

2024-2025 CORAZÓN VERDE DEL CHACO PROJECT'S MONITORING REPORT



Project title	Corazón Verde del Chaco Project
Project ID	2611
Crediting period	1 July 2020 – 30 June 2060
Monitoring period	01 January 2024 – 31 December 2025
(CCB) GHG accounting period	1 July 2020 – 30 June 2060; 40-year GHG Accounting Period with option to extend.
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Version	1.0
VCS Standard version	4.0
CCB Standards version	3.0
Project location	Paraguay, Presidente Hayes Department
Project proponent(s)	Quadriz Paraguay S.A. Marcel van Heesewijk Registered legal address: Avda. Aviadores del Chaco 2050, WTC, Torre 1, P9, Asunción, Paraguay Asunción new office address: Avda. Aviadores del Chaco 2581, SkyPark, Torre 3, Piso 19, Asunción, Paraguay Chaco office: Estancia Sta. Rosanna, Carmelo Peralta, Alto Paraguay, Paraguay Phone: +33 6 48 58 12 88

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History of CCB Status	The Project has completed validation and completed its initial, second, and third verifications to the CCB. The Project is now undergoing its fourth verification to the CCB.
Gold Level criteria	The Biodiversity Gold Level criteria is used. The Corazón Verde del Chaco Project is an avoided deforestation project and thus, protects important habitats for a wide range of species including the Vulnerable giant anteater (<i>Myrmecophaga tridactyla</i>), the Vulnerable lowland tapir (<i>Tapirus terrestris</i>), and the Near Threatened and iconic jaguar (<i>Panthera onca</i>).
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1 SUMMARY OF PROJECT BENEFITS

1.1 Unique Project Benefits

Outcome or Impact	Achievements during the Monitoring Period	Section Reference	Achievements during the Project Lifetime
1) Chaco Alert Flights	In February 2024, discussions began with the Ministry of Public Health and Social Welfare (MSPBS) and its Extrahospital Medical Emergency Service (Servicio de Emergencias Médicas Extrahospitalarias, SEME). In June 2024, talks began with the Paraguayan Air Force (FAP). These institutions are currently working in a coordinated and efficient manner on emergency air transfers in Paraguay. A draft of the “Framework Agreement for Cooperation and Interinstitutional Support” was prepared, and it was decided by the three parties that it would be a tripartite agreement between Quadriz Paraguay S.A., MSPBS and FAP. During 2025, the team focused on legal review, formalization of the agreement, and operational coordination. An adjusted version of the agreement and legal information were submitted to the MSPBS between March - April 2025. In August 2025, Quadriz received from MSPBS a Favorable Technical Opinion on the agreement. In September 2025, the proposed agreement was submitted to the	4	Chaco Alert flights are estimated to impact the local communities by providing improved access to health facilities, life-saving medicines, and medical professionals. To date, Quadriz: began the initial design of Chaco Alert; reviewed potential plane models; assessed landing sites and locations of hospitals; reviewed relevant laws and regulations; designed a Chaco Alert Survey; spoke to pilots; and contacted two medical professionals about their interest in participating. During the 2022 monitoring period, Quadriz spoke with pilots specialized in emergency flights about the technical specifications of the airplane models, Quadriz developed an estimated budget for the conditioning of such an aircraft, and during visits to the Maria Auxiliadora community, the community informed Quadriz again that the

	FAP to move towards signing and program implementation. In December 2025, Quadriz received from FAP a Favorable Technical Opinion on the agreement.		transfer to emergency care centers is a problem and that Chaco Alert remains a desired benefit from the Project. Chaco Alert, an alternative name to Chaco Med, was used during 2023 because the Project may also include monitoring flights. During 2023, the team focused on reviewing appropriate landing sites in the Chaco; deciding on the type of plane based on technical characteristics; analyzing the best way to make the program operational in the Chaco; talking with expert pilots; reviewing health issues, and legal and technical authorizations; and holding interviews with potential companies who can provide the service.
2) Visitors to the Visitor Center	In 2024 and 2025, Quadriz started with the construction and improvement of the facilities for forest guards and in-charge people, including: • A new house was built with the required equipment (e.g., kitchen, bathrooms, etc.) for Quadriz employees, as well as 2 more independent rooms; • An appropriate storage for tools and fuel; • Improvement of facilities in guards' house in the East entrance (e.g., new toilet, new kitchen, 2 bedrooms, water reservoir, mosquito netting around the house);	4	The Project Proponent is in discussions on establishing a Visitor Center in the future, which would help expand awareness of the Project, along with awareness of the region's unique cultures and biodiversity. To date, Quadriz: began the initial design of a Visitor Center; reviewed potential locations for the Visitor Center; discussed the content to be included in the Visitor Center; reviewed relevant laws and regulations; designed a Visitor Center survey; and initiated the

	• New antenna to facilitate communication; • Maintenance of main routes and access; • Maintenance of roof of the Visitor Center; • Internet access all the time by Starlink services; and • Exclusive truck for the Project. In 2024-2025, Quadriz also prepared some materials to be printed for the Visitor Center that gives information about the Endangered Species: jaguar (<i>Panthera onca</i>), giant anteater (<i>Myrmecophaga trydactyla</i>), tapir (<i>Tapirus terrestris</i>), maned wolf (<i>Chrysocyon brachyurus</i>), white-lipped peccary (<i>Tayassu pecari</i>) and giant armadillo (<i>Priodontes maximus</i>).	restoration of the Visitor Center. During the 2022 monitoring period, the main activity related to the Visitor Center was the restoration of its infrastructure. This includes, but is not limited, to acquiring: furniture, a water well, a solar panel, a generator, Wi-Fi service, construction of the manager's house, and equipment and supplies for visitors (e.g., crockery, towels, and sheets). In 2023, a plan for the Visitor Center was developed, including the design of posters with a content proposal. Photos and videos from the Project's wildlife cameras traps were selected and ideas for the development of audiovisual materials for the Visitor Center were established. A trip to record environmental surrounding sounds of the Project has been done, and sounds are going to be available to use in the audiovisual materials of the Visitor Center. This was in the framework of a Master's degree thesis. Regarding equipment, facilities were remodeled to host visitors and the infrastructure of the area was completed in 2023. For example, the construction of a new comfortable house for
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			the person in charge of Corazón Verde del Chaco was finalized at the end of 2024 and the guard's house was remodeled this year (the house has now 2 bedrooms, kitchen, a modern bathroom, house's perimeter is surrounded by metal mesh to keep it isolated from insects and security cameras were installed in the entrance of the house).
3) Wildlife Cameras Deployed	During 2024, Quadriz installed two wildlife cameras for marketing purposes, from March 14, 2024 to May 20, 2024. The cameras captured images of several key biodiversity species. Among them, the cameras photographed a female tapir (<i>Tapirus terrestris</i>) with her offspring, a species that is Vulnerable to extinction globally. The cameras also captured images of the giant anteater (<i>Myrmecophaga tridactyla</i>), also Vulnerable to extinction, and the jaguar (<i>Panthera onca</i>), a Near Threatened species. The Quadriz team was also able to observe a maned wolf (<i>Chrysocyon brachyurus</i>), a Near Threatened species. One of the most notable records for 2024 was the confirmed presence of the Chacoan peccary (<i>Catagonus wagneri</i>) in the Project Zone.	5	The deployment of wildlife cameras throughout the Project Area is expected to demonstrate the impact of the conservation activities on wildlife, including the effect of conserved forest canopy and wildlife corridors. Quadriz's wildlife cameras were installed at the initial project instance from June 2021 to May 2022 (i.e., including during the 2022 monitoring period). In May 2022, the first study using wildlife cameras was concluded and final reports were delivered in July 2022. During January to May 2022, the cameras recorded additional vulnerable and threatened species. During this time, such vulnerable, threatened and endangered species photographed include the giant armadillo (<i>Priodontes maximus</i>; considered Vulnerable by the IUCN Red List) and

			the lowland tapir (<i>Tapirus terrestris</i>; considered Vulnerable), along with the maned wolf (<i>Chrysocyon brachyurus</i>), the ocelot (<i>Leopardus pardalis</i>), and the jaguar (<i>Panthera onca</i>), which are considered by MADES to be nationally endangered. During 2023, a total of six wildlife cameras were installed at the Project, from July 12th to September 28th for the purpose of getting videos of biodiversity to produce materials for marketing and for the Visitor Center. Part of the videos (from July 12th to August 23rd) have already been analyzed, and materials have been shared through Quadriz's social media channels. A report was also done by the Head of Biodiversity Monitoring, with the first part of the videos obtained.
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1.2 Standardized Benefit Metrics

Category	Metric	Achievements during Monitoring Period	Section Reference	Achievements during the Project Lifetime
GHG emission reductions & removals	Net estimated emission removals in the project area, measured against the without-project scenario	Not applicable	N/A	Not applicable
	Net estimated emission reductions in the project area, measured against the without-project scenario	1,536,744 tCO ₂ e	3	4,859,342 tCO ₂ e (July 1, 2020 - December 31, 2025)
Forest ¹ cover	For REDD ² projects: Number of hectares of reduced forest loss in the project area measured against the without-project scenario	4,595 hectares	3	20,514 hectares
	For ARR ³ projects: Number of hectares of forest cover increased in the project area measured against the without-project scenario	Not applicable	N/A	Not applicable
Improved land management	Number of hectares of existing production forest land in which IFM ⁴ practices have occurred as a result of the project's activities, measured against the without-project scenario	Not applicable	N/A	Not applicable
	Number of hectares of non-forest land in which improved land management has occurred as a result of the project's activities, measured against the without-project scenario	Not applicable	N/A	Not applicable

¹ Land with woody vegetation that meets an internationally accepted definition (e.g., UNFCCC, FAO, or IPCC) of what constitutes a forest, which includes threshold parameters, such as minimum forest area, tree height and level of crown cover, and may include mature, secondary, degraded and wetland forests (*VCS Program Definitions*)

² Reduced emissions from deforestation and forest degradation (REDD) – Activities that reduce GHG emissions by slowing or stopping conversion of forests to non-forest land and/or reduce the degradation of forest land where forest biomass is lost (*VCS Program Definitions*)

³ Afforestation, reforestation and revegetation (ARR) – Activities that increase carbon stocks in woody biomass (and in some cases soils) by establishing, increasing and/or restoring vegetative cover through the planting, sowing and/or human-assisted natural regeneration of woody vegetation (*VCS Program Definitions*)

⁴ Improved forest management (IFM) – Activities that change forest management practices and increase carbon stock on forest lands managed for wood products such as saw timber, pulpwood, and fuelwood (*VCS Program Definitions*)

