Capacha Coastal Conservation Center

Rev. 1/8/2023

CAPACACHA coastal conservation CENTER

Executive Summary

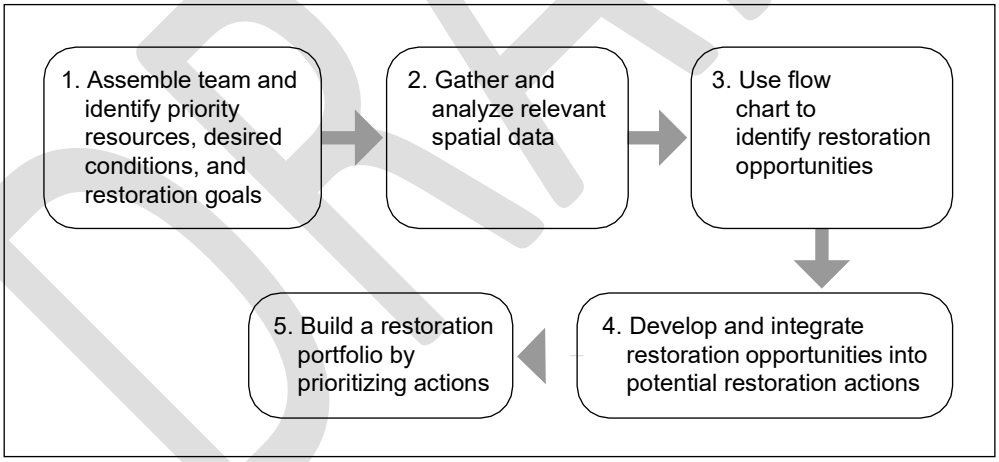
Capacha Coastal Conservation Center advances sustainable design principles and practices for central pacific Mexico's multiple use resource management community. The Center is a joint venture among environmental nonprofits, regional universities, and the private sector, promoting interdisciplinary solutions for improved productivity, health, and resilience of coastal ecosystems and local economies. As part of Capacha's mission, land trust initiatives serve to preserve and protect critical conservation areas along the Costalegre while supporting sustainable agriculture and ranching. Small-scale community capacity building and hospitality industry development support viable regional eco-tourism.

The Center is located at Arroyo Seco amid Jalisco's tropical dry coastal forest, and offers classes, workshops and community conference space, providing guests modest accommodations and farm-to-table services. The beach facilities and upland forest cabañas offer rustic hospitality while serving as a demonstration site for permaculture practices and applied research and conservation. Guests, students, and volunteers at the Center support organic farming, permaculture practices, habitat restoration, and the protection and preservation of sensitive species, including the Military Macaw and the Olive Ridley sea turtle.

Mission Statement

Capacha Coastal Conservation Center advances sustainable design and practices for central pacific Mexico's multiple use resource management community. The Center is a joint venture among governmental entities, environmental nonprofits, regional universities, and the private sector, promoting interdisciplinary solutions for improved productivity, health, and resilience of coastal ecosystems and local economies. We seek to ensure an improved future for local communities and the natural and economic resources upon which they rely.

The Center's mission is predicated on a planning framework underwritten by six (6) guiding principles that seek to 1) restore ecological processes; 2) consider landscape context; 3) promote regional native biodiversity; 4) sustain diverse ecosystem services; 5) establish a prioritization approach for management interventions; and 6) incorporate adaptation to agents of change. These primary resource management and operational considerations support a robust foundational approach that addresses the both the immediate and long-term restoration goals and resiliency objectives across the coastal and upland landscape. As such, the Center's mission supports an interdisciplinary synthesis of design criteria, best practices, and restoration methodologies that best reflect the effective use of applied science for adaptive management of natural and community resources. Project planning to realize the Center's mission has incorporated the following structural process:



Vision Statement and Core Values

Capacha values local community engagement for purpose of improved education, nutrition, housing, and economic conditions for the rural communities along the Costalegre. We believe that informed direct action creates multiple co-benefits for families, farms, businesses, and coastal environments.

The Center advocates the triple bottom line business concept which posits organizational strategies that commit to measuring social and environmental impact—in addition to fiscal performance—

rather than solely focusing on generating profit, or the standard "bottom line." This approach can be best understood as a principle of "Three Ps": Profit, People, and the Planet.

Profit. In a capitalist economy, success most heavily depends on financial performance, or the profit generated for shareholders. Traditional strategic planning initiatives and key business decisions are designed to maximize profits while reducing costs and mitigating risk. By contrast, the Center's strategic approach provides a necessary corrective by harnessing the power of business acumen to realize positive environmental change without hampering financial performance. Adopting sustainability initiatives has proven to drive business success, engendering profit with a greater purpose. In doing so, the Center promotes sustainable housing, farming, workforce development and eco-tourism, thereby demonstrating viable alternatives to large scale resort development and industrial farming and ranching practices.

People. The second component of Capacha's triple bottom line highlights societal impact, or the Center's commitment to local communities. The distinction between a venture's shareholders and stakeholders is essential here as, traditionally, businesses favor shareholder value as an indicator of success to generate value for investors. The Center's focus on local sustainability creates value for all stakeholders impacted by operational decisions, and our strategic initiatives focus on those inclusive benefits for guests, students, employees, stakeholders, and community members, returning gains to those most influenced by project outcomes and services.

The Planet. The final component of the triple bottom line is concerned with making a positive impact on the planet. Since the Industrial Revolution, large corporations have contributed a staggering amount of pollution and carbon emissions, a key driver of climate change. A recent report by the Carbon Majors Database found that 100 companies in the energy sector are responsible for roughly 71 percent of all industrial emissions. While businesses have historically been the greatest contributors to climate change, innovative business models hold the key to driving positive environmental change. Our ethically sourced building materials, reduced energy consumption, sustainable farming, and operational practices result in positive measurable environmental outcomes. The Center's efforts toward species protection, habitat restoration, and conservation easements further advance conservation objectives in the region.

III. Project Location and Natural Resources

Arroyo Seco is a small fishing, farming and tourist destination on the relatively undeveloped southern coast of Jalisco, referred to as the Costalegre. With its biological diversity and protected bays, the Costalegre offers vast opportunities for ecotourism. The project's area, the Jaliscan Tropical Dry Forest, is rich in aquatic and terrestrial biodiversity and is most notable for its phenomenal rate of endemism – 112 plants and 84 vertebrates (mammals, amphibians, reptiles and birds) endemic to Mexico. Vegetation in the area, encompassing over 1,200 species, is dominated by deciduous forest, which includes *botoncillo*, *flor de mayo* and *majahua*, among others. Other species found within the forest overstory are cacti such as the *nopal* and *organo*. Within the semi-deciduous forest one can find the *mojote*, which produces a nut used to make a flavorful coffee. The *papelillo* can be found in the more humid valleys and waterways where the trees and lianas grow taller. In other areas, palm, such the *coyaco* palm, and *manzanilla* trees dominatFigure

Wildlife diversity in the area is most noted by its 270 birds species (22 of which are endemic), which include the boat-billed heron, common *potoo*, orange-fronted parakeet and the yellow-headed parrot. There are also 70 species of mammals, 69 of reptiles, and 19 of amphibians. The ocelot, the jaguar, the greater fishing bat and the endemic pygmy skunk are just some of the many mammals in the region. The boa constrictor, the nine-banded armadillo and the green tree-frog is an example of a reptiles and amphibian commonly found along the Costalegre.

Within the marine environment, rocky coral reefs span much of the Costalegre, including several within nearby Tenacatita Bay. Elegant coral and green coral growing on igneous rock make up the structure of these reefs, which harbor a number of tropical fish including Moorish idols, guineafowl puffers, king angelfish, yellowtail surgeonfish and three-banded butterfly fish. Other marine organisms call these reefs home as well, such as the tiger snake eel, spotted eagle ray and the Olive Ridley sea turtle, the latter of which is the prominent species nesting in the region.

The wetlands that line a large part (1,567,300 hectares) of the Mexican coast are rich in biological diversity. Mangrove ecosystems in particular are known to be important rearing grounds for marine fishes and provide important habitat for migratory and endemic bird species, reptiles, and small mammals. On the Costalegre of the Mexican Pacific, mangroves are the dominant coastal wetland and are home to the largest populations of American crocodiles in Mexico. Previous investigations conducted nearby at Tanacatita Bay have shown the importance of these mangroves serve as habitat for many different aquatic species.

The cultural climate of Arroyo Seco is typical of emergent Mexican coastal towns. As tourism comprises a large portion of the regional economy, the people of this region (approximately 500) are

welcoming and supportive of foreign visitors. Some local merchants speak English, but many do not. Arroyo Seco is predominately politically conservative and devoutly Catholic. The local population is more than willing to engage foreigners in cultural and political discussion.

IV. Services & Programs

The Center is located at Arroyo Seco amid Jalisco's tropical dry coastal forest, and offers classes, workshops and community conference space, providing modest accommodations and farm-to-table services. The beach facilities and upland forest cabañas offer rustic hospitality while serving as a demonstration site for permaculture practices and applied conservation. Guests, students and volunteers at the Center support organic farming, wildlife habitat restoration, ecological monitoring and the protection of sensitive species, including the military macaw and the Olive Ridley sea turtle. Educational and conservation priorities are pillars for our coastal resiliency strategy for natural, economic, and community sustainability.

