WeForest

2024 Project Update

Restoring Misiones' Forest for People and Nature

Misiones, Argentina
Wildlife Corridors

Timeline:
2022 - 2025

Targeted ecosystem:
Atlantic Forest

KBA KEY BIODIVERSITY AREAS

Pinalito #19608 Cruce Caballero #19619
Alta cuenca del arroyo Alegría #19603
Urugua-í #19596
Reserva de la Biosfera Yabotí #19609

Project management and M&E team

Main implementing partners:
Fundación Vida Silvestre (FVS)
Co-funded by WWF Netherlands (50%)

Dr Natalia Guerin
Brazil & Argentina Country Manager

Claudia Amicone
Project Coordinator, FVS

See the full team at:
www.weforest.org/about-us/#our-team

Project story

The state of Misiones, Argentina, contains the largest remaining tract of Atlantic Forest. It is also home to an important sub-population of jaguars, with around 50 individuals. However, around 50% of the native forest is unprotected and located in a mosaic of plantations and pasturelands. Agriculture here is mainly dominated by perennial crops, particularly yerba mate, a native Atlantic Forest tree whose evergreen leaves produce a high-caffeine tea.

The project aims to engage 93 smallholder farmers to kickstart the transformation of the current agricultural model, promoting a forest-based production of yerba mate and improving water access and resources by restoring degraded sites, creating forest patches that connect the Yabotí Biosphere Reserve with the Piñalito and Cruce Caballero Provincial Parks.

Key challenges in the landscape

Habitat loss from land use changes to agriculture, forestry, and cattle grazing, as well as illegal poaching, timber extraction, road development, and climate change.

Indirect drivers include weak governance, insufficient law enforcement, and economic constraints.

Our integrated approach

The project is funded in partnership with WWF - Netherlands, who provide half of the co-funding for the project, with WeForest co-funding the remaining half. It is implemented by Fundación Vida Silvestre (FVS), and the three organisations work in coalition, albeit in different roles, to deliver the whole project.

It aims to:

Improve forest governance and stewardship through:

- Developing a management plan for the Cruce Caballero-Yabotí area that reflects a shared vision agreed upon with the key stakeholders.
- Improved community awareness for forest restoration and conservation.

Conserve and restore the forest through:

- Restoring 372 hectares of forest and landscape through full planting, assisted natural regeneration and yerba mate agroforestry.
- Reinforcing Misiones' 'Node of the Native Plant Nursery Network' (REVINA).
- Promoting the Trinational Alliance for the Atlantic Forest Restoration.
- Identify opportunities for increasing protected areas.

Strengthen forest-friendly livelihoods and behaviors through:

- Improving local incomes through productive Yerba Mate agroforestry and support to other productive activities (such as horticulture and beekeeping).
- Capacity building on best practices for productive management.
- Improving water access for local families by enhancing the distribution system and/or safe storage.

A long-term vision

Climate

The restoration of the landscape will contribute to both climate mitigation and adaptation: increasing tree cover to sequester carbon while improving water retention and soil stability to help communities adapt to droughts and erratic weather.

Nature

Restoring the project area will protect biodiversity and secure critical ecosystem services like water and soil health. Improved land management will enhance habitat resilience, ensuring the forest continues to sustain both people and wildlife.

People

Strengthened governance and forest-friendly livelihoods will ensure communities see the forest as an asset: one that provides resources while being sustainably managed. By introducing agroforestry to the landscape, the project reduces deforestation-driven income reliance while securing long-term economic stability.

Outcomes

By integrating these interventions, the project will:

- **Consolidate** the Cruce Caballero-Yabotí corridor as a sustainable production and connectivity area, by maintaining its forest cover, recovering ecological functionality for jaguars and improving human wellbeing
- The **long-term** impact of our work will benefit people, nature and climate.

