2016 by a charity organization Global Justice Now found that out of the top 100 global economic entities

(corporations or countries generating the largest revenues) worldwide, sixty-nine are corporations and thirty-one are countries<sup>75</sup>. The pressure from civil society and global stakeholders on the corporations to give back to society and to contribute to sustainability efforts globally has also been growing. Specifically, as part of the Sustainable Development Goals (SDGs) adopted in 2015 by the UN, multi-stakeholder partnerships, with a special focus on private sector engagement, have been identified as one of the priorities to achieve sustainable development. SDG 17 specifically identifies “Multi-stakeholder partnerships and voluntary commitments” as a target and seeks to promote effective public-private and civil society partnerships to advance the sustainable goals agenda.

The following sections will describe two schemes that are potential opportunities for the MCL to promote their partnerships with the private sector. These two schemes are: voluntary surcharges and private companies’ partnerships.

#### **a) Voluntary surcharges**

A voluntary surcharge is a “small charge that a business adds to a customer’s bill that is given to a nonprofit and that the customer can remove voluntarily”<sup>76</sup>. This mechanism consists in charging a percentage of the gross sales before taxes to the buyers, rather than to the business. This charge is a donation that then is assigned to a project related to the mission of the organization.

Voluntary surcharge programs differ from typical voluntary donations because the fee is automatically added to the customer’s final bill. The customer can choose not to pay the fee,

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<sup>75</sup> “How do the world's biggest companies compare to the biggest economies?”. Accessed April 21, 2018. <https://www.weforum.org/agenda/2016/10/corporations-not-countries-dominate-the-list-of-the-world-s-biggest-economic-entities/>

<sup>76</sup> Clark, S., 2009.

through clear opt-out procedures. These programs are now increasing and gaining popularity for local land preservation, and they are used in the environment field in community-based models.

According to Tazawa and Clark (2018), this type of fundraising works for local land trusts or conservation groups in areas where nature tourism is fundamental. The programs are focused on building partnerships with local businesses that are committed to charging the voluntary payment. The businesses charge fees in different ways. For example, there are businesses that add one percent surcharge on the purchase of products or services, and others add an additional flat fee, such as a \$2 per night fee on a hotel room charge.

The implementation of these programs in businesses needs to:

- Communicate efficiently how the funds will be used to benefit conservation.
- Clearly state the opt-out procedures, and train staff members to explain the program to every customer.
- Create a clear and professional method for collecting and disbursing funds.
- Create marketing materials that explain the opt-out option and the participation outcomes.

For example, promotional posters, small flyers, and digital social media.

- Track surcharge payments with proper accounting and bookkeeping protocols.

In addition to the revenues generated, these programs have other advantages, such as, creating the opportunity to build new and synergistic relationships with local business, educating employees who in turn educate their customers, increasing awareness on conservation, and creating new ideas for conservation by the community<sup>77</sup>.

According to Story Clark, board member of Conservation International, the implementation of this scheme requires significant manpower to set up and maintain. The land

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<sup>77</sup> Clark, S., 2008.

trust must contact all of the businesses, sign them up, produce marketing material and other information, and make invoicing arrangements. “It is important to have in the board at least one businessperson who uses the program and sells it to others. The most successful programs are those who have started in communities that are aware of the potential loss of open space”<sup>78</sup>.

#### Box 4: Crested Butte’s *1% for Open Space*

This mechanism was developed by Ethan Hicks, the owner of a shoe store in a town in Colorado called Crested Butte. As he was part of the advisory board of the Crested Butte Land Trust, he saw that there was a “huge disparity between the cost of land being developed and the ability of the land trust to raise the millions of dollars needed to conserve it”.

He was aware about the work that the outdoor clothing company Patagonia was doing, donating one percent of its gross revenues to environmental causes. Based on this idea, in 1997 he designed a new mechanism that he implemented in his own store, a popular sporting goods store called the Alpineer. The mechanism consists of adding 1% to the gross sales before taxes of products and services from their customers. In all cases, customers have the opportunity to remove the donation if they do not want to do it. However, less than 1% of the customers choose not to make the donation.

This mechanism was successful from the beginning. As Ethan Hicks described: “On the first day we started, a lot of people came into the store just to participate”. The local newspaper and radio shared the story, and local businesses began to sign up.

Now, *1% for open space* is a consortium of local businesses working to permanently preserve open space in Gunnison County. For 2011, the organization raised over 1.7 million dollars to preserve over 4,500 acres in Gunnison County, and there are over 75 participating businesses in the program.

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<sup>78</sup> Idem.

They include restaurants, retail shops, realtors, building industry contractors, lodges, health and beauty service providers, artists, property managers, guiding companies, animal service providers, landscapers, educational institutions, and the local ski industry.

The money collected through this program is only granted to organizations for the conservation of land in Gunnison County. Any organization that wants to receive funds for open space preservation projects must complete a formal application, which must then be approved through a majority vote of the Board of Directors.

The organization is led by a board of seven members that are volunteer positions (non-paid). They also hired one Executive Director and one part-time employee. *1% for open space* only uses 20% of the collected donations to cover their operations costs. The rest goes to actual land and easement purchases. Also, the organization does not need to spend a huge amount of resources in massive advertising campaigns, because the partner businesses make marketing and informational signs. Additionally, many local marketing businesses participate in the program with in-kind gifts of advertising.

### Box 5: *1% for the planet*

*1% for the Planet*<sup>79</sup> is a global network of businesses and individuals (members) who support efforts to combat climate change and preserve the environment through their annual membership to the 1% for the Planet and direct support to nonprofits (partner organizations) that are part of the network. The movement was started in 2002 by the founder of Patagonia, Yvon Chouinard and Craig Mathews, the founder of Blue Ribbon Flies. The non-profit partners are carefully chosen and vetted by 1% for the Planet based on their legal status (must be able to receive certifiable funding) and their environmental commitment.

#### **How it works**

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<sup>79</sup> 1% for the planet - <https://www.onepercentfortheplanet.org/>

Businesses and individuals pay an annual membership to be part of the 1% for the Planet network. In return, 1% for the Planet provides them with a network of approved partner non-profits and helps identify environmental organizations and donation strategies that will create the greatest impact based on the donor's giving goals. Members pledge to donate 1% of their annual sales to approved non-profits. 1% for the Planet acts solely as a certifier of the donations and does not distribute the funding to the partner organizations. Members give directly to the non-profit organizations of their choice.

**How can nonprofits become part of 1% for the planet?**

Nonprofits can only become partner organizations via a personal referral (demonstrated commitment to donate) from a member organization or a staff member. When they become a partner organization, the non-profit is not automatically guaranteed funding. The partnerships between members and non-profits can come in various ways, such as monetary donations, volunteering, in-kind donations, and other types of support.

A list of 1% for the planet business members that are susceptible to become partners of Engage Globally or CER is included in Annex 7.

**b) Potential partnerships with companies**

**A. Direct partnerships**

**1. Outdoor activities gear manufacturers and retailers**

Monteverde is a premiere destination for nature lovers. The reasons people come to Monteverde vary from simple hikes to very sophisticated species-driven tourism, such as birdwatching. We recommend that the MCL and Engage Globally reach out to some of the outdoor equipment manufacturers and binocular manufacturers because their products are heavily used by tourists and guides in Monteverde.

Below is a list of companies that have been identified as potential partners for the MCL. We identified that these companies' values are in line with the values of the MCL, which makes a

partnership possible. We recommend that the MCL or Engage Globally reach out to these companies' CSR departments to inquire about potential partnership opportunities.

1. REI Co-op.

REI is a US national outdoor equipment retail cooperative. REI invests in the NGOs, organizations and communities that promote access to the outdoors by investing almost 70% of their profits to the outdoor community. In 2017, they invested approximately \$8.8M in NGOs operating in the US.

- a. REI Adventures.

REI Adventures is a subsidiary of REI and proposes a wide range of active outdoor trips around the world. They also propose adventure vacation trips to Costa Rica including visits to the Arenal Volcano National Park and the surrounding cloud forests. They also have a special Family Adventure package, that is specifically designed for the families with children.

Even though REI mostly invests in NGOs working on environmental problems and promoting greater use of outdoors in the U.S. only, given that they offer travel packages to all parts of the world, including Costa Rica and that their customers also do not bound themselves within US borders, we feel that reaching out and presenting a strong case of the unique story and significance of the CER can be worthwhile. An example of an international donation by REI was their contribution to the earthquake relief efforts in Nepal through a donation to Mercy Corps. This donation was an exceptional occurrence given the magnitude and the destructive impact of the earthquake. However, the fact that they offer an adventure trek in Nepal has also contributed to that decision. Therefore, although the CER is not experiencing a natural disaster, the fact that REI offers an adventure trek in Costa Rica could be leveraged in communication with them.

- Binocular manufacturers

Canon are both world leaders of photography equipment but also of binocular equipment. Both multinational companies they have presence, operations, impact and a loyal following all over the world. Therefore, given the global significance of the CER and a wide-ranging activities and donations of both companies, a collaboration could be feasible. Please refer to Annex 7 for more details

- Canon

Canon USA contributes to a wide range of CSR programs. It is recommended to contact Canon for an inquiry to form a partnership with CER or Engage Globally. In reaching out to Canon, their Binocular business should be targeted as CER is a prime birdwatching destination in the world. Please refer to Annex 7 for more details on their CSR guidelines and a link for their donation request form.

## **2. Whole Foods and/or New Chapter**

The connection with the former CEO of New Chapter was established through the NGO “Friends of the Rainforests”. The exact reason of why the partnership with Whole Foods and New Chapter is no longer active was not found during our research.

One potential strategy for private sector partnership development is to re-establish relationships with the Whole Foods and New Chapter.<sup>80</sup> The partnership had generated a significant amount of funds that was used for land purchase. The previous experience of working together and a cumulative contribution of close to USD 1 million from the two businesses can be

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<sup>80</sup> Unfortunately, there was not more information gathered on this partnership. However, given the nature and significant funds generated through this collaboration, we recommend that CER tries to get back in touch with the New Chapter/Whole Foods contacts from the previous partnership.

leveraged to establish a new partnership. Tom Newmark, the former CEO of the New Chapter is also the founder and chair of the Carbon Underground<sup>81</sup>, an initiative that focuses on bringing various actors from the private, public, non-profit and academic sectors to create global climate stability. He was also the initiator of the two-day hike in the Children's Eternal Rainforest that happened in 2008 and brought the presidents and CEOs of several environmentally inclined consumer product companies including Seventh Generation and Whole Foods together behind an idea of fundraising \$10 million for rainforest conservation<sup>82</sup>.

We see a great potential in reconnecting with this lapsed donor. Therefore, we recommend getting back in touch with Tom Newmark to identify potential opportunities for partnerships.

### **B. Sourcing coffee from Costa Rica**

Coffee production is a key economic activity in Costa Rica. Although Costa Rica contributes less than 1% of the world's coffee production, it has a strong reputation for producing good quality coffee<sup>83</sup>. This is why there are several international companies that have partnerships with Costa Rica coffee farmers in different regions of the country.

The CER offers benefits for coffee production in the area. According to Reed, et al., forests and trees within an appropriate management strategy, enhance yields comparable to solely monoculture systems<sup>84</sup>. Specifically, the CER protects the agricultural production from pests and diseases. These benefits should be communicated and presented to potential partners that work with Costa Rica's coffee producers. It is important to increase their awareness of the economic values of the ecosystems services that conservation efforts generate.

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<sup>81</sup> <https://thecarbonunderground.org/about-us/our-team/>

<sup>82</sup> <https://www.nytimes.com/2008/03/01/business/01hike.html>

<sup>83</sup> Cafe Imports. [https://www.cafeimports.com/origin\\_costarica](https://www.cafeimports.com/origin_costarica).

<sup>84</sup> Reed, J., van Vienen, J., Foli, S., Clendenning, J., Yang, K., MacDonald, M., Sunderland, T. (2017). Trees for life: The ecosystem service contribution of trees to food production and livelihoods in the tropics. ScienceDirect, 62-71.

Because the international coffee companies have an impact in Costa Rica by partnering with local farmers, these enterprises could be potential partnerships for Engage Globally and the MCL. For example, there is one company, Montana Coffee Traders, that has partnerships with local organizations in the Montverde area, like coffee growers' cooperatives. There is an opportunity to approach coffee companies for partnerships, because the coffee producers with partnerships in Monteverde benefit from the ecosystem services of the CER.

Based on the current activities and relationships that some international companies have with Costa Rica, we have elaborated a list of five companies that could be contacted for these purposes:

1. Starbucks coffee
2. Montana Coffee Traders
3. Cafe Imports
4. West Rock Coffee company
5. Cafédirect Producers' Foundation (CPF)

A complete list with more information about these companies is included in Annex 7. This list provides the contacts to reach these companies, the potential of each company and a short recommendation on the best way to connect with each of the individual companies.

### **C. Voluntary carbon offsetting partnerships (see Section 2.E for detailed voluntary carbon offset mechanisms)**

Another recommendation is to reach out to the airline companies that operate in Costa Rica to discuss voluntary carbon offsetting and becoming a partner of the CER and MCL.

One potential partner is Southwest Airlines. They have a program called Charitable Giving that donates airline tickets to US-based I.R.S. qualified 501(c)(3) organizations<sup>85</sup>. For example, Southwest Airlines partners with the Student Conservation Association (SCA) an association dedicated to raising the next generation of conservation leaders, engaging the young generation in lifelong environmental stewardship and sustaining the biodiversity of ecosystems<sup>86</sup>. At this time, they only accept requests from U.S. based charitable organizations, so this could be a potential partnership with Engage Globally.

#### **D. Columbia alumni enterprises<sup>87</sup>**

Another potential opportunity that we have explored is partnerships with the businesses that Columbia alumni have started and that wish to offset their carbon footprint. Please refer to Annex 7 for a list of potential Columbia alumni that have been identified as the most susceptible to create a partnership with the MCL and Engage Globally.

### **3) Strategies and recommendations**

Developing partnerships with the private sector is an efficient way to increase MCL and Engage Globally financial resources to preserve the CER. The MCL can benefit from a private sector partner whose values align with its values. However, in order to develop a mutually beneficial partnership it is important to identify the nature and the guiding principles of such a partnership.

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<sup>85</sup> The guidelines to apply to this program are in the following link:  
[https://www.southwest.com/assets/pdfs/southwest-difference/southwest-citizenship/charitable\\_guidelines\\_charitable\\_giving.pdf](https://www.southwest.com/assets/pdfs/southwest-difference/southwest-citizenship/charitable_guidelines_charitable_giving.pdf).

<sup>86</sup> <https://www.thesca.org/partner-profile/southwest-airlines>

<sup>87</sup> The representatives of these companies have been contacted, but responses have not been received.

To achieve successful partnerships, first we recommend some general aspects that include a guiding framework:

- Identify the main values that the partner needs to share with the MCL.
- Identify and develop the key message on how conservation impacts their business and how the CER is impacting the communities, the country, and the world.
- Determine the unique aspect of the company that could be used to connect with them in the first requests.
- Determine clearly the objectives of such a partnership.
- Identify the potential mechanisms in which the private sector can get involved.