Training	Total number of community members who have improved skills and/or knowledge resulting from training provided as part of project activities	23+ people received training in 2024-2025. This includes: Training sessions during 2024 for Quadriz staff included: emergency response, basic knowledge of the Occupational Health and Safety Management System according to ISO 45001, hazard identification training (4 people), road safety and defensive driving (5 people), first aid and firefighting knowledge (5 people), and fire control (2 people). Training sessions during 2025 for Quadriz staff included: Good manufacturing in kitchen practices training (1 person), safety training (5 people), and chemical handling (4 people). In 2024 and 2025 Quadriz employees participated in health campaigns and vaccination drives (5 people). In September 2024, a total of 18 people from the Maria Auxiliadora community had improved skills and/or knowledge resulting from training in first aid	4	20+ community members (i.e., training was provided for forest guards, orientation was provided to local Maria Auxiliadora community; training was provided to Quadriz staff on biodiversity and community monitoring, and training on the implementation of vegetable gardens was provided to 19 people from the Maria Auxiliadora Community in 2022; in 2023, staff received training on KoboToolbox to implement community surveys; new guards received security training; ongoing assistance with the installation of vegetable gardens at Maria Auxiliadora community, etc.).
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		and environmental education which was provided as part of the Project's activities.		
	Number of female community members who have improved skills and/or knowledge resulting from training provided as part of project activities	18+ women received training in 2024-2025. This includes: Training sessions during 2024 for female Quadriz staff included: hazard identification training (1 woman), road safety and defensive driving (3 women), and first aid and firefighting knowledge (1 woman). Training sessions during 2025 for female Quadriz staff included: Good manufacturing in kitchen practices training (1 woman), safety training (1 woman), and chemical handling (1 woman). In 2024 and 2025 1 female Quadriz employee participated in health campaigns and vaccination drives. In September 2024, a total of 15 women from the Maria Auxiliadora community had improved skills and/or knowledge resulting from training in first aid and environmental education which was	4	15+ community members (i.e., orientation was provided to local Maria Auxiliadora community; training was provided to Quadriz female staff on biodiversity and community monitoring, and 12 women from the Maria Auxiliadora community participated in the training on the implementation of vegetable gardens in 2022; in 2023, staff received training on KoboToolbox to implement community surveys; new guards received security training; ongoing assistance with the installation of vegetable gardens at Maria Auxiliadora community, etc.).

		provided as part of the Project's activities.		
Employment	Total number of people employed in project activities, ⁵ expressed as number of full-time employees ⁶	13+ full-time people (i.e., for instance, forest guards and Quadriz full-time staff).	4	13+ full-time people (i.e., for instance, forest guards and Quadriz full-time staff).
	Number of women employed in project activities, expressed as number of full-time employees	Approximately 5 full-time women (i.e., Quadriz full-time staff).	4	Approximately 5 full-time women (i.e., Quadriz full-time staff and wildlife biologist).
Livelihoods	Total number of people with improved livelihoods ⁷ or income generated as a result of project activities	100+ people (i.e., employment of Quadriz staff; in September 2024, first aid and environmental education training was provided to 18 members of the María Auxiliadora community; in 2024, academic support was provided to 3 students from the Maria Auxiliadora community; between 2024 and September 2025, the Project donated food and supplies to 6 community kitchens; in 2024, Quadriz planned and completed the repair of 3 water reservoirs (which had a crack)	4	Approximately 25-50 people (i.e., income generation due to being hired as forest guards and due to being hired by Quadriz; local landowner will receive revenue; and local communities at Maria Auxiliadora benefitting from Project's forest conservation activities, along with the trainings on implementing vegetable gardens; in 2023, guards were hired and trained; food security

⁵ Employed in project activities means people directly working on project activities in return for compensation (financial or otherwise), including employees, contracted workers, sub-contracted workers, and community members that are paid to carry out project-related work.

⁶ Full time equivalency is calculated as the total number of hours worked (by full-time, part-time, temporary and/or seasonal staff) divided by the average number of hours worked in full-time jobs within the country, region, or economic territory (adapted from UN System of National Accounts (1993) paragraphs 17.14[15.102]; [17.28])

⁷ Livelihoods are the capabilities, assets (including material and social resources) and activities required for a means of living (Krantz, Lasse, 2001. *The Sustainable Livelihood Approach to Poverty Reduction*. SIDA). Livelihood benefits may include benefits reported in the Employment metrics of this table.

		and in 2025, Quadriz refurbished the gutters to optimize the use of the reservoir during the rainy season, which benefits the ~99 community members of Maria Auxiliadora; in November 2025, there was the delivery and installation of 6 fans at the María Auxiliadora school, the delivery of 25 pairs of moccasins (shoes) for the students of the school, and the delivery of 20 traditional Paraguayan outfits for the children of the community.)		programs offered to 19 families; carbon finance revenue shared with landowner, etc.).
	Number of women with improved livelihoods or income generated as a result of project activities	60+ women (i.e., employment of female Quadriz staff; training event on first aid and environmental education to 15 women of the Maria Auxiliadora community; cost of education covered by the Project for 3 women; and donated food and improved water access for the 58 women living in the Maria Auxiliadora community.)	4	Approximately 10-25 women (i.e., income generation due to being hired by Quadriz; and women at Maria Auxiliadora benefit from Project's forest conservation activities, along with the trainings on implementing vegetable gardens; in 2023, food security programs were offered to 19 families).
	Health	Total number of people for whom health services were improved as a result of	4	Chaco Alert is a future activity and to date,

	project activities, measured against the without-project scenario	Maria Auxiliadora community, which improved their knowledge in how to treat wounds, burns, heat waves, snake bites, etc.; first aid kits were left at the school and at the health post in the community of 99 people).		there were little, to no, people who benefitted from the Project's health services. In 2023, a complete first aid kit was installed at the Visitor Center and there are now first aid kits in every car.
	Number of women for whom health services were improved as a result of project activities, measured against the without-project scenario	58+ women (i.e., first aid training was provided to 15 women of the Maria Auxiliadora community, which improved their knowledge in how to treat wounds, burns, heat waves, snake bites, etc.; first aid kits were left at the school and at the health post in the community of 58 women).	4	Chaco Alert is a future activity and to date, there were little, to no, women who benefitted from the Project's health services. In 2023, a complete first aid kit was installed at the Visitor Center and there are now first aid kits in every car.
Education	Total number of people for whom access to, or quality of, education was improved as a result of project activities, measured against the without-project scenario	3 people (i.e., financial assistance was provided to 3 university students from the Maria Auxiliadora community)	4	Approximately 2 people (Although the Visitor Center is a future activity, Quadriz, in 2022, gave two scholarships to girls from the Maria Auxiliadora community. In addition, a computer and school supplies were delivered to the community.) In 2023, Quadriz sought to conduct a survey of schooling needs in the María Auxiliadora

				community and Quadriz hired a person who will be exclusively in charge of carrying out consultations with the community to define who will be the beneficiaries of this type of support in 2024. Also, Quadriz received a Master's student at the Visitor Center to record sounds of the forest and wildlife.
	Number of women and girls for whom access to, or quality of, education was improved as a result of project activities, measured against the without-project scenario	3 women (i.e., financial assistance was provided to 3 female university students from the Maria Auxiliadora community)	4	Approximately 2 women (Although the Visitor Center is a future activity, Quadriz, in 2022, gave two scholarships to girls from the Maria Auxiliadora community. In addition, a computer and school supplies were delivered to the community.) In 2023, Quadriz sought to conduct a survey of schooling needs in the María Auxiliadora community and Quadriz hired a person who will be exclusively in charge of carrying out consultations

				with the community to define who will be the beneficiaries of this type of support in 2024. Also, Quadriz received a Master's student at the Visitor Center to record sounds of the forest and wildlife.
Water	Total number of people who experienced increased water quality and/or improved access to drinking water as a result of project activities, measured against the without-project scenario	99+ have access to better water quality due to the project repair a reservoir on community land	N/A	99+ have access to better water quality due to the project repair a reservoir on community land
	Number of women who experienced increased water quality and/or improved access to drinking water as a result of project activities, measured against the without-project scenario	58+ have access to better water quality due to the project repair a reservoir on community land	N/A	58+ have access to better water quality due to the project repair a reservoir on community land
Well-being	Total number of community members whose well-being ⁸ was improved as a result of project activities	100+ people (i.e., employment of Quadriz staff; Quadriz staff participated in Project-sponsored trainings; in September 2024, first aid and environmental education training was provided to 18 members of the María Auxiliadora community; in 2024, academic support was provided to 3	4	Approximately 25-50 community members (i.e., training and employment was provided for forest guards, trainings and orientation was provided to local Maria Auxiliadora community; Maria Auxiliadora community will also benefit from Project's forest conservation

⁸ Well-being is people's experience of the quality of their lives. Well-being benefits may include benefits reported in other metrics of this table (e.g. Training, Employment, Health, Education, Water, etc.), but could also include other benefits such as empowerment of community groups, strengthened legal rights to resources, conservation of access to areas of cultural significance, etc.

		students from the Maria Auxiliadora community; between 2024 and September 2025, the Project donated food and supplies to 6 community kitchens; in 2024, Quadriz planned and completed the repair of 3 water reservoirs (which had a crack) and in 2025, Quadriz refurbished the gutters to optimize the use of the reservoir during the rainy season, which benefits the ~99 community members of Maria Auxiliadora; in November 2025, there was the delivery and installation of 6 fans at the María Auxiliadora school, the delivery of 25 pairs of moccasins (shoes) for the students of the school, and the delivery of 20 traditional Paraguayan outfits for the children of the community.)		activities; employment and training was provided to Quadriz staff, such as on biodiversity and community monitoring via KoboToolbox).
	Number of women whose well-being was improved as a result of project activities	60+ women (i.e., employment of female Quadriz staff; female Quadriz staff participated in Project-sponsored trainings; training event on first aid and environmental education to 15 women of the Maria Auxiliadora	4	Approximately 10-25 women (i.e., trainings and orientation were provided to women at Maria Auxiliadora community; two girls from the Maria Auxiliadora community received

		community; cost of education covered by the Project for 3 women; and donated food and improved water access for the 58 women living in the Maria Auxiliadora community.)		scholarships in 2022; Maria Auxiliadora women will also benefit from Project's forest conservation activities and vegetable gardens; employment and training was provided to Quadriz female staff, such as on biodiversity and community monitoring via KoboToolbox.)
Biodiversity conservation	Change in the number of hectares significantly better managed by the project for biodiversity conservation, ⁹ measured against the without-project scenario	31,858.6 ha	3	31,858.6 ha
	Number of globally Critically Endangered or Endangered species ¹⁰ benefiting from reduced threats as a result of project activities, ¹¹ measured against the without-project scenario	1+ (In 2024, Quadriz recorded the endangered Chacoan peccary (<i>Catagonus wagneri</i>) in the Project Zone)	5	The crowned solitary eagle or Chaco eagle (<i>Buteogallus coronatus</i>), an endangered species (per the IUCN), was identified at the Project Zone on September 26, 2023. There is a possibility of 3+ other species being present: Endangered Chacoan peccary (<i>Catagonus</i>

⁹ Biodiversity conservation in this context means areas where specific management measures are being implemented as a part of project activities with an objective of enhancing biodiversity conservation.