Theory of Change

Existing problems in the landscape

- Deforestation
- Road development
- Habitat fragmentation
- Intense droughts
- Land conversion to agriculture
- Illegal forest resource extraction
- Weak governance structures
- Insufficient law enforcement

Risks

- Biodiversity loss
- Climate change
- Decline in ecosystem services

WeForest Interventions

Improved forest governance and stewardship

- Developing a management plan
- Community engagement

Restoring and conserving at-risk forests

- Full planting
- Assisted natural regeneration

Introducing forest-friendly livelihoods and behaviours

- Agroforestry
- Capacity building
- Improve water access and productive activities tailored to farmer's needs

Project outcomes

- Increased forest cover within the Cruce Caballero-Yabotí landscape improving habitat for the jaguar population.
- Improved livelihoods and built capacity of local communities.
- Strengthened governance of the Cruce Caballero-Yabotí intervention area and improved multi-stakeholder alliances and networks for restoration.

Long term impact

Climate

Stored and sequested carbon

Nature

Thriving biodiversity and intact ecosystems

People

Sustainable and resilient communities

2024 Major Achievements

The Misiones Forest Restoration Project was declared of provincial interest by the Chamber of Representatives of Misiones Province.

Direct intervention was undertaken on 133 hectares.

There are now 52 members in the Argentinian Chapter of the Trinational Alliance for the Atlantic Forest Restoration. The growth of the Trinational Alliance for the Atlantic Forest Restoration has attracted interest and support from government agencies, such as the Iguazú National Park Chief and the Ministry of Climate Change of Misiones province. Both institutions joined the alliance, and conversations are now being held to also bring the Ministry of Ecology to the alliance, and restoration work in the province.

Case study

Discussions on yerba mate marketing were advanced, comparing conventional models, which are experiencing declining prices, with organic and agroforestry models. The National Institute of Agricultural Technology (INTA) and WeForest shared insights from similar value-chain experiences, sparking farmers' interest in developing a local brand. With many producers shifting to tobacco due to low yerba prices, this dialogue highlighted the need for collective strategies to build a differentiated market - a key challenge in the region, where cooperative models have historically struggled.

2024 activity update

Improved forest governance and stewardship

- Launch of the Secretary of Rural Development and Environment of San Pedro Municipality. The Secretariat has identified six priority goals, including the restoration of degraded areas within the municipality and the establishment of an inter-institutional coordination space for San Pedro. This latter goal builds upon and institutionalizes the 'multi-stakeholder roundtable' initiative that the project sought to strengthen.
- 13 bilateral meetings held to improve stakeholder involvement, facilitated by FVS.

Restoring and conserving at-risk forests

- 25 hectares of full planting; 16,250 seedlings planted
- 53 hectares of enrichment planting; 12,190 seedlings planted
- 28 nurseries were supported with training and provision of supplies, with 82 attendees. To date, 6 nurseries are providing seedlings to the project.
- 108 hectares of land were donated for conservation in Misiones province.

Introducing forest-friendly livelihoods

- 55 hectares of yerba mate agroforestry; 6,600 native seedlings and 34,100 yerba mate seedlings were planted.
- 31 new households were engaged in alternative livelihood activities, receiving training and with improved water access.
- A diagnosis of opportunities and needs to strengthen the value chain of yerba mate produced in agroforestry systems was undertaken.
- 9 workshop with 52 families participating took place to discuss: yerba mate harvesting techniques, fertilization and biofertilizers preparation for yerba mate for high yield, alternative systems for yerba mate production and management, beekeeping, horticulture, cover crops (for summer/winter) and the Biodiversity Baseline study results were also shared among the families involved in the project.

One baseline assessment was conducted to evaluate biodiversity and water conditions on the farms participating in the project. Key findings included:

