QATUAN
Biopiscinas & Ecopaisagismo

To: Potential Partners
From: Jamie Conway

Date: 05/05/2025

Vila Qatuan:

Model Circular Bioeconomic Village Concept.

Image describing a Regenerative Power Plant Layout.

CONTENT:

Presentation of the Concept for 2025: Vila Qatuan
Table of Contents

CONTENT:

1. Executive Summary

Vila Qatuan is set to become a pioneering eco-tourism estate located on the edge of the Chapada National Park near Brasilia, Brazil. The core deliverable for 2025 is the establishment of a **Model Circular Bioeconomic Village** that integrates six key components:

- Tropical Forest Carbon Capture Demonstration
- Biofuel Production Facility
- Nature-Based Technologies (NbT) Knowledge Hub
- Sustainable Organic Pig Farm
- Renewable Power Plant
- Training and Showcase Centre for Circular Bioeconomy

This comprehensive approach aims to attract investors and stakeholders by demonstrating the feasibility of sustainable practices and resource utilization in harmony with the natural environment.

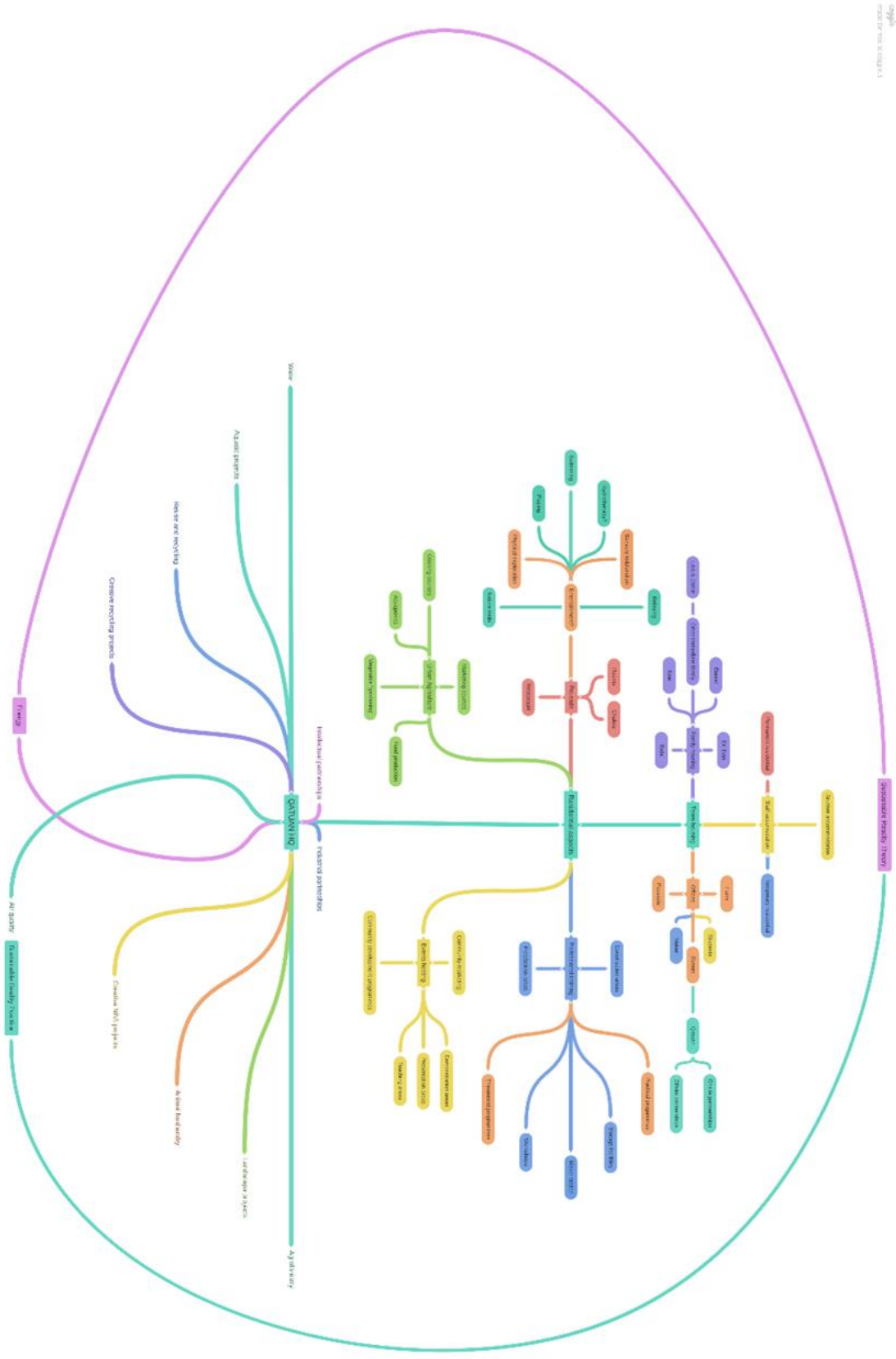
2. Context and Need

Brazil is a resource-rich nation, yet its current utilization across social, educational, marketing, financial, and infrastructural sectors lacks optimization for sustainable growth. Despite being one of the world's leading biodiversity hubs and a powerhouse in agricultural exports, outdated systems persist in key areas. These inefficiencies have led to environmental degradation, loss of biodiversity, and limited opportunities for inclusive development. Additionally, the challenges in balancing rapid urbanization with sustainable infrastructure exacerbate these issues.

This underscores the necessity for innovative initiatives like Vila Qatuan, aimed at fostering sustainable development and responsible resource use. By integrating modern technologies and a circular bioeconomic framework, the project seeks to demonstrate how resource abundance can be managed to benefit communities and ecosystems alike.

Despite systemic challenges, Brazil's financial and resource adaptability offers unique opportunities for growth and innovation. With its wealth of natural and human capital, the country is well-positioned to spearhead sustainable practices that serve as a global model. Vila Qatuan seeks to capitalize on this potential by establishing a **standard for sustainable development**, fostering knowledge exchange, and showcasing practical solutions for resource management within a cherished and preserved natural environment. By doing so, the initiative not only highlights Brazil’s capabilities but also sets a benchmark for similar projects worldwide.