Based on the two schemes that were explained in previous sections, we have developed the following specific strategies:

#### i) Voluntary surcharges

As we described in the previous section, the voluntary surcharges scheme could help to fundraise a large amount of money if it is implemented in an effective way. Based on the interviews in the community around the CER we identified that the community is aware of conservation and that this awareness is increasing. The MCL's environmental education program aims at increasing this awareness further. The MCL should take advantage of this to implement the voluntary surcharges mechanism, as this is key in this scheme.

We suggest that the voluntary surcharges mechanism should be implemented from building a local community network, led by the MCL, and building an international network, led by Engage Globally.

##### 1. Local community network

- Build relationships. Select a board member or a management team member to build relationships with the community businesses. This person should be in charge of approaching businesses and identifying potential partners for this scheme (shorter run).
- Identify some local business or non-profit organizations committed to conservation to partner with that could lead to a scheme of voluntary surcharges. This applies for the Monteverde area and the area of La Tigra. These reserves are the attraction that makes all of the businesses possible, which includes restaurants and tourism businesses, like hotels, tour operators selling packages. The future of these businesses depends on keeping the reserves well managed (well protected wildlife, well maintained trails, and well-educated community).
- Partner with other reserves that are next to the CER to implement this scheme. The CER comprises the largest part of the Monteverde Area. They share spaces with other reserves like the Cloud Rainforest and Santa Elena reserve. The scheme could be applied for all the reserves in the Monteverde Area. In this case, they should explore a mechanism to distribute the revenues, for example in relation to the number of hectares or number of visitors.

## 2. International network

- Reach out to 1% for the Planet member businesses with an offer to create partnerships and become non-profit members of the network. This should be done through Engage Globally.
  - Refer to the list of businesses that are identified as potential partners
  - Carefully describe the non-profit activity to attract donors
  - Refer to the template of a letter that could be sent to reach out to these businesses offering a partnership

## ii) Potential partnership with companies

To promote potential partnerships with private companies, the MCL and Engage Globally should identify and define some aspects that they must comply with to establish partnerships. Our recommendation is to develop a list of criteria, such as type of organization, scope of the business and ethical issues and to identify partnership opportunities for each company.

We recommend reaching out to potential partners with materials that clearly describe the partnership opportunity and the mutual benefits. A template email and a one-pager promotional document that could be used to reach out to them is included in Annex 5.

Below are the suggestions for partnerships based on the past history of CER and the benefits it provides:

- Reestablish a relationship with New Chapter (currently subsidiary of P&G);
- Reestablish a relationship with Whole Foods;
- Reach out to airlines operating in Costa Rica to create voluntary carbon offset partnerships – CER.
- Reach out to coffee exporting companies in Costa Rica and coffee importing companies in the USA;
- Develop a contact with companies that are part of 1% for the planet and are in a business that has a connection to rainforest conservation;
- Reach out to outdoor sports and adventure gear manufacturers and retailers;
- Reach out to naturalist organizations similar to Audubon Society.

## B. Tourism

### 1) Current situation

The MCL has four different portions of the forest open to visitation. *Bajo del Tigre Reserve* and *San Gerardo Field Station* are located on the west (Pacific) side of the CER, a couple miles away from the MCFR. To the east (Atlantic) side, *Laguna Pocosol Field Station* and *Finca Steller Education Center* are close to the very popular tourist hubs of the Arenal Volcano with its surrounding lake, and the town of La Fortuna.

Between 2012 and 2016, the number of visitors has been stable with no significant increase or decrease. However, in November 2016 the Pocosol Station was temporarily closed for reparation purposes. This was accompanied by an increase in 2017 in the number of day-time visitors to Bajo del Tigre and a drop in the night walks due to increased competition. In the same year, San Gerardo experienced a 60% growth in visitation. However, with the capacity to accommodate up to 20 visitors a night, the 2,632 bed-nights reported are far below its yearly capacity of 7,300 bed-nights<sup>88</sup>.

Roughly 26% of all tourism packages sold to Costa Rica include a visit to Monteverde, the region is the 5th most visited area in the country<sup>89</sup>. Tourists come to Monteverde for the biodiversity, the scenic beauty and the wonderful culture that has made this forest a world-class attraction. The Monteverde Cloud Forest Reserve (MCFR) is the main destination in the region.

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<sup>88</sup> Monteverde Conservation League, 2017, "Annual Report".

<sup>89</sup> ICT, "Plan de Desarrollo Turístico de Monteverde," 2009, <http://www.ict.go.cr/es/documentos-institucionales/plan-nacional-y-planos-generales/planes-generales-por-unidad-de-planeamiento/monteverde/222-plan-general-de-desarrollo-turistico-monteverde/file.html>

This reserve leverages its biodiversity and scenic beauty to attract up to 96,000 visitors every year, bringing in an estimated US\$1,900,000 of revenue. This self-generated income allows the MCFR to be self-sustainable without the need of further donations or grants.<sup>90</sup>

In contrast, in 2017 visitation to the CER accounted for 19.6% of the MCL total revenues, approximately US\$103,000. Due to its biodiversity, scenic beauty and its privileged location in the middle of two of Costa Rica's major tourist attractions, the MCL has the potential to increase visitation to its own locations. Increasing the amount of self-generated revenues, will enhance the long-term sustainability of the MCL to ensure the conservation of the forest in the future.

## 2) Potential opportunities to increase tourism revenue

In order to identify how the MCL can increase their tourism activity on both the Pacific and Atlantic sides of the CER, we assessed the field situation in Costa Rica. Similarly, we performed a qualitative analysis in the *Nvivo*® software of 40 online travel blogs, tour operators' sites, trip advisor reviews, and birdwatching webpages. This section is based describes the results of both exercises.

Analysis of interviews and data allowed us to understand the profile of the visitors to the CER. However, the CER should continue strengthening and improving its own data collection and analysis as understanding visitors is a key component to design effective touristic products and strategies.

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<sup>90</sup> Interview with Carlos Hernandez, General Manager of the Monteverde Cloud Forest Reserve. - Phone interview April 2018.

Given the results of both exercises and the specific characteristics of each area, we believe that the MCL should consider three opportunities: 1) take actions to increase self-generated revenues from tourism in the west side of the CER (Bajo del Tigre and San Gerardo Station); 2) develop a stronger tourism destination in the east side of the CER (Finca Steller and Pocosol Station); and 3) reopen the trail that connects San Gerardo to the east side.

First, on the Pacific side, the goal should be to increase the number of visitors and their expenditure. As Monteverde is a highly-competitive tourism market with several attractions competing for the tourist dollars, attracting more visitors can be challenging. Therefore, we think that differentiation and strategic partnerships could be two important strategies for the CER's financial sustainability. Tourism in Bajo del Tigre and San Gerardo Station should focus on what makes them different from the Monteverde Cloud Forest Reserve and the other natural and adventure attractions available for tourists. Furthermore, the MCL should improve its advertising tools and strengthen alliances with the other reserves and local businesses to increase visitation.

Bajo del Tigre: The change of altitude and type of forest from the Monteverde Cloud Forest Reserve and the Santa Elena reserve to Bajo del Tigre, creates a strong contrast between Bajo del Tigre and the other two reserves. Visiting Bajo del Tigre allows tourists to appreciate the climate transition and observe a different array of flora and fauna. The MCL can leverage this perceived value by advertising the different species of plants and animals that can be found in Bajo del Tigre, but not in the other reserves; for example, Blue-crowned Motmot, Tarantulas, and Coatis.

Bajo del Tigre is perceived as a safer and more friendly destination for children and seniors, who probably do not want or cannot engage in the longer and more physically challenging trails of the other reserves. This opens several opportunity areas for the CER. First, creating activities,

such as environmental education and art classes, for children can attract more families to Bajo de Tigre.

Second, the observation deck was perceived as a highlight of the park by visitors, however, some of them reported that it was steep for seniors. Acquiring and analyzing data about visitors can reveal whether investing in accessible infrastructure to attract these populations might position Bajo del Tigre as an attraction accessible for seniors and families.

The limited offering of food/snacks in Bajo del Tigre is perceived as a potential business opportunity. Because Bajo del Tigre usually is the last destination of the day before dinner, the MCL could consider running a small cafeteria here.

The main source of dissatisfaction for visitors at Bajo del Tigre results when visitors do not see as much wildlife as expected during the night walks. Several visitors mention that other people —such as guides, hotel staff or people at the desk of Bajo del Tigre— told them they were going to see many animals but they were disappointed when this did not happen. People reported seeing: birds sleeping, ants, spiders, frogs, termites, coatis and lizards but no mammals.

The quality of the guide is identified as the key factor for visitors to appreciate the importance of the CER and its central role. A good guided tour, including an explanation on the different ecosystem of Bajo del Tigre, the unique history of the CER, and the biological importance of the CER to the other reserves completely changed the perception of visitors.

For the MCL it is important to make sure that every visitor has realistic expectations of the product they are buying as well as a basic notion of the importance of the CER. For this, the MCL can improve the training of the guides, by delivering a workshop and circling a checklist on

minimum aspects to be covered in every trail, including the origins and history of the CER, the biological importance the CER has in the conservation of all the other reserves. And what visitors are going to see in the best and the worst-case scenarios.

San Gerardo: The smooth transition created by the change in altitude from the cloud forest to the rainforest around San Gerardo Station was positively perceived by visitors who believe they have experienced a different forest with new species of plants and animals. The location of San Gerardo, far from the crowds of Monteverde town is highly appreciated. The views over the Arenal lake and volcano are also very highly valued. Special mentions are made for the sunrise on the deck of the station, and on Ivania's food, as well as the hospitality of the hosts. These elements often were reported as a key element for the overall positive experience reported by visitors.

San Gerardo is described as one of the best places to do birdwatching in Costa Rica and it is considered the best place to observe the Bare-necked Umbrella Bird and the Three-wattled Bellbird. Other animal observations valued highly amongst the visitors are: the Quetzal, Chiriqui Quail-Dove, monkeys, sloths, and coatis.

Although visitors to San Gerardo are conscious of the difficulty of observing larger mammals such as the jaguar, the ocelot and the tapir, knowing that these animals wander freely in the surrounding areas is highly valued.

There are also several opportunities for improvement of the visitor experience in San Gerardo. The muddy road is described as challenging for children and seniors, and not so "inside the forest" by younger visitors. For this reason, the MCL should consider investing in opening more scenic trails with diverse levels of difficulty, connecting the entrance point in the Santa Elena Reserve parking, with San Gerardo Station. To improve the accessibility and safety of older or

handicapped visitors, it might be possible to leverage the road and provide them with ground transportation.

#### Box 6: Investment for tourism and conservation around the world

There are several models and organizations currently working in joint ventures with investment funds around the world that can be applied in the CER. For instance, the New York State Parks Recreation & Historic Preservation Administration provides concessions licenses to private investors to operate lodging, food and drinks facilities in the State's Park System. In exchange of a fixed initial amount or a fixed rate on revenues, companies can build and operate infrastructure according to the administration's needs<sup>91</sup>.

Similarly, Conservation Capital provides financial services and contracts with investors and lenders to fund species-based tourism projects in East Africa related to great apes. In less than 10 years the two lodges they funded have generated more than 2.5 million dollars for local communities who have the ownership of the project<sup>92</sup>.

Finally, Singita is a network of 12 luxury lodges in 5 African countries. With the revenues, this corporation has been able to manage and rehabilitate more land, monitor and protect wildlife from poachers, fund scientific research and run wildlife reintroduction programs<sup>93</sup>.

There is not a unified perspective regarding the lodging facilities. For some visitors this is an opportunity to disconnect from the world, but others prefer to stay in more comfortable lodges. For this reason, the MCL should consider expanding the existing facilities in San Gerardo, with an

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<sup>91</sup> Rose Harvey, Interview with Rose Harvey from the New York State Parks Recreation & Historic Preservation Administration, In-person Interview, February 20, 2018.

<sup>92</sup> Conservation Capital, "Case Study 7 Developing Species-Driven Conservation Tourism: Great Apes in Rwanda, Uganda and DRC," Species-driven conservation Tourism, accessed April 8, 2018, <https://neil-birnie.squarespace.com/species-driven-tourism>.

<sup>93</sup> Singita, "About Singita," accessed April 8, 2018, <https://singita.com/about/>.

eco-friendly lodge, and potentially a higher end restaurant for day visitors. Both projects, designed to target wealthier consumers can consider different investing strategies.<sup>94</sup>

A second opportunity for the MCL, in the context of the reopening of the Pocosol Station, is building a stronger destination in the east side, including Finca Steller, leveraging the different warmer ecosystem and the presence of animals like jaguars, ocelots, tapirs and sloths. They can also leverage its strategic location in the middle of the route connecting San Jose with the touristic hubs of the Arenal lake and volcano and the town of La Fortuna.

Networking and building partnerships with experienced allies can help the CER to develop a stronger destination in the east side. We interviewed Rafael Gallo, CEO of *Ríos Tropicales* in Costa Rica. His company operates tours in Costa Rica, specializing in the adventures niche with several products including rafting, kayaking and biking. They also target groups of students at U.S. colleges. *Ríos Tropicales* also owns a private reserve and a lodge in Pacuare, in the Limón Province where they conduct reforestation projects. Mr. Gallo supported the idea of a new destination in La Tigra that could be a potential partnering opportunity.

Similarly, during the field trip we also interviewed Adolfo Quesada, the Manager of *La Tigra Reserve and Lodge*. This enterprise is a new neighbor of the CER with an interesting business strategy detailed in Box 7. Because their own trails are short (1 km. long maximum) they are interested in investing in the development of hiking trails in partnership with the CER. They already buy trees from the greenhouses at Finca Steller to reforest their land. *La Tigra Lodge* offers

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<sup>94</sup> There is an important value judgement involved in any increase in visitation infrastructure. The MCL has a long history of prioritizing protection (little human use) over revenues. However, hiking represents very minimal interference and is highly educational.

visitors the opportunity to offset their carbon footprint by buying these trees. Mr. Quesada said they have conducted birdwatching tours in the CER in the past.

#### Box 7: Case study: *La Tigra Reserve and Lodge* business model

Funded by a group of German investors in the town of La Tigra, this private reserve and lodge is an example of how business can enhance conservation. Built over land that had previously been deforested, the lodge reintroduced several species of frogs in an artificial pond system, creating a valuable experience for their visitors. The lodge has 10 cabins and aims to preserve the rural ambience of Costa Rica. The prices per night per adult range from US\$75 to US\$105. Their target customers are American and German tourists.

La Tigra Lodge brands itself as an ecological and social project. They provide funds to the local school and participate actively with the surrounding community. They also have a permaculture garden where they grow organic produce for their restaurant.

Mr. Adolfo Quesada, manager of La Tigra Lodge, told us that nearby areas were at risk of being further deforested as grazing activities were expanding in surrounding properties. In reaction, La Tigra Reserve and Lodge took a loan from a bank in Germany, with which they bought the land that now connects their property with the Children's Eternal Rainforest. He also mentioned that they received a grant to build a biological station to further attract groups of students and researchers.

To repay their debt, La Tigra Lodge is reforesting their new land. They provide visitors the opportunity to offset their carbon footprint. For 30 dollars, tourists can plant a tree. The fee includes 9 square meters of land for the tree to grow, and the required care for three years.

