

# **An Interactive Eco-Tourism Guide in Rural San Jose, Costa Rica**

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Nacientes Palmichal

Dow Sustainability Fellows Final Report

2025

## **Acknowledgement**

We would like to express our sincere gratitude to our project partners at Nacientes Palmichal, whose deep commitment to community-led conservation and rural development shaped every aspect of this work. We are especially grateful to Hernan, Mauro, Guillermo and all other local collaborators, educators, and community members who shared their time, stories, and expertise with us throughout the year. We also thank our Dow Mentors and Dow Sustainability Fellowship advisors for their guidance, insight, and continual support, as well as the broader network of stakeholders who contributed valuable knowledge that strengthened our final deliverables. This work was supported by the Dow Company Foundation through the Dow Sustainability Fellows Program at the University of Michigan.

## **Executive Summary**

Throughout the 2025 fiscal year, our interdisciplinary University of Michigan team collaborated with the Nacientes Palmichal nonprofit in Costa Rica to support its long-term goals in environmental conservation, community education, and sustainable rural ecotourism. Our team represented numerous disciplines and backgrounds including environmental sustainability, landscape architecture, nutrition sciences, social work, public policy, and public health. These experiences brought complementary expertise in GIS, rural community development, nonprofit operations, and grant writing. These diverse perspectives allowed us to approach the organization's needs holistically and develop deliverables that strengthen both its operational capacity and visitor experience. It was an honor to work alongside the Nacientes Palmichal team and contribute to their ongoing community-led efforts in environmental stewardship.

Our first deliverable, a Grant Writing Toolkit, equips Nacientes Palmichal with a comprehensive, repeatable framework for developing competitive grant proposals. The toolkit walks users through all components of a strong application. From articulating mission and organizational background to writing a focused problem statement, designing program descriptions, and developing measurable S.M.A.R.T. goals it includes numerous tools. From clear narrative guidance with a structured template for building full proposals, examples of funder-ready language, and a curated list of grant opportunities aligned with conservation, rural tourism, climate resilience, and community development this functional tool kit integrates a theory of change model, logframe structure, and practical budgeting tools. The toolkit strengthens the organization's ability to secure funding and plan strategically.

The second deliverable, a system of Educational Trail Signs, enhances the 2.1-kilometer trail within the Nacientes Palmichal Reserve by providing bilingual interpretive materials that connect visitors to the area's ecological and cultural significance. Each sign integrates

community knowledge and ecological data to highlight key features along the route. Cultural elements, including the locally written Mango Tree Poem, deepen the sense of place and community identity. The signage also orients visitors to important spaces such as resting areas, viewpoints, river access points, and the collective-learning amphitheater. Together, these signs strengthen environmental education for local schools, elevate the experience for tourists and student groups, and support Nacientes Palmichal's broader vision for sustainable rural ecotourism.

These deliverables offer tangible resources that support Nacientes Palmichal's mission to protect water resources, promote environmental education, and foster sustainable rural development. They also provide long-term tools to expand programming, strengthen partnerships, and deepen community engagement across the Palmichal region.



## How to use this Tool Kit

This document is designed as a step-by-step guide to help you build a complete, coherent, and compelling grant narrative. Each section provides both the core information you need to include *and* an explanation of its purpose within the larger application. Start by reading through the full packet to understand the flow: beginning with organizational identity and mission, then describing the community context, clearly defining the problem, and finally presenting the program, partnerships, goals, and expected impact. This structure helps ensure that your grant tells a logical story. This logical story allows the reader to understand why your work matters, what gap you're addressing, how your project solves that problem, and why you are uniquely qualified to deliver those results. This is helpful for painting a clear picture of the projects without being able to see it all in person.

As you begin writing, move through the sections in order, but save the **Executive Summary** for last. It should be a clean, polished snapshot of the full proposal, written only after all other components are complete. Use the **Mission, Vision, and Values** and **Organization Background** sections to ground the funder in who you are and why your work is essential. Then, when writing the **Problem Statement**, focus *only* on describing the challenge or need, do not introduce your solution yet. The **Program Description** and **Partnerships** sections are where you clearly articulate how your project addresses the problem, who is helping you, and why collaboration strengthens the project.

Finally, use the **Goals and Objectives** section to translate your ideas into clear, measurable action. Follow the S.M.A.R.T. framework to set goals that are specific, quantifiable, realistic, aligned with your mission, and time-bound. You should list 1–3 major goals for the project and attach 2–3 actionable objectives to each one. After drafting your goals, you can return to the Executive Summary and synthesize the entire proposal into a concise overview for the funder. By following this process, you will produce a proposal that is organized, persuasive, and easy for reviewers to understand and support.

NOTE: Some sections include instructions in italics. Other sections include content that can be used as a starting point for that section in future funding requests.



## Executive Summary

*Write this last, using the content from the rest of the grant application.*

- *Mission, Vision, Values*
- *Organization Background and Objectives*
- *1-2 sentences about the problem you're trying to solve*
- *1-2 sentences about what you want from the funder*
- *1-2 sentences about the program or project and how it is a solution to the problem and how their help makes the solution possible (include partnerships)*
- *1-2 sentences about the goals of the program/project*

## Mission and Objectives

Somos un Centro Ambiental que genera recursos económicos que apoyan las acciones ambientales de la zona y comunidades vecinas. Enfocamos el servicio en aportar al visitante conocimiento de una San José Rural enriquecida de costumbres, tradiciones.

ADESSARU aims to **conserve and protect natural resources**, and ensure long-term access to clean water for residents, for consumption, agricultural and industrial use. The organization works to promote sustainable development in rural San José through environmental education, community engagement, and integrated watershed management.

### Objectives:

- Promote environmental education and training to encourage responsible use and stewardship of natural resources, particularly water.
- Strengthen participation among public and private institutions, local governments (Acosta, Mora, and Puriscal), and community members in project planning and implementation.
- Improve quality of life by ensuring a sustainable balance in the use of land, water, and forest resources.



## **Vision and Values**

*What do you want the funder to know about what you envision for the community? This is a great place to build shared interest in a collective outcome*

## **Organization Background**

The Association for the Sustainable Development of Rural San José (ADESSARU) was formally established in 1996, but its roots trace back to 1991 with the first “Ecological Week” held in Palmichal, Costa Rica. This community-led initiative promoted environmental awareness, especially regarding water conservation, in response to the critical role local watersheds play in supplying drinking water to over 50,000 people in the cantons of Acosta, Mora, and Puriscal.

ADESSARU emerged from local collaborations among schools, municipalities, farmers, and national institutions, and was strengthened by youth engagement, academic research, and international environmental partnerships. The organization has focused on sustainable watershed management, environmental education, reforestation, and community development in the Negro and Tabarcia river basins. In 2001, ADESSARU received a 42-hectare land donation and seed funding to launch the Nacientes Palmichal project, further solidifying its role in protecting vital water sources and promoting sustainable rural development in Costa Rica.

## **Achievements and Geographic and Socioeconomic Context**

ADESSARU operates in the districts of Palmichal de Acosta and Tabarcia de Mora, serving approximately 8,000 residents directly and over 40,000 people who rely on the watershed for water. This area includes rural, low-income communities where sustainable water access is essential for human well-being, agriculture, and development.

### **Key Achievements:**

- Led the creation of a strategic sustainable development plan for the watershed (2001).
- Secured the donation of 42 hectares in the upper watershed for conservation and water production.



- Built educational infrastructure including a 50-person lodge, environmental classroom, nursery, and germinator.
- Launched capacity-building programs for farmers and youth in coordination with national institutions.
- Implemented award-winning biogas systems in small farms to reduce pollution and improve public health.
- Helped establish the Rural Environmental School of San José for formal and informal education.
- Coordinated housing projects for low-income families living in unsafe conditions along riverbanks.
- Co-founded the National Rural Community Tourism Alliance and hosted the signing of Costa Rica's Rural Tourism Law (Law 8724) in 2009.
- Developed the "Authentic Coffee Route" and supported women's cooperatives in organic production and artisan crafts.
- Earned certifications for sustainable tourism and Blue Flag ecological recognition for micro-watershed protection.

ADESSARU's work is rooted in volunteerism and community empowerment, driven by a holistic vision that integrates environmental conservation with social equity and rural development. The organization continues to lead collaborative efforts to protect water resources and promote sustainability in the region, serving as a national and international model.