- **Mammals** No large felines or ungulate herbivores were present; Ocelot, tapetí and paca are present in low abundance; Crab-eating fox, coati, tayra, raccoon and small felines are the dominant meso-carnivores and domestic dogs are abundant. The forest functions as a corridor for meso-carnivores, armadillos and anteaters, but it is not yet functional for larger species. The main threats to mammals are hunting, dogs, and habitat fragmentation. The recommendations were to protect the remaining forests through preventing logging and conversion to farmland; to restore connectivity in riparian corridors and on hills; to reduce free-roaming dogs and livestock in forests.
- **Vegetation** Currently there is low regeneration. Seedlings are scarce, especially in riparian forests, due to invasive plants, livestock grazing and small fires. Continued management is required, including post-planting care in yerba mate plantations and in forest strips.
- **Birds** Enrichment areas within the secondary forests had the highest diversity, including threatened species like the Vinaceous-breasted amazon. Yerba mate plantations were dominated by open-area birds, which is expected to shift as the trees mature. In restoration areas there are mixed bird communities, transitioning toward forest species.
- **Water Quality** Water was found to be contaminated with high E. coli levels, making it unsafe for human consumption. Recommendations were made to protect spring forests, improve water infrastructure and treatment and continue monitoring.

Progress tracker

See end of report for our progress tracking methodology

Case study

Restoration Technician Jonatan Villalba and participating farmers signed project agreements to formalize their collaboration during the official onboarding event at FVS's Cruce Caballero office.

Case study

A technical training session at Eldorado was conducted by REVINA, in collaboration with the Forest Science Faculty of UFAM. The workshop covered three key topics: species identification, seedling quality standards, and best practices for seed harvesting. With approximately 40 participants, this initiative represents part of REVINA's ongoing efforts to enhance nursery operations and foster engagement among forest restoration stakeholders in Misiones.

2024 Challenges

Climate change is altering traditional rainfall and drought patterns, requiring fundamental adjustments to our activity timelines. The primary project risk stems from these shifting climate conditions, which threaten implementation effectiveness.

In response, we will:

- Redesign planting schedules to avoid increasingly unpredictable drought periods;
- Prioritize spring interventions to maximize water availability during dry seasons;
- Enhance soil cover maintenance as a critical climate resilience strategy.

The political context in Argentina may require a greater focus on political advocacy, as well as strengthening the multi-actor collaboration spaces established. Furthermore, it will be key to continue with strong involvement from local authorities to sustain the agenda of conservation and sustainable management of native forests.

Looking ahead to 2025

The Misiones will continue into 2025, with priorities including:

- The completion of Phase 1 implementation, achieving 372 hectares of interventions with 93 families from Colonia Alegria
- Evaluating the results and lessons learned from Phase 1
- Reviewing the project's Theory of Change
- Undertaking discussions and planning for Phase 2, due to run from July 2025 to December 2028.

Supporters & Partners

2024 project partners

Fundación Vida Silvestre is the main implementing partner of the project.

WWF - Netherlands provides 50% of the co-funding for the project, with WeForest co-funding the remaining 50%.

The Municipality of San Pedro supports implementation activities and assigned one employee to work directly on the project.

National Institute of Agricultural Technology (INTA) supports implementation activities, assigned 3 researchers to work in the project providing technical assistance to the farmers

National Council of Scientific and Technical Researchers (CONICET) was contracted to conduct a baseline evaluation of flora, mammals, birds and water quality in the project area.

With thanks to our supporters in 2024, including:

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Contact us

Visti **www.weforest.org** or for more information or email: **contact@weforest.org**

How we measure and forecast our impact

Baseline

For the sake of simplicity, the progress bars in this report show a baseline of zero. This represents the concept that the area covered by WeForest forest and landscape restoration (FLR) activities was zero; thus the associated trees conserved and restored, carbon stored and households impacted through WeForest intervention was also zero.

In reality, when a WeForest project begins, our Monitoring, Evaluation and Learning team undertakes a detailed survey on forest structure and regeneration through establishing Permanent Monitoring Plots, and conducts an extensive questionnaire on livelihoods, to establish meaningful baseline values. You can read more about our full MEL activities here.

Hectares planted, conserved and restored

Progress up to 2024

Verifiable cumulative total since the project began of all mapped intervention sites, also known as polygons, of:

1) Conservation forest areas, such as forest reserves

2) Restoration forest areas, such as Assisted Natural Regeneration and planting areas

3) Agroforestry areas on community/farm land

End of Project Target

Target number based on the potential area of land able to be conserved, restored and planted in the project area under the known and expected conditions at project start. However, it is subject to change based on unforeseen opportunities or challenges that may arise.