CONTENT:



Qatuan Organisational Structure is a Sustainable Municipal Environmental Management Model

CONTENT:

3. Problem & Solution

A Problem Worth Solving

Brazil faces challenges in resource management and environmental degradation. Outdated development models have led to inefficiencies and negative impacts on local ecosystems.

Our Solution

Vila Qatuan will implement a holistic approach to environmental management, focusing on:

- Sustainable agriculture
- Renewable energy production
- Community engagement and education

Drawing insights from the article "Organizing Vila Qatuan to Move to the Future," successful eco-tourism initiatives emphasize integrating local communities into sustainable practices. Vila Qatuan aims to develop with the people, fostering inclusive markets and shared benefits.

Vila Qatuan is a high quality, ecologically sophisticated and smart-managed prototype for bioeconomic development

CONTENT:

4. Goals and Objectives

The primary objectives for 2025 include:

- Establishing a Tropical Forest Carbon Capture Demonstration
- Developing a Biofuel Production Facility leveraging NbT technologies
- Creating a Knowledge Hub for Nature-Based Technologies
- Operating a Small Pig Farm for sustainable biogas production
- Implementing a Renewable Power Plant
- Serving as a Model Circular Bioeconomic Village for training and showcasing sustainable practices

5. Target Market

Vila Qatuan will target eco-conscious tourists, environmental professionals, and educational institutions. Key clientele includes:

- Eco-tourists seeking sustainable travel experiences
- Researchers and students interested in environmental studies
- Local communities exploring sustainable development models

Market Insights

Our target demographic includes stakeholders from the estate and agricultural sectors, urban planners, and residential communities prioritizing sustainable practices. Vila Qatuan offers a unique blend of education, health, and wellness activities, catering to a broad audience motivated by sustainability and innovation.