¹⁰ Per IUCN's Red List of Threatened Species

¹¹ In the absence of direct population or occupancy measures, measurement of reduced threats may be used as evidence of benefit

				<i>wagneri</i>), Endangered Chaco side- necked turtle (<i>Acanthochelys pallidipectoris</i>), and Endangered marsh seedeater (<i>Sporophila palustris</i>). Further, the maned wolf (<i>Chrysocyon brachyurus</i>), the ocelot (<i>Leopardus pardalis</i>), and the jaguar (<i>Panthera onca</i>), which are considered by MADES to be nationally endangered, were photographed.
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2 PROJECT DETAILS

2.1 Summary Description of the Implementation Status of the Project

2.1.1 Summary Description of the Project (VCS, 2.1, 3.6; CCB, G1.2)

Quadriz B.V., and local affiliate Quadriz Paraguay S.A., has teamed with Atenil S.A., a large landowner in the Paraguayan Chaco to undertake the Corazón Verde del Chaco (“Green Heart of the Chaco”) Project, a VCS–CCBS avoided planned deforestation project. The Paraguayan Chaco consists of mainly privately owned land, and few legally protected natural reserves. The scenario existing prior to Project implementation is that many private lands are being deforested for cattle ranching or soybean production and Atenil was seeking such a buyer.

While the initial project property is approximately 31,858.6 ha, the intention is to scale this grouped project to over 300,000 ha. The conditions under which grouped project eligibility has been established are: the baseline agent of deforestation will be similar large agribusinesses implementing industrial scale cattle ranches, each additional project instance will meet the applicability conditions of each relevant VM0007 module, and quantification of baseline, with-project, and leakage will follow the equations outlined in the Project Document.

By undertaking conservation initiatives, the Project will alleviate pressure on natural forests in Paraguay’s Chaco Region. The Project will mitigate deforestation pressures and the associated GHG emissions in the region, which is the main climate objective of the Project. The main community objective of the Project is to provide social programs to improve the livelihoods of community members living in the vicinity of the Project Area. The main biodiversity objective of the Project is the preservation of biodiversity, particularly medium-to-large mammals.

During the 2020-2022 monitoring periods, the Project: engaged a private landowner and an agreement was signed / abided by between the landowner and Quadriz to forego selling the property for eventual conversion; avoided deforestation; preserved habitat for threatened and vulnerable mammals; installed wildlife cameras, hired a wildlife biologist, conducted the first wildlife camera study, and recorded threatened and vulnerable species; began designing Chaco Alert and a Visitor Center; established a local headquarters; and provided extensive project awareness. During the 2023 monitoring period, the Project: continued to engage the landowner; the agreement was abided by; avoided deforestation; preserved habitat for threatened and vulnerable mammals; recorded the endangered crowned solitary eagle; continued designing Chaco Alert and finalized the remodelling of the Visitor Center; hired a social specialist; and continued to provide extensive project awareness.

During the 2024-2025 monitoring period, the Project: continued to engage the landowner; the agreement was abided by; avoided deforestation; preserved habitat for threatened and vulnerable mammals; recorded the endangered Chacoan peccary; further designed Chaco Alert; made additional improvements to the Visitor Center; and continued to deliver benefits to the Maria Auxiliadora community.

Leakage and non-permeance risk factors were monitored and managed in 2020-2025. Risk factors (e.g., encroachment, fire, illegal harvesting/logging, illegal poaching) were monitored by forest patrols, satellite imagery analysis, and/or wildlife cameras. To mitigate the aforementioned risks, in August 2023, a new company called Araucanos, was hired for guards and such a service was in place throughout the 2024-2025 monitoring period. In 2023 and 2024, there was the presence of anthropogenic fires in this forest ecosystem during the dry season, specifically in the palm savannas strata. Measures undertaken in 2023 to mitigate the risk of fire included maintenance of fire breaks and the acquisition of a new tractor, which helped to control the advance of the fire through firebreaks. Fires that occurred in 2023 and 2024 reached significant size, but burning was restricted to the litter and dead wood carbon pools, and did not significantly affect live tree biomass.

There were no reported outbreaks of pests, disease or invasive species (except for a feral pig and Cuban bulrush). Activity-shifting leakage will be monitored by identifying all the areas that may be expected to be converted to non-forest land by the agent/class outside the project boundaries. Market leakage values calculated ex-ante are also used ex-post. No market leakage is calculated for the initial project instance.

The total net emissions reduced by the Project for the 2024-2025 monitoring period are 1,536,744 tCO₂e.

2.1.2 Audit History (VCS, 4.1)

The Project's audit history can be found below:

Audit Type	Period	Program	VWB Name	Number of years
Validation	1-July-2020 – 30-June-2030	VCS, CCB	Aster Global Environmental Solutions	10 years
Verification	1-July-2020 – 31-December-2021	VCS, CCB	Aster Global Environmental Solutions	1 year, 6 months
Verification	1-January-2022 – 31-December-2022	VCS, CCB	AENOR	1 year
Verification	1-January-2023 – 31-December-2023	VCS, CCB	AENOR	1 year

Verification	1-January-2024 – 31-December-2025	VCS, CCB	AENOR	2 years
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2.1.3 Sectoral Scope and Project Type (VCS, 3.2)

Sectoral Scope	14: Agriculture, forestry, and other land use
AFOLU Project Category	Reducing Emissions from Deforestation and forest Degradation (REDD)
Project Activity Type	Avoided Planned Deforestation (APD)

2.1.4 Project Proponent (VCS, 3.7; CCB, G1.1)

Organization name	Quadriz Paraguay S.A.
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Telephone	+33 6 48 58 12 88
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2.1.5 Other Entities Involved in the Project

Organization name	Atenil S.A.
Role in the project	Passive Landowner
Contact person	Kiantar Betancourt and Diego Puente
Title	Kiantar is Chairman of Atenil S.A. and Diego is the CEO of Atenil S.A.
Address	R.I. 3 Corrales 659, Barrio, Mariscal Estigarribia, Asunción, Paraguay
Telephone	+595 (21) 623857 / 9

Email	Kiantar Betancourt: kbetancourt@victoria.com.py; Diego Puente: dpuente@victoria.com.py
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Organization name	Ostrya Conservation Inc
Role in the project	Advisor and implementation partner responsible for VCS and CCBS project development and ongoing monitoring, reporting and verification of the Project over the crediting period.
Contact person	James Eaton
Title	Director
Address	Post Office Box 153 Scottsville, Virginia, 24590 – United States
Telephone	+1 (708) 703-2552
Email	James.Eaton@OstryaConservation.com

Organization name	Facultad de Ciencias Exactas y Naturales (FACEN; Faculty of Exact and Natural Sciences) of the Universidad Nacional de Asunción (National University of Asunción)
Role in the project	Andrea Weiler is a wildlife biologist and implementation partner conducting the biodiversity impact monitoring plan with the use of motion-sensitive, wildlife cameras over the crediting period.
Contact person	Andrea Weiler
Title	Independent Consultant; FACEN Post Grade Director and General Coordinator of the Nucleo de Investigación en Biodiversidad (NIB)
Address	Campus Universitario, San Lorenzo, Paraguay
Telephone	N/A
Email	andreaweiler1@gmail.com

Organization name	Los Guardianes Grupo Elite S.A. (“Los Guardianes”)
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Role in the project	Los Guardianes was hired to be in charge of patrols and to be in charge of the entrance to the property. Note, in 2023, the guard service Los Guardianes was replaced by a new guard service called “Araucanos S.A.”
Contact person	Pedro Juan Caballero
Title	Director
Address	M9VQ+GVF, Asunción 001235, Paraguay
Telephone	+595 974 660333
Email	Osmarbarboza74@gmail.com

Organization name	Araucanos S.A.
Role in the project	In August 2023, the new guard service called “Araucanos S.A.” was hired to replace the previous guard service Los Guardianes.
Contact person	Heriberto Ferreira Cardozo
Title	General Manager
Address	Dr. Enzo Doldán c/ Campo Jordán – Ciudad de San Lorenzo, Paraguay
Telephone	+595 984 513 619
Email	gerencia@araucanossa.com.py

2.1.6 Project Start Date (VCS, 3.8)

Project start date	01-July-2020
Justification	The Corazón Verde del Chaco Project has a project start date of July 1, 2020. On this day, Quadriz Paraguay S.A. and Atenil S.A. agreed to terms for the development of a planned REDD+ forest conservation project. This start date is supported by a July 9, 2020 email from Marcel van Heesewijk to the law firm Livieres Guggiari stating an agreement has been reached between the parties for undertaking a REDD project in the Project Area and requesting Livieres Guggiari draw up a contract. GHG reduction/removal activities began on this date such that the project property will no longer be considered for conversion to a cattle ranching enterprise. This understanding was documented in the Letter of Agreement for Verified Carbon Unit Credits, signed on September 28, 2020, between Quadriz Paraguay S.A. and Atenil S.A.

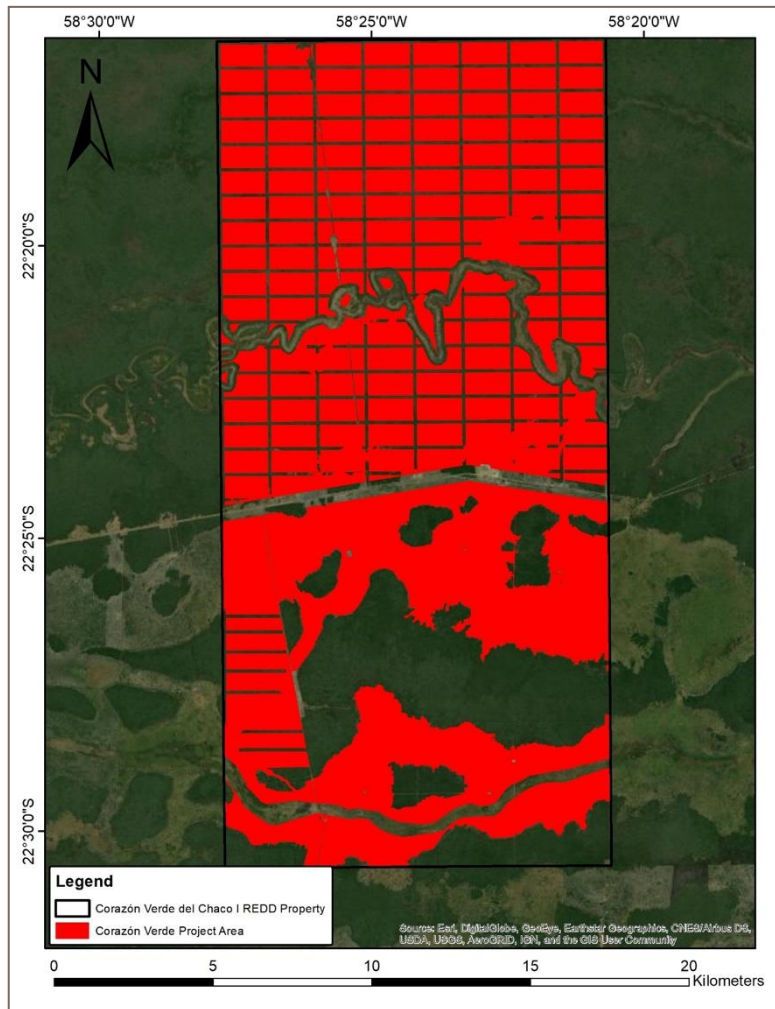
2.1.7 Benefits Assessment and Project Crediting Period (VCS, 3.9; CCB, G1.9)

Crediting Period	The Corazón Verde del Chaco Project has an initial project crediting period of 40 years, starting on July 1, 2020. The initial baseline period started on July 1, 2020 and is set to continue through June 30, 2030. The second baseline period is set to start on July 1, 2030 and is set to continue through June 30, 2040. The third baseline period is set to start on July 1, 2040 and both the third baseline period and the initial project crediting period is set to end on June 30, 2060.
Start Date of First or Fixed Crediting Period	01-July-2020 to 30-June-2060
Total Number of Years of Crediting Period	The Corazón Verde del Chaco Project has an initial project crediting period of 40 years.
CCB Benefits Assessment Period	Changes in climate change adaptive capacity and resilience, along with biodiversity and community well-being resulting from project activities will be monitored from July 1, 2020 to June 30, 2060.