La Tigra Reserve and Lodge plans to introduce agroforestry techniques too. Their goal is to grow a mixed forest with timber-yielding trees that will be sustainably managed in the medium term, and endemic trees that will keep growing to reforest the area in the long term.

La Tigra Lodge has leveraged its collaboration with the Biodiversity Partnership Mesoamerica<sup>95</sup> to design a business model that invests in conservation as a way to pay its debt, make profits, and reinvest in its long-term sustainability.

The MCL can partner with *Ríos Tropicales* and *La Tigra Lodge* to improve the market position and branding of Pocosol Station. Starting a dialogue with Mr. Gallo and Mr. Quesada can provide the MCL management ideas on how to keep strengthening this destination. The MCL should also obtain more information and advice on how to market hiking packages in the east side from these business partners.

Finally, the third opportunity lies in reopening the trail connecting the two sides of the forest. This opportunity can target adventure visitors interested in a two or three days experience with a considerably higher level of difficulty and cost. The price of the adventure package paid to the MCL should cover an individual insurance and accommodation. The MCL can leverage its land extension to create a product that offer visitors access to all the different climate zones of the CER, along with broadened possibilities of observing the flora and fauna of the Pacific and Atlantic slopes. This would be an iconic two or three-day hiking experience.

During the qualitative analysis using *Nvivo*, we also found the description of a visitor's travel from San Gerardo Station to the shores of Lake Arenal, suggesting the potential opportunity to open more than one of these trails.

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<sup>95</sup> BPM is a consortium of private partners interested in conservation investment in Central America and the Caribbean. BPM is supported by the GIZ the official German Foreign Aid Organization. <http://www.bpmesoamerica.org>

During the field visit, the MCL staff told us about the higher cost of maintaining trails like these, and the need for multiples guides for a single group and ensuring the safety of the visitors. However, we believe that by combining this unique experience with the conservation efforts of the MCL, this new trial could have the potential to become a world-class hike and a great source of revenue as the example of the Inca Trail illustrates and surrounding projects demonstrate.

### **Box 8: Case Study: The Inca Trail in Peru**

When travelling to Peru, visitors looking for a once in a lifetime experience can opt to hike the world-famous Inca Trail to Machu Picchu. This trail is a 43 km portion of the network of roads built by the ancient Inca civilization to connect all the areas of their empire, from Ecuador to Chile and Argentina. The Inca Trail takes hikers to 4 different archaeological sites in Peru, ending with the most famous one, Machu Picchu.

The Inca Trail is a 4-day trekking route over 13,000 feet above sea level, which has become popular in the last 30 years. Visitation went from 6,000 people in 1984 to 66,000 in 1998<sup>96</sup>. In order to limit the impact of visitors over the trail, in 2001 the Peruvian government introduced a 500-persons per day cap to the Inca Trail (175 trekkers per day plus 325 porters and guides). Regulations include the required hiring of a certified company. Peru has also regulated porter's rights to ensure they benefit from this economic activity and reduce labor abuses<sup>97</sup>.

Permits are sold out several months ahead of time. By the end of April 2018, permits were sold out until November. High demand has attracted new companies to open new trekking routes in unregulated sections of the ancient Inca trail network. They brand it with the same name as the Inca Trail and omit this information to visitors, who learn it only when they are already in the

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<sup>96</sup> John Roach, "Machu Picchu Under Threat from Pressures of Tourism," April 15, 2012, [https://news.nationalgeographic.com/news/2002/04/0415\\_020415\\_machu.html](https://news.nationalgeographic.com/news/2002/04/0415_020415_machu.html).

<sup>97</sup> Responsible Travel, "Inca Trail Responsible Trekking," Travel Right in the Inca Trail, accessed April 18, 2018, <https://www.responsibletravel.com/holidays/inca-trail-trek/travel-guide/inca-trail-responsible-trekking>

site. In response, there are ongoing communication campaigns to tourists about the risk and how to choose a tour operator.<sup>98</sup>

Since 2001 the high demand for the Inca Trail has increased the prices from a range of US\$180 to US\$240 in 2002, to a range between US\$600 to US\$1,500 per visitor in 2018. Prices typically include local transportation, camping materials, all meals, and entrance fees. By establishing a public policy on the use of land, and increasing the price, Peru protects a valuable tourism resource and promotes sustainable tourism.

### 3) Strategies and recommendations

For improving the overall touristic revenue, we recommend the MCL focus on the following areas:

- **Leverage the CER differentiation factors to promote innovative tourism products.**

Product differentiation is a key element of any tourism development project. The CER has a unique story and characteristics to attract visitors. For this, we recommend the following strategies:

- Include the unique and additional value of visiting the CER into the narratives and marketing material to increase visitation and tourist engagement with the MCL conservation mission.
- Consider investing in accessible infrastructure for seniors and families, as well as environmental education and arts programs for children in Bajo del Tigre.
- Ensure that all visitors to Bajo del Tigre have realistic expectations about the experience they are purchasing. For this, the MCL can:
  - Introduce a workshop for guides on the CER

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<sup>98</sup> Inca Trail Peru, “Inca Trail Introduction,” accessed April 14, 2018, [http://www.incatrailperu.com/inca\\_trail\\_introduction.html](http://www.incatrailperu.com/inca_trail_introduction.html)

- Create a checklist of topics for guides to follow: the CER origin and mission, the importance of the CER on the overall Monteverde Area, and what are the realistic expectations for their groups
- Consider conducting a visitor satisfaction survey, so visitors themselves can give recommendations on how to improve their experience at the CER
- Consider periodically reviewing comments on travel websites like Trip Advisor, and other sites that mention the CER to assess customer satisfaction.
- Advertise the different kinds of forests and unique species observable in San Gerardo.
- Consider investing in more scenic trails with diverse levels of difficulty and improve them inside the forest in the west side. A good trail designer could lay out trails that would access different parts of the CER and attract more visitors.
- Improve the accessibility and safety for older or handicapped visitors, using the road to provide ground transportation in San Gerardo.
- Consider investing in expanding current facilities in San Gerardo to target a wealthier niche of tourists. A lodge and a larger restaurant are two possible options.
- Increase the number of visitations to San Gerardo station through new tourism packages that promote yoga and meditation activities and retreats.
- Consider reopening the trail connecting the east and west side of the forest, and potentially, San Gerardo with Lake Arenal.
- **Partnerships and Complementarity.** Complementarity among different products is a key element for any tourism strategy. The CER can partner with companies like *La Tigra Lodge* and *Ríos Tropicales* to increase overall visitation and revenues. To strengthen these elements, we recommend the following strategies:

- Create partnerships with private enterprises, such as hotels, restaurants, and travel agencies to promote the CER in Monteverde.
- Develop partnerships with local hotels and restaurants in La Fortuna and La Tigra, to promote visitation to the east side of the CER. Different mechanisms such as discounts or group activities can be tested.
- Sell packages to the networks of partners and donors identified in the last section. Specially in new markets like Europe and Japan.
- **Improving data collection and** targeting for the right prospects is essential to increasing visitation and engagement with the conservation mission of the MCL. Data collection and analysis is a powerful tool for improving management and decision making. Digitizing data collection can also save valuable time while providing additional insights.
- Install tablets and computers for visitors to introduce their contact information.

## C. Forest carbon markets

Carbon markets represent many opportunities for the CER, although both the domestic and international markets have limitations and carry a fair amount of uncertainties that should be monitored periodically. The main opportunity is to sell the carbon dioxide in the trees to actors (companies or individuals) seeking to offset their emissions in voluntary or compliance markets. These credits can be sold to companies in Costa Rica (domestic market), abroad in unregulated markets (international voluntary markets), or in regulated markets (compliance markets).

The voluntary carbon markets involve some uncertainties and complexities. Projects need to prove “additionality”, which requires an assessment and demonstration of threats to the forest and/or financial risks. The benefit of obtaining verified carbon credits depends on two factors: the market price of the carbon credits, and the cost of installing monitoring, reporting and verification (MRV) systems. Today, the price of carbon credits in international markets is low in addition to a high fixed cost of installing MRV systems. These factors need to be taken into consideration when assessing the costs and benefits of pursuing carbon markets. Moreover, the guidelines under which voluntary and compliance markets interact remain unclear and thus, demand for carbon credits has decreased. These guidelines are currently being negotiated as part of the implementation package of the Paris Agreement, which will likely bring more certainties to the markets. Additionally, guideline negotiations for emissions offset of civil aviation companies may eventually result in the increased demand for carbon credits from forest conservation and make it worthwhile to pursue.

The background information we provide in this section serves as an introduction to the opportunities carbon markets present for conservation financing. These markets are in constant

evolution. We present the broad topics to pay attention to when assessing these opportunities in the future. We recommend establishing a mechanism within the MCL to periodically monitor the evolution of the carbon markets, conduct an evaluation of additionality and a cost-benefit analysis for the CER. The flexibility of voluntary markets allows for some creativity, which creates a low hanging fruit opportunity for a program based on voluntary carbon footprint of travel offsetting.

## 1) Current state of the voluntary carbon markets

### **i) Voluntary carbon markets**

Voluntary carbon markets include all transactions of carbon offsets<sup>99</sup> which are purchased without the intention to sell into an active regulated carbon market. Demand for carbon offsets is driven by companies and individuals that take responsibility for offsetting their own emissions also known as voluntary buyers. There are also entities that purchase pre-compliance offsets before emissions reductions are required by regulation<sup>100</sup>. Purely voluntary offset buyers are driven by corporate social responsibility, ethics, reputational risk, and supply chain risk.

### **ii) The domestic carbon market**

In 2007, Costa Rica committed to reach carbon neutrality by 2021. Among the measures taken to achieve this goal, the government established the National Climate Change Strategy in which it took the first steps towards the domestic carbon market formation. Additionally, Costa Rica's Nationally Determined Contribution to the Paris Agreement of the UNFCCC (U.N.

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<sup>99</sup> A carbon offset is defined as a compensation instrument representing the reduction, avoidance or sequestration of one metric tonne of carbon dioxide or greenhouse gas equivalent.

<sup>100</sup> "Carbon Market: Overview". Accessed March 26, 2018.  
<http://www.ecosystemmarketplace.com/marketwatch/carbon/>

Framework Convention on Climate Change) established a commitment to reduce GHG emissions by 44% with the Business as Usual scenario, and a reduction of 25% of emissions compared to 2012<sup>101</sup>. In 2012, the Ministry of Energy and Environment (MINAE) created its *Programa País para la Carbono Neutralidad*<sup>102</sup> (*Programa País*) to initiate the transition to a low-emissions economy. The *Programa País* was defined as a voluntary process that established the basis for the development of local demand for Costa Rican Compensation Units<sup>103</sup> (UCCs - Unidades Costarricenses de Compensación).

The domestic carbon market was later created under this scheme<sup>104 105</sup>, largely based on the Clean Development Mechanism (CDM) of the Kyoto Protocol.<sup>106</sup> This was intended as a mechanism to generate carbon credits on a local level, coming from projects that support removal of carbon from the atmosphere, to be commercialized nationally or internationally. This market was intended to work voluntarily, driven by the demand of carbon neutrality that was originated

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<sup>101</sup> The commitment established a maximum of 9,374,000 ton/CO<sub>2</sub>eq net emissions by 2030, with proposed emissions per capita of 1.73 net tons by 2030, 1.19 Net Tons per Capita by 2050 and -0.27 Net Tons per Capita by 2100.

<sup>102</sup> This is a governmental initiative for the officialization of processes related to the report of inventories of Greenhouse Gases (GHG) and the application of the National Norm on Carbon Neutrality. The program contemplates methodologies, processes and criteria for compensation, and establishes procedures to give the mark C-Neutral, which applies to all organizations in the country.

<sup>103</sup> A UCC is equivalent to one ton of CO<sub>2</sub>e from projects, programs or activities that avoid or reduce emissions, or remove or store greenhouse gases. UCCs can be used by national organizations to compensate their emissions. (DCC-MINAE, 2013)

<sup>104</sup> It was never designed as an ETS but as a compensation system (Dirección de Cambio Climático - <http://www.cambioclimaticocr.com/2012-05-22-19-47-24/programas/mercados-de-carbono>)

<sup>105</sup> The structure and functioning of the market was determined in the “Reglamento de regulación y operación del mercado doméstico de carbono” (Decreto Ejecutivo N° 37926-MINAE del 10 de setiembre del 2013)

<sup>106</sup> It was implemented before some of the key lessons learned of the CDM became apparent, and therefore it resembles some of the same limitations. For instance its governance structure is complex and has made difficult its full implementation, and has led to high transaction costs. Moreover, it was mainly focused on mitigation projects, more appropriate to look for an incremental change rather than focusing on sectorial efforts and programs with a larger transformative potential. Transformational change is different to incremental change in that transformative change aims to change the structure of emissions in a sector or subsector rather than just focusing on a direct reduction (<http://www.cambioclimaticocr.com/2012-05-22-19-47-24/programas/mercados-de-carbono> )

in the *Programa País* with an appetite for product differentiation and access to markets with environmental standards.

FONAFIFO was authorized to emit Costa Rican Compensation Units (UCC - Unidades Costarricenses de Compensación) when the market began operation. The domestic market in Costa Rica is not operational but the new *Programa País Carbono Neutralidad 2.0* (the 2017 revision of the 2012 program), recognizes all actions companies take to reduce emissions. There is a strong opportunity for private conservations to partner with companies looking to be certified C-neutral Plus to offset their emissions to zero, and to make other efforts to reduce GHG concentrations in the atmosphere<sup>107</sup>. Since the Costa Rican market is voluntary, there is so far a very small demand for Costa Rican Compensation Units (equivalent to 1 ton CO<sub>2</sub>e). For this reason, the government established a partnership with the Verified Carbon Standard (former VCS, now called Verra) using their Jurisdictional and Nested REDD+ (JNR)<sup>108</sup> program to certify compensation units to be sold in international voluntary or compliance markets.

Transaction levels in voluntary carbon markets have slowed down over the last couple of years<sup>109</sup>, and prices have experienced high variability. In 2017, prices ranged from less than \$0.50/tCO<sub>2</sub>e to more than \$50/tCO<sub>2</sub>e. For example, wind offsets from Asia were bought and sold at an average rate of \$0.7/tCO<sub>2</sub>e, while reforestation offsets from Africa sold at an average rate of \$6.7/tCO<sub>2</sub> e. The average price across all transactions was \$3.0/tCO<sub>2</sub>e. In Latin America and the Caribbean, 5.8 million tCO<sub>2</sub>e were transacted for an average price of \$3.8. In 2016, as many credits remained unsold as sold.

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<sup>107</sup> “La utopía de una Costa Rica carbono neutral en 2021”. El Financiero. Accessed April 1st, 2018. <https://www.elfinancierocr.com/economia-y-politica/la-utopia-de-una-costa-rica-carbono-neutral-en/IYM5MH2PNZCP7BOHSZ5NV7CAQM/story/>

<sup>108</sup> “Costa Rica Joins Growing List of Nations to Pilot JNR Program”. Accessed March 25, 2018. <http://verra.org/costa-rica-joins-growing-list-nations-pilot-jnr-program/>

<sup>109</sup> Ecosystem Marketplace, 2017.