Our headquarters are strategically positioned in an area rich with establishments that cater to short-term tourism, offering accommodations for visitors to the National Park. A key differentiator is that most guests at Vila Qatuan are primarily drawn to the unique offerings of Qatuan itself, while also appreciating the natural beauty of the National Park.

Visitors to the National Park may choose Vila Qatuan for its remarkable location, superior construction quality, and unwavering commitment to sustainability. On-site activities include immersive educational workshops on nature-based technologies, guided eco-tours highlighting the local flora and fauna, and health-focused programs such as yoga retreats and organic cooking classes. Additionally, Vila Qatuan offers interactive wellness activities, including mindfulness practices and fitness trails, all designed to reconnect visitors with nature while promoting sustainable living principles. This comprehensive range of experiences ensures that every visitor leaves with a deeper understanding of environmental stewardship and personal well-being. However, in a country where nature conservation is not a primary focus, distinguishing our offerings from those of competitors can be challenging.

Although the broader Brazilian production chain may not fully align with our environmental principles, our local competition mainly consists of sustainable educational institutions, accommodations of varying quality, organic food producers, and businesses that emphasize "Green City" or "Green Solutions" initiatives.

CONTENT:

6. Phase Zero: Strategic Activation of the Green Bioeconomy Alliance (GBA) through Regenera

Before infrastructure can rise, the groundwork of ideas, relationships, and global alignment must be laid. This is the purpose of **Phase Zero**: the strategic initiation of the Green Bioeconomy Alliance (GBA) — not just as a bilateral framework between Brazil and the Netherlands, but as a planetary proposition for **nature-based, regenerative energy transition**.

We recommend a **dedicated $500,000 investment** into this phase, ensuring that the broader collaboration succeeds by beginning with communication, coordination, and co-creation. These funds will support:

1. Narrative Infrastructure and Strategic Communication

- Development and deployment of **Aeva**, our AI-powered knowledge interface, to present and manage the Regenera knowledge system to stakeholders and the public.
- Creation of bilingual (EN/PT) educational campaigns and open-access learning tools across the UN SDGs, bioeconomy, NbTs, and regenerative technologies.
- Global outreach to GLOBE, UNOOSA, WWC, CBPF, CIRAT, IPSA, and aligned citizen science communities.

2. Knowledge Hub Incubation and GBA Community Building

- Launch of **live workshops and co-creative spaces** at Cha é and Vila Qatuan to test and refine NbT knowledge hub models with community participation.
- Mapping and preparation of **replication pathways** for Circular Bioeconomy Villages globally.
- Collaborative design and pilot activation of the first **Bioeconomy Training and Demonstration Modules**, aligned with GBA and Regenera standards.

3. Public Engagement and Global Platform Integration

- Presentation of the Regenera framework at international fora (NASA, UNOOSA, WWC, GLOBE Regional Meetings, etc.).
- Development of community tools to help other regions replicate the GBA model, incorporating carbon, biodiversity, and regenerative biofuel strategies.

Why Phase Zero Matters

We cannot hope to implement the GBA's ambitious program of SAFs, BECCS, Circular Villages, and Biodiversity Hubs without first engaging the world in **what they are, how they work, and why they matter.** This is the bridge between the **technical blueprint** and the **global village**.

Vila Qatuan and Cha é are the canvas. **Regenera** is the method. This phase ensures that **everyone who needs to be part of it—can be.**

CONTENT:

7. Financial Structure

Total Financing Required $1.5 million

Cost: $1,185,000 – $1,500,000
Annual Revenue: $700,000 – $875,000

Breakdown:

- Infrastructure Development and Initial Operations: $1 million
- Research Laboratories and Educational Facilities: $0.5 million

Cost Estimates:

Energy Systems: 6 kW Combined Heat and Power (CHP) System: $50,000 – $80,000

Biodigester System: Estimated Cost: $30,000 – $40,000

Integration and Infrastructure:

- Maintenance Equipment: $25,000 – $30,000
- Water Systems (Recycling, NbT): $150,000 – $200,000
- Landscaping and Agroforestry: $80,000 – $100,000

Subtotal Energy: $335,000 – $450,000

Cabin Construction (5 units): $75,000 – $100,000 per cabin

- Total for 5 cabins: $375,000 – $500,000
- Common Areas (Dining, Education Spaces): $375,000 – $500,000
- Marketing and Launch: $25,000 – $50,000

Subtotal Accommodation: $850,000 – $1050,000

Total Estimated Costs for Eco-Resort: $1,185,000 – $1, 500,000

CONTENT:

Total Annual Revenue: $700,000 – $875,000

Cabin Rentals: $230,000 – $365,000

- Occupancy Rate: 50-70%
- Nightly Rate: $250 – $400

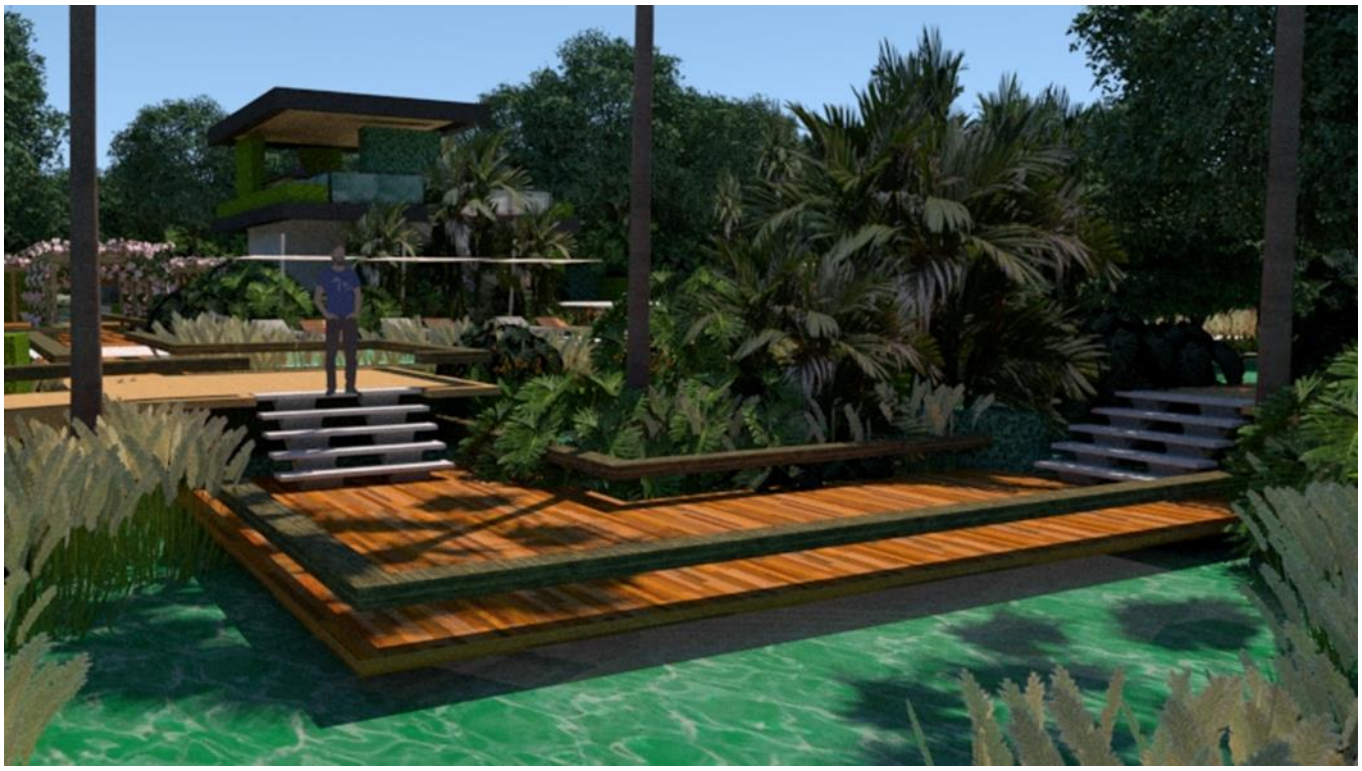
Workshops and Tours: $25,000 – $50,000

- Weekly Events: $500 – $1,000 per event

Additional Income: $450,000 – $460,000

- Agroforestry products and biofuel samples: $10,000 – $20,000
- Working Agroforestry landscape expected to return in excess of $20,000
- Sustainable forestry landscape expected to return in excess of $20,000
- Working Nursery landscape expected to return in excess of $100,000
- Working Aquatic Landscapes expected to return in excess of $200,000
- Event hosting areas expected to return in excess of $100,000

Total Annual Revenue: $700,000 – $875,000



Vila Qatuan is a Biodiversity and NbT Knowledge Hub

CONTENT:

8. Execution Plan

Phases of Development
Phase 1: Planning and Infrastructure (6-12 months)

- Primary Site Finalized, feasibility studies concluded, Infrastructure initialised for the 4-hectare location.
- Cabins and common spaces designed using local, sustainable materials.
- Establishing partnerships for renewable energy and water systems.

Phase 2: Construction (24-36 months)

- Build 5 cabins, central facilities, and initial infrastructure for renewable energy and water recycling on the 4-hectare site.
- Developing agroforestry gardens and an organic pig farm for biogas.

Phase 3: Launch and Operations (6 months)

- Open to visitors with promotional campaigns targeting eco-tourists and professionals.