Eco-tourism. Tourism is the third largest source of income in Mexico after revenues from oil and the money sent home from relatives working in the U.S. Tourism can be an important source of income for people living in impoverished regions when managed for light impact on both communities and the lenvironment. Eco-tourism can preserve special areas from destruction by providing an alternative way to earn income for a people who have no other options than to cut trees for farming or to illegally sell the wood to tree poachers. Therefore, promoting eco-tourism is a logical development strategy for this region with limited economic opportunities but is blessed by magnificent natural resources.

The Costalegre is relatively undeveloped but for the adventure tourist or person who travels to learn about how people from other cultures live, this is a unique destination. There are rich opportunities to explore Sierra Madres mountains, lush mangroves, tropical dry forests, and engage with the local communities. The Center's eco-tourism project aims to promote the Costalegre as the unique travel destination for anyone visiting the region. Plan efforts seek to identify sites of interest and work with local communities establish a hostel system to accommodate networks of travel for mountain bikers and trekkers and connect these pathways to corridors that support sustainable eco-tourism.

The beaches, mangroves and rocky reefs of the Arroyo Seco are excellent sites for visitors seeking pristine coastal experiences. Students, volunteers, and guests may enjoy hikes, birding, sea kayaking and snorkeling activities as integrated into citizen science programs that provide trend data for resource conditions. For guest, students and volunteers who stay at the Center, equipment rentals (eg. surf boards, e-bikes, snorkel gear, kayaks, fly rods) are available and guided instruction and additional ecotourism activities can be arranged. Nearby attractions include the Chamela-Cuixmala Biosphere Reserve, Sierra Manantlán Biosphere Reserve and the Aldea Cutzmalan Organic Farm. These areas are abundantly rich with potential eco-tourism programs and activities.

To advance sustainable business in the region, Capacha provides eco-tourism workshops to support the development of skilled guides through field skills training and business strategies that present viable approaches to sustainable business practices. Instruction includes the use of field methods to identify flora and fauna and offers safety and logistics training to deploy guides for providing informed tourism experiences within various ecological settings, such as tropical dry forest, mangroves, wetlands, and other coastal habitats. Species specific training for resident and migratory birds, mammals, aquatic biota provide comprehensive instruction in both English and Spanish. Our sea turtle and military macaw programs offer structured seasonal eco-tourism opportunities to support research and preservation of sensitive species. University students and faculty frequently participate in group training sessions and citizen science programs provide meaningful monitoring data that supports management planning and increases visitor understanding of natural resource trends, condition, and threats. For more information on conservation efforts, See Attachment A. Sea Turtle and Parrot Conservation Initiative.

Permaculture & **Biointensive Organic Farming.**
Most regional farming families raise a small number of crops on steep un-terraced slopes. Their land lies fallow during the 6 months of the dry season. Soils are generally exhausted from over dependence on chemical fertilizers. In the spring after months of rainless weather, farmers burn the understory to prepare for planting. This practice destroys organic matter that further degrades soil quality. Poor soils yield sickly plants that are more susceptible to pest infestation. Our agricultural outreach programs target small scale campesino farmers who lack access to the resources and information to enable them for better success with the cash crops they grow. They typically rely heavily on chemical fertilizers, pesticides and herbicides to remedy problems in their fields. With farmers fumigating their crops throughout this mountainous region, these poisons wash into the drainage affecting fish populations and contaminating the water supply and the many communities downstream. The practice of burning the fields in the dry season also quickly sparks fires in the hot, dry hillsides. Large-scale fires damaged remaining stands of old-growth tropical dry forest as they burn uncontrolled for weeks. Yet each spring the burning begins again. The forests continue to disappear under the machete as people look for new areas to farm and ranch. With less forest cover, underground water levels have decreased. Springs that were once reliable no longer provide enough water.

The Center's educational and outreach programs include permaculture garden projects at schools while serving indigenous and rural communities. Food security, a key concern for the region, indicates the instability of the food sources. Ideally, local farmers and home gardeners produce enough nutritious food to provide an adequate diet. This is problematic along the rural

communities of central pacific Mexico where income, arable lands, and government assistance has limited capacity to improve sustenance availability.

Sustainable Food Education Program. The Capacha Center's Sustainable Food Production Program aims to reduce malnutrition and eliminate the use of agro-chemicals by teaching people how to grow their own food organically. The Center promotes an alternative model of food production that combines biointensive, organic farming methods with the principles of permaculture. This model of sustainable food production offers great promise for improving production, restoring environmental integrity, improving nutrition and helping rural people to enjoy better quality of life. The school program offers a facility that serves as a "living classroom" to give people hands-on training. Farmers can observe our vegetable and fruit production and see how compost is made. They return to see how the methods function over time, how to best resolve pest problems and to receive technical support and resources to manage their own crops.

La Escuela de Agro-Ecología is located about a 15 minute walk from the center of Arroyo Seco with a sweeping view of the central pacific ocean below and the dramatic rise of the Sierra Madre on all sides. The *Escuela de Agro-Ecologia* provides training free of charge to small-scale farmers, students, health promoters, and community members. Partnering with governmental agencies, our outreach encourages food self-sufficiency at a household level without the use of toxic chemicals.

The Center's farm is located on a west-facing slope along an eroded ridge and is typical of many deforested areas in the costal Sierra Madre. This unlikely spot has proven to be an excellent site for demonstrating how to return fertility to damaged land. Using organic soil building methods, the Center's permaculture program transformed this compromised site to increase agricultural productivity, much to the surprise of local community who recall the poor yield conditions known only a few years ago. Staff provide workshops for building small dams, called swales, to catch water to restore deforested hillsides. Participants also become familiar with the native forest vegetation in the small botanical garden which is kept humid with filtered gray water and shaded by an arbor of prolific edible fruit bearing trees and palms.

Land of this size, 8 hectares, is usually planted only with a few crops. By contrast, the site demonstrates how a small parcel can be made much more productive by growing fruit and nut trees, fish, poultry, vegetables and medicinal plants. The *huerto familiar* or family vegetable garden demonstrates that by managing well a small area, a family can produce a significant amount of nutritious organic produce. In this manner, the Center actively promotes permaculture as a way to bring creativity and common sense for the wise use of limited resources and to solve site-specific problems caused by wind, poor soil, slope, and drought. Programs provide bi-lingual instruction on how best to produce an abundance of foods while at the same time creating an integrative system where wastes are recycled, water is used wisely and energy consumption is reduced. In practice, permaculture creates a stable system that mimics nature sustainably. For more information on permaculture, See Attachment C. Permaculture Initiatives and Needs Statement.

Community Nutritional Education and Support Services. According to Mexico's 2016 National Survey of Health and Nutrition, nearly 70% of households are classified in one of 3 categories of food insecurity. Instead of simply making food more available, combating food insecurity requires addressing the causes and contributors to poverty in Mexico, with the intention to improve more low-income families' access to nutritionally adequate, safe foods.

Given the strong association with food insecurity and low education levels, the Food and Agricultural Organization of the United Nations has promoted school gardens as a way to instill early education about food and nutrition – as well as to provide fruits and vegetables to students and their families. Capacha provides outreach support in collaboration with rural extension programs, most notably the Special Program for Food Security (abbreviated as PESA), which aims to develop family agriculture in marginalized communities, to address nutritional education and provide access to available resources. The Center also collaborates with non-profit associations called *Fundaciones Produce.*

In addition to providing on site demonstration of agrarian best practices, *La Escuela de Agro-Ecología* offers resources and support services for small scale home gardening at local residences. Outreach staff conduct site visits to homes to aid in the establishment of functional gardens in consultation with local *ejidos*. Additional nutritional outreach also seeks to improve community health literacy by offering technical support to acquire federal and state grants for supplemental foods and health care referrals, while providing on site nutrition education for low-income pregnant, women, and to infants and children up to age 5 who are found to be at nutritional risk. Service providers offer the latest nutrition guidelines and present information on available governmental assistance to promote optimal family health and well-being.

Sustainable Design and Workforce Development. Capacha's uniquely made facilities, bungalows, and homes are built by skilled artisans and are engineered to withstand up to hurricane force winds. Our team of architects and designers blend bamboo craftsmanship with modern design and fabrication techniques to deliver custom structures like none other. Our materials are locally sourced and treated using the highest standards to ensure incredible strength, durability, and clean indoor air quality. Structures are naturally pest resistant that are durable and low-maintenance—providing sustainable alternatives to the common methods of concrete and steel used in Mexico.

Training programs for building with sustainable materials support local trades to build structures for durable, inexpensive bamboo facilities and affordable homes in a region with few economic resources. Our training workshops support the local development of new alternative construction businesses and offer a career path to for skilled building with organic materials. Participants gain valuable skills and experience needed to become familiar with sustainable design and construction in 3-day, hands-on, fully immersive training programs. Participants learn through hands-on assemblies

(for a total of 24 hours of training) as an introduction to alternative design build methods. After training, workers are equipped with the basic skills to support a home build project.

These hands-on training courses offer experience with building concepts, tools, and hard work. Workshops encourage diversity, and welcome and encouraged local, national and international participants to apply. Three phases of assembly are introduced: Rough, Dry-In, and Trim & Final Finishing. There is no cost for the training for those who qualify for scholarships. Meals will be provided on each day of training. Participants are encouraged to bring their own hand tools – a list will be provided. Projects support the construction of infrastructure utilized on site for rental properties, residential homes, and conference facilities which offer fiscal benefits to sustain the project and dividends to those invested in the Center's initiatives. Assistance with grant applications to support new or retrofits is also provided to encourage the use of these sustainable building methods.