## **Problem Statement**

*This is where you outline what the challenge is you are aiming to solve. DO NOT INCLUDE SOLUTIONS HERE*

## **Program Description**

*This is where you outline what the solution is to the challenge you are aiming to solve.*



## Partnerships

Nacientes Palmichal is rooted in strong community support with multigenerational connections to the town and land we work with. Our partnerships span across the decades back to our founding and from the beginning our greatest asset has been our strong partnerships and the significant collaboration with the families we serve.

This project will specifically rely on key partnerships with:

*List the people, businesses, organizations, and other funders who will help make this project possible or who are already helping make this project possible.*

- The University of Michigan Dow Sustainability Fellowship Program
- Guillermo
- Coffee Farmers
- NP School

## Goals and Objectives

*Pick 1-3 Goals for each project with 2-3 objectives for each goal.*

Each goal should be **S.M.A.R.T**

**Specific** – Be clear about what you are going to achieve with this funding

**Measurable** – How are you going to know your program worked? What are you going to count?

Set goals that have clear numbers attached (number of participants, number of acres conserved, number of water filters installed)

**Achievable** – Set goals that are feasible. Ending climate change is a bad goal because it is too big. Conserving 1,000 new acres by 2030 might be doable.

**Relevant** – Is your goal aligned with your mission?

**Time-Bound** – How long will it take you to achieve the goal? When will this goal happen?

*Note: After you set goals you can use ChatGPT to get feedback about whether or not they are S.M.A.R.T. and to help determine objectives.*



### ***Example below from Grow Jackson***

**Goal 1: Operate 24 community and school gardens to grow 10,000 pounds of fresh food for distribution to students, participants, and Jackson residents in the 2025 growing season.**

Objective 1: Plant gardens with students, volunteers, and Grow Jackson staff.

Objective 2: Use the gardens for educational events and community events to promote engagement and manage the gardens throughout 2025.

Objective 3: Harvest, weigh, clean, and distribute fresh food to students and target populations using sharing shelves, community events, and direct-to-consumer channels with local grassroots partners.

**Goal 2: Hire at least 10 at-risk youth interns for the 2025 Summer Workforce Development Program to staff gardens, participate in educational and intergenerational programs, assist with nutrition programming and food distribution, and complete the Roots of Success Environmental Literacy Curriculum and Financial Literacy Training.**

Objective 1: Work with area schools to identify and solicit applications from students who qualify for, and would benefit from, the intern program by April 2025.

Objective 2: Hire and train at least 10 interns by the end of May 2025

Objective 3: Check in with interns at the end of June 2025 to determine program progress and make any necessary accommodations for continued program success.

Objective 4: Graduate interns from the program at the end of August 2025.

**Goal 3a: Provide at least 1,000 interactive hands-on educational engagements for students participating in summer programming with the Jackson YMCA, City of Jackson Martin Luther King Jr. Recreation Center, and Isaiah's Hub.**

Objective 1: Plan summer programming activities in partnership with host organizations and stakeholder partners by March 2025.

Objective 2: Begin educational programs by mid-June 2025, tracking daily program participation.

Objective 3: Complete weekly programming in June, July, and August 2025.

**Goal 3b: Provide at least 250 educational engagements for underserved adults in 2025**

Objective 1: Plant new gardens at Henry Ford Jackson Hospital and Home of New Vision.

Objective 2: Plant gardens at Segue, Andy's Place, and Vista Grande Villa.

Objective 3: Use Grow Jackson Community Gardens for community engagement and educational programming, targeting the needs of underserved adults and community members.



## Budget

*Example below*

*Note: This budget will vary and not every item will be in every budget. It depends on what the budget allows for and how much you need.*

<b>Item</b>	<b>Amount</b>	<b>Notes</b>
Payroll	\$20,000	Will cover staff time to manage and execute the project
Insurance	\$2,000	Covers administrative expenses
Materials	\$50,000	Necessary materials for the construction of the Ecolodge Kitchen
Contractors and Consultants	\$10,000	Architect and construction expenses
Marketing	\$2,000	Money will be used for print materials and community events to promote the new ecolodge kitchen
Utilities	\$5,000	First year of utilities expense for new kitchen
Administration	\$2,000	Office supplies, bookkeeping, website expenses
Indirect Costs	10% of the project budget	Extra funding for evaluation and other expenses



## Learning from Other Models

Similar initiatives led by NGOs in Costa Rica and Latin America.

- Community-led conservation parks
  - <https://biosurfoundation.org/community/>
  - <https://www.costaricantrails.com/monteverde-costa-ricas-cloud-forest-sanctuary/>
  - <https://www.ecologyproject.org/post/celebrating-youth-led-conservation-pacuare-reserve-s-impactful-initiatives-in-costa-rica#:~:text=Over%20the%20past%2020%20years,these%20programs%20look%20like%20today:>
  - [https://osaconservation.org/#:~:text=Building%20a%20Climate%20Life%20Boat,\(c\)\(3\)%20nonprofit.](https://osaconservation.org/#:~:text=Building%20a%20Climate%20Life%20Boat,(c)(3)%20nonprofit.)
- Educational trail systems
  - <https://www.canas-castilla.com/cms/educational-nature-trails-costa-rica>
  - <https://www.visitcostarica.com/blog/quetzal-education-and-research-center>
  - <https://fieldstudies.org/center/costa-rica/program/ecological-resilience-studies/>
- Partnerships between rural communities and academic institutions
  - <https://fieldstudies.org/center/costa-rica/program/ecological-resilience-studies/>
  - <https://biosurfoundation.org/community/>
- Sustainable infrastructure design for small ecotourism hubs
  - <https://www.greenbusinessbenchmark.com/archive/costa-rica-sustainability>
  - <https://journeyswithpurpose.org/conservation-and-environmental-sustainability-in-costa-rica/>
  - <https://www.biofin.org/costa-rica>

**Possible grants :**

<https://unfccc.int/climate-action/momentum-for-change/financing-for-climate-friendly-investments/payments-for-environmental-services-program>

<https://www.greenclimate.fund/projects/access-funding>

<https://www.adaptation-fund.org/apply-funding/>

<https://www.fonafifo.go.cr/en/>

<https://forevercostarica.org/international/bridge/>

<https://www.untourism.int/investment/tourism-doing-business-investing-in-costa-rica>

<https://www.rotary.org/en/our-programs/grants>

<https://www.jointsdgfund.org/where-we-work/costa-rica>

<https://www.bcie.org/en/operations/bio-clima-project/bio-clima-project-funding>

<https://tracyaviary.org/conservation/conservation-fund/apply-for-grants/>

<https://www.international.gc.ca/world-monde/funding-financement/cfli-fcil/costa-rica-nicaragua-honduras.aspx?lang=eng>

Grant locator : <https://www.developmentaid.org/grants/search?locations=86>

## Ecolodge Kitchen

### **Summary**

The Ecolodge Kitchen Project aims to transform an existing outdoor classroom space at the Nacientes Palmichal ecolodge into a fully developed, traditional woodfire kitchen that enhances immersive cooking experiences and educates students on traditional meals and cooking practices. Through collaborative design, educational programming, and cultural preservation, the kitchen will serve as a hands-on learning site for students and tourists while strengthening community-based rural tourism.

### **Background**

The Nacientes Palmichal ecolodge has an existing covered space suitable for kitchen development, currently used for occasional demonstrations of traditional tortilla-making. However, the immersive educational experience lacks interpretive context and essential infrastructure to be fully utilized. The envisioned kitchen will incorporate sustainable practices, such as using fallen wood from the surrounding forestry area for cooking, and integrating other on-site initiatives like the trout farm and garden which are currently under development.

This project aligns with a broader effort to offer experiential learning opportunities for visitors and students through established partnerships with local schools, organizations, and community members. A nearby college (3 km away) and another institution 70 km away—both with rural tourism programs—have ongoing relationships with Nacientes Palmichal that can be deepened through this initiative. Students typically participate in 1–3 day stays that fulfill internship and academic requirements. Additionally, a local network of park collaborators is already involved in the culinary and educational programming and could further expand their participation through this project.