One driver of both supply and demand is the interaction of the voluntary and compliance market. There are currently high levels of uncertainty on which countries will be allowed to cooperate under the Paris Agreement, which was adopted in November 2016 and will enter into force in 2020. Article 6 of the Paris Agreement establishes the legal framework for international cooperation in allowing the use of market-based mitigation mechanisms. The details on how Article 6 will be implemented continue to be a cornerstone of the UNFCCC discussions process in 2018. Although there are high levels of uncertainty associated with carbon markets, their application to forest conservation projects is growing thanks to the expansion of REDD+ projects and other financial programs mentioned below.

### **REDD+ - Reducing Emissions from Deforestation and Land Degradation**

REDD+ is a conceptual framework which originated under the United Nations Framework Convention on Climate Change (UNFCCC) and was included in Article 5 of the Paris Agreement to address deforestation by increasing the value of standing forests. It seeks to reduce deforestation and forest degradation, to empower communities, and to create sustainable livelihoods by facilitating the establishment of effective long-term sustainable forestry and conservation projects. In order to achieve these goals, this program was developed under the UNFCCC as an international framework that facilitates access to carbon credits and other sources of revenues. There are three phases to REDD+ that serve as a guideline for participating countries: 1) Readiness, 2) Implementation, and 3) Results-Based Finance. REDD has been discussed in Costa Rica since 2008, and has been implemented since 2016 by the National Forestry Financing Fund (FONAFIFO)<sup>110</sup>. As part of the implementation of Costa Rica's national strategy for REDD+,

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<sup>110</sup> REDD has encountered resistance from indigenous communities in Costa Rica markedly since 2010, when the Latin American Indigenous Forum on Climate Change declared their opposition to REDD+. In 2010, 250 indigenous peoples convened in San José to meet the then president Guillermo Solís. REDD+

FONAFIFO signed a letter of intent with World Bank's Forest Carbon Partnership Facility (FCPF) Carbon Fund to purchase up to \$63 million USD of CO<sub>2</sub> at \$5 USD per ton, representing 11% of the total emissions reductions<sup>111</sup>. The government of Costa Rica is currently negotiating this agreement with the FCPF, and they expect to receive payment for carbon storage this year<sup>112</sup>.

### iii) Additionality

The application of carbon markets to conservation projects is framed by the demonstration of additionality. Additionality, a concept that originated in the UNFCCC process, is defined as whether an emissions reduction would have occurred in the absence of new incentives, such as a payment for emissions reductions<sup>113</sup>. The concept of additionality was born from the Clean Development Mechanism (CDM) of the Kyoto Protocol, and is required for voluntary standards like REDD+, Gold Standard and Verra (previously CVS). All of these have relatively mild requirements compared to the CDM. Additionality is understood as a requisite for the issuance of carbon credits and is at the core of many criticisms and discussions around the validity of REDD+ as a climate mitigation mechanism. One discussion revolves around the potential information asymmetries in the estimation of deforestation baselines required by the REDD+ scheme.<sup>114</sup>

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prohibits the use of forest resources, which in their view does not respect their relation to forests. Although the government's response has been that REDD would happen regardless of this opposition. (Source: <http://www.redd-monitor.org/2016/03/08/indigenous-peoples-in-costa-rica-protest-against-redd/> / <http://www.redd-monitor.org/2010/04/08/latin-american-indigenous-forum-rejects-carbon-trading/> / <http://wrm.org.uy/articles-from-the-wrm-bulletin/section1/bribris-a-people-never-conquered-who-are-standing-up-to-redd/> )

<sup>111</sup> "REDD in Costa Rica". Accessed April 1st, 2018. <https://theredddesk.org/countries/costa-rica>

<sup>112</sup> Interview with Mr. Jorge Mario Rodriguez March 16th 2018.

<sup>113</sup> The REDD desk, "Additionality". Accessed March 29th, 2018. -<https://theredddesk.org/markets-standards/design-features/additionality>

<sup>114</sup> "Responses from Terra Global Capital, VCS, and Wildlife Works to Fern's report, "Unearned credit: Why aviation industry forest offsets are doomed to fail". Accessed April 19, 2018. <http://www.redd-monitor.org/2018/02/04/responses-from-terra-global-capital-vcs-and-wildlife-works-to-ferns-report-unearned-credit-why-aviation-industry-forest-offsets-are-doomed-to-fail/>

## 2) Potential opportunity

### **Proving additionality: Potential opportunity for carbon credits**

There are two broad ways to prove additionality in the context of forest conservation projects. One is to prove that the forest is under threat, which can be done by comparing current and historic satellite images and calculating deforestation rates in surrounding areas. The second approach aims to prove that conservation would not be possible without financial incentives from carbon credit sales. This can be proven using financial statements of the organization and arguing that there is a financial need to maintain the land under conservation.

Our team's recommendation to the MCL is to conduct a thorough threat and barrier assessment to prove additionality according to the approach of the CDM, which have the strictest additionality requirements. These can be found in the CDM-Executive Board report: "Tool for the Demonstration and Assessment of Additionality". Our rationale is that by proving additionality through this report's standards, a project could demonstrate that it would not be feasible without the sales of carbon credits; or that there are barriers that would prevent the implementation of the project.

Once the CER can prove to be "additional", we recommend conducting a cost benefit analysis of obtaining carbon credits. The process of certifying carbon credits requires installing monitoring, reporting and verification (MRV) systems, which can be costly. A large part of these are fixed costs, therefore cost-effectiveness is directly linked to the size of the forest. MRV of forest carbon, under the Warsaw framework for REDD+, involves a combination of remote sensing data and in-situ assessments. Remote sensing of forest biomass involves different sensor types

(e.g., Lidar, optical and radar), platforms (air- and space-borne), and processing techniques (e.g., unsupervised, supervised, and hybrid classification approaches).<sup>115</sup>

### Box 9: Offsetting emissions from civil aviation: The potential impact of CORSIA on forest conservation

Emissions of the aviation sector are projected to increase to 22% by 2050<sup>116</sup>. The aviation sector is essential to climate change mitigation, yet was excluded from the Paris Agreement<sup>117</sup>. To address this, the International Civil Aviation Organization (ICAO) established the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA)<sup>118</sup>, which aims to offset emissions from aviation by establishing the first global market-based measure (MBM) for an entire industry. In 2016, seventy-three member states, 86% of global international aviation activity, announced their participation in the pilot phase, which would run from 2021 to 2023<sup>119</sup>. Costa Rica will be a participating member of the pilot phase, as per their declaration of participation of October 2016<sup>120</sup>.

ICAO is currently reviewing the work of its MBM Task Force and will soon determine the framework that will be implemented. This includes the arrangement that will link an MBM with a mitigation activity, such as reduced deforestation. The CORSIA Monitoring Reporting and Verification (MRV) will be implemented through ICAO, using Standards and Recommended Practices as guidance for an Emissions Units Criteria system. As it stands, credits may be eligible for use in CORSIA if they align with ICAO criteria and avoid double counting between different

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<sup>115</sup> Di Lallo et Al, 2017

<sup>116</sup> European Parliament (2015) Emission Reduction Targets for International Aviation and Shipping.

<sup>117</sup> “Shipping Aviation and Paris”. Accessed April 1st, 2018. <http://newsroom.unfccc.int/unfccc-newsroom/shipping-aviation-and-paris/>

<sup>118</sup> CORSIA is supported by the International Air Transport Association (IATA), a group within ICAO that represents private business interests and covers over 250 companies and 80 percent of the sector.

<sup>119</sup> “ICAO and forest offsets: Substantial opportunities and exceptional benefits (commentary)”. Accessed April 1st, 2018. <https://news.mongabay.com/2018/03/icao-and-forest-offsets-substantial-opportunities-and-exceptional-benefits-commentary/>

<sup>120</sup> [https://www.icao.int/environmental-protection/Documents/GMBM\\_Support/Costa\\_Rica\\_MBM.pdf](https://www.icao.int/environmental-protection/Documents/GMBM_Support/Costa_Rica_MBM.pdf)

pools such as aviation and the emissions-reduction plans. Forests can produce credits that are real, measurable, verifiable, and additional. CORSIA could tap these credits by directly aligning with the activities of UNFCCC REDD+ programming, national monitoring systems, and Nationally Determined Contributions (NDCs).<sup>121</sup> Offsetting aviation emissions would have a substantial benefit to other sectors, particularly global forests. It is still not yet clear how CORSIA might fit into the international agreements and REDD+, but the funds would certainly strengthen REDD+ as well as voluntary carbon market advancement. Existing programs can supplement CORSIA, such as the Clean Development Mechanism (CDM) and Verified Carbon Standard (VCS). Due to growing voluntary and compliance markets, these organizations have developed strong reputations as real, verifiable, and measurable credit producers.

### 3) Strategies and recommendations

#### **Carbon credits**

As we have stated, there are important considerations when assessing the possibility of selling carbon credits. Additionality is the most relevant, so we recommend a thorough assessment of threats and barriers to be conducted for the CER.

Even if the opportunity of using international carbon markets' incentives has several uncertainties, it should not be ignored, as carbon pricing mechanisms will most likely be a part of the Paris Agreement *implementation toolkit*. Attention should be drawn to the rules being negotiated for the implementation of Article 6 of the Paris Agreement, which will set the eligibility criteria for the transfer of mitigation outcomes among countries. The implementation of the Costa

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<sup>121</sup> "Linking Flights and Forests" - The essential role of forests in supporting global aviation's response to climate change - An Overview for ICAO Policy Makers.  
<https://globalcanopy.org/sites/default/files/documents/resources/Linking%20Flight%20and%20Forests%20Briefing%20Paper%20Apr%202016%20FINAL.pdf>

Rican NDC and the *Programa País* should also be closely monitored, as it should create economic incentives for national conservation initiatives.

It is important to track the progress of carbon market opportunities nationally and internationally as in the coming years eligibility criteria shall be defined at both levels. Carbon market opportunities will depend on the capacity to tailor climate mitigation initiatives to the compliance of additionality criteria used in the carbon markets.

### Box 10: Two examples of carbon footprint offsetting for traveler emissions

#### 1. University of Georgia model

University of Georgia Monteverde campus offers a Carbon Offset Program to offset carbon emissions through reforestation in the Monteverde and Bellbird Biological Corridor region. Visitors, including researchers, faculty, students and tourists, participate in the program by purchasing carbon offset certificates, planting trees, working in the nursery and visiting local farms<sup>122</sup>. UGA estimates the average carbon footprint of a UGA Costa Rica student at 0.66 tons of CO<sub>2</sub>. The price per carbon offset certificate is \$25 (per mtCO<sub>2</sub>e). They plant 4 trees, considering a mortality rate of 25 percent. In 2016, they planted 2,914 trees, for a total of 39,723 trees since the program started in 2008<sup>123</sup>.

#### 2. La Tigra Lodge

They offer their customers the opportunity to buy trees to offset their carbon footprint. They aim to reforest a 2,000 ha tract of land that connects the La Tigra forest to the CER. They charge USD \$30 per tree. As stated by Mr. Quesada (manager of La Tigra Lodge), the program started in January, and only a few guests expressed interest and actually *offset* their emissions. A copy of the flyer presented to their guests can be found in Appendix 3.

<sup>122</sup> “UGA Costa Rica Carbon Offset”. Accessed April 1st, 2018.

<https://ugacostaricablog.com/2017/06/04/uga-costa-rica-carbon-offset/>

<sup>123</sup>“UGA Costa Rica Carbon Offset Program”. April 1st, 2018. <http://offsetnetwork.org/uga-costa-rica-carbon-offset-program-university-of-georgia/>

## **Carbon footprint offsetting**

Many organizations related to the tourism industry take advantage of the flexibility of carbon markets and offer voluntary carbon offsetting program for travel emissions. In Monteverde, this is currently done by the University of Georgia Costa Rica and La Tigra Lodge.

### **Business opportunity: Carbon footprint calculator**

The MCL or/and Engage Globally could offer travelers the option to offset their carbon emissions generated from traveling to Monteverde by planting trees. The target for this program can be mainly travelers to Monteverde who are planning to visit the CER or the MCF. They can be offered to calculate their emissions when they enter the office in Bajo del Tigre (on a tablet or computer, for example). If this is incorporated in the CER's or Engage Globally's websites, it can serve as a voluntary offsetting tool for anyone with access to internet.

A travel emissions offsetting program for travelers coming to Monteverde can offer travelers the option to plant trees themselves by going to the east side, or to get an online certificate for the CO<sub>2</sub> absorbed by a native tree. There are many tree donation websites whose purpose is to assist reforestation initiatives around the world. These can serve as examples for what MCL/Engage Globally can offer the buyer. Many organizations offer online certificates and tailored messages as gift certificates.<sup>124</sup>

### **Estimating a carbon footprint from air and land travel**

To calculate a traveler's carbon footprint, one can use conversion factors (total emissions by type of transport per Km traveled) to estimate the total CO<sub>2</sub>e emissions/carbon footprint of a specific trip. The U.K.'s Department for Business, Energy & Industrial Strategy produces a

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<sup>124</sup> An example of certificate from "One Tree Planted" <https://onetreepanted.org/> can be found in Appendix 4.

commonly used conversion factor for greenhouse gas emissions on company reporting<sup>125 126 127</sup>. These are estimated in alignment with the internationally-recognized standard from the World Resources Institute and World Business Council for Sustainable Development: the GHG Protocol Corporate Accounting and Reporting Standard<sup>128</sup>. The details on how to use the conversion factors for the purpose of the calculator are found in Appendix 5.

### **Carbon absorption in planted trees**

It is assumed that an average of 8 metric tons of CO<sub>2</sub> is absorbed per hectare per year in a tropical forest, and 1,000 trees planted in one hectare have a survival rate of 10%. In 40 years carbon absorption would be 320 tCO<sub>2</sub>e, and in 80 years 640 tCO<sub>2</sub>e. Under this simple logic, carbon absorbed by 1 tree would be 3.2 in 40 years, and 6.4 in 80 years.

Finding the appropriate measures for carbon absorption and survival rate in the context of the CER are at the discretion of the final user of this calculator. Moreover, the price of the tree is also at discretion of the CER.

#### **Box 11: Earth University**

Earth University in Costa Rica has developed tools to measure carbon absorption in forests<sup>129</sup>. Mr Rafael Gallo, owner of *Rios Tropicales* in Costa Rica<sup>130</sup>, who we interviewed during our

<sup>125</sup> “Government emission conversion factors for greenhouse gas company reporting”. Accessed April 1st, 2018. <https://www.gov.uk/government/collections/government-conversion-factors-for-company-reporting>

<sup>126</sup> Although these conversion factors are explicitly intended for organizations based in the UK or that have operations in the UK, they are also used by companies outside of the UK

<sup>129</sup> One of these tools is this practical guide: “Guía Práctica de Medición de Carbono en la Biomasa Forestal”. Accessed April 1st, 2018. <https://www.scribd.com/doc/29369907/Guia-Practica-de-Medicion-de-Carbono-en-la-Biomasa-Forestal>

<sup>130</sup> Rios Tropicales. Accessed April 1st, 2018. <https://www.riostropicales.com/pacuare-ecolodge/>

field study, said that he has obtained technical assistance from the university to measure carbon absorption in his private reserve. We contacted the university after the interview, and we recommend for the MCL to contact them to seek assistance in measuring carbon absorption in the biomass in the CER. Having this information, even if it is a rough estimation, can also serve to strengthen the case for support for the MCL and Engage Globally when asking for donations, in addition to making a better case when advocating for the many environmental services the forest provides. We recommend to contact Universidad Earth through Carlos Sandi. His contact information is in Appendix 6.