Strategic Economic Investment in local Communities. To support sustainable local business, the Capacha MicroLoan Program provides small loans to individuals, start-ups, newly established, or growing small businesses and not-for-profit centers. Under this program, Capacha makes funds available through community-based lenders (Microlender Intermediaries) which, in turn, make loans to eligible borrowers in amounts up to a maximum of $5,000. The average loan size is approximately $3,000. Applications are submitted to the local intermediary and all credit decisions are made on the local level by consensus vote made our community alliance stakeholder groups. The maximum term allowed for a microloan is six years. However, loan terms vary according to the size of the loan, the planned use of funds, and the needs of the small business borrower. Interest rates vary, depending upon the project scope and costs associated with the enterprise. Individuals and small businesses interested in the Microloan Program should contact the Capacha Intermediary Microlender committee.

The program also provides technical assistance to the individual or small business to ensure investment approaches are sound and viable given their business plan and market conditions. All credit decisions are made by the committee and the application process may vary depending on the nature of the proposal and the timing of available economic resources.

V. Marketing

Capacha phased marketing and outreach plan provides strategic outreach to achieve the economic, conservation, and community development goals and objectives. For attracting students and building trades professionals, the Center targets regional, national, and international markets through the use a digital and print media tools. Outreach tactical strategies include scheduled social media content, utilizing Tik Tok, Facebook, Instagram, and Twitter as primary tools to increase exposure and participation in all Center initiatives. Short film series will profile various aspects of the project, including interviews with students, scientists, political officials, and community members at large. Documentary video will also capture design methods, construction phases, and monitoring ecological change over time.

Conventional outreach methods include print media such as brochures, posters, and feature articles for newspapers, magazines, and chamber of commerce distribution. These tools will generate interest in potential private and public investment in the Center's capital improvements, conservation easements, land trusts, and the funding and participation of the restoration of wetlands and coastal ecosystems.

Attendance at regional and national conferences will provide additional outreach support. All efforts to raise awareness of, and investment in, the Center will be tracked using data points that reflect efficacy of results. Success with digital outreach will be measured by metrics available on google and social media campaign software. Return on investment will be measured through the ongoing assessment of outreach mediums and the frequency by which marketing initiatives and capital campaigns occur throughout phases of development.

Essential to each development phase is the presentation of the Center's Master Plan and community-based commitment to those who wish to invest in the project. See attachment D. Preliminary Ranch Master plan and Attachment E. Capacha Community Alliances for initial guiding design principles and investor terms and conditions.

VI. Operations

The Capache Center operates year round but on a limited basis during the peak rainy season, August through September. The dry season, September to July, presents favorable climate that allows full activities at the beach and ranch operations. Events, workshops, student courses, are held during periods when visitation to the area is less, allowing for greater access, services, and mobility of groups. Capital improvements and ecological restoration occur during these months, with phase one infrastructure completion anticipated by Q4 of FY 2024.

Phase One will bring the completion of the Capacha Main Station that includes two bungalows, a conference center and restaurant, and one small one room residential structure. This initial phase also includes a gradual escalation of outreach programs as the Center's specialists provide professional consultation for sustainable design in coastal development zones, incorporating presentations to local schools, municipalities, and governmental agencies. Outreach to communities will offer expertise that includes over of 100 years of combined conservation experience and applied agricultural science as well as a depth of knowledge in sustainable building methodologies. Principles and affiliate consultants will provide ongoing support for phased infrastructure planning, sustainable design workshops, community programs, and habitat improvement projects for terrestrial and aquatic ecosystems. Consulting support for permaculture design, organic farming, and commercially scaled crops support a broader strategy to advance concepts and approaches that improve conditions across the regional landscape and surrounding communities. Additional outreach to ranching operations provide critical technology transfer for small local industry stakeholders. MicoLoan programming is offered semi-annually with community consensus and transparency. The Center's restaurant will be open year round to provide consistent service to visitors, renters, and local community members.

Phase Two focuses on capital improvements to the upland ranch and farmland, with site development of an initial spec house and a small one room bungalow. Road improvements, increased farming infrastructure, and solar power installation will also add value and functionality to the site. Additional priorities include increased erosion control measures through revegetation of degraded areas, and the design and construction of nature trail system. The Center's internship program will be launched to hosts= international students to support conservation and agricultural demonstration projects and University school groups will have access to our facilities and support ongoing research and monitoring.

Phase Three includes an expansion the beach conference site to include glamping structures, restrooms, and a community kitchen and lounge area. Three additional bungalows will also be completed on the ranch for investor opportunities in sole ownership or cooperative time-share.

Team Members

Dr. Corey Lewis, Co-founder and Principle Project Advisor, is an accomplished author, life coach, and environmental activist. After retiring from his professorship at Humboldt State University as an environmental writer and scholar, Lewis pursued his lifelong commitment to supporting others in personal growth, continuing education, and community engagement along the northern California coast. Capacha Center represents the fullest expression of his strongest beliefs-- that we become the change we want to see in the world. Corey supports the Capacha operations through coordinating planning and financing strategies, as well offering support for workshop development and outreach strategies. (https://mbmcoach.com/about-mbm/).

Davison Collins, Co-Founder & Principle, has worked along the Costalegre since 2000. He founded the first ecotourism initiative in the region (Immersion Adventures) as well as the non-profit organization, Tierralegre, dedicated to local environmental education and conservation efforts. Tierralegre has hosted numerous international field study courses, including Earthwatch Institute´s Mexican Mangroves and Wildlife Program, as well as constructing an agroecology community center in La Manzanilla, Jalisco. As a skilled entrepreneur, Dave opened a restaurant (El Girasol Bistro) which provided locally-sourced fresh organic ingredients from 2002-2008. In 2010 Dave spearheaded a bespoke bamboo building business (Arca Bambú) and planted the first experimental structural bamboo plantation in the region. His projects include a permanent dihedral greenhouse structure located in the Botanical Garden of Chapultepec Park in Mexico City which was completed in collaboration with internationally-renowned bamboo artisan Jörg Stamm. linkedin.com/in/davison-collins-3605488

Jerry Keir, Conservation Director, Co-Founder and former Chief Executive Officer of the Great Basin Institute, an environmental research, education, and service organization serving the western US. For the past 25 years, Jerry has taught and directed interdisciplinary research and field studies for the Institute throughout the Intermountain West, Central Pacific Mexico,

and Costa Rica. He has extensive experience managing diverse research and monitoring initiatives, as well as leading collaborative conservation projects at a landscape scale. As a skilled fundraiser and project lead, Keir has overseen $240 million in grants and contracts for the Institute. Keir provides strategic planning, fundraising and conservation financing for the project. (www.greatbasininstitute.org).

Antonio Trejo Robles, Marine Biology Professor and Researcher at University of Guadalajara´s Melaque Campus and Director of La Gloria Sea Turtle Conservation Program. Robles has over 30 years of experience as a professor and researcher focused on sea turtle conservation while serving as faculty at the University of Guadalajara´s Department for the Sustainable Development of Coastal Zones. Toño is dedicated to marine conservation nationally and across the globe. He provides technical advisement for our turtle protection program and unites the University faculty and students to the Center's activities. (https://independent.academia.edu/TTrejoRobles)

Jörg Stramm, Senior Environmental Planner, brings traditional German carpentry and wood technology and is on the most preeminent bamboo craftsman in the world Residing in Colombia, Jorg works internationally and is recognized for his design and construction of structurally expansive bamboo bridges and planned eco-communities. His recent projects include Green Village Bali and Playa Viva, as well as serving as principal bamboo building consultant for the Center. (www.jorgstamm.com)

Salvador Hernandez Vasquez, Project Ornithologist, has over 30 years of experience as a professor and researcher focused primarily on the monitoring of marine birds along coastal wetlands. Chava has directed over 25 avian research projects and has published in numerous scientific journals and books, including the premiere birding guide for the Costalegre region, *Sal a Pajarear*. A frequent contributor to the *International Journal of Tropical Biology and Conservation,* Vasquez brings local expertise to support varied approaches to avain habitat conservation and species protection efforts. (linkedin.com/in/martin-salvador-hernandez-vasquez-9340aa15a)

Doug Collins, Agricultural Program Director, is an Extension Professor and Soil Scientist with Washington State University's Center for Sustaining Agriculture and Natural Resources. Doug has a Ph.D. in soil science from Washington State University and an M.S. in Plant Pathology from Montana State University. He focuses on managing and monitoring soil fertility on diverse organic vegetable farms, composting systems, and evaluating soil quality in different vegetable cropping systems. Doug studies ecological variability across landscapes and biological indicators of soil quality. He consults on composting, organic waste management, and soil health in the Dominican Republic and Colombia. (http://csanr.wsu.edu/people/doug-collins/

David Robledo, Director of Communications, is a lecturer in the Writing, Rhetoric, and Professional Communication program in the Comparative Media Studies/ Writing Department at Old Dominion and recently has taught at Massachusetts Institute of Technology (MIT). He is a PhD candidate in Technical Communication and Rhetoric at Texas Tech University, concentrating in visual and written communication of international biodiversity policy. A 2021 U.S. Fulbright fellow for science communication studies in Costa Rica, his research centers on the biodiversity benefits of small-scale fishing cooperatives. https://www.depts.ttu.edu/english/about/people/graduate_students/profiles/robledo_david.php