### **Objective**

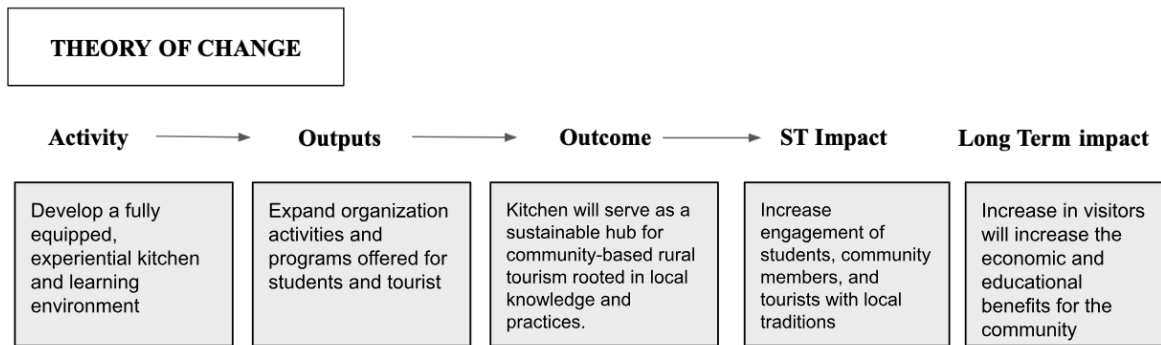
To develop a fully functional, traditional-style woodfire kitchen that:

- Enhance community-based tourism through experiential cooking and cultural activities.
- Provide educational and internship opportunities for local and visiting students.
- Integrate storytelling and historical interpretation through brochures or infographics.
- Support sustainable practices by using fallen wood and locally grown/trout-farmed food.
- Strengthen partnerships with schools and organizations focused on rural tourism

### **Theory on change**

If the existing kitchen space is developed into a fully equipped, experiential learning environment—with intentional design, proper equipment, and interpretive materials—then it will attract more student groups and tourists, deepen engagement with local traditions, and provide meaningful economic and educational benefits for the community. Linking infrastructure improvements with educational and cultural programming, and leveraging existing networks with schools and park collaborators, the kitchen will serve as a sustainable hub for community-based rural tourism rooted in local knowledge and practices.

**Figure 1**



Logframe	Description	Indicator	Means of verification	Assumptions
<b>LT Impact</b>	Strengthen rural tourism and community-based education at Nacientes Palmichal through the perseveration of traditional cooking knowledge and practices	Rate of participation and number of traditional meal activities offered per year	Annual tourist and student visits; community feedback; student reflections	Continued interest in rural tourism and support from schools and tourists; Community members remain engaged and willing to share local traditions
<b>ST Impact</b>	Increase student and tourist participation in immersive kitchen experiences; Improve infrastructure for experiential learning at the ecolodge	Complete and functional kitchen space with woodfire stove, wash station, and	Number of participants in cooking workshops and guided kitchen sessions	Academic institutions maintain partnership agreements and student interest; Required materials and labor are available and affordable

		interpretive materials		
<b>Outcomes</b>	Establish a functional, traditional woodfire kitchen; Strengthen partnerships with rural tourism academic programs; Increase number of schools sending students; new MOUs or agreements signed	Kitchen infrastructure completed; regular schedule of student visits and workshops implemented	Number of schools sending students, MOUs and signed agreement	Sufficient coordination with schools and local cook coalition; Schools continue to integrate rural tourism into curriculum
<b>Outputs</b>	Develop traditional kitchen space with materials/layout, educational materials (e.g., brochure or infographic) on meal history and practices	Installation of fully equipped kitchen completed (stove, cooking/dining area, wash station, and educational materials)	Sessions held; participant feedback collected; Number of available education materials	Builder and material sourcing is timely and appropriate; Local cooks and guides are available to deliver sessions
<b>Activities</b>	Develop traditional kitchen; expand recruitment and participation in Nacientes Palmichal activities	Functioning kitchen; increase in visitors and use of visitor calendar;	Number of people actively involved and visiting Nacientes Palmichal	Developer or architect identified, development space is cleared, and equipment/supplies are available; Interest from local collaborators and schools remains strong

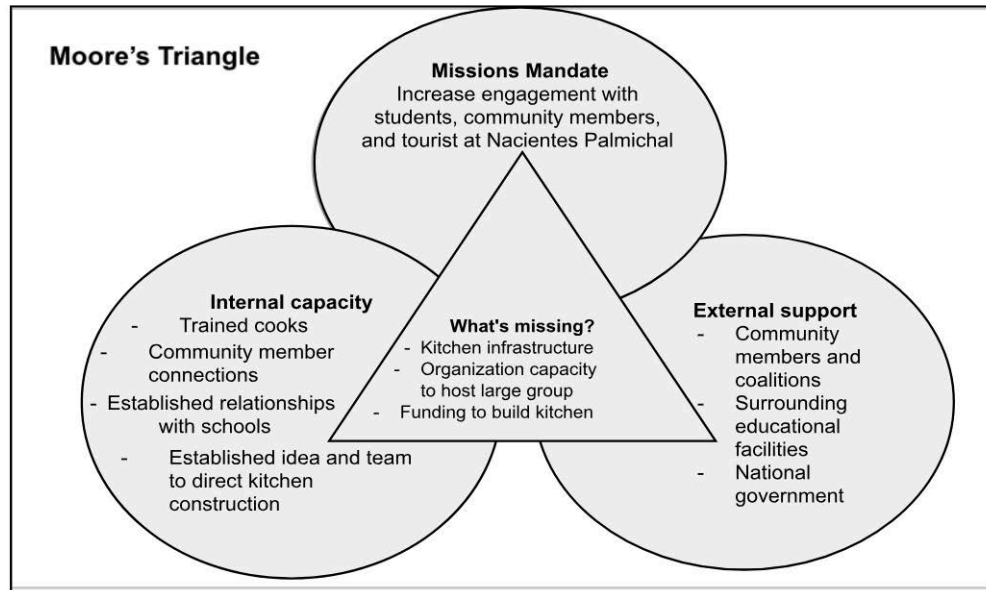
### Results Driven Design:

To ensure a successful and sustainable implementation of the Ecolodge Kitchen Project, we have embedded a results-based design into every stage of our development process. This includes the formulation of a logical framework matrix (Logframe) and a theory of change framework found (Figure 1). These tools help to clarify the intended impact, identify measurable outcomes, and ensure stakeholder alignment. To uphold and continually assess the strength of this design, we will implement a Monitor, Evaluate, and Learn (MEL) framework throughout the

project lifecycle. This will be complemented by yearly progress reports that track successes, challenges, and areas for course correction, enabling evidence-based decision-making and long-term learning.

Leadership and oversight of the project will be shared by the Nacientes Palmichal team and local community stakeholders to ensure the kitchen is developed and operated in a way that is inclusive, culturally grounded, and responsive to the needs and knowledge of local residents. To support this collaborative model, we have created a Context-Readiness Triangle (Figure 2) adapted from Moore's Triangle, identifying existing strengths, gaps in local infrastructure, and areas requiring external technical or material support to ensure full project realization.

**Figure 2**



## **Summary**

The Community Park Initiative aims to transform a forested area near Nacientes Palmichal into a vibrant, inclusive, and educational natural park. This multi-phase project focuses on conservation, accessibility, and community engagement by developing trails, installing essential infrastructure, and creating reflective and educational spaces. Through environmental stewardship and student-centered programming, the park aims to become a space for connection with nature, research, and cultural storytelling.

## **Background**

The park area, located near the Nacientes Palmichal ecolodge and reserve, offers rich biodiversity, a flowing river, and significant historical and ecological value. However, its current condition limits public use due to minimal infrastructure and accessibility. This initiative seeks to develop the park into a welcoming, functional, and educational community space.

Initial efforts will focus on essential infrastructure: water access, sanitation (bathrooms), rain shelters, solar energy installation, and the construction of accessible trails. The project also envisions the creation of interpretive and educational spaces such as a storytelling corner, a nature reflection library, and eventually a small center for student research.

The park will serve local residents, school groups, and visiting students from nearby and international institutions. By linking the space with educational programming and conservation awareness, the project reinforces rural tourism, environmental education, and community well-being.