### **Example of a carbon footprint calculator<sup>131</sup>**

Someone taking a direct flight in economy class from New York City to San Jose and back, (3,564 km x2<sup>132</sup>) and then taking a bus from San Jose to Monteverde and back (138 km x2), creates a carbon footprint of 991 KgCO<sub>2</sub>e. Using the approximate estimate of 8 tCO<sub>2</sub>/ha/year, leading to 3,200 Kg CO<sub>2</sub> absorbed in one tree over a period of 40 years, and a survival rate of 10% of trees planted, it would require planting 4 trees (upward rounded) to offset these emissions. The calculator can be found in Appendix C4.

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<sup>129</sup> One of these tools is this practical guide: “Guía Práctica de Medición de Carbono en la Biomasa Forestal”. Accessed April 1st, 2018. <https://www.scribd.com/doc/29369907/Guia-Practica-de-Medicion-de-Carbono-en-la-Biomasa-Forestal>

<sup>130</sup> Rios Tropicales. Accessed April 1st, 2018. <https://www.riostropicales.com/pacuare-ecolodge/>

<sup>131</sup> Calculator and conversion factors are in Annexes 5 and 7.

<sup>132</sup> <https://www.distance.to/San-Jose-Costa-Rica/New-York>

## D. Private grants: Collaboration with international organizations

While there are thousands of small grants opportunities offered by private companies and foundations, there are several large international conservation organizations that account for the clear majority of money contributed to conservation and environmental causes. The most prominent of these are Conservation International (CI), Wildlife Conservation Society (WCS), World Wildlife Fund (WWF), International Union for Conservation of Nature (IUCN), and The Nature Conservancy (TNC)<sup>133</sup>. Direct grants and investments from these large conservation organizations and foundations is not a possibility right now for the CER<sup>134</sup>. This is because CER has already proven itself to be sustainable in the long-term by having over 30 years of continuous operation with minimal threats to the integrity of the forest<sup>135</sup>.

These organizations have their priorities set on funding projects in areas in imminent danger of deforestation or other types of environmental devastation, or projects that offer clear measurements of additionality for reforestation. They currently favor countries like Brazil and Cambodia, with highly visible deforestation problems. Some, like WCS and TNC, have pulled out of Costa Rica entirely because of either the country's reputation for success in conservation or because of the low marginal return of potential conservation investments in Costa Rica due to high land prices and low rates of active deforestation. The organizations that have decided to stay in the

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<sup>133</sup> Interviews with Carlos Manuel Rodriguez, Vice President of Global Strategies for Conservation international (March 20th, 2018), and Venkat Iyer, Conservation Finance Specialist at Wildlife Conservation Fund (March 3rd, 2018).

<sup>134</sup>Ibid

<sup>135</sup>Ibid

country, like CI, have moved away from forest conservation and into marine conservation because of opportunities for impact and pressure from the government to bring money into that area of conservation<sup>136</sup>.

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<sup>136</sup>Ibid

## E. Other opportunities

### 1) Payments for environmental services

#### **Current state of payment for environmental services**

Costa Rica has been largely recognized in the international community for the implementation of environmental protection measures. Forest conservation efforts and greenhouse gas emission reduction, driven largely by a Payment for Environmental Services scheme established in 1997, received particular attention.

The PES follows a Polluter Pay Principle, as it is funded through a 3.5% tax on fossil fuels, and a canon of water management. Although this is considered a successful PES program, there is much more demand for payments than what FONAFIFO (Fondo Nacional de Financiamiento Forestal), the organization in charge, can absorb. According to the FONAFIFO director<sup>137</sup>, they are only able to attend to 20% of the requests for payments. Because of the high demand and limited resources, they have a prioritization system of conservation areas demanding PES, to rank them according to the strategic value for biodiversity conservation and services provided to forest communities. (Map of PES coverage in Appendix 8)

#### **Potential opportunities for the CER**

During our meeting with Mr. Jorge Mario Rodriguez, he disclosed some details of the ongoing negotiation with the World Bank to purchase carbon credits from forests. Under this scheme, the government would receive payments for carbon storage in forests that are not yet

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<sup>137</sup> Interview with Mr. Jorge Mario Rodriguez, Costa Rica, March 16th 2018

covered by the national PES scheme. This would be the World Bank's Forest Carbon Partnership Facility (FCPF) first carbon payment agreement, which is likely to be signed in 2018<sup>138</sup>.

The FCPF and the government of Costa Rica had already signed a letter of intent for these payments to the amount of \$63,000,000 or 12,000,000 t CO<sub>2</sub>e, per resolution N° CFM/5/2012/1 of the Carbon Fund during its fifth meeting in Paris (16-17 October, 2012)<sup>139 140</sup>. According to Mr. Rodriguez, the ongoing negotiations involve the price of the ton of carbon dioxide offsets and the extension of forests that would be covered by these payments.

Nonetheless, there is uncertainty over whether this arrangement will effectively be reached, over what would be the price of the ton of carbon, how much of the territory of the CER would be covered, and what this new scheme would imply in terms of proving additionality, and monitoring and reporting from the CER. Our recommendation is to closely monitor the progress of these negotiations from official communications from FONAFIFO and the World Bank's FCPF.

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<sup>138</sup> This negotiation was listed as the next steps in the last FCPF/REDD+ Annual Country Progress Reporting (July 2017) (page 3 - <https://www.forestcarbonpartnership.org/sites/fcp/files/2017/July/FCPF%20Country%20Progress%20Reporting%20Template-CR-Julio-2017.pdf>)

<sup>139</sup> "Costa Rica and the FCPF sign Letter of Intent to negotiate purchase of emission reductions of up to \$63 million to conserve and regenerate forests" - <https://www.forestcarbonpartnership.org/letter-intent-signed-costa-rica>

<sup>140</sup> Details on the implementation of Costa Rica's Emission Reductions Program under the FCPF Carbon Fund can be found in (MINAE, 2017)

# III. RECOMMENDATIONS AND ACTIONABLE

## AGENDA

### 1) Summary of recommendations

#### **Donations**

##### **General recommendations**

- Work to recapture lapsed donors by collaborating with current partners;
- Use the CER's Quaker history to connect and fundraise with Quaker communities in the United States;
- Use the historical connections to reestablish the original Swedish children that participated in fundraising as donors and ambassadors;
- Create a membership program (based on the Wildlife Conservation Society model) to turn visitors into donors.

#### **Actionable Agenda:**

- Collaborate with Kinderregenwald Deutschland to connect with lapsed donors of the International Children's Rainforest Network
- Encourage Kinderregenwald Deutschland to have the MCL directly collaborate with Fundacion Benasis, through Audrey Leumann who founded the organization in May 2007, after a four months' stay as a volunteer in Costa Rica.
- Directly collaborate with the Children's Rainforest Team at Edith-Stein School and the "Kakadus der Grundschule Kuppelnau" by organizing excursions, field trips and school projects.
- Collaborate with Kinderregenwald Deutschland to connect with their other partner donors like the American School of Madrid

- ❑ Contribute new promotional material to the Children’s Tropical Forest to increase the CER’s visibility on the CTF’s website. Reach out to the CTF director to connect to their other project partners directly to open a more active conversation about financing.

## **Private sector partnerships**

### **General recommendations**

As has been emphasized throughout the report, the nature of public-private-civil relationships is rapidly changing. In light of the global challenges, partnerships among the different sectors and players are crucial for sustainable development and progress. The private sector, from small and medium enterprises to multinational corporations, has also been responding to this growing demand in accountability and sustainability through various channels, such as for example, internal sustainability efforts as well as partnerships with public and non-profit sectors. In order to develop effective, mutually beneficial and long-lasting partnerships, we recommend that MCL formally establishes a partnership framework that would include and identify the following elements:

- Identify the main values that the partner needs to share with the MCL;
  - Based on these values identify the potential private partners in different sectors. For example, Whole Foods, New Chapter, and REI.
- Develop a “pitch” of CER with an emphasis on the impact and importance of conservation on the local communities and at a larger scale, the world.
- Determine the unique aspect of a potential partner company that could be used to connect with them in the first requests.
- Determine clearly the objectives of such a partnership.
- Identify the potential mechanisms in which the private sector can get involved.

#### Voluntary surcharges:

- Build relationships with the community businesses to increase awareness about the importance of the CER and identify potential partners for this scheme.
- Increase awareness of the community about the importance of the CER to commit them to participate in the scheme.
- Identify some local businesses or nonprofit organizations that could lead a scheme of voluntary surcharges in the Monteverde area and in La Tigra.
- Partner with other reserves that are next to the CER to implement this scheme.

#### International network:

- Reach out to 1% for the Planet member businesses with an offer to create partnerships and become a non-profit member of the network. This should be done by Engage Globally.
  - Refer to the list of businesses that are identified as potential partners
  - Carefully describe the non-profit activity to attract donors
  - Refer to the template of a letter that could be sent to reach out to these businesses offering a partnership.

#### **Actionable Agenda**

- Reestablish a relationship with New Chapter (subsidiary of P&G) and Whole Foods
- Reach out to airlines operating in Costa Rica to create voluntary carbon offset partnerships – CER.
- Reach out to coffee exporting companies in Costa Rica and coffee importing companies in the USA.
- Make contact with companies that are part of 1% for the planet and are in a business that has a connection to rainforest conservation.
- Reach out to outdoor sports and adventure gear manufacturers and retailers;
- Reach out to naturalist organizations similar to Audubon Society.

## Tourism

### General recommendations:

- Leverage the CER differentiation factors to promote innovative tourism products
- Consider investing in accessible infrastructure for seniors and families, as well as environmental education and arts programs for children in Bajo del Tigre.
- Ensure that all visitors to Bajo del Tigre have realistic expectations about the experience they are purchasing
- Advertise the different kind of forests and unique species observable in San Gerardo
- Consider investing in more scenic trails with diverse levels of difficulty
- Improve the accessibility and safety of older or handicapped visitors
- Consider investing in expanding current facilities in San Gerardo to target a wealthier niche of tourists.
- Increase the number of visitations to San Gerardo station through new tourism packages that promote yoga and meditation activities and retreats
- Consider reopening the trail connecting the east and west side of the forest
- Develop partnerships (i.e. organize group activities, discounts, etc.) with private enterprises, local hotels and restaurants in Monteverde and La Tigra to promote the CER. Offer packages to the network of partners and donors identified in the *Donations* section of this report.

### Actionable Agenda

- Consider including the unique and additional value of visiting the CER into the narratives and marketing material (website, Newsletters, emails, etc)
- Consider conducting a visitor satisfaction survey, so visitors can give recommendations on how to improve their experience at the CER

- Establish contact with La Tigra Lodge and Ríos Tropicales to assess potential partnerships.
- Having a table or computer available for visitors to enter their contact details at all stations; and doing a satisfaction survey at Bajo del Tigre like the one they have at San Gerardo.

## **Forest carbon markets**

### **General recommendations:**

- Closely monitor the development of the domestic and international carbon markets, including the evolution of CORSIA
- Get technical assistance to assess the possibility of proving additionality for the CER
- Closely monitor the evolution of the FONAFIFO/World Bank negotiations and payments
- Implement a carbon footprint offsetting program for visitors by planting trees
- Contact Universidad Earth to obtain technical assistance in measuring carbon stored in the CER

### **Actionable Agenda**

- Contact Carlos Sadi, from Universidad Earth
- Monitor FONAFIFO and the World Bank's Forest Carbon Partnership Facility websites
- Order a *pre-feasibility* study to assess additionality
- Adapt the carbon footprint calculator to the parameters of preference; and design a model to offer visitors to the reserve and website.

## 2) General recommendations for fundraising:

- **Developing a fundraising plan:**

During MCL's next strategic planning process, we recommend developing a 5-year strategic plan for achieving financial goals. This process should include a detailed mechanism to establish contact with lapsed donors, Quaker communities, etc. Some important aspects of increasing funds from some of the sources we have discussed, requires some level of investment, like improving trails and facilities for visitors, and considering the possibility of obtaining carbon credits. Thus, these issues should be assessed by the board.

- **Fundraising campaign:**

With a fundraising plan in hand, we recommend considering the possibility of formulating a fundraising campaign that encompasses most/all of the strategies for increasing donations we have mentioned in previous sections. The goal of a fundraising campaign would be to include all financial needs in order of priority and ask for donations for all categories. Engage Globally can have a central role in the organization and reaching out to donors in the United States. A key component of a successful fundraising campaign is a strong case for support. The case for support should transmit the why of donating to the MCL, and what is the impact of donations. The Capstone Team recommends that the MCL implements a public fundraising campaign designed with the strong story of the CER outlined above. The MCL or Engage Globally could hire an intern or manager to orchestrate the initial phase of this campaign, which is mainly collecting contacts and background information on potential donors.

The beginning phase would be initiated as a "silent phase" in which the MCL would reach out to current donors and partners to ask for funds to raise the initial funds to get the campaign to

a strong jumping off point. The second public campaign phase, the public phase, would reach out to potential donors outlined above with one-pagers, promotional videos and current projects.

We recommend following a three-prong fundraising strategy based on our potential donor section above. The first prong is based on the lapsed donors, with a focus on the grown Swedish school children. The MCL should remind the grown children of their contribution and share appreciation. The MCL could consider personalizing each group's ask to align with their values. For example, the school children should be inspired to come together to contribute for an individual project pertaining to environmental education. This "mini project" should have goals for each former school child, include giving levels attached to a reply card. This may not contribute to the MCL's long-term goal of the endowment fund but would start to build a community within the lapsed donor that is connected to their interest. These mini projects would provide a type of pilot public campaign that the MCL could then use to understand the potential of each group without giving up their connection by asking for too large of a donation.

Abby Schafer, fundraising campaign expert for the NRDC, suggested during an interview, to implement different strategies for different types of donors. MCL must understand the donor completely, what are they interested in, what is their motivation for donating, and if they would be able to connect the MCL with other like-minded people. To engage with them they must map out the conversation and establish how the ask would benefit the donor. MCL should initiate the donor conversations by describing: the state of the CER, the aspirations of the donor, and eventually raising fundraising goals.

We recommend creating events to connect donors to the mission of the campaign. Local events could initiate the process and become a fundraising event model that would then be repeated with other current donors in the United States and elsewhere. We recommend contacting the

Monteverde Friends School and the owners of Restaurant Cabure to initiate the fundraising event process and to illustrate the local initiative and strong relationship to the CER that would then convey a stronger image of the community support the MCL receives, to international donors. Schafer suggests that when designing an initial campaign, the MCL should set realistic goals to be able to hit successes on their first fundraising mission.