Jerónimo Domínguez Laso is the Lead Biologist for Military Macaw Rehabilitation/Reintroduction Project. Jerónimo specializes in the sustainable management of wild species through "UMAs" (*Unidad de Manejo Ambiental* / Environmental Management Permit) sanctioned by PROFEPA (the prosecutorial branch of the Secretary of the Environment in Mexico). He has worked extensively with resident and migratory birds, mammals, reptiles, and amphibians, and has spearheaded 25 UMAs. His expertise supports habitat improvement and ecological restoration design and treatment effectiveness monitoring on sensitive species for the Center's conservation initiatives. (linkedin.com/in/martin-salvador-hernandez-vasquez-9340aa15a)

Gabriel de Jesus Cabrera, Director of Chemical Ecology, is a PhD candidate in Organic Chemistry at the University of Nevada, Reno. As an experienced chemistry researcher with extensive experience working in an academic and professional setting, Cabrera is skilled in total synthesis, data analysis, chromatography, process chemistry, materials chemistry, and physical organic chemistry. Cabrera provides technical advisement and support for Capacha's biochemical data capture and analyses, and provides added capacity for the monitoring and assessment of regional natural resource trend and condition. https://www.linkedin.com/in/gabriel-de-jesus-cabrera-016515116)

VII. Impact

The anticipated outcomes of the Center's operations and activities seek to make lasting contributions to the local community, natural resources, and the manner by which coastal development can be transformed by sustainable agricultural and business practices and expanded community services. Key performance benchmarks will be measured using S.M.A.R.T. assessments tools (eg. outcomes quantifiable as Specific, Measurable, Attainable, Relevant, and Timely).

Success will be measured on the basis of metrics established by the Pillars of Resilience, a broader conceptual framework for resource management that explicitly recognizes the interdependence of ecological and social systems: forest resilience, fire dynamics, carbon sequestration, biodiversity conservation, wetland integrity, air quality, water security, fire-adapted communities, economic diversity, and social and cultural well-being. Capacha's Impact Plan includes a variety of key metrics to determine ongoing success of primary initiatives and select areas of performance outputs and are as follows:

Conservation of Natural Resources

- Increased number of sea turtle nesting protection and hatching survival rates;
- Successful re-introduction of Military Macaws with 4 breeding pairs within three years;
- Improved environmental conditions (soil stability, water quality, active production of agricultural sites utilizing permaculture designs).
- The establishment of the Costalgre Land Trust, a collaborative of key stakeholder groups from the governmental sectors, private industries, Universities, and non profit organizations.

Improved Educational Outreach to Local Communities.

- Increased number of educational workshops and supplies distributed to local schools;
- Increased outreach and volunteerism to collect data on metrics for community health, welfare, and education.
- The successful introduction of nutritional education and support services

Sustainable Agriculture.

- Increased productivity of small scale farming and ranching with reduced environmental impacts, including 1) decreased use of chemical treatments for pesticide and soil amendments and 2) decreased use of water through permaculture practices.

Local Workforce Capacity and Skill Development in Building Trades and Eco-tourism

- Increased workshops and courses at no or reduced cost to eighty (80) local trade workers, students, and community members.
- Increased number of a trained workforce with journeyman skills in the construction of bamboo and alternative materials for sustainable building practices
- Increased the number of trained eco-tourist guides for expanded programmatic services

Sustainable Center Operations.

- Positive income generation for investors with ROI estimated at 5% annually;
- Occupancy rate of 70% of bamboo rental structures
- Positive cash flow from restaurant sales at 10 percent growth annually
- Positive cash flow from student classes, workshops, and consulting services

VIII. Finances

The Center's business plan is based upon the strategic leveraging of private venture capital, social capital, and philanthropic giving. Initial and anticipated funding sources include fee for service ecotourism programing, international conservation grants, and earned income through the facility rentals and utilization of the Center's infrastructure.

Initial investment occurred when the project's founding principles led University courses, provided eco-tourism services, and drew upon academic research grants and contracts provided by Earthwatch Institute, the University of Nevada, Reno, University of South Florida, Universidad de Guadalajara, and California State University, Channel Islands. Additional capital investment has been made possible by individual philanthropy and investments and the generous support of the Lewis Family Trust, International Community Foundation, and in-kind contributions from Great Basin Institute and the Universidad de Guadalajara. See Attachment B: Grant Programs for additional anticipated support for by philanthropic and/or grant programs.

Additional fiscal data included as attachments provide the following data:

- Statement of functional expenses
- Fiscal projections and trend data of market conditions
- Balance sheet, Profit and Loss statements, Cash flow

ATTACHMENT A. Costalgre Sea Turtle and Parrot Conservation Initiative

International Community Foundation

Executive Summary

This program is a two-fold conservation initiative: 1) establish a sea turtle conservation project at Playa Grande, Arroyo Seco, and 2) a reintroduction and rehabilitation for the Military Macaw and Yellow-Headed Parrot at the Center's upland property near Arroyo Seco.

The southern coast of Jalisco ("Costalegre") hosts four of the seven known marine turtles in the world: The Olive Ridley (*Lepidochelys olivacea*), Eastern Pacific Green (*Chelonia mydas*), Hawksbill (*Eretmochelys imbricata*) and Leatherback (*Dermochelys coriacea*). All are endangered species; the Leatherback is "vulnerable" and the Hawksbill is "critically endangered". The sea turtle conservation project addresses this problem and situates itself as a viably proven solution to the problem by mitigating the poaching problem.

The Costalegre is also home to the endangered avifauna the Military Macaw (*Ara militaris*) and the Yellow-headed Parrot (*Amazona oratrix*). The Military Macaw is "vulnerable" and is locally extinct along the Costalegre. The Yellow-headed parrot is extremely rare! The endangered status of both these species is primarily due to poaching and habitat loss. They are both theoretically considered resident species.

The targeted community of this project is Arroyo Seco, Jalisco, a coastal village of 400 inhabitants located about three hours south of Puerto Vallarta, Jalisco, and two hours north of Manzanillo, Colima. The community members´ primary livelihood stems from fishing, farming and construction, but the community is poised to transform into a coveted tourism destination quite soon. It is only 30 minutes south of the luxury resort of Careyes (www.careyes.com) and borders El Tecuán (www.eltecuan.mx),another luxury resort which is currently under development. Arroyo Seco is also situated only 20 minutes south of the southern border of the Chamela-Cuixmala Biosphere Reserve, which protects 13,000 hectares of Tropical Dry Forest, the most threatened tropical ecosystem in the world.

Community Need

The primary problem that our program seeks to address is to mitigate the deleterious effects of prolonged poaching of the aforementioned endangered species. The secondary problem that our program seeks to address is to educate the local community about the importance of preserving these species not only for their intrinsic value and for their contribution to the overall biodiversity of the region, but also to address specific ecotourism strategies which can be applied for the long-term benefit of the community through the conservation of these species. These are all endangered "banner species" that tourists are increasingly interested in viewing, and who will pay good money to do so. A primary objective is the local community involvement and invested in our program for their socio-economic benefit and that of future generations, and we want to augment their resiliency to drastic changes on the horizon of the Costalegre in general, and Arroyo Seco specifically.

These challenges were primarily identified through my personal observations which are based on an intimate understanding of the Costalegre bioregion and its communities. This understanding stems from over two decades of work in the region running an ecotourism company, a conservation and environmental education nonprofit organization (Tierralegre, A.C.), and a bioconstruction business (mainly dedicated to building with bamboo). These challenges are substantiated by scientific literature and by my close relationships with conservation biologists, ecologists, professors, researchers, conservationists, philanthropists, activists, artists, developers, real estate agents, expats, ejido members, government officials and a variety of local community members from various communities along the Costalegre.

Phase I of this program for which we are requesting funding will address these challenges through the following measures:

1. Construct a protective sea turtle egg containment pen on the beach of Playa Grande, in front of Capacha Coastal Conservation Center SA de CV´s beachfront property, following all SEMARNAT and PROFEPA protocols.
2. Construct protective nesting structures for the Military Macaw and Yellow-headed Parrot, and a feeding station for them as well. Initial species will be "rescue species" provided by PROFEPA and SEMARNAT, etc. We will follow their protocols for such procedures, which will include breeding endangered species, as well as those of CONANP, etc. These structures will be located on a pristine eight-hectare parcel of tropical dry forest and freshwater wetlands (which borders agricultural land and mangrove) owned by Capacha Coastal Conservation Center SA de CV.
3. An already identified a local family who caretakes a house on Playa Grande and are rescuing sea turtles by collecting their eggs and protecting them from poachers as well as releasing them into the ocean when they hatch at opportune times to maximize their survival. We will get them officially established following all applicable protocols for successful sea turtle conservation. We will attempt to do the same thing for the parrot conservation project.

Program Objective(s)

By the end of 2021, the following priorities will be addressed:

1. By March of 2023, have in order an *Unidad de Manejo Ambiental* (UMA) and all other necessary government permits for our sea turtle conservation program, as well as documentation of all collected scientific data related to the project.
2. By March of 2023, have in order an *Unidad de Manejo Ambiental* (UMA) and all other necessary government permits for our parrot conservation program, as well as documentation of all collected scientific data related to the project.
3. By March of 2023, capacitate at least one local family to carry out sea turtle conservation and document their efforts which will be shared with the University of Guadalajara´s premiere sea turtle conservation program to add to their database on sea turtle populations in the Eastern Pacific region of Mexico. We will ideally capacitate a local community member to take charge of the parrot conservation program as well (if not, we will find an intern to take on the job).