## **Objective**

To create an accessible, ecologically sound, and community-driven park that:

- Provides basic infrastructure (bathroom, water access, rain shelter, solar energy)
- Promotes conservation and environmental education through trail systems and student visits
- Fosters community interaction through shared and reflective spaces (library, storytelling area)
- Increases opportunities for academic research and rural tourism
- Honors local history and ecological knowledge through interpretive materials

## **Theory of Change**

If the park is equipped with the necessary infrastructure (trails, restrooms, shelters, solar power), and if interpretive and educational elements are thoughtfully integrated, then it will become a vital space for community members and students to interact with the environment, leading to

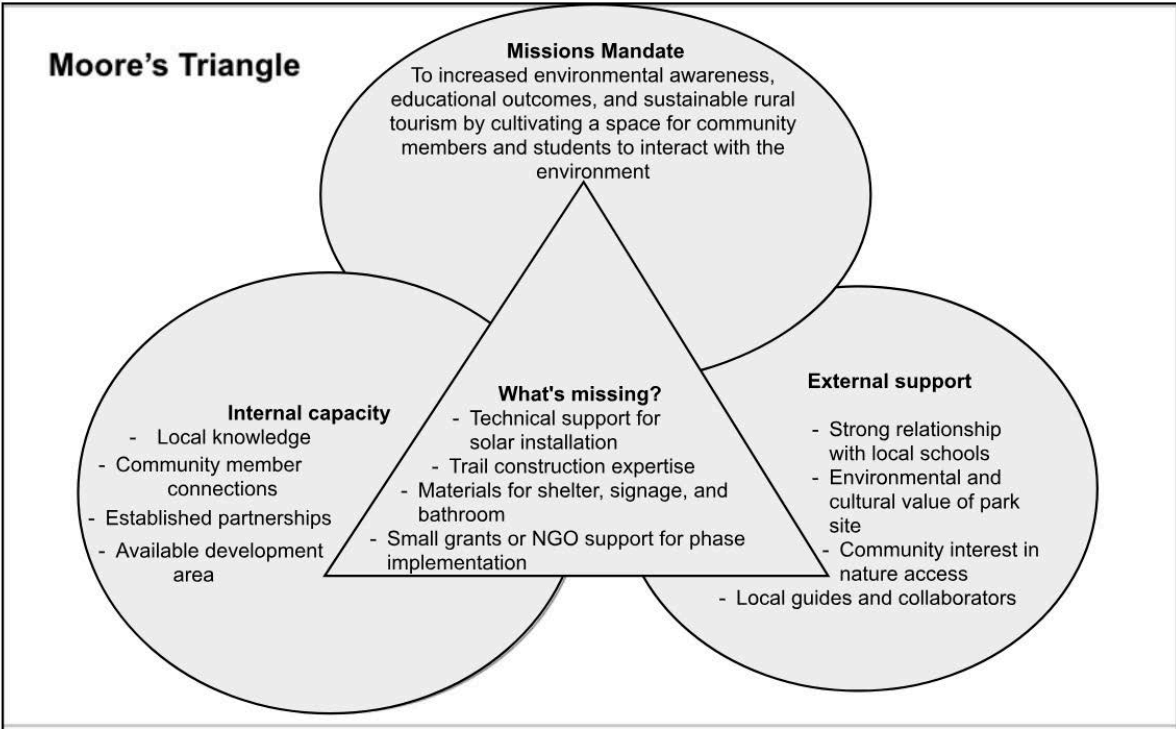
increased environmental awareness, educational outcomes, and sustainable rural tourism. By layering basic needs with community interaction through shared and reflective spaces the park can transform from an underused green space into a community landmark that supports conservation, connection, and learning.

**Figure 1**

<b>Logframe</b>	<b>Description</b>	<b>Indicator</b>	<b>Means of Verification</b>	<b>Assumptions</b>
<b>Long term impact</b>	Establish a long-term, sustainable community park that supports environmental education and cultural engagement	Increase in annual visits by schools, tourists, and local residents	Visitor logs; school reports; feedback from community partners	Ongoing support from local stakeholders and schools; funding continuity
<b>Short term impact</b>	Improve access, infrastructure, and environmental interaction	Installation of trail system, bathrooms, rain shelter, solar panels	Completion reports; site photos; usage reports	Necessary materials and contractors are available; community involvement remains high
<b>Outcomes</b>	Increase student visits, strengthen community participation, build infrastructure for shared use	# of student visits; trail and facility usage rates; events held in the park	Visit logs; partnerships with schools; program evaluations	Schools continue rural tourism visits; ongoing maintenance is possible
<b>Outputs</b>	Develop basic infrastructure (water, bathroom, trail, shelters); install storytelling and reflection areas	Bathroom, water tank, solar panels, rain shelter, library, signage, and trails completed	Installation records; user surveys; interpretive materials created	Local labor and materials sourced; minimal construction delays

<b>Activities</b>	Construct trails and essential infrastructure; design and install storytelling space and reflection library	# of completed trail sections and infrastructure pieces; # of educational materials created	Progress reports; visual documentation ; visitor feedback	Collaboration with builders, educators, and community storytellers
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**Figure 2**



**Results-Driven Design**

A Results-Based Management (RBM) approach is embedded in this initiative. Each stage of development is guided by clear objectives, measurable indicators, and a shared monitoring and evaluation (MEL) framework. A logframe matrix and theory of change provide structure for strategic decisions and learning over time. The project will produce annual progress reports to track implementation, community participation, and educational impact. A dedicated community oversight team will ensure the project reflects local needs and values. The Context-Readiness Triangle (Figure 2) identifies the balance of local capacity, infrastructure needs, and external technical support required for successful implementation.

# El Trogón y el Poema del Mango

## The Trogon and the Mango Tree Poem

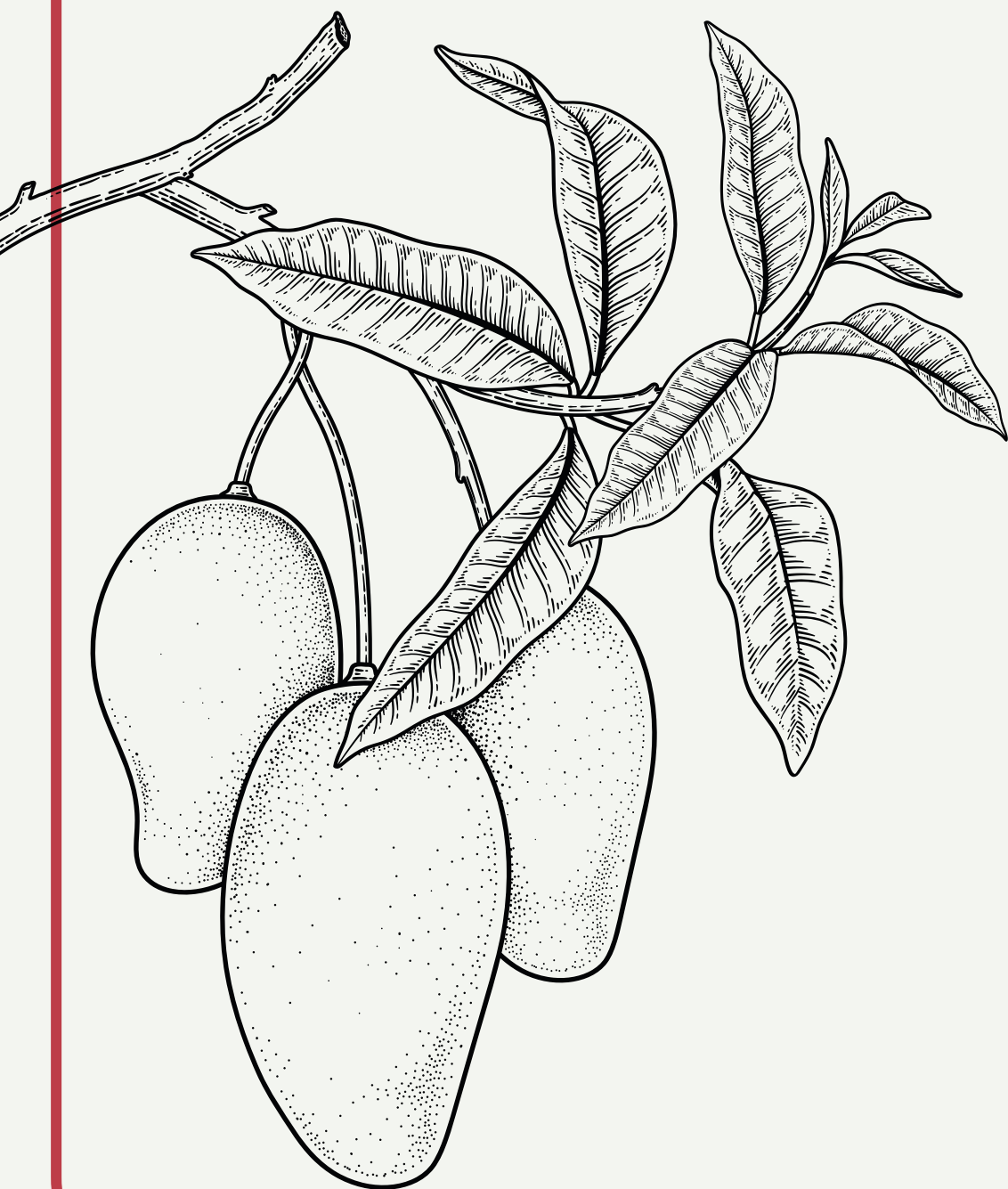
Aquí se puede observar una pintura del ave trogón (Trogonidae), muy similar al quetzal. En los alrededores de Nacientes Palmichal hay una ruta de observación de aves donde se han identificado más de 150 especies. También se presenta un poema que refleja la esencia de Palmichal, inspirado en el árbol de mango sembrado hace más 100 años en el centro del pueblo, cuyos frutos aún son aprovechados por los pobladores. El poema fue escrito por una autora nacida en Palmichal y expresa el cariño y la conexión que la comunidad siente con este árbol emblemático.