Anticipated tons of CO2 to be sequestered through project activities

Progress up to 2024

Extrapolated tons of CO2 calculated from the measured areas of different types of land use (for example forest or agroforestry) under “Hectares of forest planted, conserved and restored” to date, and the average amount of projected long-term CO2 per hectare provided from literature review for each land use type in their locations. Although totalled, please note the methodology for calculating these CO2 projections are specific to land-use type, and span a period corresponding to the expected time taken for the trees to reach maturity, which varies between locations.

End of Project Target

As above, but using the target (and not current) number of hectares planted, restored and conserved and their respective area totals as a parameter for calculations. As this parameter is subject to change, the associated CO2 target may also change over time.

Number of trees conserved and restored*

Progress up to 2024
Extrapolated number of trees calculated from the measured areas of different land use types (for example conservation areas, restoration areas or agroforestry) under “Hectares planted, conserved and restored” to date, and the average tree densities observed for each land-use type when mature, known through our MEL activities or scientific literature.

End of Project Target
As above, but using the target (and not current) number of “Hectares of forest planted, restored and conserved” and their respective area totals as a parameter for calculations. As this parameter is subject to change, the associated trees conserved and restored target may also change over time.

*Estimations based on average numbers per hectare

Trees planted to date (2024)

Total
Actual counted number of planted seedlings and saplings of woody (tree and shrub) species in the project to date.

Trees planted for forest-friendly livelihoods and behaviors
Only woody species directly planted for livelihood improvement. This also includes woody fruit, fodder & timber trees, and woody cash crops, exclusively planted on community or farm land.

Trees planted for forest conservation and restoration
Only woody species that were directly planted for ecological reasons, aiding restoration of the natural forest ecosystem.

Woody species in project to date (2024)

Total
Actual observed number of woody (tree and shrub) species:

- Regenerating in the conservation/restoration zones (i.e. in the Permanent Monitoring Plots) and
- Planted, either for restoration or livelihood improvement
- Growing as mature trees in the conservation/restoration zones (i.e. in the permanent monitoring plots).
- Please note, these numbers are not exhaustive and the true species richness is likely to be higher.

Tree species for forest-friendly livelihoods and behaviors
Only woody species directly planted for livelihood improvement. This also includes woody fruit, fodder and timber trees, and woody cash crops, exclusively planted on community or farm land.

Tree species for forest conservation and restoration
The woody species observed in the project area that are not used for livelihood improvement purposes. Where species are used for both livelihood improvement and restoration (which is sometimes the case, as we use native species as much as possible), they have been counted under ‘forest-friendly livelihoods and behaviors’.

Mammal and bird species sighted to date

Numbers are included where we have a good level of biological monitoring, for example using camera traps or audio devices - please note that numbers are unlikely to capture the full species richness of the project area and that the absence of reporting does not imply the absence of species.

Other notes

WeForest works in close cooperation with local partner organisations, institutions, community-based organizations and local people. Therefore, our impact can never be fully separated from the work of our partners. WeForest acknowledges that the presented impact numbers cannot be solely attributed to our work, but is also supported through the hard work contributed by all our local partners.

Terminology

Conservation
Where native forest canopy cover is still intact, we focus on protecting the forest from any threats and disturbances, such as overgrazing, unsustainable wood extraction and fire.

Restoration
Assisted Natural Regeneration (ANR): Where there is reduced forest cover but high potential for natural regeneration, we aim to accelerate natural recovery, typically through preventing soil degradation, reducing competition with weeds, and protecting young trees.

Tree planting
Where there is reduced forest cover and little regeneration potential, we actively plant native trees at a density that corresponds with the regeneration potential.

Agroforestry and tree crops
Where agricultural landscapes exist, WeForest promotes the planting of trees for livelihood improvement. These trees can be used either for direct consumption or sale (fruits, timber, fuelwood) or to support other crops or livestock (agroforestry). Native tree species are prioritized but, where necessary, non-native species may be used.