Intended Outcomes

Refers to the intended changes resulting from the objective(s). These changes should be measurable actions or conditions that demonstrate progress towards the goal of the objective(s).

1. Save thousands of sea turtles which otherwise would have been sold on the black market in Mexico for their supposed health and aphrodisiacal benefits.
2. Have at least one successfully mating pair of Military Macaws hosted in their newly-constructed preserve.
3. At least one local family will have gained the skills necessary to manage a successful sea turtle conservation sanctuary, and ideally at least one local community member, or an intern, will do the same for the parrot conservation program.

Innovation/Impact

1. Successful hatching rates of sea turtles in the Eastern Pacific region of Mexico will increase and their populations will be more bountiful.
2. Military Macaws and Yellow-Headed Parrots will once again participate in the ecosystem of, and be observable along, the Costalegre due to a proven model for their successful reintroduction and rehabilitation.
3. Playa Grande and Playa Chica, Arroyo Seco, will become known as an ecotourism destination, not just for their stellar surf and scenery, but also for the sea turtle and parrot conservation work carried out there.

Sustainability/Success of Program

Tierralegre will successfully sustain this project over a long-term period through garnering stake holders in the local community, establishing a contribution fee program for site visits/tours to established conservation areas, online fundraising, and collaboration with government and non-governmental organizations.

Key Organizational Staff

Davison Collins, Director of Tierralegre, A.C.: Founded Tierralegre in 2008 and continues to direct its conservation and environmental education efforts along the Costalegre. Co-founder and Project Manager of Capacha Coastal Conservation Center SA de CV, a new initiative implementing the creation of an eco-village in Arroyo Seco dedicated to sustainable design and capacity building, ecological literacy, permaculture, and community collaboration and empowerment. Dave has guided numerous birding tours along the Costalegre for the past two decades as well as helping to conduct and direct conservation avian research for numerous university field study courses and for the Earthwatch Institute´s Mexican Mangroves and Wildlife Program.

Jerry Keir, Co-Founder and Executive Director of the Great Basin Institute (https://www.thegreatbasininstitute.org/): For the past twenty four years, Keir has taught and directed interdisciplinary research and field studies throughout the Intermountain West, Central Pacific Mexico, and Costa Rica. Keir has extensive experience managing diverse research and monitoring initiatives, as well as leading collaborative conservation projects at a landscape scale. As a

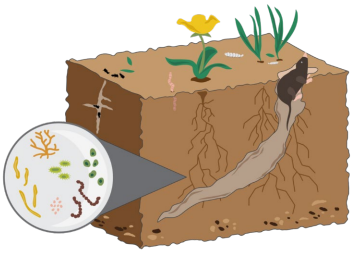
skilled fundraiser and project lead, Keir has overseen $165 million in grants and contracts for the Institute.

Antonio Trejo Robles, Marine Biology Professor and Researcher at University of Guadalajara´s Melaque Campus & Director of La Gloria Sea Turtle Conservation Program: Over 30 years of experience as a professor and researcher focused on sea turtles at the University of Guadalajara´s Department for the Sustainable Development of Coastal Zones.

APPENDIX B. Permaculture Methods, Best Practices and Outcomes

SOIL HEALTH

What is healthy soil? Healthy soil is that which allows plants to grow to their maximum productivity without disease or pests and without a need for off-farm supplements. Healthy soil is teeming with bacteria, fungi, algae, protozoa, nematodes, and other tiny creatures. Those organisms play an important role in plant health. Soil bacteria produce natural antibiotics that help plants resist disease. Fungi assist plants in absorbing water and nutrients. Together, these bacteria and fungi are known as "organic matter." The more organic matter in a sample of soil, the healthier the soil becomes.



Quantifying healthy soil. To determine if soil is healthy, farmers and scientists measure several factors. How many microorganisms are present? How many nutrients—nitrogen, for example—are in the soil? How well does the soil retain water during drought? How much carbon can the soil sequester from the atmosphere? At Capacha, our scientists collect soil samples in the field. Back in the lab, they dry and weigh the samples before analysis. Our research has shown that while conventional systems erode and deplete soils, organic systems improve and build the soil over time.

WHY DOES IT MATTER? Healthy soil contains aggregates that help it bind together, preventing erosion and run-off. It can hold more water, so plants fare better in drought. It contains more bacteria and fungi that help plants fight diseases and pests. And healthy soil also contains more minerals and nutrients that feed plants. Healthy soil is the foundation of our global food system, but currently, it's at risk. The United Nations reports that using current practices, we have fewer than 60 years of farmable topsoil remaining. Every organic farming practice contributes to healthy, resilient soil that can support abundant life both below and above ground, making organic farming a powerful tool for soil conservation.

COVER CROPS

What are cover crops? Cover crops are different from cash crops, which are those that a farmer sells for profit, such as corn or soybeans. Cover crops' primary job is to improve the soil. They get planted in fields that would otherwise be bare—in between growing seasons, for example—to protect the soil from erosion and nutrient loss. Cover crops also help smother weeds, control pests and diseases, enhance water availability, and increase biodiversity on the farm. Think of cover crops as a living mulch.

How it works. Every time a farmer grows her cash crop, the plants draw nutrients out of the soil. After the harvest, those nutrients need to be returned so that the next crop is equally bountiful. Certain cover crops have the unique ability to "fix" nutrients like nitrogen from the atmosphere and return them to the soil, making them an indispensable tool in maintaining and increasing soil fertility without chemical use.

Uses at the Capacha farm. Cover crops are an integral part of organic no-till. They help return nutrients to the soil and, when rolled by the roller crimper, create a weed-suppressing mulch. Many

cover crops do double duty—they can be planted either for profit or fertility and weed control depending on the farmer's intent. Examples include Austrian winter peas, alfalfa, rye, mustard, oats, and buckwheat, among others. Cover crops also keep something green and growing year round, helping farmers sequester more carbon to fight greenhouse gas emissions.

WHY DO THEY MATTER? Conventional farmers rely on synthetic fertilizers and chemical herbicides to return nutrients to their soils and fight weeds. Those methods have a host of unintended consequences, including water pollution, soil erosion, and loss of essential biodiversity, among others. Since synthetic inputs aren't allowed in organic agriculture, organic farmers rely on other methods, including cover cropping, to achieve the same results.

CROP ROTATIONS

What is crop rotation? Crop rotation is the practice of planting different crops sequentially on the same plot of land to improve soil health, optimize nutrients in the soil, and combat pest and weed pressure. For example, say a farmer has planted a field of corn. When the corn harvest is finished, he might plant beans, since corn consumes a lot of nitrogen and beans return nitrogen to the soil. A simple rotation might involve two or three crops, and complex rotations might incorporate a dozen or more.

WHY DOES IT MATTER?

Different plants have different nutritional needs and are susceptible to different pathogens and pests. If a farmer plants the exact same crop in the same place every year, as is common in conventional farming, she continually draws the same nutrients out of the soil. Pests and diseases happily make themselves a permanent home as their preferred food source is guaranteed. With monocultures like these, increasing levels of chemical fertilizers and pesticides become necessary to keep yields high while keeping bugs and disease at bay.

Crop rotation helps return nutrients to the soil without synthetic inputs. The practice also works to interrupt pest and disease cycles, improve soil health by increasing biomass from different crops' root structures, and increase biodiversity on the farm. Life in the soil thrives on variety, and beneficial insects and pollinators are attracted to the variety above ground, too.

COMPOST

What is compost? Compost is created from the aerobic decomposition of many materials usually considered waste, including food scraps, animal manures, leaves, straw, and more.

Composting occurs when carbon-rich materials ("browns"), like straw and leaves, are mixed with nitrogen-rich materials ("greens"), like food scraps and manure. Add oxygen, time, some skilled management, and the help of billions of microorganisms. The finished result is crumbly, sweet-smelling, and nutrient-packed compost.

WHY DOES IT MATTER? Conventional farmers rely on synthetic fertilizers made from fossil fuel-intensive petroleum that can pollute local water supplies and harm wildlife. Organic farmers rely on inputs like compost instead. Not only does compost drastically reduce an organic farmer's need for chemical inputs, but the process of creating compost recycles farm materials, too.When incorporated into the soil, compost provides a diversity of microorganisms and nutrients that encourage healthy plant growth and development.

ORGANIC NO-TILL

What is tillage? Tillage is the practice of digging up, turning over, or otherwise agitating the soil with mechanical tools—typically a plow or disc. Tilling breaks up soil compaction, helps eliminate weeds, and incorporates cover crops for boosted soil fertility. These are important benefits, but tillage also leaves soil vulnerable to erosion and destroys important fungal networks underground. Tillage is also fuel- and labor-intensive. Some farmers, both conventional and organic, practice reduced tillage or try to eliminate it altogether.

Conventional vs. organic no-till. In conventional systems, farmers can practice no-till by using chemical herbicides to kill cover crops before the next planting. Organic no-till, on the other hand, uses no synthetic inputs. Instead, small-scale organic no-till farmers use hand tools, like hoes and rakes. Large-scale organic no-till farmers can utilize a special tractor implement called the roller crimper used here at Capacha.