- Offer guided tours and workshops on circular bioeconomy principles.

Phase 4: Evaluation and Scaling (Year 3-4 once fully operational)

- Evaluate performance and visitor feedback.

9. Marketing and Sales Strategy

Our steady expansion in Brazil, emphasized by word of mouth, drives local strengths over European influences. The approach, sustained since early 2021 and now with specialized marketing professionals advanced with a new website, showcasing community success: https://vila.qatuan.com.br/.

The key opportunity lies in implementing the proposed strategies to better showcase our capabilities and improve marketing outcomes. The provided projections, milestones, and metrics indicate that our initial market strategies are forming the basis for future marketing initiatives, with their importance becoming clearer as we progress.

- Utilize social media, local and international outlets, and partnerships with schools and universities to promote Vila Qatuan. https://www.linkedin.com/in/qatuan/
- Focus on word-of-mouth marketing and community engagement to build a strong local presence.

CONTENT:

10. Milestones & Metrics

Year 1-20: Establish a bilateral Green Bioeconomy Alliance (GBA) to coordinate projects as described.

Year 2-4: Complete infrastructure development and begin operations.

Year 3: Launch educational programs and workshops.

Year 3-4: Achieve self-financialization and expand marketing efforts.

Vila Qatuan full Masterplan available upon request

CONTENT:

11. Conclusion

Vila Qatuan is developing as a unique opportunity that aligns with a Global Working Model, representative of the now necessary movement towards Smart, Circular and Bioeconomic Development Concepts, that create sustainable and educational destinations that benefit local communities and serve as models for other regions.

By integrating innovative technologies and sustainable practices, Vila Qatuan is beginning to help its local community foster a deeper understanding of circular bioeconomy, and the collaborative potential to address environmental challenges ~ successfully.