Here you can see a painting of the trogon (Trogonidae), a bird very similar to the quetzal. Around Nacientes Palmichal, there is a birdwatching trail where more than 150 species have been identified. You can also read a poem that reflects the essence of Palmichal, inspired by the mango tree planted more than 100 years ago in the town center, whose fruit is still enjoyed by locals. The poem was written by a woman born in Palmichal and expresses the affection and connection the community feels for this symbolic tree.

### **The Mango Tree of Palmichal**

*Lyrics: Edita Marín Rodríguez*

*Music: Manuel Artavia Morales*



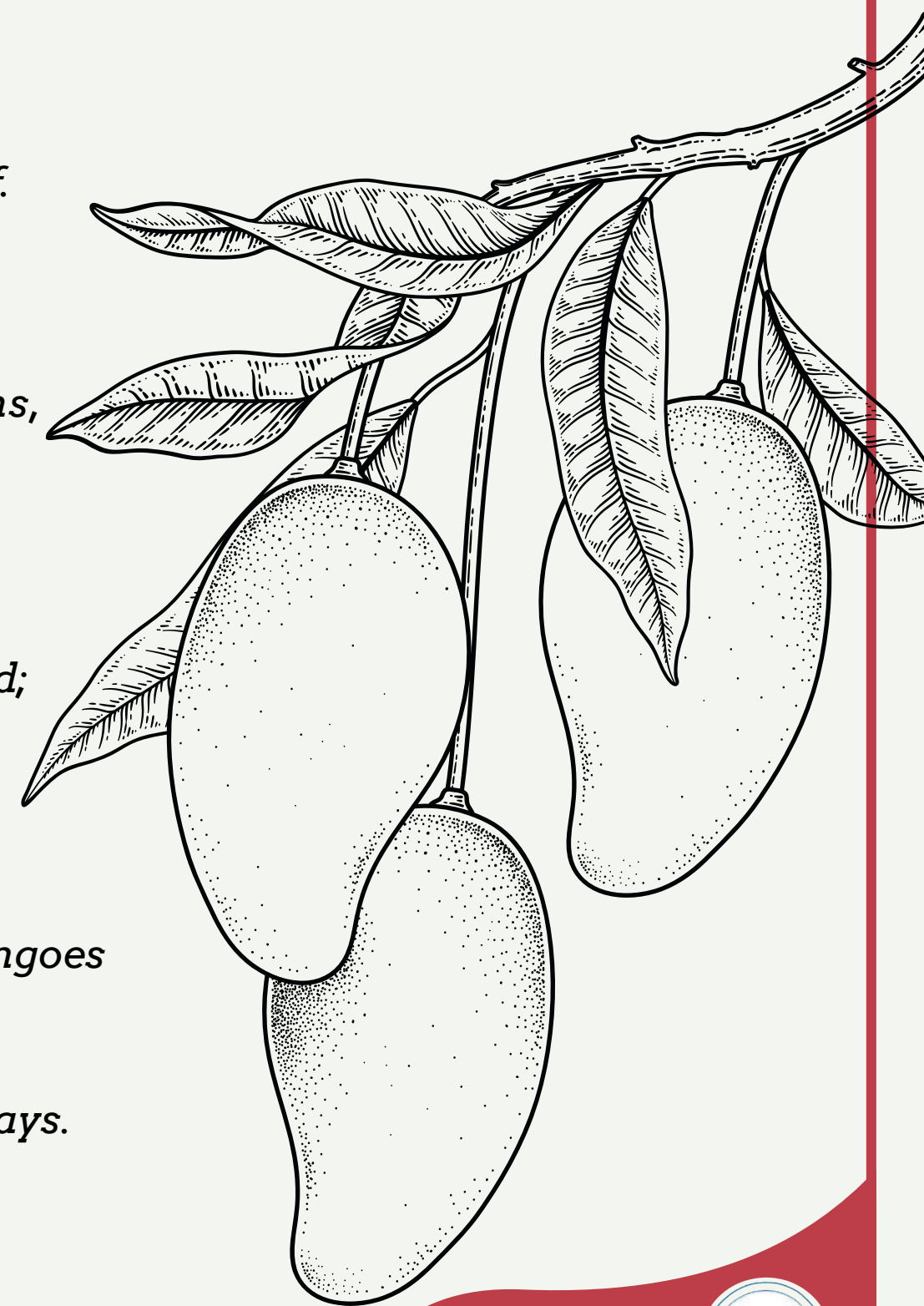
I  
*Gentle and beautiful mango tree,  
you stand with grace like a noble chief.  
I always seek your friendly shade  
when I return to my Palmichal.*

II  
*Your branches stretch like youthful arms,  
longing to embrace a dear beloved,  
and calmly watch the people pass  
on their way to church to pray.*

III  
*Years have gone since you were planted;  
Joaquín Sandí was there to see.  
You fed barefoot children snacks,  
as all the kids once were around here.*

IV  
*Now they are grandparents. Still, your mangoes  
bring delight to every taste,  
as if to say that staying healthy  
keeps young people safe from harmful ways.*

V  
*I greet you, noble mango tree,  
a banner proud and full of grace.  
I love your shade, your friendly shelter,  
just as I love my Palmichal.*



36 m / 2.1 km



# Captación de Agua y Acueducto Rural

## Water Catchment and Rural Aqueduct

En este bosque se encuentra la captación de cuatro nacientes que alimentan parte del sistema de acueducto de Palmichal de Acosta y Piedra Blanca de Mora, abasteciendo a aproximadamente 1,700 viviendas (cerca de 7,000 personas).

In this forest, you can see the collection system for four springs that supply part of the aqueduct for Palmichal de Acosta and Piedra Blanca de Mora, serving around 1,700 households (about 7,000 people).

### ASADAS

Las asociaciones administradoras de sistemas de acueductos comunales (ASADAS) son fundamentales en Costa Rica para brindar agua potable en zonas rurales. Gracias a estas iniciativas locales, el país mantiene altos índices de salud en estas comunidades. Es admirable cómo las comunidades han desarrollado capacidades de administración y financiamiento para mantener sus sistemas de acueducto.

Community-managed aqueduct associations (ASADAS) are essential in Costa Rica for providing potable water in rural areas. Thanks to these local efforts, the country maintains high health standards in these communities. It is admirable how these communities have developed the ability to manage and finance their aqueduct systems.