2.1.8 Project Location (VCS, 3.11; CCB, G1.3)

The Corazón Verde del Chaco Project is located in the Departments of Presidente Hayes, Alto Paraguay, and Boquerón, with the first project instance located in the Department of Presidente Hayes. The Corazón Verde del Chaco Project's initial project instance is 160 kilometers (km) east of Filadelfia and 330 km north northeast of Asuncion. The initial Project Area (i.e., forested area of the property as of the project start date, and 10 years prior) is 20,515.0 hectares. This represents approximately 64% of the project property which totals 31,858.6 hectares. The remainder of the property is not eligible as a REDD+ project as it is protected as a riparian area, a set aside green reserve (i.e., 25% of the mesoxerophytic semi-deciduous forested area), or nonforest.

Map 2.1. Map of the Corazón Verde del Chaco Project Area and project property.



☒ KML file has been provided

2.1.9 Title and Reference of Methodology (VCS, 3.1)

Type (methodology, tool, module)	Reference ID (if applicable)	Title	Version
Methodology	VM0007	VM0007 REDD+ Methodology Framework (REDD+MF)	1.6
Module	CP-AB, VMD0001	Estimation of carbon stocks in the above- and belowground biomass in live tree and non-tree pools	1.1
Module	CP-D, VMD0002	Estimation of carbon stocks in the dead-wood pool	1.0

Module	CP-L, VMD0003	Estimation of carbon stocks in the litter pool	1.0
Module	CP-W, VMD0005	Estimation of carbon stocks in the long-term wood products pool	1.1
Module	BL-PL, VMD0006	Estimation of baseline carbon stock changes and greenhouse gas emissions from planned deforestation/forest degradation and planned wetland degradation	1.3
Module	LK-ASP, VMD0009	Estimation of emissions from activity shifting for avoided planned deforestation/forest degradation and avoided planned wetland degradation	1.3
Module	M-REDD, VMD0015	Methods for monitoring of greenhouse gas emissions and removals	2.2
Module	E-BPB, VMD0013	Estimation of greenhouse gas emissions from biomass and peat burning	1.2
Module	X-STR, VMD0016	Methods for stratification of the project area	1.2
Module	X-UNC, VMD0017	Estimation of uncertainty for REDD project activities	2.2
Tool	T-SIG	CDM tool “Tool for testing significance of GHG emissions in A/R CDM project activities”	1.0
Tool	T-ADD, VT0001	Tool for the Demonstration and Assessment of Additionality in VCS Agriculture, Forestry and Other Land Use (AFOLU) Project Activities	3.0
Tool	T-BAR	VCS AFOLU Non-Permanence Risk Tool	4.2

2.1.10 Double Counting and Participation under Other GHG Programs (VCS, 3.23; CCB, G5.9)

2.1.10.1 No Double Issuance

Is the project receiving or seeking credit for reductions and removals from a project activity under another GHG program, or any other form of community, social, or biodiversity unit or credit?

☐ Yes

☒ No

2.1.10.2 Registration in Other GHG Programs

Is the project registered or seeking registration under any other GHG programs?

☐ Yes ☒ No

2.1.10.3 Projects Rejected by Other GHG Programs

Has the project been rejected by any other GHG programs?

☐ Yes ☒ No

2.1.11 Double Claiming, Other Forms of Credit, and Scope 3 Emissions (VCS, 3.24)

2.1.11.1 No Double Claiming with Emissions Trading Programs or Binding Emission Limits

Are project reductions and removals or project activities also included in an emissions trading program or binding emission limit? See the VCS Program Definitions for definitions of emissions trading program and binding emission limit.

☐ Yes ☒ No

2.1.11.2 No Double Claiming with Other Forms of Environmental Credit

Has the project activity sought, received, or is planning to receive credit from another GHG-related environmental credit system? See the VCS Program Definitions for definition of GHG-related environmental credit system.

☐ Yes ☒ No

2.1.11.3 Supply Chain (Scope 3) Emissions

Do the project activities affect the emissions footprint of any product(s) (goods or services) that are part of a supply chain?

☐ Yes ☒ No

Is the project proponent(s) or authorized representative a buyer or seller of the product(s) (goods or services) that are part of a supply chain?

☐ Yes ☒ No

Has the project proponent(s) or authorized representative posted a public statement on their website saying, "Carbon credits may be issued through Verified Carbon Standard project [project ID] for the greenhouse gas emission reductions or removals associated with [project proponent or authorized representative organization name(s)] [name of product(s) whose emissions footprint is changed by the project activities]."?

☐ Yes
 ☐ No
 ☒ Not applicable

2.1.12 Sustainable Development Contributions (VCS, 3.17)

Paraguay aims to achieve the 17 Sustainable Development Goals (SDGs). The following SDGs are those that are most likely to be achieved by the Corazón Verde del Chaco Project, including during the 2024-2025 monitoring period:

- 1) No poverty – The Project is increasing incomes by providing good paying jobs.
- 2) Zero hunger – The Project is increasing incomes, which will help reduce hunger. In 2024 and 2025, Quadriz donated supplies and food to the Maria Auxiliadora community.
- 3) Good health and well-being – The Chaco Alert Program was updated during 2024 and 2025. In 2024, first aid kits were installed in the María Auxiliadora community, as well as several trainings (including on first aid) were provided to the Quadriz team and to the Maria Auxiliadora community members.
- 4) Quality education – In 2024-2025, financial support was given to 3 university students from the Maria Auxiliadora community members. Training was also provided to the Quadriz team and to Maria Auxiliadora community members.
- 5) Gender equality – The Project has hired both men and women with advancement opportunities available.
- 6) Clean water and sanitation – The Project contributed to the management and conditioning of the repair of water reservoirs (cisterns) in the Maria Auxiliadora community in 2024. In addition, in 2025, the reconditioning of channels for the collection of water in the cisterns was completed.
- 7) Affordable and clean energy – Solar panels have been installed at the Visitor Center.
- 8) Decent work and economic growth – The Project is providing decent work and is developing a regional, sustainable economic model.
- 9) Industry, innovation and infrastructure – The Project is developing a new, innovative industry for the region.
- 10) Reduced inequalities – The Project is seeking to reduce inequalities by providing good paying jobs, training, and access to other benefits.
- 11) Sustainable cities and communities – The Project continues to protect the Chaco Forest and is safeguarding this important cultural/natural heritage.
- 12) Responsible consumption and production – The Project is promoting sustainable management and efficient use of natural resources.

- 13) Climate action – The Project reduced deforestation of 4,595 hectares during the 2024-2025 monitoring period and its associated GHG emissions.
- 14) Life below water – Conservation will reduce erosion and water runoff, which will benefit local waters.
- 15) Life on land – The Project reduced deforestation of 4,595 hectares during the 2024-2025 monitoring period and conserved at least 5 Vulnerable and Near-Threatened species.
- 16) Peace, justice and strong institutions – The Project will encourage strong institutions and has hired staff to promote responsive, inclusive, participatory and representative decision-making at all levels.
- 17) Partnerships for the goals – The Project is made of strong domestic and international partnerships.

Table 1: Sustainable Development Contributions

Row number	SDG target	SDG indicator	Net impact on SDG indicator	Current project contributions	Contributions over project lifetime
	SDG Target number	Number and text of SDG indicator or, if no official SDG indicator is applicable, user-defined indicator	Indicate the project's contribution to the SDG Indicator (implemented activities to increase or decrease)	Brief description of the quantifiable impact of the project's activities related to the SDG indicator, during the monitoring period.	Brief description of the cumulative quantifiable impact of the project's activities related to the SDG indicator, over the project lifetime.
1)	1.2	Proportion of staff living at or below the national minimum wage.	The Project is increasing incomes by providing good paying jobs.	In 2024-2025, 13+ full-time people (e.g., forest guards and Quadriz full-time staff) received wages exceeding the national minimum wage.	Over the Project Lifetime, 13+ full-time people (e.g., forest guards and Quadriz full-time staff) have been hired and received good pay; thus, exceeding the national minimum wage.
2)	2.1	2.1.1: Prevalence of undernourishment	The Project is increasing incomes which will help reduce hunger and the Project is providing food assistance (e.g., vegetable gardens) to the Maria Auxiliadora community.	Between January 2024 and September 2025, the Project donated food and supplies to 6 community kitchens.	Over the Project Lifetime, 13+ full-time people (e.g., forest guards and Quadriz full-time staff) have been hired and received good pay; thus, exceeding the national minimum wage. In 2022, training on the implementation of vegetable gardens was provided to 19 people from the Maria Auxiliadora community. In 2023, the 19 people from the Maria Auxiliadora community continued to benefit from the vegetable garden seeds and trainings originally provided in 2022.

3)	3.8	Improve the communities' access to health care professionals	The Project is implementing activities, particularly Chaco Alert, to increase communities' access to health care professionals.	The Chaco Alert Program was updated during 2024 and 2025. In 2024, first aid kits were installed in the María Auxiliadora community, as well as several trainings (including on first aid) were provided to the Quadriz team and to the Maria Auxiliadora community members.	Over the Project Lifetime, Chaco Alert was designed. In 2023, first aid kits were also installed. For instance, during 2023, the team focused on reviewing appropriate landing sites in the Chaco; deciding the type of plane according with technical characteristics; analyzing best way to make the program operative in the Chaco; talking with expert pilots; reviewing health issues, legal and technical authorizations; and holding interviews with potential companies who can provide the service.
4)	4.3	Provide educational support to local communities.	The Project is implementing activities, such as donating school supplies and sponsoring scholarships, to provide educational support to the Maria Auxiliadora community.	In 2024, financial assistance was provided to three university students from the Maria Auxiliadora community.	In 2022, Quadriz gave two scholarships to girls from the Maria Auxiliadora community. In addition, a computer and school supplies were delivered to the community in 2022. In 2023, Quadriz sought to conduct a survey of schooling needs in the María Auxiliadora community and Quadriz hired a person who will be exclusively in charge of carrying out consultations with the community to define who will be the beneficiaries of this type of support. Also in 2023, Quadriz received at the Visitor Center a Master's student to record sounds of the forest and wildlife.
5)	5.5	5.5.2 Proportion of women in managerial positions	Implemented activities to increase the proportion of women in managerial positions.	In 2024 and 2025, 5+ women were employed by the Project including 2+ women in a managerial position.	4 full-time women (i.e., Quadriz full-time staff and wildlife biologist) were employed by the Project over the project lifetime including 1 woman (Gabriela Viñales) in a managerial position.