This presentation incorporates insights from the article "Organizing Vila Qatuan to Move to the Future," reinforcing the vision and objectives of Vila Qatuan while emphasizing the importance of collaboration and shared knowledge in achieving sustainability goals as permanently updated on the News Page:
https://vila.qatuan.com.br/news/

The Green Bioeconomy Alliance (GBA) model (2024 Qatuan Comparison BrazNed)**:**

Aims to coordinate these projects through a bilateral collaboration between Brazil and the Netherlands. It includes leadership, working groups, funding from governments and stakeholders, and functions to facilitate collaboration, provide support to biofuel startups, and monitor progress towards sustainability goals. These projects and the GBA model can establish Brazil and the Netherlands as leaders in biofuels and nature-based solutions, contributing to climate goals and fostering innovation as follows:

1. **Biodiversity and NbT Knowledge Hubs**
   - Establish joint biodiversity and NbT innovation centres in Brazil and the Netherlands.
   - Research NbT solutions such as mangrove restoration, agroforestry, and wetland conservation.
   - Develop global best practices for scaling NbT projects in tropical and temperate regions.

2. **Agroforestry Biofuel Certification Network**
   - Develop a Brazil-Netherlands certification network for biofuels from agroforestry systems.
   - Incentivize farmers to integrate biofuel crops with food and timber production.
   - Certify the products for EU markets to ensure sustainability compliance.

3. **Circular Bioeconomy Villages**
   - Pilot villages in rural Brazil powered entirely by bio-based resources.
   - Use local agricultural residues for biogas and electricity.
   - Introduce Dutch-designed smart grids and storage for efficient energy use.

4. **Tropical Forest Carbon Capture and Biofuel Production**
   - Reforestation (Years 1-10): Plant 1 million hectares of fast-growing trees in deforested Amazon and Cerrado regions using native and high-yield species.
   - Biomass Processing (Years 3-10): Set up decentralized bio-refineries to convert forest residues into bio-oils and biochar, with bio-oils transported to a centralized facility for biodiesel refining.
   - Carbon Sequestration (Year 5 and beyond): Utilize biochar as a soil amendment to lock carbon and enhance soil fertility, with monitoring systems for carbon capture rates.

CONTENT:

12. Scheduled Report on Financing Figures

Overview

Detailed breakdown of the financing figures for the Vila Qatuan project, focusing on the establishment of the eco-resort as part of the Circular Bioeconomic Village concept. The financial structure includes initial costs, revenue projections, and a timeline for funding requirements.

Financing Required: $1.5 million

Infrastructure Development and Initial Operations: $1 million
Research Laboratories and Educational Facilities: $0.5 million

Total Estimated Costs for Eco-Resort: $1,200,000 – $1, 500,000
Total Annual Revenue: $700,000 – $875,000

Funding Timeline

Phase 1: Planning and Infrastructure (6-12 months): Requirement: $500,000

Phase 2: Construction (24-36 months) Requirement: $1 million

Phase 3: Launch and Operations (6 months) Requirement: $300,000

Phase 4: Evaluation and Scaling (Year 3-4 once fully operational) Requirement: $200,000

Summary of Financing Figures

Total Financing Required: USD 2 million
(includes core infrastructure + separate $500K Regenera Phase Zero activation)

This document integrates all aspects of the Vila Qatuan project...

Funding Timeline:

Structured over 4 years with or without phased funding requirements.