For certain fundraising goals that seem more difficult, for example, fundraising for guard maintenance, Schafer suggests that the MCL creates personalized letters from the perspective of guards, telling their unique stories to entice donors. The guards of the MCL have a compelling story that could successfully inspire international audiences. We recommend creating an entire “mini campaign” surrounding the reserve guards and the environmental educators named “Rainforest Heroes: Protecting the Wildlife and Educating the World”. Schafer reminds us that fundraising is about telling the story and matching it to the right donor.

- Engage Globally in the fundraising campaign:

We recommend hiring a summer intern coordinator to continue the consulting work of the Columbia University capstone team. We suggest starting with the Engage Globally and CER donor register, researching each of the donors and understanding the questions that need to be asked to individualize the pitches for Engage Globally. Schaefer suggests speaking with the top administrators of the MCL to understand if there are any personal connections to the donors to better understand their perspective and how to specifically target each one.

Engage Globally’s intern or fundraising coordinator should initiate a campaign research plan to create a database with initial information and approximate perspective of each donor. The database should also include an approximate ask for each donor, equated from their original donation. The coordinating intern would support donors as well as rethinking the visibility of

Engage Globally as its own entity. The capstone team suggests brainstorming an compelling story for Engage Globally to advertise itself. Its mission of long-term commitment to empowering community leaders should be more visible on the main website and in their mission statement. The first message on Engage Globally's website, "You can make a difference" is very general and does not best showcase Engage Globally's unique appeal of empowering local leaders to make decisions on their own. Schafer suggests for Heather to create a summer pilot fundraising campaign for Engage Globally to do capacity building and networking in the Washington, DC area for potential partners. We recommend reaching out to Washington, DC organizations involved in environmental initiatives and Costa Rican eco-tourism.

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# APPENDIX

## Appendix 1: Friends of the Rainforest

The Partnership with *Friends of the Rainforest* has been enormously beneficial to the MCL. From 2010 to 2017 the Friends of the Rainforest contributed \$757,974 to the MCL for land purchase and protection according to the Friends of the Rainforest tax documents and MCL annual reports. Over the same time period we can see that Friends of the Rainforest received \$1,599,591 in contributions. This means that less than half (47%) of contributions to Friends of the Rainforest made it to the MCL.

From the 990-tax return documents available on the Friends of the Rainforest we can see a shift from spending on direct grants and contributions in 2010, to a heavy expansion of salaries and travel expenses associated with study abroad programs in 2011-2014 at the expense of grants to the BEN. The Friends of the Rainforest have really refocused themselves on creating education and travel programming for American audiences and away from direct contributions to the MCL. There are also some irregularities in their reporting that we are unable to explain. In 2016, on their most recent available tax return, Friends of the Rainforest realized an unexplained \$2million loss on land, presumably in Costa Rica.

## Appendix 2: Ricardo Guindon

Ricardo Guindon, Wolf's son, is currently employed by the Monteverde Cloud Forest as a guide and has also worked as private guide for the CER. He was also a board member of the MCL. He began offering guided tours in 1987 and has been giving tours in the area for the last 26 years. He has designed and implemented a one-hour tour of the history of the Monteverde region with a focus on the Quaker impact and has given interviews on the history for a number of news stations. Ricardo has a strong passion for the environment and Monteverde's forests but has become less involved with the Quaker traditions. We recommend recruiting Ricardo Guindon to help the MCL reach out to the international Quaker community.

# Appendix 3: La Tigra Lodge Flyer



## LA TIGRA FOREST PROJECT

The La Tigra Forest Project is born out of the need to create a biological corridor to connect the La Tigra Rainforest Lodge with the Children's Eternal Rainforest, the largest private reserve in Costa Rica and Central America.

Our mission to conserve, protect, and connect our 10 hectares of the La Tigra Rainforest Lodge with the 25,000 hectares of the Children's Eternal Rainforest is to strengthen and guarantee the protection of the many species of flora and fauna that inhabit this area. In addition, to protecting the important water blankets which supply the surrounding communities with fresh water. In this way, the project will support and strengthen the renowned Water and Peace Biosphere created by UNESCO to protect Costa Rica's resources.



One of the main objectives of the project is to benefit the small towns of San Jorge de La Roca and La Tigra, where we support the one-room school house and the families of the region, some of which are members of our staff in different areas of the La Tigra Rainforest Lodge and the La Tigra Forest Project.

## OFFSET YOUR CARBON FOOTPRINT!

GET A TREE AND PROTECT  
● PART OF OUR PLANET ●

---

### INCLUDES

Includes:

- 10 ft. x 10 ft. area for your tree
- Maintenance and protection of your reforested area
- Part of the costs contribute towards trail making, nursery, purchase of tools, investigation, and salaries.
- GPS coordinates to help you follow and visualize the future of your reforested area.
- Annual informative bulletin about the growth, investigation, and protection of the property.
- Lifetime entrance to the La Tigra Forest Conservation Project and its trails.

### WHY HELP?

- It's a great opportunity to offset your carbon footprint.
- Help encourage conservation and study of our rainforests.
- Support a project designed to fund sustainable social activities to develop and benefit the surrounding local communities.

## PRICE

# \$30 PER TREE

**BE PART OF OUR PROJECT!**

☎ +506 2448-8351 / +506 2479-7022  
 🌐 [www.biosferalagira.org](http://www.biosferalagira.org) 🌐 [www.lodgetigra.org](http://www.lodgetigra.org)

## Appendix 4: Example of Electronic Certificates for Trees<sup>141</sup>



## Appendix 5: Conversion factors for emissions from air and car travel - U.K. Department for Business, Energy & Industrial Strategy (DEFRA)

Greenhouse gas emissions from air travel conversion factors vary according to the amount of space used in an airplane per passenger (thus varies according to class) and the inclusion of Radiative Forcing (RF), which is a measure of the environmental impact from aviation and includes emissions of nitrous oxides and water vapor when emitted at high altitude<sup>142</sup>. According to these estimates, in long-haul international travel, each passenger contributes between 0.072965 kgCO<sub>2</sub>e/traveled for an economy class passenger without RF and 0.55209 kgCO<sub>2</sub>e/km traveled for a first class passenger with RF<sup>143</sup>. A passenger in economy class with RF has an emission factor of 0.138015 KgCO<sub>2</sub>e/km.

<sup>141</sup> "One Tree Planted". April 1st, 2018. <https://onetreeplanted.org/>.

<sup>142</sup> According to DEFRA, it should be noted that there is very significant scientific uncertainty around the magnitude of the additional environmental impacts of aviation. Further information on this uncertainty is provided in their 'Methodology paper' (DEFRA, 2017)

<sup>143</sup> CO<sub>2</sub> equivalent

Likewise, conversion factors for land travel by car depends on the size of the car, and the fuel used. It varies from 0.07114 kgCO<sub>2</sub>e/km for travel in a small battery electric vehicle, to 0.023539 kgCO<sub>2</sub>e/km for a large petrol car. A medium sized car has a conversion factor of 0.1738 kgCO<sub>2</sub>e/km. The conversion factor for bus travel is 0.0278 kgCO<sub>2</sub>e passenger/km.

**Emission conversion factors for travel by air, expressed in emissions per passenger, per kilometer traveled.**

		With RF				Without RF			
		kg CO <sub>2</sub> e	kg CO <sub>2</sub>	kg CH <sub>4</sub>	kg N <sub>2</sub> O	kg CO <sub>2</sub> e	kg CO <sub>2</sub>	kg CH <sub>4</sub>	kg N <sub>2</sub> O
Average passenger	passenger.km	0.18026	0.17936	0.00001	0.00089	0.0953	0.0944	0.00001	0.00089
Economy class	passenger.km	0.138015	0.13733	0.000005	0.00068	0.072965	0.07228	0.000005	0.00068
Premium economy class	passenger.km	0.22084	0.21974	0.00001	0.00109	0.11675	0.11565	0.00001	0.00109
Business class	passenger.km	0.40025	0.39826	0.00001	0.00198	0.2116	0.20961	0.00001	0.00198
First class	passenger.km	0.55209	0.54933	0.00002	0.00274	0.29188	0.28912	0.00002	0.00274

**Emission conversion factors for travel by land, expressed in KG CO<sub>2</sub>e per car, per kilometer traveled.**

			Diesel	Petrol	Hybrid	CNG	LPG	Unknown	Plug-in Hybrid Electric Vehicle	Battery Electric Vehicle
Cars (by size)	Small car	km	0.14545	0.15649	0.10973	0.16444	0.18319	0.15274	0.08220	0.07114
	Medium car	km	0.1738	0.1949	0.11243	0.16444	0.18319	0.18436	0.11432	0.07965
	Large car	km	0.21834	0.28539	0.13052	0.24002	0.2683	0.23755	0.13988	0.09832
	Average car	km	0.17887	0.18568	0.11792	0.1803	0.20105	0.18242	0.12965	0.08026

CO<sub>2</sub>e values uses Global Warming Potential (GWP) factors from the Intergovernmental Panel on Climate Change (IPCC)'s fourth assessment report (GWP for CH<sub>4</sub> = 25, GWP for N<sub>2</sub>O = 298), consistent with reporting under the United Nations Framework Convention on Climate Change (UNFCCC).

## Appendix 6: Contact - Universidad Earth

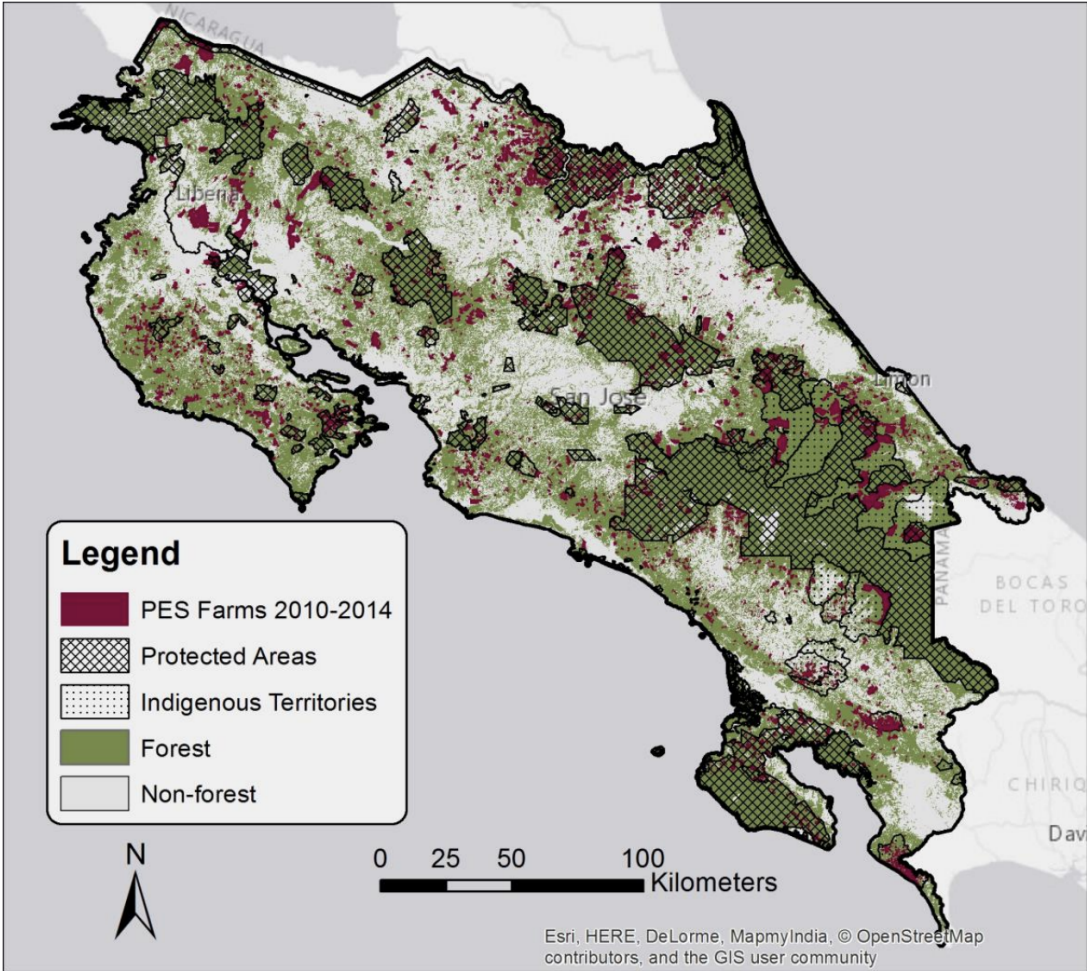
Carlos Luis Sandí Chinchilla  
 Finca Académica Forestal  
 E-mail: [clsandi@earth.ac.cr](mailto:clsandi@earth.ac.cr)  
 Campus tel.: 2713 0000 Ext.: 3471  
 Apdo.: 4442-1000 San José, Costa Rica  
 Fb.com/UniversidadEARTH  
[www.earth.ac.cr](http://www.earth.ac.cr)

Appendix 7: Carbon footprint of travel and offsetting calculator: New York City - Monteverde

CARBON FOOTPRINT OF TRAVEL	
Nº Kms traveled by air	7128.00
Conversion factor of air travel (kms per passenger)	0.1380
<b>Total emissions by air travel</b>	<b>983.77</b>
Nº Kms traveled by land	276.00
Conversion factor of land travel (kms per passenger)	0.0278
<b>Total emissions by land travel</b>	<b>7.67</b>
<b>TOTAL EMISSIONS (KgCO<sub>2</sub>)</b>	<b>991.44</b>

CARBON FOOTPRINT OFFSETTING	
Carbon absorption per tree in 40 years (KgCO <sub>2</sub> e)	3,200
Survival rate of planted trees	10%
Number of trees required to offset emissions	4
Price per tree	\$ 20.00
<b>TOTAL COST OF CARBON FOOTPRINT OFFSETTING</b>	<b>\$ 80.00</b>

Appendix 8: Forest programs cover for the conservation of forests in Costa Rica.