## El Güitite: Árbol Endémico y Vital

### The Guitite: Endemic and Vital Tree

A lo largo del recorrido hacia la Reserva Las Nacientes se pueden observar árboles endémicos como el Güitite (*Acnistus arborecens*). Esta especie es importante para la biodiversidad, especialmente para las aves, ya que produce una flor que atrae insectos y colibríes, y un fruto de color naranja intenso. Las aves consumen sus frutos y semillas, y luego las dispersan, contribuyendo a la regeneración del bosque. Es un árbol de gran belleza y relevancia ecológica.

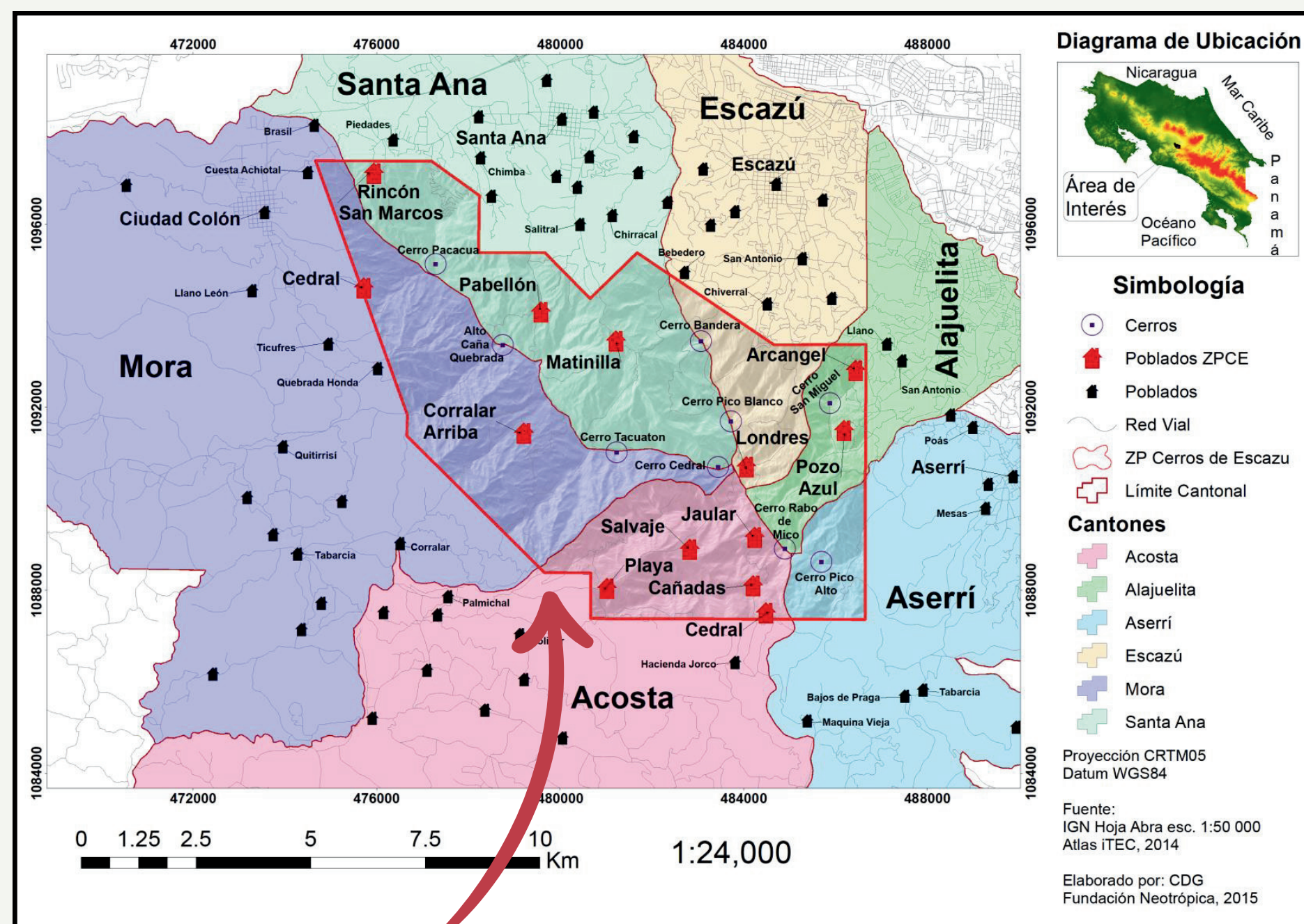
Along the trail to Las Nacientes Reserve, you can see endemic trees like the guitite (*Acnistus arborecens*). This species plays a key role in biodiversity, especially for birds, as it produces flowers that attract insects and hummingbirds, and a bright orange fruit. Birds feed on its fruits and seeds and disperse them, aiding forest regeneration. It is a beautiful tree with great ecological importance.

# Zona Protectora Cerros de Escazú

## Cerros de Escazú Protected Zone

Este punto permite conocer la Zona Protectora Cerros de Escazú, parte del Sistema Nacional de Áreas de Conservación de Costa Rica, que incluye reservas forestales, parques nacionales y reservas biológicas. La Zona Protectora Cerros de Escazú (ZPCE) fue creada en 1976 con el objetivo de conservar la conectividad entre parches de bosque y las nacientes de agua. Tiene una extensión de 7,175 hectáreas, distribuidas en seis cantones: Santa Ana, Mora, Escazú, Acosta, Alajuelita y Aserri. Su visión y misión están orientadas a la conservación de los servicios ecosistémicos y al aprovechamiento sostenible de los recursos naturales del Valle Central.

This point introduces the Cerros de Escazú Protected Zone, part of Costa Rica's National System of Conservation Areas, which includes forest reserves, national parks, and biological reserves. The Cerros de Escazú Protected Zone was created in 1976 to conserve connectivity between forest patches and protect spring water sources. It covers 7,175 hectares across six cantons: Santa Ana, Mora, Escazú, Acosta, Alajuelita, and Aserri. Its vision and mission are focused on preserving ecosystem services and promoting the sustainable use of natural resources in the Central Valley.



**Usted está aquí**  
You are here

242 m / 2.1 km



# El Río Tabarcia: Fuente de Vida

## The Tabarcia River: Source of Life

La Reserva Natural ADESSARU se encuentra entre dos subcuencas: la del río Tabarcia al sur y la del río Negro al norte. El río Tabarcia es de gran importancia para las comunidades rurales cercanas a San José. De este río, la institución Acueductos y Alcantarillados capta agua para abastecer a unas 40,000 personas. A lo largo del recorrido, es posible caminar junto al río y apreciar su valor natural, la protección de sus riberas, el canto del agua y de las aves. Sus aguas son cristalinas y limpias.

The ADESSARU Nature Reserve is located between two sub-watersheds: the Tabarcia River to the south and the Negro River to the north. The Tabarcia River is vital to nearby rural communities of San José. The national water company captures water from this river to supply around 40,000 people. Along the trail, visitors can walk beside the river and appreciate its natural value, the protected riverbanks, the sound of the water, and birdsongs. Its waters are crystal clear and clean.