6)	6.1	Proportion of staff who have easy access to a safe water supply.	The Project provides access to clean water and sanitation facilities to all Quadriz staff.	In 2024-2025, 13+ full-time people (e.g., forest guards and Quadriz full-time staff), equivalent to a proportion of 100% of staff, had access to clean water and sanitation facilities.	Over the Project Lifetime, 13+ full-time people (e.g., forest guards and Quadriz full-time staff), equivalent to a proportion of 100% of staff, had access to clean water and sanitation facilities.
7)	7.2	7.2.1 Renewable energy share in the total final energy consumption	The Project has implemented activities, such as the installation of solar panels, to increase access to renewable energy.	In 2024 and 2025, the Project continued to benefit from the solar panels installed by Quadriz in 2022 at the visitor center and at the guards' house.	Since 2022 when Quadriz installed solar panels at the visitor center and the guards' house, the Project has utilized renewable energy.
8)	8.8	Promote safe and secure working environments for all workers.	The Project is providing a safe and secure working environmental for all Quadriz staff.	In 2024-2025, 13+ full-time people (e.g., forest guards and Quadriz full-time staff), equivalent to a proportion of 100% of staff, had access to a safe and secure working environment.	Over the Project Lifetime, 13+ full-time people (e.g., forest guards and Quadriz full-time staff), equivalent to a proportion of 100% of staff, had access to a safe and secure working environment.
9)	9.2	Promote inclusive and sustainable development.	The Project is developing a new, innovative industry for the region focused on inclusivity and sustainability.	In 2024-2025, 13+ full-time people (e.g., forest guards and Quadriz full-time staff), equivalent to a proportion of 100% of staff, contributed to Quadriz's inclusive and sustainable development.	Throughout the Project Lifetime, Quadriz has been one of the first companies investing in carbon projects in Paraguay. The "carbon market industry" is a new industry in Paraguay and during 2023, the carbon law was promulgated.
10)	10.3	Ensure equal opportunity and reduce inequalities of all workers	The Project is seeking to reduce inequalities by providing good paying jobs.	In 2024-2025, 13+ full-time people (e.g., forest guards and Quadriz full-time staff), equivalent to a proportion of 100% of staff, had access to equal opportunities and reduced inequalities due to their good paying jobs.	Over the Project Lifetime, 13+ full-time people (e.g., forest guards and Quadriz full-time staff), equivalent to a proportion of 100% of staff, had access to equal opportunities and reduced inequalities due to their good paying jobs.

11)	11.4	Total expenditure on the preservation, protection and conservation of all cultural and natural heritage, by private sources of funding	Implemented activities to increase total expenditure on the preservation, protection and conservation of natural heritage.	In 2024 and 2025, private carbon finance was generated for the Project.	Historical VERPAs and sales transactions for the Project's private carbon finance over the project lifetime has been provided to the Project's VVB.
12)	12.8	By 2030, ensure that people everywhere have the relevant information and awareness for sustainable development and lifestyles in harmony with nature.	Implemented activities to increase rural communities' access to relevant information and awareness for sustainable development and lifestyles in harmony with nature.	In September 2024, a total of 18 people from the Maria Auxiliadora community had improved skills and/or knowledge resulting from training in first aid and environmental education which was provided as part of the Project's activities.	Since 2022, Quadriz has met with the Maria Auxiliadora community at least 11 times. Such visits often include discussions on the awareness for sustainable development and lifestyles in harmony with nature. For instance, in 2023, Quadriz met in-person with the Maria Auxiliadora community six times (dates of May 21, June 22, June 27, August 23, August 30, and September 19). Also, in November 2023, a social specialist (Andrea Samaniego) was hired by Quadriz.
13)	13	Tonnes of greenhouse gas emissions avoided or removed	Implemented activities to mitigate greenhouse gas emissions.	By preventing approximately 4,600 hectares of planned deforestation, the Project prevented the release of more than 1.3 million tCO ₂ e entering the atmosphere during the 2024-2025 monitoring period.	The Project has prevented the release of more than 4 million tonnes of carbon dioxide equivalent emissions into the atmosphere since the Project's start date.
14)	14.2	Reduce siltation and chemical inputs to aquatic environments.	Conservation will reduce erosion and water runoff, which will benefit local waters.	Project activities contributed to a reduction in deforestation of 4,595 hectares during the 2024-2025 monitoring period.	The Project continues to conserve approximately 20,500 hectares of tropical forest from deforestation.

15)	15.2	15.2.1 Progress towards sustainable forest management	Implemented activities to progress towards sustainable forest management and conservation.	Project activities contributed to a reduction in deforestation of 4,595 hectares during the 2024-2025 monitoring period.	The Project continues to conserve approximately 20,500 hectares of tropical forest from deforestation.
16)	15.5	15.5.1 Red List Index	Implemented activities to conserve and protect vulnerable and near threatened species per the IUCN Red List.	Project activities contributed to a reduction in deforestation of 4,595 hectares during the 2024-2025 monitoring period. In addition, at least 5 Vulnerable or Near-Threatened species were conserved during the monitoring period, including: the giant anteater (<i>Myrmecophaga tridactyla</i>); the lowland tapir (<i>Tapirus terrestris</i>); the giant armadillo (<i>Priodontes maximus</i>); the white-lipped peccary (<i>Tayassu pecari</i>); and the jaguar (<i>Panthera onca</i>).	The Project continues to conserve approximately 20,500 hectares of tropical forest from deforestation. The Project has historically conserved habitat for at least 5 Vulnerable or Near-Threatened species, including: the giant anteater (<i>Myrmecophaga tridactyla</i>); the lowland tapir (<i>Tapirus terrestris</i>); the giant armadillo (<i>Priodontes maximus</i>); the white-lipped peccary (<i>Tayassu pecari</i>); and the jaguar (<i>Panthera onca</i>).
17)	16.7	Number of staff hired to ensure responsive, inclusive, participatory and representative decision-making at all levels.	The Project has hired a diversity of staff to ensure responsive, inclusive, participatory and representative decision-making at all levels.	In 2024-2025, 13+ full-time people (e.g., forest guards and Quadriz full-time staff), were employed. This includes field staff, forest guards and management; thus, ensuring responsive, inclusive, participatory, and representative decision-making at all levels.	Over the Project Lifetime, 13+ full-time people (e.g., forest guards and Quadriz full-time staff), were employed. This includes field staff, forest guards and management; thus, ensuring responsive, inclusive, participatory, and representative decision-making at all levels.

18)	17.17	Number of effective public, public-private and/or civil society partnerships, building on the experience and resourcing strategies of partnership.	The Project is made of strong domestic and international partnerships.	In 2024 and 2025, the Project's primary partnerships continued to be between the Project Proponent Quadriz and its technical provider (i.e., "Other Entity") Ostrya Conservation, along with between Quadriz and the landowner Atenil S.A.	Since the Project's Start Date, the Project's primary partnerships have been between the Project Proponent Quadriz and its technical provider (i.e., "Other Entity") Ostrya Conservation, along with between Quadriz and the landowner Atenil S.A. Further, in August 2023, Quadriz formed a partnership with Araucanos S.A.
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2.2 Project Implementation Status

2.2.1 Implementation Schedule (VCS, 3.2; CCB, G1.9)

Below are some of the key dates and milestones in the Project's development and implementation, including current accomplishments during the 2024-2025 monitoring period:

Date	Milestone(s) in the Project's development and implementation
2013, January	Investancia Paraguay S.A. is established.
2013, May	Investancia Group B.V. is established in the Netherlands.
2015, October	Construction of the local Chaco headquarters at Estancia Santa Rosanna is initiated.
2019, February	Quadriz B.V. is established in the Netherlands.
2020, February to April	Ostrya Conservation undertakes REDD+ feasibility study in Paraguay.
2020, April 29	Development Agreement signed between Ostrya Conservation and Investancia.
2020, July 1	Quadriz Paraguay S.A. and ATENIL S.A. agreed to terms for the development of a planned REDD+ forest conservation project.
2020, September 28	Letter of Agreement for Verified Carbon Unit Credits, signed between Quadriz Paraguay S.A. and ATENIL S.A.
2021, March	Quadriz conducts initial community survey, known as a Degradation Survey, around Corazón Verde del Chaco I.
2021, March 12	Quadriz Paraguay S.A. officially registered on March 12, 2021.
2021, June	Quadriz Paraguay S.A., in conjunction with Andrea Weiler, installs the first round of wildlife cameras as part of the biodiversity impact monitoring plan.
2021, August	Quadriz conducts follow up community surveys, known as a Participatory Rural Assessment (PRA), around Corazón Verde del Chaco I.
2021, November 18	Signature of updated Letter Agreement with DRSF between Atenil and Quadriz called "Acuerdo para créditos por unidades verificadas de carbono ATENIL – QUADRIZ."

2022	Los Guardianes Grupo Elite S.A. (“Los Guardianes”) hired as a guard service for the Project.
2022, May	The first round of wildlife cameras as part of the biodiversity impact monitoring plan concludes.
2022, September	Quadriz’s fire control and prevention plan is socialized and validated with INFONA and WWF.
2022, December	Visitor Center reconditioned.
2022-2023	Initial monitoring and verification undertaken, with subsequent verifications to take place at least every five years thereafter.
March 2023	VCS-CCB validation of grouped REDD+ project achieved.
June 2023	Registration and initial verification of grouped REDD+ project for 2020-2021 monitoring period achieved.
June 2023	Second monitoring and verification undertaken for 2022 monitoring period. Onsite verification audit took place in June 2023.
August 2023	New company, called Araucanos S.A., was hired as a guard service and replaced the previous guard service Los Guardianes. Araucanos S.A. provides a continuous armed presence at the road’s entrance to the Project.
November 2023	Social specialist (Andrea Samaniego) hired by Quadriz.
January 2024	The second round of community surveys took place. The plan is to undertake the community surveys approximately every two years.
March 2024	Wildlife camera traps installed for marketing purposes (i.e., not as part of the biodiversity impact monitoring plan).
2024	Third monitoring and verification undertaken for 2023 monitoring period. Onsite verification audit took place in May 2024.
May 2024	Quadriz become part of the UN Global Compact.
September 2025	Signing of Memorandum of Understanding (MOU) with Facultad de Ciencias Agrarias (Faculty of Agricultural Sciences).
2026	Fourth monitoring and verification undertaken for 2024-2025 monitoring period. Onsite verification audit is anticipated to take place in May 2026.