Source: MINAE (2017) Costa Rica’s Emission Reductions Program to the FCPF Carbon Fund

# ANNEXES

## Annex 1: Complete list of interviewees - International experts in conservation finance

<b>Name of contact person</b>	<b>Title and Organization</b>	<b>Date and Place of Interview</b>	<b>Main Person Conducting the Interview</b>
<b>Jorge Alers</b>	Dentons' Chief Executive Officer for Latin America and the Caribbean - Founder member of Costa Rica United States Foundation for Cooperation (CRUSA)	February 20, 2018 New York City, U.S. (phone call)	Antonia Samur
<b>Abby Schaefer</b>	Chief Board Relations Officer - NRDC	February 21, 2018 New York City, U.S.	Antonia Samur
<b>Celia Harvey</b>	Vice President, Climate Change Solutions, Moore Center for Science - Conservation International	March 11, 2018 Monteverde, Costa Rica	John Rouse
<b>Story Clark</b>	Board member of Conservation International, Conservation Consultant, and Founder of <i>Travel Storys</i> GPS	February 20, 2018 New York City, U.S.	Antonia Samur
<b>Janice Periquet</b>	Director of Development, Global Cities, The Nature Conservancy	February 15, 2018 New York City, U.S. (phone call)	Antonia Samur
<b>Kim Elliman</b>	CEO, Open Space Institute	April 11, 2018 New York City, U.S.	Julie Tumasz
<b>Byron Swift</b>	Former head of the International Union for Conservation Nature (IUCN) - US Office	March 8, 2018 (phone call) + March 21, 2018 Washington DC, U.S.	Antonia Samur
<b>Brad Gentry</b>	Professor, Yale School of Forestry & Environmental Studies	March 5, 2018 New York City, U.S. (phone call)	Alessandra Richter
<b>Eric Palola</b>	Executive Director, Guanacaste Dry Forest Conservation Fund	March 6, 2018 New York City, U.S. (phone call)	Antonia Samur
<b>Venkat Iyer</b>	Conservation Finance Specialist - Wildlife Conservation Society	March 7, 2018 New York City, U.S.	John Rouse
<b>Felipe de León</b>	World Bank - Partnership for Market Readiness - Costa Rica	March 28, 2018 New York City, US.	Antonia Samur

## Annex 2: Complete list of interviewees - Interviews with MCL members, local community in Monteverde and La Tigra

<b>Name of contact person</b>	<b>Title and Organization</b>	<b>Date and Place of Interview</b>	<b>Main Person Conducting the Interview</b>
<b>Lindsay Stallcup</b>	Executive director of the Monteverde Conservation League	March 13, 2018 Monteverde, Costa Rica	John Rouse
<b>Mark Wainwright</b>	MCL board member. Former Board President	March 13, 2018 Monteverde, Costa Rica	Antonia Samur
<b>Alexa Stickel</b>	Naturalist Guide and Field Instructor in Monteverde	March 11, 2018 Monteverde, Costa Rica	Antonia Samur
<b>Guiliano Salazar Gellego</b>	Naturalist Guide and Field Instructor in Monteverde	March 12, 2018 Monteverde, Costa Rica	John Rouse
<b>Geovany González</b>	Maintenance worker in the San Gerardo Station	March 10, 2018 Monteverde, Costa Rica	Alessandra Richter
<b>Noelia Guindon</b>	Wolf Guindon's granddaughter	March 13, 2018 Monteverde, Costa Rica	Julie Tumas
<b>Ricardo Guindon</b>	Wolf Guindon's son	March 13, 2018 Monteverde, Costa Rica	Julie Tumas
<b>Alan Pounds</b>	Researcher at the Monteverde Cloud Forest Reserve	March 13, 2018 Monteverde, Costa Rica	Vladimir Tlali
<b>Oldemar</b>	Organic Coffee Farmer	March 12, 2018 Monteverde, Costa Rica	Vladimir Tlali
<b>Yúber Rodríguez</b>	Environmental Payments Coordinator	March 13, 2018 Monteverde, Costa Rica	Vladimir Tlali
<b>Adolfo Quesada</b>	Manager, La Tigra Lodge	March 14, 2018 Monteverde, Costa Rica	Vladimir Tlali
<b>Maria Fernanda Rojas Murillo</b>	Educator of the Environmental Education Program	March 14, 2018 Monteverde, Costa Rica	Antonia Samur
<b>Carlos Hernandez</b>	General Manager at the Monteverde Cloud Forest Reserve	March 13, 2018 Monteverde, Costa Rica + phone call April 5 2018	Alessandra Richter

## Annex 3: Children that participated in fundraising

### CER Original Funding Network: Swedish School Children

Name	Relationship	Email	Contact	Interested In	Phone Number
<b>Eha Kern</b> <sup>144</sup>	Swedish School Teacher	<a href="mailto:eha@ehakern.se">eha@ehakern.se</a>	Emailed, Skyped and Recorded Skype Call	Connecting CER with former students	08-530 23173, 070-5254548
<b>Lia Degeby</b> <sup>145</sup>	Former Swedish Student of Kern	<a href="mailto:lialyki@outlook.com">lialyki@outlook.com</a>	Emailed	Unknown	N/A
<b>Asa Adler</b>	Former Swedish Student of Kern	<a href="mailto:asa.a.eneqvist@guteweb.se">asa.a.eneqvist@guteweb.se</a>	Emailed	Unknown	N/A
<b>Johanna Bjelmebag</b> <sup>146</sup>	Former Swedish Student of Kern	<a href="mailto:bjelmeha@hotmail.com">bjelmeha@hotmail.com</a>	Emailed	Unknown	N/A
<b>Max Thrower</b>	Former Swedish Student of Kern UK Student Biologist	<a href="mailto:maxthrower1@gmail.com">maxthrower1@gmail.com</a>	Emailed	Unknown	N/A

<sup>144</sup> The Capstone team had a 90-minute conversation with Eha on potential partnerships with the Swedish school as well as partnership with students. She seemed positive with connecting to her former students who participated in the fundraising. She is recently retired and no longer connected to the school. She was happy to contribute her connections and provided the addresses of the children below. She seemed open to pursue efforts to reignite the Golden Environmental award.

<sup>145</sup> All the students below were emailed informally by the capstone team. We inquired if they would be willing to talk about the Capstone research projects. We asked them if they would be open to tell their story to the capstone team. There was no mention of Engage Globally or fundraising.

<sup>146</sup> Johana seemed particularly interested in hearing more about the CER, and potentially reigniting a new collaboration with the students that originally participated to talk about fundraising.

**Roland  
Tiensuu<sup>147</sup>**

Former Swedish  
Student of Kern  
Goldman  
Environmental Award  
winner.

N/A

Not contacted.

Unknown

N/A

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<sup>147</sup> Currently Eha Kern is working in finding his email address. She has his home address, so if Engage Globally or the MCL wanted to contact him this way they can email Eha Kern directly.

## Annex 4: List of potential donors

### Quaker Universities: Top Recommendations

School	Location	Name	Position	Email	Phone Number	Website
<b>Barclay College</b>	Haviland, Kansas	Casey Roberts	Marketing/Creative Media	casey.roberts@barclaycollege.edu		<a href="http://www.barclaycollege.edu/">http://www.barclaycollege.edu/</a>
		Gayle Mortimer	Human Resources	gayle.mortimer@barclaycollege.edu		
<b>Bryn Mawr College</b>	Bryan Mawr, Pennsylvania	Kim Cassidy	President	kcassidy@brynmawr.edu	610-526-5156	<a href="https://www.brynmawr.edu/">https://www.brynmawr.edu/</a>
		Don Barber	Environmental Studies Co-Director	dbarber@brynmawr.edu		
		Victor Donnay	Environmental Studies Co-Director	vdonnay@brynmawr.edu		
		Jon Wilson	Assistant Professor of Biology and Environmental Studies	<a href="mailto:jwilson@haverford.edu">jwilson@haverford.edu</a>	610-896-1000	
<b>Cornell University</b>	Ithaca, New York	Deb Grantham	Assistant Director, Natural Resources and the Environment	dgg3@cornell.edu	(607) 255-8229	<a href="https://www.cornell.edu/">https://www.cornell.edu/</a>
		Savannah Williams	Earth and Atmospheric Sciences: Student Services Program Coordinator	<a href="mailto:ss376@cornell.edu">ss376@cornell.edu</a>	607/255-5466	
		<a href="#">Thompson, John F.H.</a>	Wold Family Professor in Environmental Balance for Human Sustainability	<a href="mailto:jft66@cornell.edu">jft66@cornell.edu</a>	607 216-2465	

## Annex 5: List of potential donors

### Quaker Universities: Top Recommendations

School	Location	Name	Position	Email	Phone Number	Website
<b>Barclay College</b>	Haviland, Kansas	Casey Roberts	Marketing/Creative Media	casey.roberts@barclaycollege.edu		<a href="http://www.barclaycollege.edu/">http://www.barclaycollege.edu/</a>
		Gayle Mortimer	Human Resources	gayle.mortimer@barclaycollege.edu		
<b>Bryn Mawr College</b>	Bryan Mawr, Pennsylvania	Kim Cassidy	President	kcassidy@brynmawr.edu	610-526-5156	<a href="https://www.brynmawr.edu/v">https://www.brynmawr.edu/v</a>
		Don Barber	Environmental Studies Co-Director	dbarber@brynmawr.edu		
		Victor Donnay	Environmental Studies Co-Director	vdonnay@brynmawr.edu		
		Jon Wilson	Assistant Professor of Biology and Environmental Studies	<a href="mailto:jwilson@haverford.edu">jwilson@haverford.edu</a>	610-896-1000	
<b>Cornell University</b>	Ithaca, New York	Deb Grantham	Assistant Director, Natural Resources and the Environment	dgg3@cornell.edu	(607) 255-8229	<a href="https://www.cornell.edu/">https://www.cornell.edu/</a>
		Savannah Williams	Earth and Atmospheric Sciences: Student Services Program Coordinator	<a href="mailto:ss376@cornell.edu">ss376@cornell.edu</a>	607/255-5466	
		<a href="#">Thompson, John F.H.</a>	Wold Family Professor in Environmental Balance for Human Sustainability	<a href="mailto:jft66@cornell.edu">jft66@cornell.edu</a>	607 216-2465	

## Quaker Universities: General Recommendations

School	Location	Website	Additional Notes
<b>Earlham College</b>	Richmond, Indiana	<a href="http://earlham.edu/">http://earlham.edu/</a>	affiliated with Western Yearly Meeting
<b>Friends University</b>	Wichita, Kansas	<a href="https://www.friends.edu/">https://www.friends.edu/</a>	founded as a Quaker institution, now non-denominational with "an amicable but independent relationship with the Society of Friends" (EFCI)
<b>George Fox University</b>	Newberg, Oregon	<a href="https://www.georgefox.edu/">https://www.georgefox.edu/</a>	affiliated with Northwest Yearly Meeting of Friends (EFCI)
<b>Global College</b>	Long Island, New York		
<b>Guilford College</b>	Greensboro, NC	<a href="https://www.guilford.edu/">https://www.guilford.edu/</a>	founded as Friends World College by New York Yearly Meeting (Friends General Conference), now part of Long Island University and unaffiliated with Friends
<b>Haverford College</b>	Haverford, Pennsylvania	<a href="https://www.haverford.edu/">https://www.haverford.edu/</a>	founded as a Quaker college; draws on Quaker traditions, but has no formal affiliation
<b>Houston Graduate School of Theology</b>	Houston, Texas	<a href="http://www.hgst.edu/">http://www.hgst.edu/</a>	founded by members of the PYM, became part of the Orthodox PYM after the Hicksite-Orthodox schism; remains rooted in Friends tradition and grounded in Quaker practice, but without formal affiliation
<b>Johns Hopkins University</b>	Baltimore, Maryland	<a href="https://www.jhu.edu/">https://www.jhu.edu/</a>	"identifies with the Quaker movement," grounded in Evangelical Friends theology and practice[21]
<b>Malone University</b>	Canton, Ohio	<a href="https://www.malone.edu/">https://www.malone.edu/</a>	founded by a Quaker and most early trustees were Quaker but was always officially non-denominational

<b>Pacific Oaks College</b>	Pasadena, California	<a href="https://www.pacificoaks.edu/">https://www.pacificoaks.edu/</a>	sponsored by Evangelical Friends Church - Eastern Region (EFCI)
<b>Swarthmore College</b>	Chicago, Illinois	<a href="https://www.swarthmore.edu/">https://www.swarthmore.edu/</a>	governance and pedagogy is Quakerly but has no official affiliation with Friends
<b>Whittier College</b>	Whittier, California	<a href="https://www.whittier.edu/">https://www.whittier.edu/</a>	founded by Hicksite PYM, now independent
<b>William Penn University</b>	Oskaloosa, Iowa	<a href="https://www.wmpenn.edu/">https://www.wmpenn.edu/</a>	founded by Quakers, now secular and independent with "an appreciation for Quaker values"

### Quaker International Organizations

Organization	Mission	Email
<b>EcoQuakers</b>	Committee of Ireland Yearly Meeting that supports Quaker Meetings in their efforts to live peacefully and sustainably.	<a href="https://quakers-in-ireland.ie/about-us/concerns/ecoquakers-subsite/">https://quakers-in-ireland.ie/about-us/concerns/ecoquakers-subsite/</a>
<b>Friends World Committee for Consultation</b>	See Boxed Text	<a href="http://fwcc.world/about-fwcc">http://fwcc.world/about-fwcc</a>
<b>FWCC Quaker Case Studies: Sustainability in Action</b>	Susanna Mattingly.	<a href="https://quakersandclimatechange.com/2018/01/16/quaker-case-studies-sustainability-in-action/">https://quakersandclimatechange.com/2018/01/16/quaker-case-studies-sustainability-in-action/</a>

## U.S. Based Quaker Organizations

<b>Friends General Conference</b>		<a href="https://www.fgcquaker.org/">https://www.fgcquaker.org/</a>
<b>Fairhope Friends Meeting</b>	Original Home of Monteverde Quakers	<a href="https://www.fgcquaker.org/connect/quaker-finder/fairhope-friends-meeting-ind">https://www.fgcquaker.org/connect/quaker-finder/fairhope-friends-meeting-ind</a>
	Laura Melvin	<a href="https://www.facebook.com/Fairhope-Friends-Meeting-Quakers-898486056969548/">https://www.facebook.com/Fairhope-Friends-Meeting-Quakers-898486056969548/</a>
<b>Philadelphia Yearly Meeting: Grants</b>	Carol Walz, <a href="mailto:cwalz@pym.org">cwalz@pym.org</a>	<a href="http://www.pym.org/grants/">http://www.pym.org/grants/</a>

## Environmental Quaker Organizations

<b>GreenFaith</b>	<b>Interfaith Partners for the Environment</b>	<a href="http://www.greenfaith.org/">http://www.greenfaith.org/</a>
<b>Quaker Earthcare Witness</b>	Seeking emerging insights into right relationship	<a href="https://www.quakerearthcare.org/">https://www.quakerearthcare.org/</a>
<b>QPSW Sustainability and New Economy Grant</b>	Quakers in Britain Org	
<b>Living Witness</b>	working with GreenFaith in developing an international faith leaders' initiative on sustainable living,	<a href="http://www.livingwitness.org.uk/">http://www.livingwitness.org.uk/</a>

## Columbia SIPA Student Organizations

<b>Organization</b>	<b>Name</b>	<b>Relationship</b>	<b>Email</b>
<b>Energy and Environment</b>	David B Sandalow	Program Director	dbs2167@columbia.edu
<b>Environmental Coalition</b>	Nitasha Nair	President	nn2427@columbia.edu
<b>Program</b>			
<b>MDP Summer Placement</b>	Heather Marie Kelahan	Program Coordinator	h.kelahan@columbia.edu
	Glenn Denning	Program Director	gd2147@columbia.edu
	Kendal Stewart	Program Coordinator	kas2270@columbia.edu
<b>Professor Connections</b>			
<b>Buffett Foundation</b>	Howard W. Buffett	Adjunct Professor	hwb2107@columbia.edu
<b>The Earth Institute</b>	Jeff Sachs	Adjunct Professor	sachs@columbia.edu
<b>Former Mayor of NYC</b>	David Dinkins	Adjunct Professor	dd98@columbia.edu