### Keissy Morales

Obra de arte de la estudiante local  
Artwork by local student



0.6 km / 2.1 km

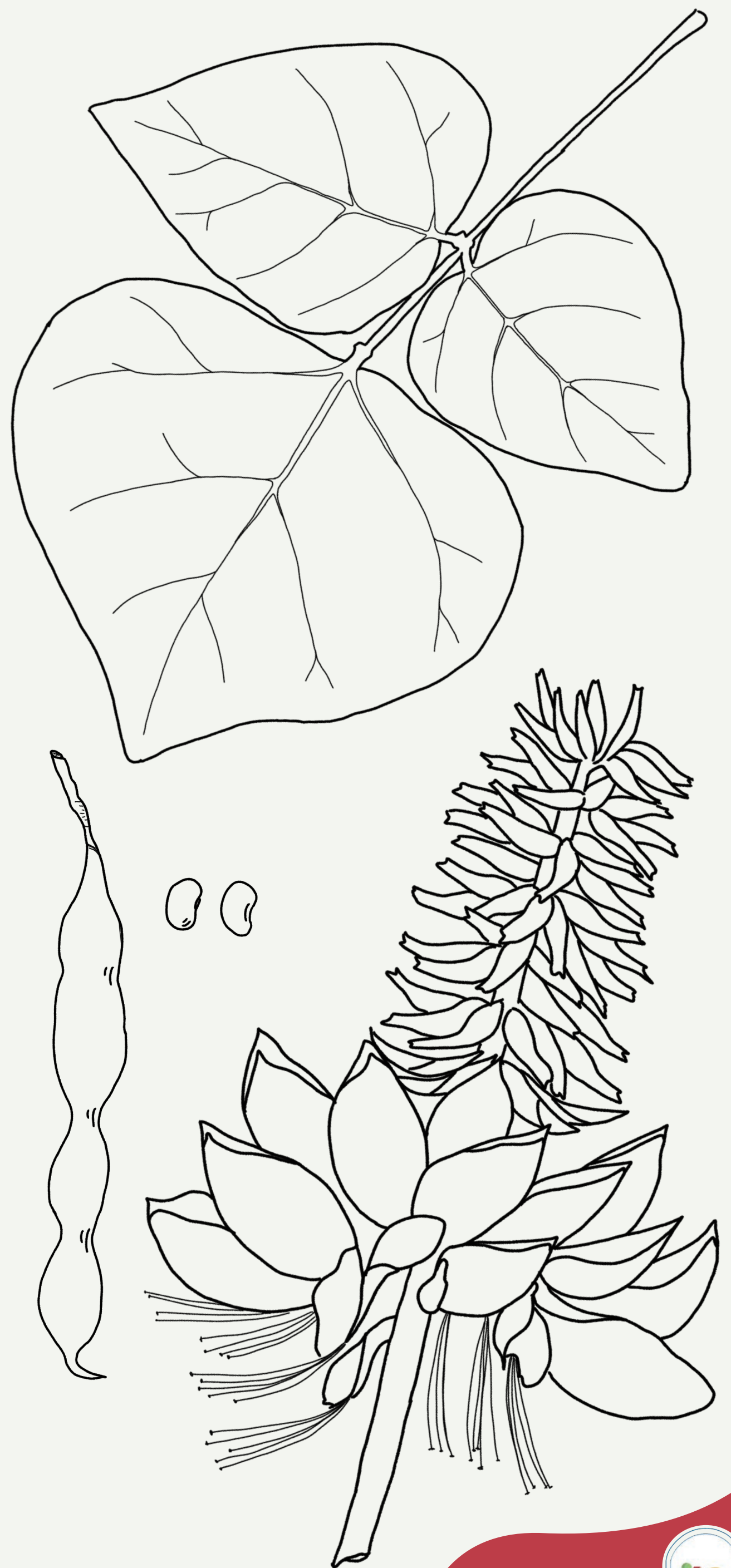


# Reforestación Comunitaria con Roble Coral

## Community Reforestation with Coral Oak

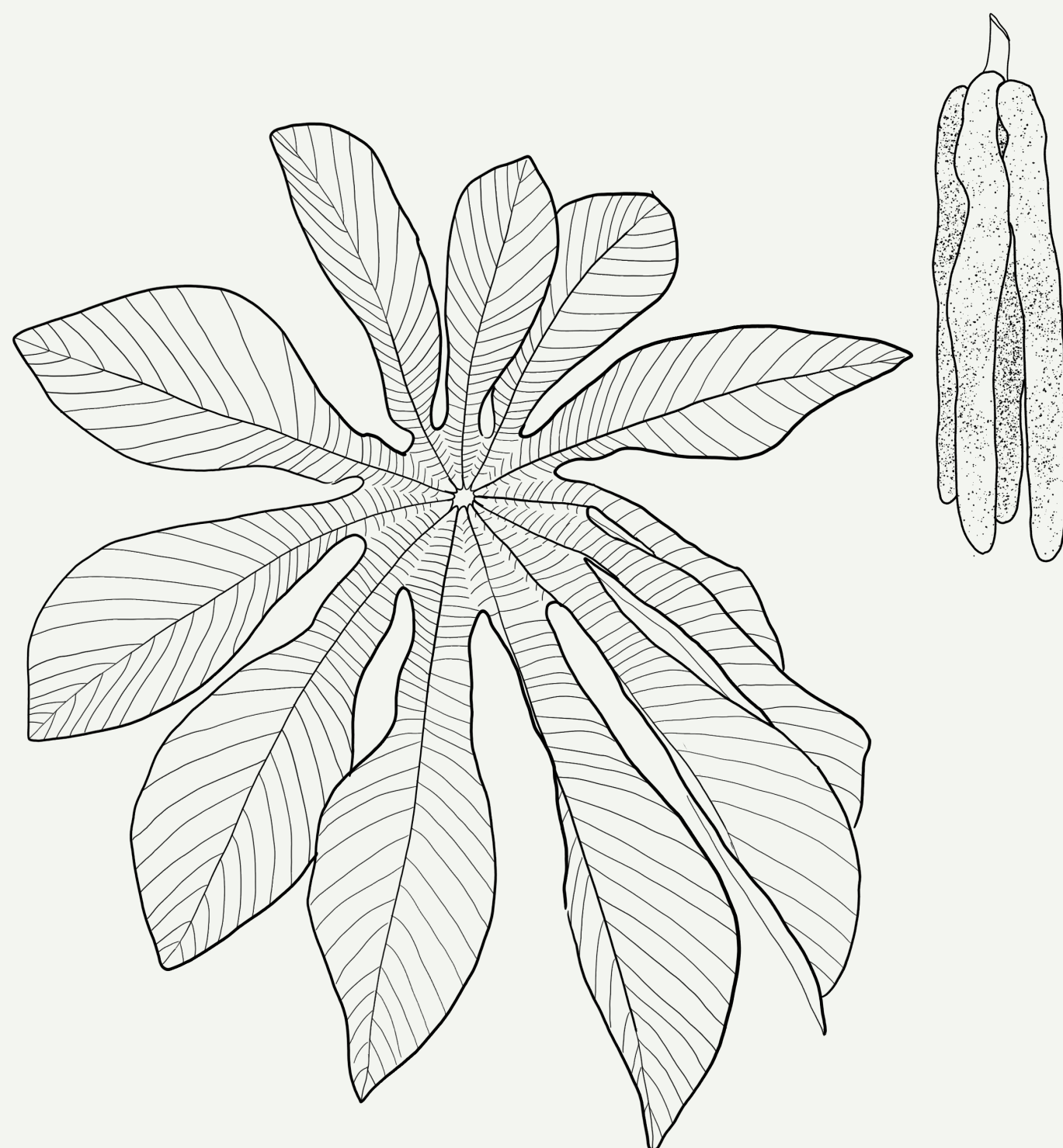
La Reserva Natural de la Asociación ADESSARU se ubica en la parte alta de la subcuenca del río Tabarcia. El recorrido inicia a una altitud de 1,425 metros sobre el nivel del mar, en una zona clave para la recarga acuífera. A la derecha, se pueden observar árboles de roble coral, sembrados en el año 2010 por estudiantes de la escuela de Palmichal, como parte de las jornadas de reforestación de ADESSARU.

The ADESSARU Association's Nature Reserve is located in the upper part of the Tabarcia River watershed. The trail begins at an altitude of 1,425 meters above sea level, in a key area for groundwater recharge. On the right, you can see coral oak trees planted in 2010 by Palmichal school students as part of ADESSARU's reforestation efforts.



0.66 km / 2.1 km





# Guarumo: Árbol Medicinal y Fertilizador

## Guarumo: Medicinal Tree and Fertilizer

En este punto se pueden observar árboles conocidos como Guarumos o Cecropia, reconocidos por sus múltiples beneficios. Sus hojas y tallos se utilizan para hacer té con propiedades medicinales. Además, producen abundante alimento para las aves, que dispersan sus semillas y ayudan a la formación de suelos fértiles, esenciales para el nacimiento de nuevos bosques.

Here you can observe trees known as Guarumos or Cecropia, valued for their many benefits. Their leaves and stems are used to make medicinal tea. They also provide abundant food for birds, which disperse the seeds and help create fertile soil, essential for the growth of new forests.

0.88 km / 2.1 km



## Robles Cubiertos de Vida

### Oaks Covered in Life

En esta área se puede ver un roble cubierto de musgo, plantas trepadoras y epífitas como las orquídeas, una característica típica de los bosques nubosos. A medida que se asciende hacia la reserva, se observan más elementos propios de este ecosistema húmedo y con mucha niebla.