2026 (anticipated)	The third round of community surveys to take place. The plan is to undertake the community surveys approximately every two years.
2026 (anticipated)	The tentative, second round of using wildlife cameras to take place. The plan is to undertake the biodiversity impact monitoring plan using wildlife cameras approximately every five years.
2030 (anticipated)	Project's baseline revision to take place.

During the current monitoring period, a fire occurred in the Project Area from June 8 to 9, 2024, as a result of the poor practices in the region in regard to fire management. The fire originated on an adjacent property southeast of the Project Area. Despite the firebreaks being in good condition, the fire affected approximately 512 ha of palm savanna within the property, 449 of which were within the crediting area, of the Project Area due to extremely dry conditions and high wind speeds. While the grasses in the palm savanna burned, an assessment of the woody vegetation on the ground did not indicate any tree mortality or significant loss of woody biomass. For additional details on the extent of the potential loss and the associated GHG accounting, please see section 3.2.2, "Project Emissions."

This loss is not a "Loss Event" as the VCS Program Definitions define a "Loss Event" in an AFOLU project as "any event or group of events that results in a cumulative loss of more than five percent of previously verified emission reductions and removals. An event qualifies as a loss when it affects carbon stocks in pools included in the project boundary and that are expected to be sequestered and/or maintained under the project scenario. Examples include illegal logging, tillage, and fuelwood collection". The loss associated with fire in the current monitoring period did not result in "Loss Event" as the fire did not result in a cumulative loss of more than five percent of previously verified emission reductions and removals.

The loss is not a "Reversal" as the VCS Program Definitions define a "Reversal" as: "A situation where the net GHG benefit, taking into account project or program emissions, removals and leakage, in any monitoring period is negative. The amount of a reversal is calculated as the difference between the current total to-date net GHG benefit of the project or program, compared to the total to-date net GHG benefit of the project or program at the previous verification event". The loss associated with fire in the current monitoring period did not result in a negative net GHG benefit.

2.2.2 Baseline Reassessment (VCS, 3.2.6, 3.2.7)

Did the project undergo baseline reassessment during the monitoring period?

☐ Yes

☒ No

2.2.3 Methodology Deviations (VCS, 3.20)

The following deviations to the methodology are applied.

- 1) While sampling lying dead wood using the line intersect method:
 - a. Two 100-meter transect lines were used rather than two 50-meter transect lines;
 - b. The sampling lines did not bisect each sample plot, but rather ran from one plot center to the next; and
 - c. The sampling lines were oriented to the north and east, and no randomization in the bearing of the first line was employed.

This approach does not negatively impact the conservativeness of the quantification and improves the accuracy of the lying dead wood sampling by enlarging the sampling unit.

- 2) Rather than using a root to shoot ratio to estimate belowground biomass as per the CP-AB module, belowground biomass was estimated using an allometric equation developed by Cairns et al.¹² This alternative method is more efficient for the project-specific circumstances as only one equation is needed for the project. Further, Cairns et al. is appropriate for determining belowground biomass as this equation is published in a peer-reviewed scientific journal and is cited in IPCC 2006 Annex 4A.2 (page 4.116). This source is appropriate as we are using a more recent version of IPCC guidance similar to the VCS Standard guidance “Where external documents are referenced, such as the IPCC 2006 Guidelines for National GHG Inventories, and such documents are updated, the most recent version of the document shall be used.” This deviation is likely to yield the same level of accuracy (or better) given the wide range of root-to-shoot ratios found in the IPCC GL AFOLU guidance as found in the methodology. In fact, guidance for methodologies as found in VCS AFOLU Requirements version 3.4 specifically mentions the Cairns et al. equations in reference to established procedures for quantifying belowground biomass, thus further indicating the appropriateness of this source.
- 3) Rather than monitoring Cpost using modules CP-AB and CP-D as described in the M-REDD modules, C(post) can conservatively be assumed to be zero in the with-project case, not only for natural disturbance (CP,Dist,q,i , as stated in the M-REDD module) but also for deforestation (CP,post,u,i). This deviation is conservative because subtracting zero from the baseline stocks, leads to the conclusion that $\delta C_{pools,Def,u,i,t}$ is equal to $C(BSL,i)$, which leads to the maximum emission in the with-project case, which is conservative. This deviation may be used for the first and each subsequent monitoring period.

¹² Cairns, M. A., S. Brown, E. H. Helmer, and G. A. Baumgardner. 1997. Root biomass allocation in the world's upland forests. *Oecologia* 111, 1-11.

- 4) The forest inventory has deviated from the criteria for selection (i.e., the equation is based on a datasets comprising at least 30 trees, with an r^2 that is ≥ 0.8) and validation of the allometric equation related to palm biomass, however the equation used is likely to result in a conservative estimate of palm biomass for the following reasons:
 - a. Volume is calculated as the volume of a paraboloid rather than the volume of a cylinder; and
 - b. Only stem biomass is estimated, thus conservatively excluding other aboveground biomass including palm fronds.
- 5) This project deviates from using the default value for the carbon fraction of dry litter matter as provided in the CP-L module (VMD0003, Version 1.0). Rather, a value of $0.47 \text{ t C t}^{-1} \text{ d.m}$ was used for this project. This carbon fraction value is appropriate as it is in line with VCS guidance that where “external documents are referenced, such as the IPCC 2006 Guidelines for National GHG Inventories, and such documents are updated, the most recent version of the document shall be used.” The default value provided in the CP-L module was sourced from IPCC 2003. The updated value of $0.47 \text{ t C t}^{-1} \text{ d.m}$ is derived from page 4.48 of the IPCC 2006 Guidelines for National GHG Inventories. This value corresponds with the value for “all parts of the tree” and was sourced from McGroddy¹³ et al., 2004. Finally, this value of 0.47 was also cited as the carbon fraction for foliage component in tropical and subtropical forest in the IPCC table on page 4.48, as sourced from Feldpausch et al., 2004. This represents a deviation to “data and parameters available at validation”. This methodology deviation is warranted as it increases the accuracy of the quantification of GHG emission reductions or removals.
- 6) This project deviated from the VM0007MF, v1.6 requirement “The starting date of this [Historical Reference Period] must be between 9 and 12 years in the past and the end date must be within two years before project start date”. This idea of a historical reference period only makes sense in terms of an unplanned REDD project where the rate of deforestation is defined over a distinct period of time, as opposed to the “number of years over which deforestation occurred in land parcel pn in proxy area” as defined in the BL-PL module. Notably, there is no mention of a historical reference period in the BL-PL module. One of criteria for identifying proxy areas, as stated in BL-PL module is “Deforestation in the proxy area must have occurred within the 10 years prior to the baseline period” thus clearly conflicting with the VM0007MF, v1.6 Historical Reference Period requirement. This requirement does not specify the starting year for the deforestation in the proxy years. Rather, one of the parameters used in determining “D%planned,i,t” (i.e., the projected

¹³ McGroddy, Megan E., Tanguy Daufresne, and Lars O. Hedin. “Scaling of C: N: P stoichiometry in forests worldwide: Implications of terrestrial redfield-type ratios.” *Ecology* 85, no. 9 (2004): 2390-2401. McGroddy et al., 2004 investigated C, N, and P in forest foliage and litter and used a carbon value of 47% of reported biomass, based on the mean of reported data.

annual proportion of land that will be deforested in stratum i during year t) is the parameter "Yrspn". This parameter is the number of years over which deforestation occurred in land parcel pn in proxy area. This change represents a deviation to "parameters available at validation." This methodology deviation doesn't impact the project conservativeness or accuracy, since VMD0006-BL-PL requirements are met. Further, this deviation does not negatively impact the conservativeness of the quantification of GHG emission reductions or removals because it does not affect the quantification of GHG emission reductions or removals.

These aforementioned deviations that were applied to the methodology were previously validated within the Project's Project Description and no new deviations were introduced in this monitoring period.

2.2.4 Minor Changes to Project Description (CCB Program Rules, 3.5.6)

There were no community or biodiversity changes to the Project's design during the 2024-2025 monitoring period.

2.2.5 Project Description Deviations (VCS, 3.21; CCB Program Rules, 3.5.7 – 3.5.10)

There are no deviations during the 2024-2025 monitoring period to the Project's project description.

During the previous, 2023 monitoring period, there was one Project Description deviation. This said, in August 2023, the previous guard service Los Guardianes was replaced by a new, more professional guard service called Araucanos S.A.

It is important to note that armed patrols, starting with Los Guardianes Grupo Elite S.A. ("Los Guardianes") and most recently with Araucanos S.A., have been used by the Project as part of the property surveillance activity since 2022. The guards are primarily stationed at the road's access point to the Project and the guards primarily act as a deterrent to potential trespassers.

Araucanos S.A. is a professional security company, based in Asunción and have been in operation since 2011.¹⁴ One of the Paraguayan industries that Araucanos S.A. specifically services is the agricultural and livestock establishments industry.¹⁵ With this in mind, as stated by Araucanos S.A.:

Knowing the requirements and demands of your company regarding security, we present guards with the appropriate profile (image, age, education, hiring filters, personnel with discipline, character and professional ethics), subjected to continuous training based on a quarterly program.

¹⁴ Araucanos S.A. "The Company." Accessed January 9, 2026. Available: <https://araucanossa.com.py/empresa.php>

¹⁵ Araucanos S.A. "Services." Accessed January 9, 2026. Available: <https://araucanossa.com.py/servicios.php>

Training, due to its importance for fulfilling the function, requires a process characterized by several stages that include planning, organization, integration, direction and control.

In order to comply with the requirements and protocols of the service, our collaborators are clinically and psychologically evaluated and then receive specific training required by law 5424/15 that regulates the Security service.¹⁶

See section 2.5.1 for more details on Paraguay law 5424/15.

Furthermore, the specific training programs that Araucanos S.A. provides its professional guards includes:

- National legislation relating to private security;
- Facility security;
- Emergency techniques and procedures;
- Fire risk and firefighting;
- Human relations and public relations management;
- First aid;
- Tactical medicine;
- Communication, alarm, and monitoring system;
- Professional ethics;
- Weapons handling; and
- Self-defense.¹⁷

Stakeholders, such as the private landowner Atenil S.A., the lead technical contractor Ostrya Conservation, and the Project's VVBs, have been aware since 2022 of the armed guards. Armed guards are common on rural farms in Paraguay and thus, other stakeholders such as MADES and INFONA, are familiar with the situation. The Maria Auxiliadora community is not directly reliant on the Project Area and thus, have not encountered the armed guards. Nevertheless, the Participatory Rural Assessments (PRAs) administered with the Maria Auxiliadora community mentions the Project's use of guards.

¹⁶ Araucanos S.A. "Training Process." Accessed January 9, 2026. Available: <https://araucanossa.com.py/proceso-capacitacion.php>

¹⁷ Araucanos S.A. "Training Process." Accessed January 9, 2026. Available: <https://araucanossa.com.py/proceso-capacitacion.php>

This change in Other Entities does not significantly impact the Project, and more specifically, the change does not “impact the applicability of the methodology, additionality or the appropriateness of the baseline scenario, and the project remains in compliance with the applied methodology.” Nevertheless, this change in Other Entities is to be considered a Project Description deviation.