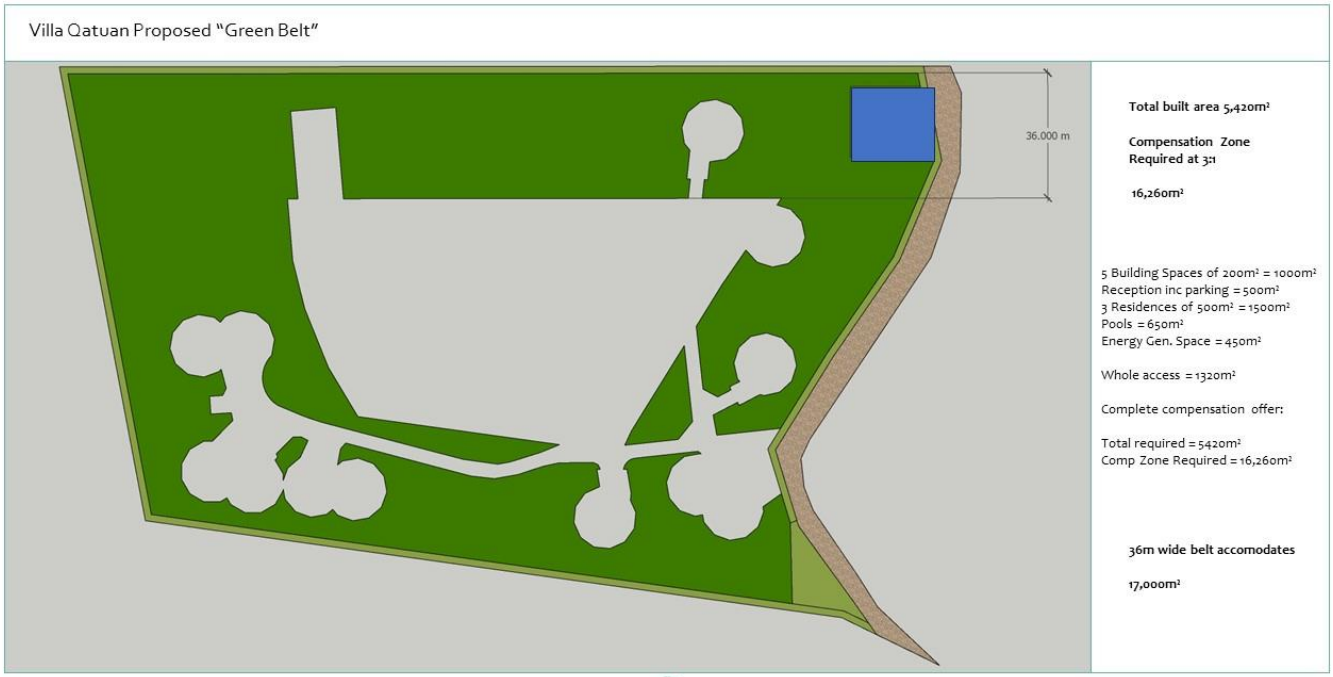
This document integrates all aspects of the Vila Qatuan project, providing a comprehensive overview of the concept, financial structure, and scheduled report on financing figures. It serves as a detailed presentation for stakeholders and potential investors, highlighting the project's vision, objectives, and financial viability.

Masterplan:


Villa Qatuan
Supression Compensation
QATUAN
Biopiscinas & Ecopaisagismo
Local: Cavalcante GO
Data: 17/05/2024


Villa Qatuan Masterplan
Aquatic Area 650m²
Reserva Legal 8,050m²
KEY:
2m Fireline 1,180m²
Aquatic Area 650m²
Internal Access 1,320m²
External Access 1,280m²
Total Access 4,430m²
Hospitality 1000m²
Reception 500m²
Residential 1500m²
Energy Platform 450m²
Built area 3,450m²
Total built area 5420m²
Reserva Legal 8,050m²
Required 1:3 = 16,260m²
Have 25,255 m²
Total Reserved 33,305m²

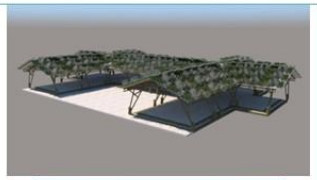
Masterplan:

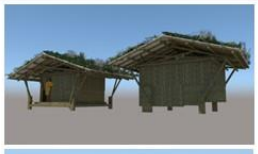

Villa Qatuan Proposed "Green Belt"
36.000 m
Total built area 5,420m²
Compensation Zone
Required at 3:1
16,260m²
5 Building Spaces of 200m² = 1000m²
Reception inc parking = 500m²
3 Residences of 500m² = 1500m²
Pools = 650m²
Energy Gen. Space = 450m²
Whole access = 1320m²
Complete compensation offer:
Total required = 5420m²
Comp Zone Required = 16,260m²
36m wide belt accomodates
17,000m²