In this area, you can see an oak tree covered in moss, climbing plants, and epiphytes such as orchids, a typical feature of cloud forests. As the trail ascends toward the reserve, more elements of this misty, humid ecosystem can be observed.

## Los Bosques Nubosos

### Cloud Forests

Los bosques nubosos son un tipo de bosque tropical montano que se encuentra a gran altitud, donde la persistencia de nubes o niebla crea un ambiente húmedo y fresco. Estos bosques se caracterizan por una frecuente nubosidad y una alta humedad, lo que crea condiciones únicas para la diversidad de plantas y animales.

Cloud forests are a type of tropical montane forest found at high altitudes where persistent clouds or fog create a consistently moist and cool environment. These forests are characterized by frequent cloud cover and high humidity, which creates unique conditions for diverse plant and animal life.



# Sendero Ojo de Buey

## Ojo de Buey Trail

Sendero Ojo de Buey: aquí se encuentra la planta conocida como ojo de buey (*Mucuna urens*). Sus semillas tienen macho y hembra: para distinguirlas, se colocan en agua; las que se hunden son hembras. Es típica de zonas altas y se utiliza en la elaboración de artesanías. No debe tocarse, ya que está cubierta de espinas.

Ojo de Buey Trail: here you will find the plant known as ojo de buey (*Mucuna urens*). Its seeds come in male and female; to tell the difference, place them in water, the ones that sink are female. It is common in highland areas and is used to make crafts. Do not touch it, as it is covered in spines.



1.86 km / 2.1 km



# Piedras Glaciares y Flores Aromáticas

A lo largo del recorrido se pueden observar piedras de gran tamaño como esta. Geólogos han indicado que están relacionadas con un periodo glacial, cuando gran parte de la Tierra estaba cubierta de hielo, lo cual explica su exposición actual. También es posible apreciar la belleza de los árboles en flor, como este que atrae muchas abejas y mariposas. Su flor tiene un aroma delicioso, especialmente en la primavera.

# Glacial Boulders and Fragrant Blooms

Along the route, you can see large boulders like this one. Geologists have indicated they are related to a glacial period when much of the Earth was covered in ice, which explains their current exposure. You can also enjoy the beauty of flowering trees like this one, which attract many bees and butterflies. Their flowers have a delightful scent, especially in the spring.

0.5 km / 2.1 km



## Espacio de descanso

Este es un punto ideal para conectarse con el agua y la naturaleza. Su arena suave, las aves y las mariposas que lo rodean lo convierten en un espacio perfecto para descansar. Para quienes no puedan continuar con el recorrido, este es un excelente lugar para quedarse y relajarse junto al río.

## Resting spot

This is an ideal spot to connect with water and nature. The soft sand, along with the birds and butterflies that surround it, make it a perfect place to rest. For those unable to continue the hike, this is an excellent area to stay and relax by the river.

0.8 km / 2.1 km



# Regeneración Natural del Bosque

Aquí se observa un proceso de regeneración natural que ha tomado diez años. Esta zona estaba poblada por cipreses, una especie exótica e introducida. Luego de su tala, la naturaleza inició su proceso de restauración, permitiendo el retorno de la flora nativa de forma natural.

# Natural Forest Regeneration

Here you can observe a natural regeneration process that has taken ten years. This area was previously filled with cypress trees, a non-native and introduced species. After their removal, nature began restoring itself, allowing native flora to return naturally.

1.24 km / 2.1 km



## Espacio de descanso

En este punto se encuentra una pequeña catarata con agua a una temperatura aproximada de 18°C. Es un lugar refrescante y agradable, rodeado de zonas ideales para descansar, relajarse y disfrutar de la tranquilidad.

## Resting spot

This spot features a small waterfall with water at an approximate temperature of 18°C (64°F). It's a refreshing and pleasant place, surrounded by areas perfect for resting, relaxing, and enjoying the tranquility.

1.3 km / 2.1 km



## Espacio de descanso

Este espacio permite disfrutar del río: bañarse, sentarse sobre las piedras y refrescarse. Al cruzar el cauce, se puede observar el nacimiento de una fuente que alimenta de manera continua este ecosistema.

## Resting spot

This space offers a chance to enjoy the river: swimming, sitting on the rocks, and cooling off. When crossing the riverbed, you can observe one of the springs that continuously feed this ecosystem.

1.56 km / 2.1 km



# Precaución: Sendero con Piedra Suelta

Este tramo del sendero está compuesto por piedra suelta, lo que puede representar un riesgo para los visitantes. Se recomienda caminar con precaución y utilizar apoyo si es necesario.

# Caution: Loose Stone Trail

This section of the trail is made of loose stones, which can pose a risk to visitors. It is recommended to walk with caution and use support if needed.

1.9 km / 2.1 km



# Nuevo Sendero con Apoyo Académico

A pocos metros del mirador, se encuentra un sendero en construcción gracias al apoyo de varias universidades, especialmente la Universidad Estatal de Michigan (MSU). El objetivo es crear espacios adecuados para que los visitantes disfruten aún más del lugar.

# New Trail with Academic Support

A few meters before the viewpoint, there is a trail under construction thanks to the support of several universities, especially Michigan State University (MSU). The goal is to create improved spaces for visitors to enjoy the area even more.

2 km / 2.1 km



# Anfiteatro para el Aprendizaje Colectivo

Este espacio se utiliza para reuniones, especialmente con estudiantes o grupos visitantes. Aquí se dialoga sobre la formación de los jóvenes y los retos del futuro. El anfiteatro fue construido con recursos propios y trabajo voluntario.

# Amphitheater for Collective Learning

This space is used for meetings, especially with student groups or visitors. Here, conversations focus on youth development and future challenges. The amphitheater was built with our own resources and volunteer work.

2.1 km / 2.1 km



# Pago por Servicios Ambientales (PSA)

Esta área muestra una de las acciones de conservación de ADESSARU: el pago por servicios ambientales (PSA) en 16 hectáreas de bosque. Por esta labor, se recibe aproximadamente \$800 USD anuales del Ministerio de Ambiente y del Fondo Nacional de Financiamiento Forestal, con apoyo internacional de países como los escandinavos, Estados Unidos y Alemania.

# Payment for Environmental Services

This area highlights one of ADESSARU's conservation efforts: payment for environmental services on 16 hectares of forest. For this work, they receive about \$800 USD per year from the Ministry of Environment and the National Forestry Financing Fund, supported by international contributions from countries such as the Scandinavian nations, the United States, and Germany.

1.45 km / 2.1 km



# La Gran Piedra del León Breñero

La gran piedra que se observa al fondo es la más grande del recorrido y, según vecinos, de toda la región. Se conoce como León Breñero o yaguarundí, un mamífero de aproximadamente 70 centímetros. Su nombre también evoca especies como el jaguar, el tepezcuintle, los zorros y otras aves y mamíferos que habitan la zona. Es un buen lugar para descansar y observar la naturaleza.

# The Great Rock of the León Breñero

The large rock seen in the background is the biggest on the trail and, according to locals, in the entire region. It's called León Breñero or yaguarundí, a mammal about 70 centimeters long. The name also evokes species such as jaguar, agouti, foxes, and other birds and mammals found in the area. It's a great spot to rest and observe nature.

1.74 km / 2.1 km



# Mirador El Brócoli: Vista al Salvaje

## El Brócoli Viewpoint: View of El Salvaje

El Mirador El Brócoli se encuentra en el centro de la reserva, a 1,800 metros de altitud. Desde este punto se puede observar la montaña El Salvaje, donde nace el río Tabarcia, y escuchar el canto del agua. El lugar está rodeado de una gran variedad de árboles y aves. Entre los proyectos futuros se encuentra la construcción de infraestructura básica para mejorar la experiencia de los visitantes.

El Brócoli Viewpoint is located in the center of the reserve, at 1,800 meters above sea level. From this point, you can see El Salvaje mountain, where the Tabarcia River originates, and hear the sound of flowing water. The area is surrounded by a wide variety of trees and birds. One of the future projects is to build basic infrastructure to improve the visitor experience.

*Cerro Cedral*  
(2,420 m)

*Cerro Rabo de Mico*  
(2,428 m)

*El Salvaje*  
(1,850 m)

2.1 km / 2.1 km