2.2.6 Grouped Projects (VCS, 3.6; CCB, G1.13-G1.15, G4.1)

Although this is a Grouped Project, no new project instances or communities have been added or identified since project submission.

2.2.6.1 New Project Areas and Communities (VCS, 3.6; CCB, G1.13)

No new project instances or communities have been added.

2.2.6.2 Removed Project Areas and Communities (CCB, G1.13)

No project instances or communities have been removed.

2.2.6.3 Eligibility Criteria for Grouped Projects (VCS, 3.6.14; CCB, G1.14)

There are no new project instances or communities to demonstrate eligibility criteria for.

2.2.6.4 Risk Mitigation for Grouped Projects (VCS, 3.6; CCB, G1.15)

There are no serious scalability limits, as each project instance will have their own funds and own management; more projects will result in more VCUs, which results in more funds and more funds will enable managing more projects. Quadriz, alongside its dedicated service providers, has an onsite, world-class team with in-depth knowledge of the Chaco, land rights, and other legal aspects related to running REDD+ projects. This said, incorporating 300,000 hectares, or more, is the goal of this grouped project, not the Project's threshold.

2.2.6.5 Project Zone Map (CCB, G1.13)

Not applicable – no additional communities or project areas were added to the Project during the 2024-2205 monitoring period.

2.2.6.6 Changes to Management (CCB, G4.1)

There were no changes to the management structure, roles, and/or responsibilities that resulted from new entities joining the Project during the 2024-2025 monitoring period. While not a management entity, Quadriz hired a new guard service Araucanos S.A. in August 2023 to replace the previous guard service Los Guardianes.

2.2.7 Risks to the Project (CCB, G1.10)

The Project Proponent regularly discusses the natural and human-induced risks to the Project's expected climate, community and biodiversity benefits. Such risks, which were discussed during the 2024-2025 monitoring period, include:

Identified Risk	Potential impact of risk on climate, community and/or biodiversity benefits	Actions needed and designed to mitigate the risk
Encroachment into the Project Area by local farmers.	Encroachment could lead to degradation and/or deforestation within the Project Area.	The Project will regularly monitor for encroachment and deforestation via onsite forest guard patrols, camera traps, and periodic review of satellite imagery. This will ensure quick identification of encroachment by local farmers or fire. Further, guard houses were established in 2022 to deter individuals interested in illegal logging, hunting, or other unapproved use of the land.
The presence of anthropogenic fire in this dry forest ecosystem.	Fire could lead to degradation and/or deforestation within the Project Area.	Specifically, during the 2020-2021 monitoring period to identify the presence of fires, along with to mitigate encroachment and the potential for illegal logging, hunting, or other unapproved use of the land, the following measures were taken: • A guard was hired in October 2021, to establish a presence and to initiate informal monitoring; • Posters/signs were placed at strategic points; and • A monitoring for deforestation template was designed. During the 2022 monitoring period, the following measures were taken: • A guard house was built; • A guard service, called "Los Guardianes" was hired for the area, who are in charge of patrols and in charge of the entrance to the property. Note, this new guard service "Los

		Guardianes” replaced the previous guard who was hired in October 2021. Further, while the Project will aim to hire guards from the local area as much as possible, the guard service “Los Guardianes” hired three Paraguayan guards, but these guards were not from the Project Area and nor were the guards from the Maria Auxiliadora community; • A Fire Prevention and Control Plan was finalized in March 2022; • Patrols officially started during the first quarter of 2022; and • A patrol log started during the last quarter of 2022. During the 2023 monitoring period, the following measures were taken: • A new company, called Araucanos, was hired for guards in August 2023. In 2023, there was the presence of an anthropogenic fire in this forest ecosystem during the dry season, specifically in the palm savannas strata. Other measures undertaken in 2023 to mitigate the risk of fire included maintenance of fire breaks and the acquisition of a new tractor, which helped to control the advance of the fire through firebreaks. During the 2024-2025 monitoring period, the following measures were taken: • Guards from Araucanos were continuously employed for the Project; and
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		• Trainings in 2024 for Quadriz staff included First Aid and Firefighting Knowledge and Fire Control.
The potential for illegal logging, hunting, or other unapproved use of the land, including narcotrafficking.	Such illegal activities could impact the climate, community and biodiversity benefits of the Project.	As previously mentioned, the Project will regularly monitor for deforestation via onsite forest guard patrols, camera traps, and periodic review of satellite imagery. This will ensure quick identification of encroachment by local farmers or fire or the building of landing strips for narcotrafficking. Further, guard houses were established in 2022 to deter individuals interested in illegal logging, hunting, or other unapproved use of the land, including narcotrafficking. Throughout 2024-2025, guards from Araucanos were continuously employed by the Project.
Use of armed guards	There are limited risks to the Project's climate, community and/or biodiversity benefits due to the use of a professional guard services firm. The primary risk is if the armed guards lack specialized training which could result in excessive or deadly force being used without justification.	Actions needed and designed to mitigate the risk associated with the use of armed guards: • The hiring of a professional guard services firm, for instance Los Guardianes and most recently Araucanos S.A., that provides its guards with extensive training; • Ongoing training of the professional guards; • Regular visits to the Project site by a VVB; and • Ongoing CCB verification audits. Further, according to Araucanos S.A., additional actions needed and designed to mitigate the risk posed by the Project's armed guards includes: <u>Firearms Training:</u> Training regarding current legislation, operating protocols, and safe

		firearm use is provided both remotely and in person. <u>Use of Lethal Force:</u> The guards receive clear instruction that lethal force may only be used in extreme situations, when there is a real and imminent risk to their own life or the lives of others, always within the framework of legitimate self-defense, in accordance with the law. <u>Interaction with Armed Personnel:</u> Personnel are trained in conflict management, risk assessment, and prioritizing deterrence and protection of life, avoiding direct confrontation whenever possible. The use of graduated force—verbal, physical, and, as a last resort, lethal force—is prioritized, in accordance with the law. <u>Procedure in Case of Accidental Discharges:</u> We have an immediate incident reporting protocol, which includes written notification of the incident to the supervisor. A logbook is kept at the post for this purpose, and, if necessary, the appropriate authorities are notified. <u>Use and Storage of Off-Duty Weapons and Equipment:</u> Weapons and protective equipment must be securely stored, unloaded, and under authorized custody, following established internal procedures, especially during off-duty rest periods. <u>Monitoring Compliance with Procedures:</u> Araucanos S.A. conducts on-site inspections at the service posts, and in the case of the Corazon Verde del Chaco Project, these inspections are carried out during visits and through ongoing monitoring to ensure that guards comply with current procedures and regulations. Certain controls are performed via WhatsApp with daily
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		reports reviewed by a security manager at Araucanos' base, such as checking the condition of weapons, ammunition, and other equipment. All of these actions and recommendations were followed during the 2024-2025 Monitoring Period.
Invasive species	Depending on the particular invasive species, an invasive species could have a negative impact on the Project's flora and/or fauna. The feral pig (<i>Sus scrofa</i>), which was previously identified at the initial Project Instance, is an invasive species that is considered a threat to native fauna as it is a disease reservoir, competitor, and potential predator for native fauna.	Actions needed and designed to mitigate the risk of invasive species includes: • Regular visits to the Project site by a trained biologist and/or forester; • Ongoing CCB verification audits; and • Ongoing monitoring efforts by Quadriz's forest guard to identify any threat. It is important to note, that no records of feral pigs (<i>Sus scrofa</i>) were obtained during the 2023 Monitoring Period. However, in December 2024 and March 2025, there were direct observations of the feral pig. In addition, footprints which may belong to the feral pig, were periodically observed after the rains. This said, the low number of encounters of feral pigs in the Project Area does not reflect evidence of the spread of this species. Still, monitoring efforts to identify any threat from the presence of this invasive species is being developed by Quadriz's forest guard. Quadriz is also working with its local biologist and exploring options with MADES.
Pests and/or Disease	Depending on the particular pests and/or invasive species, a pest or an invasive species	Actions needed and designed to mitigate the risk

	could have a negative impact on the Project's flora and/or fauna. For instance, disease or pests could reduce tree growth and result in less canopy cover and fewer carbon dioxide emissions sequestered.	- Regular visits to the Project site by a trained biologist and/or forester; and - Ongoing CCB verification audits. No disease or pests at the Project have been identified since the Project Start Date, including during the 2024-2025 Monitoring Period, and thus, there have been no specific actions taken.
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2.2.8 Benefit Permanence (CCB, G1.11)

The Project will mitigate deforestation pressures and the associated greenhouse gas emissions in the region, which is the main climate objective of the Project. The main community objective of the Project is to provide social programs to improve the livelihoods of community members living in the vicinity of the Project. The main biodiversity objective of the Project is the preservation of biodiversity, particularly medium-to-large mammals in the Project Area. To ensure these climate, community and biodiversity benefits of the Project are maintained and enhanced beyond the project lifetime, the Chaco Forest, particularly the Chaco Forest within the initial project instance, needs to remain as forest. To accomplish this overarching objective, the following measures are needed and designed:

- The continued involvement and support of Quadriz, the landowner(s), universities, the Paraguayan Government, and local communities are needed to ensure ongoing management and monitoring of the Project takes place. To this end, Quadriz has hired expert local staff, has training plans in place to ensure staff continuity, and ongoing stakeholder engagement plans to help ensure ongoing support. Such actions took place throughout 2020-2025, including during the 2024-2025 monitoring period;
- Ongoing funding is needed to help finance some of the activities beyond the project lifetime, such as Chaco Alert, monitoring community benefits, and monitoring medium-to-large mammals using wildlife cameras. Quadriz has developed a pro forma to model the ongoing costs and revenue associated with the Project. This pro forma has been refined throughout the 2024-2025 monitoring period and funding was received throughout 2024-2025;
- Purchasing the land, donating the land to a conservation organization, placing some type of conservation easement, or extending the Project Lifetime beyond the initial 40 years is needed to ensure ongoing conservation of the forest within the initial project instance. Quadriz is continuing to explore these potential, long-term options;

- Helping other landowners and the Paraguayan Government undertake additional conservation projects will help ensure other REDD+ projects are implemented (i.e., which would presumably last longer than the initial project instance) and such projects would further contribute to mitigating global climate change. Quadriz has actively reached out to such stakeholders throughout 2020-2025, including during the 2024-2025 monitoring period; and
- The Visitor Center, Chaco Alert, and the educational facilities are needed to remain to maintain the community benefits beyond the project lifetime. The Visitor Center and Chaco Alert will be implemented, even if no other project instances are added to the grouped project. Further, there is a chance the daily operations of the Visitor Center and of Chaco Alert could potentially be taken over by local organizations after the initial 40-year period.
 - During the 2020-2021 monitoring period, there were reforms made to the Visitor Center in October 2021 and for Chaco Alert, in 2021, Quadriz engaged with Danilo Costas, an expert pilot, to compile information about emergency flights, aircraft requirements, and minimum runway conditions.
 - In 2022, professional fees were paid to Danilo Costa, a pilot specialized in emergency flights, for his expert advice about the technical specifications of the airplane models, Quadriz developed an estimated budget for the conditioning of such an aircraft, and during visits to the Maria Auxiliadora community, the community informed Quadriz again that the transfer to emergency care centers is a problem and that Chaco Alert remains a desired benefit from the Project. Also in 2022, the Quadriz team worked on a formal document with objectives, indicators, expected results and other information related to Chaco Alert. The main activity in 2022 related to the Visitor Center was the restoration of its infrastructure. This includes, but is not limited, to acquiring: furniture, a water well, a solar panel, a generator, Wi-Fi service, construction of the manager's house, and equipment for visitors (e.g., crockery, towels, and sheets).
 - In 2023, for Chaco Alert, the team focused on reviewing appropriate landing sites in the Chaco; deciding on the type of plane based on technical characteristics; analyzing best way to make the program operational in the Chaco; talking with expert pilots; reviewing health issues, and legal and technical authorizations; and holding interviews with potential companies who can provide the service. In 2023, a plan for the Visitor Center was developed, including the design of posters with a content proposal. Photos and videos from the Project's wildlife cameras traps were selected and ideas for the development of audiovisual materials for the Visitor Center were established. A trip to record environmental surrounding sounds of the Project has been done, and sounds are going to be available to use in the audiovisual materials of the

Visitor Center. This was in the framework of a Master's degree thesis. Regarding equipment, facilities were remodeled to host visitors and the infrastructure of the area was completed in 2023.