HOW DOES IT WORK? The roller crimper is a water-filled drum with chevron-patterned blades that attaches to the front of a tractor. As the farmer drives over the cover crop, the roller crimper mows the plants down, cutting the stems every seven inches. The cover crop, now terminated, remains on the ground where it forms a thick mulch that suffocates weeds. Implements on the rear of the tractor then part the cover crop mat, drop in seeds—soybeans, for example—and cover them up to ensure soil contact. It happens in a single pass, saving vital time and energy for farmers. The cash crop then grows straight up through the cover crop mulch.

WHY DOES IT MATTER? Conventional farmers rely on synthetic fertilizers made from fossil fuel-intensive petroleum that can pollute local water supplies and harm wildlife. Organic farmers rely on inputs like compost instead. Not only does compost drastically reduce an organic farmer's need for chemical inputs, but the process of creating compost recycles farm materials, too. When incorporated into the soil, compost provides a diversity of microorganisms and nutrients that encourage healthy plant growth and development.

PEST MANAGEMENT

What is organic pest management? Bugs and insects are a given on any farm. Some bugs are beneficial—they prey on the bad bugs and provide valuable pollination. But other insects pose a threat. Pests can damage the appearance of fruits and vegetables, making those products difficult or impossible to sell. Even worse, some pest damage can kill a crop outright. Conventional farmers spray toxic pesticides to eliminate pests. Organic farmers use alternative strategies to reduce and control pests without the use of synthetic inputs.

The strategies. The first line of defense is prevention. Healthy soil creates strong plants that are resilient to pest pressure. Farmers can encourage populations of natural predators and beneficial insects, like ladybugs. Other strategies include rotating crops and selecting pest-resistant varieties of crops. When pests become a more serious problem, organic farmers might use pheromones to disturb pest mating cycles, or mechanical controls like trapping. When all other methods have been exhausted and a farmer is faced with a potential significant loss, targeted sprays of organic-approved pesticides may be used. Broad sprays of non-specific pesticides are always a last resort.

WHY DOES IT MATTER?

Chemical pesticides pollute our air and water. They kill good bugs and insects, too, destroying biodiversity in a way that has a ripple effect on ecosystems throughout the farm. Organic pest management is a holistic approach. Organic farmers implement many strategies, including those detailed above, to reduce the use and consequences of chemical pesticides and promote a farm system that works in harmony with nature. The result is reduced cost, stronger plants, healthier wildlife, and a cleaner environment for everyone.

LIVESTOCK MANAGEMENT

What is organic livestock management? Organic livestock are managed differently than conventional livestock. With an emphasis on pasture and restrictions on the use of antibiotics and hormones, organic livestock benefit people and the environment. Animals raised organically have a better quality of life than their conventional counterparts, too.
Basic Requirements require to earn Organic certification, and livestock farmers must follow specific guidelines including: Animals must be managed in a way that conserves natural resources and biodiversity. No antibiotics or artificial growth hormones are allowed. All feed must be 100% certified organic and animals must be raised on certified organic land.
Animals must have year-round access to the outdoors.

ROTATIONAL GRAZING

What is rotational grazing? Rotational grazing is the practice of containing and moving animals through pasture to improve soil, plant, and animal health. Only one portion of pasture is grazed at a time while the remainder of the pasture "rests." To accomplish this, pastures are subdivided into smaller areas, referred to as paddocks, and livestock are moved from one paddock to another. Resting grazed paddocks allows forage plants to recover and deepen their root systems.

Basic Requirements. To earn Organic certification, livestock farmers must follow specific guidelines including: Animals must be managed in a way that conserves natural resources and biodiversity. No antibiotics or artificial growth hormones are allowed. All feed must be 100% certified organic and animals must be raised on certified organic land. Animals must have year-round access to the outdoors.

WHY DOES IT MATTER? Left alone on a patch of land, animals like cattle and hogs can quickly destroy all signs of life, compacting the soil as they go. However, if the animals are managed with rotational grazing, the soil sees big returns. Grazing encourages plants to send out more and deeper roots. Those roots are continually sloughed off to decompose in the ground, boosting soil biomass and fertility and sequestering carbon from the atmosphere. Rotational grazing also helps prevent erosion and agriculture runoff.

Attachment C. Targeted Grant Programs for Conservation Program

Mexico Conservation Funders

The Mexico Conservation Funders (MCF), formerly the Gulf of California and Mexico Funders, fosters a funding community committed to the conservation and resilience of ecosystems in Mexico, with a focus on coastal-marine biodiversity and natural systems, recognizing the critical linkages between land and sea, and the potential synergies among national and local level initiatives. After 10 years of working together, in 2019 its members revisited the program's mission, objectives, and activities in light of emerging challenges in Mexico. The evolution of the program's name reflects a change in the geographic focus of the group, as some members have broadened their funding strategies beyond the Gulf Objectives. Ensure coordination and collaboration among foundations with programs supporting coastal-marine conservation work in Mexico, by providing opportunities for information sharing, dialogue, and developing complementary grantmaking strategies; Facilitate conversations and, when appropriate, partnerships with funders working on coastal-marine conservation and areas of influence; as well as, government authorities and civil society organizations to optimize funding in Mexico; Increase the level of funding available for protecting Mexico's coastal-marine biodiversity and ecosystems..

Wildlife Without Borders-Mexico

To build human and institutional capacity for biodiversity conservation and management in Mexico through training. Of interest are projects that provide direct and significant training to Mexican personnel in terms of number of individuals trained, strategic or innovative nature of the training, and impact of the training on the conservation of biodiversity. Federal Agency/Office. U.S. Fish and Wildlife Service, Department of The Interior. Authorization. Endangered Species Act—International Cooperation, 16 U.S.C. §1537Applicant Eligibility. Participation is limited to Federal, State and local governments, non-profit, non-governmental organizations; public and private institutions of higher education; and any other organization or individual with demonstrated experience deemed necessary to carry out the proposed project. Beneficiary Eligibility. Federal, State and local government; public nonprofit institution/organizations; public and private institutions of higher education; and any other organization or individual with demonstrated experience deemed necessary to carry out the proposed project.

FMCN - Mexican Fund for the Conservation of Nature

Created in 1994, FMCN is a non-profit organization that works with other actors and sectors to provide strategic technical and financial support for the conservation of Mexico's natural heritage. In its 25 years, FMCN has given 2,163 donations benefiting 62,515 people. A total of 136 donors have entrusted their resources to FMCN, which has financially supported more than 300 partner organizations working to develop the capacity of more than 40,896 people to conserve and sustainably manage natural resources. Together with the federal government, FMCN channels funds to 53 natural protected areas, representing 5.6% of Mexico's land surface and 5.5% of its seas. FMCN partners support the conservation of 229 species at risk and work with communities to develop community-based enterprises dedicated to sustainability in the livestock, agriculture, fishing and forestry management sectors.

OECD

To support government efforts to transition to a more sustainable ocean economy, the OECD is mobilising expertise across multiple policy fronts, covering environmental, economic, financial and social dimensions.

Working with both developed and developing countries, the OECD aims to ensure that all societies can harness the benefits of the ocean on a sustainable and inclusive basis.

Several marine protected areas (MPAs) have established trust funds to help ensure a more long-term sustainable, source of finance. Three types of trust funds exist: endowment funds, which maintain a capital base while paying only interest; sinking funds, which use both capital and interest and are thus eventually extinguished; and revolving funds, which are designed to be continuously replenished. https://youtu.be/MsNA221MO4Y

In Mexico, a remnant worth USD 16.5 million from a USD 25 million GEF grant was used to capitalise a Protected Areas Endowment Fund in 1997. This grew to USD 42 million in 2003 following several donations. Interest from the fund, along with federal allocations, entrance fees and an EU grant, was channelled annually to various protected areas, including four marine parks.

International Conservation Fund

Supporting Grants in Mexico Through ICF. Grantmaking is a formal process used to distribute funds or other resources to nonprofits and community organizations. ICF facilitates international grantmaking by connecting our donors to organizations in Mexico that are having a significant impact in their communities, inspiring change, and weaving a stronger civil society. With 30 years of experience developing and funding international grants, ICF is up-to-date on all IRS and Department of State regulations. We have the knowledge and expertise to identify excellent grantees in the fields of health, education, migration, environment, social development (including family and children's issues), community & economic development and culture. DONOR ADVISED FUNDS: Designed to manage charitable donations on behalf of an individual, family, or company, a donor advised fund provides a low-cost, flexible alternative to direct giving or creating a private foundation. AGENCY/"FRIENDS OF" FUNDS: Held and managed by ICF on behalf of an international nonprofit organization, these funds can be established as a non-endowment or an endowment fund to promote an organization's long-term sustainability.

MacArthur Foundation

From 1984-2020, MacArthur awarded more than 1,200 grants totaling over $230 million to organizations and individuals in Mexico. The Foundation opened our first office in Cuernavaca in 1992 and moved to Mexico City in 1996. Grantmaking focused on advancing reproductive and sexual health and rights, strengthening human rights, and addressing regional migration issues. We built longstanding relationships with thousands of individuals whose commitment to social justice is helping to build a vibrant society that values freedom of expression, human rights, democracy, diversity, and equity. Throughout the Global South, the extraction of natural resources—metals, minerals, forests, and fossil fuels—is growing rapidly, causing severe environmental damage and social harm, particularly to indigenous and rural communities. Added to that, weak governance and corruption mean that revenues from extraction disproportionately benefit big corporations and all too commonly bypass the communities of origin entirely.