## Annex 6: List of companies

Name of the company	Activity	Headquarter location	Relevance	Contacts	Website URL
<b>Whole Foods / New Chapter</b>	<b>Supermarket chain</b>	<b>Austin, TX, USA</b>	In the past, Whole Foods in a partnership with the New Chapter had supported CER's land purchase program with up to \$1mln dollars. Recommended to contact for voluntary surcharges. Also, recommended to explore the possibility to renew the partnerships for environmental rainforest conservation.	512-477-4455 wholefoodsmarket. pinpointclient.com	<a href="https://www.wholefoodsmarket.com/company-info/us-national-offices">https://www.wholefoodsmarket.com/company-info/us-national-offices</a> <a href="mailto:info@newchapter.com">info@newchapter.com</a>
<b>REI</b>	<b>Retail merchandising</b>	<b>Seattle, WA, USA</b>	Retail co-op invests in the NGOs, organizations and communities that promote access to the outdoors and invest almost 70% of their profits to the outdoor community. In 2017, they invested approximately \$8.8M in NGOs.	Kristen Ragain, Philanthropy and Community Partnerships Manager ( <a href="#">LinkedIn profile</a> )	<a href="https://www.rei.com/s/tewardship">https://www.rei.com/s/tewardship</a>
<b>REI Adventure's branch</b>	<b>Tour agency</b>	<b>Seattle, WA, USA</b>	Provides adventure vacation trips to Costa Rica including visits to the Arenal Volcano National Park, cloud forests. They also have a special Family Adventure package, that is specifically designed for the families with children.		<a href="https://www.rei.com/adventures/trips/latin-america">https://www.rei.com/adventures/trips/latin-america</a>
<b>Canon Binoculars</b>	<b>Binocular manufacturer</b>		Canon USA contributes to a wide range of CSR programs. It is recommended to contact Canon for an inquiry to form a partnership with CER or Engage Globally. For their Binocular business, CER's unique position as a prime birdwatching destination can be used.	CSR Guidelines for Donation Requests and <a href="#">Form</a> CSRDonations@cu sa.canon.com	<a href="#">Canon's sustainability website</a>
<b>Southwest Airlines</b>	<b>Airline company</b>		Southwest have a program called Charitable Giving that donates tickets to the qualified non-profit organizations. Recommended to reach out to create a partnership for voluntary carbon offsets.		<a href="#">The application for donations.</a>

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## Companies sourcing coffee from Costa Rica

<b>Starbucks coffee</b>	Seattle, WA, USA	<p>Currently Starbucks have some programs that involve coffee farmers in Costa Rica. For example, they have a program to involve their employees with coffee farmers. They also have 240 hectare coffee farm on the slopes of the Poas volcano in Costa Rica. This farm has served as a global research and development facility for Starbucks since 2013. In March, 2018, they opened a Visitor Center, so visitors will have the chance to experience coffee from seed to cup and see firsthand the agronomy work the company has been supporting.</p>	800- (800-782-7282)	<p><a href="https://news.starbucks.com/news/a-photo-journey-to-coffee-farms-in-costa-rica">https://news.starbucks.com/news/a-photo-journey-to-coffee-farms-in-costa-rica</a></p> <p><a href="https://news.starbucks.com/press-releases/starbucks-opens-costa-rican-coffee-farm-to-visitors">https://news.starbucks.com/press-releases/starbucks-opens-costa-rican-coffee-farm-to-visitors</a></p>
<b>Montana Coffee Traders</b>	<b>Coffee importer</b> Montana, MT, USA	<p>In 1989 they established a partnership with a growers cooperative in Monteverde, Costa Rica, with the goal of using proceeds from the sale of the coffee to help benefit the community where coffee was grown. Since then Montana Coffee Traders has established several partnerships with other organizations who are doing work on a variety of social, environmental, and educational levels. A portion of the proceeds for each of these coffees goes directly back to the sponsoring organization.</p>	Andrea Alvarez (406) 261-5953 andrea@coffeetraders.com	<p><a href="https://www.coffeetraders.com/monte.cfm?action=storefront.category_page&amp;cat_idx=7&amp;subcat_idx=0">https://www.coffeetraders.com/monte.cfm?action=storefront.category_page&amp;cat_idx=7&amp;subcat_idx=0</a></p>
<b>Cafe Imports</b>	<b>Coffee importer</b> Minneapolis, MN, USA	<p>Import coffee from Costa Rica (among other origins) to USA, Australia and Europe.</p>	Andrew Miller, Café Imports Founder and Partner	<p><a href="https://www.cafeimports.com/about.php">https://www.cafeimports.com/about.php</a></p>
<b>West Rock Coffee company</b>	<b>Coffee importer &amp; roaster</b> North Little Rock, AR, USA	<p>Import coffee from Costa Rica (among other origins) to USA. West Rock Coffee company cultivates long-term relationships with the coffee farmers through direct trade which enables offering a higher compensation based on the product's quality. They have an Agribusiness Training Program that helps to improve environmentally and socially sustainable agricultural practices.</p>	Executive VP of Marketing and Sales, Elizabeth McLaughlin	<p><a href="https://www.westrockcoffee.com/costa-rica/">https://www.westrockcoffee.com/costa-rica/</a></p>

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<b>Cafédirect Producers' Foundation (CPF)</b>	<b>Coffee importer</b>	<b>London, UK</b>	Producers Direct is an award winning enterprise led by farmers across East Africa and Latin America. They empower farmers to take leadership in combatting the key challenges they face. Cafédirect and Producer Direct work closely to help smallholder tea and coffee farmers to build their expertise, improving their crop quality, yields and building their livelihoods. Through Cafedirect consumers are able to purchase fairly traded coffee, direct from growers. In Latin America, they have partnerships with Costa Rica, Peru and Colombia.	info@producersdirect.org	<a href="http://producersdirect.org/partner/cafedirect/">http://producersdirect.org/partner/cafedirect/</a>
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### Columbia Alumni Enterprises

<b>Wandering Bear Coffee</b>	<b>Coffee roaster</b>	<b>NYC, USA</b>	It is an startup founded by two alumni from Columbia Business School. They sell cold brew ready to drink. They could be connected with Costa Rican coffee farmers and be interested in partnership with the CER.	Matt Bachmann, CBS 2015 Ben Gordon, CBS 2015 hello@wanderingbearcoffee.com	<a href="https://wanderingbearcoffee.com/">https://wanderingbearcoffee.com/</a>
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<b>Boomi Environmental</b>	<b>Environmental consulting firm</b>	<b>NYC, USA</b>	It is a progressive environmental consulting firm specializing in the development of sustainable, implementable, and cost-effective solutions to water and wastewater challenges faced by municipalities.	Dr. Sri Rangarajan sri@boomi-environmental.com	<a href="http://boomi-environmental.com/aboutus/">http://boomi-environmental.com/aboutus/</a>
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### 1% for the Planet member businesses

<b>Cafe Milagro</b>	<b>Coffee grower</b>	<b>Costa Rica</b>	A member of the 1% for the planet network. Located in Quepos, Puntarenas. Supports Titi Conservation Alliance.		<a href="http://www.onepercentfortheplanet.org/who-we-are/members/record/001F000000o1ObTIAU">http://www.onepercentfortheplanet.org/who-we-are/members/record/001F000000o1ObTIAU</a>
<b>The Forest Group</b>	<b>Service</b>	<b>United States</b>	Executive search group specializing in needs and growth of the outdoor industry. Supported the Conservation Alliance.	Adam Forest adam@theforestgroup.com Mary Maliff	

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**Slothers  
Co**

Apparel

United  
Kingdom

British retailer of sustainable carbon neutral outdoor  
apparel and accessories.

## Annex 7: Qualitative Analysis in the Nvivo® Software

### Material Reviewed in the Qualitative Analysis in the Nvivo® Software for the Tourism Section

The MCL does not have an electronic database of the satisfaction surveys filled by visitors. For this reason, we conducted a qualitative analysis on relevant materials available in the internet. There were two kinds of sources studied in this qualitative analysis, first, we reviewed travel blogs, tour operators' sites, and birdwatching webpages. We coded these articles first to obtain a sense of the general perception of visitors. Then we explored reviews provided by visitors in the TripAdvisor® webpage. Comments were highly centered in Bajo de Tigre and San Gerardo. For Bajo de Tigre, we selected the top-rated comments of each of the possible categories: Excellent, Very Good, Average, Poor and Terrible. For San Gerardo Station we reviewed all the comments in the platform. The reviewed materials were:

#	Title	Author	Link to source
<b>Articles, Tourist Companies and Travel Blogs</b>			
1	Birding the Monteverde Area	Kathi Borgmann	<a href="https://birdsofpassage.wordpress.com/2014/05/11/monteverde-costa-rica/">https://birdsofpassage.wordpress.com/2014/05/11/monteverde-costa-rica/</a>
2	Crossing the Children's Eternal Rainforest in Moderve	Ryan Van Valzer	<a href="https://www.costarica.com/blog/crossing-the-childrens-eternal-rainforest-in-monteverde">https://www.costarica.com/blog/crossing-the-childrens-eternal-rainforest-in-monteverde</a>
3	Crossing the Children's Eternal Rainforest in Moderve 2	Ryan Van Valzer	<a href="https://www.costarica.com/blog/crossing-through-the-childrens-eternal-rainforest-part-2/">https://www.costarica.com/blog/crossing-through-the-childrens-eternal-rainforest-part-2/</a>
4	Children's Eternal Rainforest	Beatrice Blake from Toucan Maps Inc.	<a href="http://mapcr.com/information/8442/60/Costa-Rica-Childrenâ€™s-Eternal-Rainforest.html">http://mapcr.com/information/8442/60/Costa-Rica-Childrenâ€™s-Eternal-Rainforest.html</a>
5	Bajo del Tigre Trailhead	Sue and Ray from Toucan Maps Inc.	<a href="http://mapcr.com/information/1798/60/Costa-Rica-Bajo-del-Tigre-Trailhead.html">http://mapcr.com/information/1798/60/Costa-Rica-Bajo-del-Tigre-Trailhead.html</a>
6	Children's' Eternal Rainforest	CostaRica.com	<a href="https://www.costarica.com/attractions/childrens-eternal-rainforest/">https://www.costarica.com/attractions/childrens-eternal-rainforest/</a>
7	Day 6: Hiking Monteverde's Forests	Emma	<a href="https://www.costarica.com/blog/day-6-hiking-monteverdes-forests">https://www.costarica.com/blog/day-6-hiking-monteverdes-forests</a>
8	Monteverde Cloud Forest, Children's Eternal Rainforest and Santa Elena Cloud Forest Reserve	Sammi	<a href="https://mytanfeet.com/activities/monteverde-and-santa-elena-cloud-forest-reserve/">https://mytanfeet.com/activities/monteverde-and-santa-elena-cloud-forest-reserve/</a>
9	Come to Costa Rica: Explore Biological Field Stations	Friends of the Rainforest	<a href="https://friendsoftherainforest.org/2011/02/come-to-costa-rica-explore-biological-field-stations/">https://friendsoftherainforest.org/2011/02/come-to-costa-rica-explore-biological-field-stations/</a>
10	Rainforest Expedition Tour	Ecoterra	<a href="https://www.ecoterracostarica.com/es/tour/childrens-eternal-rainforest-expedition/">https://www.ecoterracostarica.com/es/tour/childrens-eternal-rainforest-expedition/</a>

11	Exploring the night in Monteverde	Ryan Van Valzer	<a href="https://www.costarica.com/blog/exploring-the-night-in-monteverde/">https://www.costarica.com/blog/exploring-the-night-in-monteverde/</a>
12	Bosque Eterno de los Niños, Children's Eternal Rainforest	Learner.com	<a href="https://www.learner.org/jnorth/tm/oriole/Children%27sRF.html">https://www.learner.org/jnorth/tm/oriole/Children%27sRF.html</a>
13	Bird-watching in Monteverde with Renzo	Hotel Viandante	<a href="http://www.hotelesviandante.com/bird-watching-monteverde.html">http://www.hotelesviandante.com/bird-watching-monteverde.html</a>
14	San Gerardo Tour	Three Brothers Tours	<a href="http://threebrotherstours.com/bird-watching-tours/san-gerardo-tour/?lang=es">http://threebrotherstours.com/bird-watching-tours/san-gerardo-tour/?lang=es</a>
15	Bird watching tour at San Gerardo Reserve	Viator Tours	<a href="https://www.viator.com/tours/Monteverde/San-Gerardo-Hike/d24783-23968P3">https://www.viator.com/tours/Monteverde/San-Gerardo-Hike/d24783-23968P3</a>
16	Children's Eternal Rainforest	Wilderness Dave	<a href="http://www.wildernessclassroom.com/childrens-eternal-rainforest-monteverde-costa-rica/">http://www.wildernessclassroom.com/childrens-eternal-rainforest-monteverde-costa-rica/</a>
<b>TripAdvisor® Reviews for Bajo del Tigre</b>			
17	Tricky but worth it.	Alvie J. from Costa Rica	
18	Lots of wildlife	Chris E. from Indiana, USA	
19	A hugely disappointing experience	EDGE-09, London, UK	
20	Ok for kids. Didn't see any animals	Anonymous, The Netherlands	
21	Not our night for viewing wildlife	Fawtandthebaby, Minnesota, USA	
22	Bajo del Tigre Visit	Akvanhall, New York. USA.	
23	Very disappointing	Mary P. California, USA	
24	Night Walk	Moment J., Utah, USA	
25	C. E. R. = a special little gem! Guide Adam Fuentes = Awesome!	Paddi L., Utah, USA	
26	Un robo absoluto	Pensa P., Spain	
27	Disappointed by Night Walk	Ttoadlee, California USA	
28	Was not lucky - did not see much during our night tour, good guide though!	Vagabondie, Canada	

29	Night hike at the Tigre, knowledgeable guide but it depends on your luck.	Wing D. Canada
30	Don't do night tour during dry season	David C., No place of origin
<b>TripAdvisor ® Reviews for San Gerardo</b>		
31	Pristine rainforest experience! Excellent, hearty meals.	Nick C., USA
32	What a view!! What a place	Paul E., Virginia, USA
33	Great Place, Long Hike	Minnmo St. Peters, Missouri, USA
34	A stunning excursion from Monteverde	M.B., Georgia, USA
35	One of my favorite places in the world.	Jimmy L. New Mexico, USA
36	Magical place...	Gary H. Evergreen, Colorado, USA
37	Great place for everyone.	G. A. Montgomery, Washington, USA
38	Le paradis pour les amoureux de la nature	Dednanou Malmedy, Belgium
39	A quiet spot with an amazing view, beautiful trails, and rustic experience.	CR Residents, Costa Rica
40	San Gerardo Station Children's Eternal Rainforest Costa Rica	Cheznlinz, Vietnam
41	What a great family destination	Canadianfamily17, Canada

[https://www.tripadvisor.com/Hotel\\_Review-g644053-d2092166-Reviews-San\\_Gerardo\\_Biological\\_Station-Santa\\_Elena\\_Monteverde\\_Province\\_of\\_Puntarenas.html](https://www.tripadvisor.com/Hotel_Review-g644053-d2092166-Reviews-San_Gerardo_Biological_Station-Santa_Elena_Monteverde_Province_of_Puntarenas.html)