Villa Qatuan Masterplan
Aquatic Area 650m²
Reserva Legal 8,050m²
Compensation zone offset to inclusions by 2m minimum = 17,000m²
KEY:
2m Fireline 1,180m²
Aquatic Area 650m²
Internal Access 1,320m²
External Access 1,280m²
Total Access 4,430m²
Hospitality 1000m²
Reception 500m²
Residential 1500m²
Energy Platform 450m²
Built area 3,450m²
Total built area 5420m²
Reserva Legal 8,050m²
Required 1:3 = 16,260m²
Have 25,255 m²
Total Reserved 33,305m²

Masterplan:

Villa Qatuan Detail design: Events and Chiringitos





Chiringito Approx 4x5m and Sede Approx 5-600m² to be same construction style

Designed to prevent wildlife Fecal deposit

Chiringito and Sede work together within water feature

Sede to be predominantly open-air.
Design format to be Modular.

Villa Qatuan Detail design: Cabins

Cabins to be approximately 70m² (internally) with roof overhang sufficient to leave open when raining ~ currently estimated at around 130-140m².

Individual Cabins to sit in 600m² designed landscape.

Gardens to filter used water for environmental release to wider landscape system.

Landscape to incorporate EXTREMELY LOW MAINTENANCE black water recycling system.

ALL roofing systems to accomodate planted roof. Climbers can be utilized to minimize weight carried.

Masterplan:

Villa Qatuan Detail design: Cabins

NOTES:

External Dimensions Approximate

Minimal Structual Walling

Minimal post build maintenance

Internal Area approximately 65-70m²

Internal Area relative to max space without ART.

Min Roof overhang 1.2m

Roof "CAN" meet floor to provide walling

Walling developed of Recycled Vegetable crates 400x600mm.

All walling to be faced with 50mm gabion on either side ~ thus finished walling approximately 500mm wide as shown.

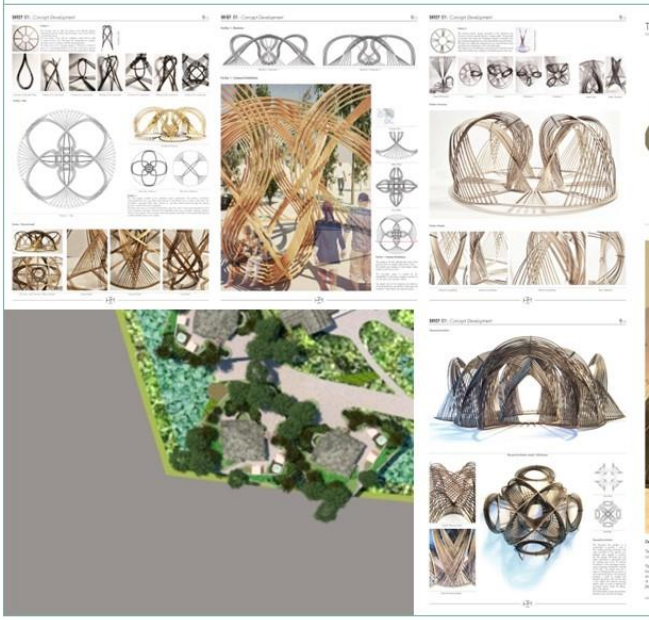
All design concepts to be easily made available from market available materials.

Roof concepts "can" be adapted from Living Building theory.

Cabin concepts "can" be adapted from Living Building theory.

Build Life Expectancy to be 30-50yrs.

Villa Qatuan Detail design: Residential https://wewanttolearn.wordpress.com/2015/12/01/thousand-line-construction/#comments



NOTES:

Chiringito Approx 4x5m and Sede Approx 5-60m² to be same construction style

Designed to prevent wildlife Fecal deposit

Cabins to work harmoniously together within landscape features

Residential Area to include 3 individual houses within a complex similar to the Sede ~ ALL to be predominantly open-air.

Design format to be Modular.

All design concepts to be easily made available from market available materials.

Roof concepts "can" be adapted from Living Building theory.

Cabin concepts "can" be adapted from Living Building theory.

Build Life Expectancy to be 30-50yrs.

Agradecemos a preferência.