Ford Foundation

Indigenous peoples and local communities with secure rights to their land are the best defenders of the natural environment. Currently, communities with these rights prevent at least 300 billion metric tons of carbon from being released into the atmosphere by stopping deforestation of their lands. Yet, while indigenous peoples and local communities claim customary rights over at least half the world's lands and forests, they have legally recognized rights to own or use just 18 percent.Our goal is to foster agency among

rural communities in South Africa, Zimbabwe, Nigeria, Ghana, Senegal, Colombia, Peru, Brazil, Mexico, Guatemala, Honduras, and Indonesia—helping them to secure land rights and have their say in the planning of projects. They should enjoy their fair share of revenues when projects do occur and receive compensation when there are injurious outcomes. Additionally, we work with companies and governments to reduce illicit finance, corruption, tax evasion, and environmental crimes associated with the natural resource sector, and to redirect associated savings toward programs that help reduce inequality.

U.S.-Mexico Border Water Infrastructure Grant Program

EPA funds and administers the U.S.-Mexico Border Water Infrastructure Program (BWIP) for the region 100 kilometers (62 miles) north to 100 kilometers south of the U.S. -Mexico border. Infrastructure project development, design and construction within the region is implemented via cooperative agreements (grants) to the North American Development Bank (NADB) and Mexico's CONAGUA jointly invests in those projects in the south.

Several waterbodies in the border region—including the Tijuana, New and San Pedro rivers—either originate in or run through Mexico and flow northward into the United States. Another river, the Rio Grande, forms part of the border between the United States and Mexico. Lawmakers understood that investment was needed to protect the country's shared rivers by addressing inadequate wastewater infrastructure and that human health in the region was suffering from the lack of access to proper water and wastewater service. Transboundary water migration and lack of clean drinking water affect both the environment and the health of people on each side of the border. As a result, the BWIP was created in the 1990s as a bi-national effort to provide border communities with safe drinking water and sanitation.

GEF Small Grants Program

Established in 1992, the year of the Rio Earth Summit, the GEF Small Grants Programme embodies the very essence of sustainable development by "thinking globally acting locally". By providing financial and technical support to projects that conserve and restore the environment while enhancing people's well-being and livelihoods, SGP demonstrates that community action can maintain the fine balance between human needs and environmental imperatives. SGP recognizes that environmental degradation such as the destruction of ecosystems and the species that depend upon them, increasing levels of carbon dioxide and other greenhouse gases in our atmosphere, pollution of international waters, land degradation and the spread of persistent organic pollutants are life-threatening challenges that endanger us all. However, poor and vulnerable communities –SGP's primary stakeholders- are most at risk because they depend on access to natural resources for their livelihoods and often live in fragile ecosystems. The programme provides grants of up to $50,000 directly to local communities including indigenous people, community-based organizations and other non-governmental groups for projects in Biodiversity, Climate Change Mitigation and Adaptation, Land Degradation and Sustainable Forest Management, International Waters and Chemicals.

ATTACHMENT D. PRELIMINARY RANCH MASTER PLAN

ATTACHMENT E. CAPACHA COMMUNITY ALLIANCES

CAPACHA COMMUNITY ALLIANCES (COVENANTS)

RULES & REGULATIONS, COMMUNITY MANAGEMENT

This document has been created to support, encourage, and inspire systems and standards for the community of Capacha to sustain a lighter footprint on the land. Guidelines presented herein are also intended to reduce misunderstandings and potential conflicts while planning and operating eco-community demonstration project. guidelines are meant to be simple, effective and inspiring. Rules & Regulations are the membership requirements, Community Management guides our interactions, and the Green Point System inspires and supports our collective efforts towards sustainability.

MISSION:

Serenity in Arroyo Seco! Advancing stewardship of natural and cultural resources while exploring ways to live simply, productively, and sustainably while in harmony with our community and environment.

VISION:

A community of neighbors where there is a shared interest and commitment to using less resources, producing less waste, producing our own renewable energy, and enjoying a more tranquil and sustainable life that enhances health and well being. We share land/open space that holds possibilities for growing food, gathering with friends, walking, hiking, and enjoying life together. Our homes are to be modest sized, ideally built with natural materials such as compressed earth blocks, cobb, adobe, bamboo, etc, that have fewer environmental impacts. Homes shall incorporate at least a few sustainable technologies such as photovoltaics, wind power, solar hot water heating, grey water recycling, rainwater harvesting, composting toilets, etc. While approaching the design, development and operations of our small community in an ecologically sound manner, we become the change we want to see in the world.

Part 1: Capacha Rules & Regulations:

1. Maximum 130 m2 footprint and 165m2 under roof per lot. Site plan must be reviewed bycommunity appointed/approved person before breaking ground for house building.

2. Incorporate as many sustainable technologies as possible into your building project. Achieve a minimum number of green points as follows. (See Green Point System in Part 3) Renewable Energycategory: 9, Water Efficiency and Erosion: 9, Materials: 5, Recycling and Trash: 1, Traffic and Transportation: 2

3. Prevent erosion and offsite drainage using systems to infiltrate water into soil or into storagecontainer.

4. Exterior lighting downward facing, or use solar ground lights, LED string lights, soft sconces, etc. sothat the nighttime sky ambiance is preserved for all.

5. If a pet becomes a consistent nuisance to others (barking incessantly, biting, etc.), the owner will beobliged to try remedies suggested by the community. If such remedies are unsuccessful, the community council may decide that the pet must be removed.

6. Construction timeline: Exterior of current living area to be esthetically complete with somelandscaping planted within 18 months.

7. If not using waterless composting toilets, must use low flow toilet and septic tank with 3 stagesystem.

8. No burning trash other than dry yard waste, or paper trash in a campfire. Keep trash containers secure from animals and screened from neighbors view. Haul your own trash and recyclables to theproper disposal area, until such time that the community sets up central trash and recycling area.

9. Keep view corridors clear of vegetation and construction to specified height for that lot. If ownerfails to keep view corridor clear of annual vegetation growth, community may clean that area at owners' expense.

10. Build within established building envelops/setbacks and according to height restrictions for each lot.Palapa roof top points (pitch greater than 45 degrees) may exceed the specified height restrictions atthe pitch by 2 meters . Maximum 3 floors in one structure. One "Floor" or "Nivel" equals 3 meters.Setbacks along 5 meter wide middle road may be reduced by 2 meters for lots 4,5,6,7.

11. Privacy fences shall not impede view corridors and will be limited to 8 foot heights on sides of property and 6 feet on front and rear of property. Use of living plant screens preferred or naturalmaterials such as earthbag, compressed earth block, bamboo or stone. Plant screens may be tallerthan fence height limits if they don't impede views of neighbors.

12. No commercial pesticides on common land. We are a pesticide free community. Weencourage the use of natural alternatives.

13. RV's are not meant to be permanent living structures at Capacha. Maximum time allowed is 3 years. If an RV is on the property longer than 6 months, it should be aesthetically screened withplants or other fencing.

14. Use community parking area to reduce automobile traffic within neighborhood as much as possible. Bikes, electric cars, carts encouraged.

15. Propane tanks, on-site tinacos and other utilities should be screened whenever possible

16. All property / homeowners to install a water meter so usage can be monitored and leaks identified.

OBLIGATION OF OWNERS:

1. Pay annual dues.
2. Participate in semi annual meetings.
3. Make sure contact info is current with manager.
4. Community Work and Volunteer Contribution: Volunteer for jobs necessary to make the community work! Expectation is for each owner to contribute a minimum of 40 hours per year.If unable to contribute this amount, members pay additional 2200 pesos per year into annual maintenance fund at the end of the calendar year.
5. Achieve minimum # of Green points.
6. When/if selling property, give 30 days notice prior to putting it up for sale so there is time forothers in the community to have a chance to find great buyers.

VIOLATIONS: Penalties for violation of these covenants will be determined by community decision. Agreement to 3rd party mediation if all other efforts fail.

II. CAPACHA COMMUNITY MANAGEMENT

GUIDELINES FOR USE OF COMMON LAND

*Farmland/Garden/Patch: Those with passion/interest in this will meet to coordinate these activities. Costs and benefits of such activities borne entirely by those involved. Community may vote to lease the land to others in Arroyo Seco or hire a gardener.

*Native Plant Restoration and Permaculture Infrastructure: Subcommittee may choose to enhance native plantsin the forest/jungle area of the land and/or implement aspects of overall Permaculture design. Plant purchases to be a community expense but not to exceed a specific amount each year agreed upon by the Community Council.

*Farm Animals: Subcommittee to share responsibilities if there is interest in livestock (chickens, goats, sheep).Those interested parties are responsible for all activities related to the animals and need to find or hire help to tend animals when they are absent. Chickens may be kept in those areas or on individual lots provided there areno roosters. Chickens to be in enclosed coups if they become a nuisance to any member when free range.

*Community palapa, community kitchen, caretaker casita, etc. are possible future structures that may be constructed using Future Projects Fund money as there is interest and funds. Ideally we could build themtogether as a community perhaps with the compressed earth block maker.

* Community palapa/kitchen and community shower/toilet area designated location is in front farmland area. Location to be decided by the community. Garden shed and caretaker sleeping area could be incorporated into the design or a separate caretaker casita could be built at the entry so that we could have a year round live on the land caretaker Community tent spots (platforms or just flat earth) if created , would be available for guests on a limited basisand for people doing work trade on community land. Details of such pay or work to camp options to be decided by CD.

*Home/land based businesses, creative enterprises encouraged provided they don't bring a lot of traffic (morethan 4 or 5 cars per day) or noise. Part of sustainability is the ability to sustain ourselves economically.

*Roads, water system, fences, trails, and whatever else the community decides to build are the commonproperty of the Community and will be maintained by the Community Funds.

* The community land is reserved for contemplation, retreat, yoga, meditation, prayer, creative inspiration, expression, and transformation. All traditions honored. Please respect others silence while enjoying this sacred space.

*Possible Future structures: Future Projects Fund money (see Finances below) can be used for any of the above(but is not limited to) as decided by community decision. Advocates of a project can solicit supporters to contribute additional funds for projects such as these. These projects will be constructed only if there is community support and interest.

1. Community kitchen, shower & composting toilet
2. Garden Shed/Community tool storage
3. Caretaker casita
4. Improving trails
5. Community View/meditation structure (Palapa, deck, patio, etc.)
6. Trash & Recycling Center
7. Covered Parking area
8. Community Solar Station
9. Tent platforms
10. Pool
11. Barn

FINANCES

1. Designated Fund in a bank to be set up in Escrow for Community Finances. Categories to include: General Maintenance Fund (GMF), Future Projects Fund (FPF), and Special Circumstances Fund (SCF). The latter will be dollars to pay for unforeseen legal or maintenanceneeds to come.

2. Annual Maintenance Fee to cover but not limited to the following costs: accounting and management fees; maintenance of common land, roads, trails, vegetation, fence, well and water system; maintenance of any community owned structures that may be built in the future, taxes oncommunity land, any legal fees, permits, etc. required for the common land.

3. Cleaning of trails, community open space and repairing of roads to be done each year after the heavy rains. A second trimming/cleaning may be needed in late winter/early spring as well depending on rainfall that year.

4. Annual Maintenance Fee to be paid Jan 1st each year based on the actual costs of the previousyear plus 15%. New owners pay prorated rate for the months before the new year. Additional fees may be charged if the actual expenses are greater than the funds in Maintenance section of Community Account. Leftover money (if any) will be transferred to Special Circumstances Fund. Community may decide to transfer a portion of SCF to FPF or refund to owners after 5 years. Penalty for late payment of dues is 4% of Maintenance fee every month beginning 1 month after due date.

5. Future Projects Fund: This is seed money to allow the community to embark on capital improvements for the community as a whole. Original lot sellers to deposit $2000US dollars per lot sold into the Future Projects fund related to the sale of lot numbers X. Additional lots sold shall accrue a 4% future projects credit to be paid by original lot seller. Individual gift contributions to the Future Projects Fund encouraged. Additional money for future projects may come from other creative ideas by CD.Possible uses of these funds include but not limited to: earthworks and landscaping, plant purchases, community palapa/kitchen, caretaker casita, garden/tool shed, community toilet and shower, improved trails, etc. If the Community decides not to use the money to complete future projects, then the money would be put in the General Maintenance Fund or the Special Circumstances fund by CD.

6. Annual maintenance fee and any other extra costs for the Community are divided equally by the number of owners at the time. If any one person or couple owns up to 2 lots, they still pay as one owner. If an owner(s) has 3 or more lots they pay 2 shares of community expenses. For example, if there are 5 owners by December 31st of a given year, general maintenance costs will bedivided by 5 for the next year starting January 1st. If one of the 5 owners has 3 or more lots, the community expenses shall be divided by 6 and the owner with 3+ lots will pay for two shares. Maintenance of reserve land and unsold lots will be paid for by their owner.

7. Council will elect a treasurer to keep track of community funds and oversee an accountant.Another community volunteer will review the accounts twice a year or more as needed.

MANAGEMENT & DECISION MAKING PROCESS

1. The Community consists of all property owners. Until the community is established and at least 10 are sold, there will be one vote per lot. After 10 lots are sold, there will be one vote per owner. If one person owns more than one lot, they still get just one vote. The Community as such may vote to create an elected or volunteer council that is a subset of all owners to handle business of the community as needed.
2. The Capacha community will pay for accounting, escrow and management services.
3. Dave Collins & Corey Lewis will lead community/council meetings. They may appoint someone totake this role as needed. After 10 lots are sold, or beginning Jan 2025 (whichever comes first), leadership of meetings will be an elected position within the community.
4. Capacha neighbors shall have semi annual meetings (fall and spring). Members may participate viaSkype (or other similar service) from a distance.
5. For meeting to proceed, 60% of Community members need to be in attendance. One person from eachlot will represent any other owners of that lot at meetings. One vote per lot.

6. Simple majority rules for all votes except revisions to the covenants. Covenant revisions require 75%of owners in attendance. Votes to change covenants require 75% majority vote.
7. 7.A secretary will be appointed by the community and will take minutes at each meeting.
8. Special meetings may be called for as needed. Email or Skype correspondence may be used for input/voting.
9. Agreement to 3rd party arbitration/mediation if necessary

III: GREEN POINT SYSTEM

This point system is intended to be a creative way to inspire and support each other while pursuing "greener" elements of occupancy. We expect that people interested in this community will value this direction and will find this list and minimum number of points to achieve, helpful and informative. Perhaps the community can reward those with the highest number of points with some manner of recognition and percentage value in the corporation. Additional technologies and creative sustainable ideas to add to thelist is encouraged!

- Renewable Energy (minimum 9 points)
- Water Efficiency and Erosion Prevention (minimum 9 points)
- Materials and Resources (minimum 5 points)
- Recycling and Trash (minimum 1 point)
- Traffic / Transportation (minimum 2 points)
- Sharing the Green (minimum smile and offering *el gallo* when another is in need!)

Renewable Energy. Capacha residents may use Solar Energy, Wind Energy or other forms ofrenewable energy to provide for their needs. See Addendum for resources.

- *5pt*. Solar photovoltaic electricity system
- *5pt*. Wind power system
- *3pt*. Solar hot water system
- *1pt*. Tank less on-demand water heating system
- *1pt*. Energy star rated appliances/ no ozone depleting coolants used in refrigeration units
- *5pt*. Geo-thermal system for heating/cooling the air
- *2pt*. LED lights or compact fluorescents in at least 75%of home fixtures
- *1pt*. Solar tube for passive lighting
- *2pt*. Day light design to reduce need for daytime electric use .i.e. no lights needed during the day

- *2pt.*Natural Ventilation design to reduce need for cooling systems

Water Efficiency and Erosion prevention When we ¨harvest¨ our rainwater and our grey water for irrigationor household use, we also prevent stormwater and waste water from traveling offsite and contributing to erosion. Composting waterless toilets make the biggest impact on water conservation

- *5pt.* Composting/waterless toilets
- *3pt.* Grey water recycling system for irrigation.
- *4pt.* Recycled black water for irrigation
- *4pt.* Grey water filtering/recycling to re-use within household
- *4pt.* Successful elimination of well/city water for landscaping
- *1pt.* 80% plus of soap/cleaners are Biodegradable and non toxic
- *1pt.* Low Flow Water Fixtures for water conservation
- *4pt.* Living roof
- *2pt.* Create a soil erosion plan to prevent hillside erosion and unnatural water runoff on adjacentproperties both during and post construction.
- *1pt.* Design site to promote infiltration of storm water from roof.
- *1pt.* Pervious paving of surfaces
- *3pt.* Harvest rainwater water for uses such as landscape irrigation, toilet flushing, via a water catchmentsystem and storage tank.
- *2pt.* Install earthworks such as bio swales, check dams, infiltration basins and ponds, diversion swales,and terraces to promote water infiltration and irrigation of vegetation (see Addendum for resources)
- *1pt.* Landscape with native drought resistant plants

Materials and Resources Use of natural materials in construction reduces the use of cement which decreasesgreenhouse gas and mercury in the environment. Natural materials also breathe and provide better natural temperature regulation.

- *5pt.* Building main home with sustainable natural materials: Adobe, Compressed Earth Blocks, Cobb,Bamboo, Rammed earth, etc.
- *3pt.* Reduce the use of finite raw building materials & long cycle renewable and use instead rapidlyrenewable materials such as bamboo, wheat board, cork, and linoleum. 50% finished materials .
- *2pt.* Use of recycled content building materials (as defined by International Organization for Standardization http://www.iso.org/iso/home.htm)

2pt. Use of wood managed and harvested sustainably (Forest Stewardship Council certificationwww.fscus.org)

- *2pt* .Use of low VOC paints and adhesives in construction

- *3pt.* Use of natural plasters and paints made from lime, clay, milk, etc.

Recycling and Trash - Designated community recycling and trash center could be set up and the designated location would be the services area near the community parking. Community fees would then pay for weeklyremoval of recycled materials and trash to local recycling center. Construction materials and any items like appliances would be the responsibility of the individual property owner.

- *1pt.* Volunteer to set up this recycling system

- *1pt.* Volunteer to manage community recycling area

- *1pt.* Volunteer to set up community compost area/system

- *1pt.* Volunteer to manage community compost area

- *1 pt.* Compost all your own yard and kitchen waste in your own compost system on your lot

Traffic / Transportation Minimizing noise and greenhouse gas emissions and enhancing physical well being(walking and biking) through non fossil fuel means of transportation.

5pt. Own or co-own an electric vehicle or non fossil fuel vehicle: golf cart, car, electric bike, or hydrogen powered rocket ship.

Sharing the Green: Expanding the vision and action beyond Capacha.

- *2pt.* Create, maintain, update the Capacha Resource Management Plan, website &/or blog etc. with educational information, resources on sustainable/ecological development and living.