- Regarding Chaco Alert, in February 2024, discussions began with the Ministry of Public Health and Social Welfare (MSPBS) and its Extrahospital Medical Emergency Service (Servicio de Emergencias Médicas Extrahospitalarias, SEME). In June 2024, talks began with the Paraguayan Air Force (FAP). These institutions are currently working in a coordinated and efficient manner on emergency air transfers in Paraguay. A draft of the "Framework Agreement for Cooperation and Interinstitutional Support" was prepared, and it was decided by the three parties that it would be a tripartite agreement between Quadriz Paraguay S.A., MSPBS and FAP. During 2025, the team focused on legal review, formalization of the agreement, and operational coordination: An adjusted version of the agreement and legal information were submitted to the MSPBS between March - April 2025; In August 2025, Quadriz received a Favorable Technical Opinion on the agreement; In September 2025, the proposed agreement was submitted to the FAP and In December 2025, Quadriz received from FAP a Favorable Technical Opinion on the agreement to move towards signing and program implementation. Regarding the Visitor Center, in 2024 and 2025, Quadriz started with the construction and improvement of the facilities for forest guards and in-charge people, including: a new house was built with the required equipment for Alberto and Verónica, as well as 2 more independent rooms; an appropriate storage for tools and fuel; improvement of facilities in guards' house in the East entrance (e.g., new toilet, new kitchen, 2 bedrooms, water reservoir, mosquito netting around the house); new antenna to facilitate communication; maintenance of main routes and access; maintenance of roof of the Visitor Center; internet access all the time by Starlink services; and exclusive truck for the Project. In 2024-2025, Quadriz also prepared some materials to be printed for the Visitor Center, that gives information about the Endangered Species: jaguar (*Panthera onca*), giant anteater (*Myrmecophaga trydactyla*), tapir (*Tapirus terrestris*), maned wolf (*Chrysocyon brachyurus*), white-lipped peccary (*Tayassu pecari*) and giant armadillo (*Priodontes maximus*).

2.3 Stakeholder Engagement & Safeguards

2.3.1 Stakeholder Identification (VCS, 3.18, 3.19; CCB, G1.5)

Not applicable – the stakeholder make-up has not changed since validation, and no new stakeholders were identified at verification.

2.3.2 Stakeholder Access to Project Documents (VCS, 3.18, 3.19; CCB, G3.1)

Project documentation, including the VCS-CCB project description and the VCS-CCB monitoring reports, have been, and will continue to be, made accessible to communities and other stakeholders throughout the Project Lifetime in the following manner:

- The project documents are posted online on the Verra website and on the Quadriz website. For the Project's validation, the public comment period dates were October 6, 2021 to November 5, 2021. Quadriz also posted the public comment period for the Project's validation announcement on its website on October 6, 2021. For the Project's verification of the 2020-2021 monitoring period, the public comment period dates were April 25, 2022 to May 24, 2022. Quadriz posted the public comment period for the Project's 2020-2021 verification announcement on its website on April 26, 2022. For the Project's verification of the 2022 monitoring period, the public comment period dates were May 26, 2023 to June 25, 2023. Quadriz posted the public comment period for the Project's 2022 verification announcement on its website on June 1, 2023. For the Project's verification of the 2023 monitoring period, the public comment period dates were from February 23, 2024 to March 24, 2024 and from June 2, 2025 to July 2, 2025. Quadriz posted the public comment period for the Project's 2023 verification announcement on its website on February 23, 2024 and June 3, 2025.
- If possible, the project documents will also be registered and posted on the Paraguayan Government's designated website via MADES. Thus, on MADES' website (see here: <http://dncc.mades.gov.py/registro-de-reduccion-de-emisiones-en-paraguay>), there will be a link to the Project's page in Verra, which has the full project documents.
- Physical copies of project documents, since 2021, are now available at the Visitor Center in Puerto Casado, along with at Quadriz's Asunción office located at: Avda. Aviadores del Chaco 2581, SkyPark, Torre 3, Piso 19, Asunción, Paraguay.
- The project documents have been, and will continue to be, distributed to local communities and other stakeholders, including to local schools, the mayor's office, etc. For the initial project instance, the draft summary project document has been sent via WhatsApp to Patricia Villalba, the daughter of the Maria Auxiliadora community leader Hermenegildo Vera. Upon the Project achieving validation, the finalized summary documents and the finalized Project Description will be delivered in person to the Maria Auxiliadora community by Fredy Montoya and Gabriela Viñales. This action took place on April 10, 2023. Direct communication was reinforced by sending a text message to the leader of the María Auxiliadora community on June 17, 2025.

- Quadriz has, and will continue, to periodically reach out to local Chaco TV and radio stations (i.e., such TV and radio station announcements mention to audiences how to access the full project documents), along with posting information on its LinkedIn page. For the initial project instance, for example, the radio announcement made on November 3, 2021 did mention that anyone can access the full project documents by searching for the VCS Project ID# 2611 at the Verra Registry or at the Quadriz website under the blog section. Within the framework of the public comment period for the Project, there was a broadcast through the radio station Pa'i Puku 720 AM, in Spanish and Guaraní, in June and July 2025, thus ensuring its understanding and reach.

This process will be followed for the initial project instance and for all future project instances under the grouped project over the project lifetime. Further, all communities within the project instance's project zone (i.e., within 20 kilometers of the project instance) will be eligible to receive the project's full project documents, if they are interested.

2.3.3 Dissemination of Summary Project Documents (VCS, 3.18, 3.19; CCB, G3.1)

As previously mentioned, the Chaco region where the Project is located is remote and there are few local communities. Nevertheless, the summary project documentation, including information required for G1.1-9, was, and will continue to be, actively disseminated to communities. This summary information and monitoring results was, and will continue to be, actively disseminated to communities by Federico ("Fredy") Montoya, the Field Manager at Investancia / Quadriz Paraguay S.A. and/or by Gabriela Viñales, the REDD+ Manager at Quadriz Paraguay S.A. Further, Andrea Samaniego, with the support of Fredy Montoya and/or Gabriela Viñales where necessary, explained the audit process, solicit public comments, and inform the local communities and other stakeholders about upcoming auditor visits. This process was followed for the initial project instance and will be followed for all future project instances under the grouped project over the project lifetime. Further, all communities within the project instance's project zone (i.e., within 20 kilometers of the project instance) will be eligible to receive the project's summary project documents, if they are interested.

For the initial project instance, the draft summary project document has been sent via WhatsApp to Patricia Villalba, the daughter of the Maria Auxiliadora community leader Hermenegildo Vera. Upon the Project achieving validation, the finalized summary documents and the finalized Project Description will be delivered in person by Fredy Montoya and Gabriela Viñales to the Maria Auxiliadora community. This action took place on April 10, 2023. Direct communication was reinforced by sending a text message to the leader of the María Auxiliadora community on June 17, 2025.

If Fredy Montoya and/or Gabriela Viñales were to leave Quadriz, there will be another person hired and trained to conduct similar work for Quadriz, most likely the social specialist.

2.3.4 Informational Meetings with Stakeholders (VCS, 3.18, 3.19; CCB, G3.1)

Quadriz holds a variety of informational meetings with communities and local stakeholders. Depending on the specific stakeholder, such informational meetings with communities and events with local stakeholders are sometimes private meetings and are sometimes widely publicized, and there are several platforms used by Quadriz including Quadriz's blog (see here: <https://quadriz.com/blog/>), LinkedIn (see here: <https://www.linkedin.com/company/quadriz/>), Instagram (see here: https://www.instagram.com/quadriz_paraguay/), and YouTube (see here: <https://www.youtube.com/@quadriz>).

Meetings with government officials, such as MADES or INFONA, are typically set up in advance via email or phone calls and oftentimes, an agenda is shared in advance. Such meetings take place via virtual Zoom meetings or in person at the MADES or INFONA offices in Asuncion. These meetings are then internally publicized by Quadriz, MADES and/or INFONA. Such information meetings throughout 2020-2025 included discussions about the status of Paraguay's national REDD+ work, what map layers and data sources are available, and how private projects can register with the Paraguayan Government (See Section 2.3.7. for additional information).

More specifically, Quadriz received an acknowledgement letter from MADES about the Project in October 2021, Quadriz met in-person with WWF in September 2021, Quadriz met in-person with INFONA on November 9, 2021, and Quadriz met in-person with MADES on November 29, 2021. In 2022, Quadriz met in-person with INFONA on September 27, November 17, and November 18. In 2022, Quadriz also met in-person with MADES on August 18 and October 24. Quadriz also met several times in-person with INFONA (e.g., actively participated in events carried out by INFONA, such as the meeting for the construction of the "Plan de Restauración Nacional") and with MADES (i.e., Quadriz was present at MADES events, as project presenters, talking about Corazón Verde del Chaco Project's experience) in 2023. These meetings were set up in advance via email and event registrations took place online. Further, Quadriz help several meetings with Congress to revise, adjust, and discuss the new Carbon Law. Quadriz help non-formal talks in 2023 with Guyra Paraguay. The high-level outcomes of such meetings are then often publicized primarily via Quadriz's blog and/or LinkedIn announcements. For instance:

- October 17, 2023: Paraguay approves new carbon credits law in bid to conserve and manage resources sustainably (see Quadriz's blog here: <https://quadriz.com/paraguay-approves-new-carbon-credits-law/>);
- May 24, 2024: Quadriz shares recent achievements with MADES and explores collaborations (see Quadriz's blog here: <https://quadriz.com/quadriz-shares-recent-achievements-with-mades-and-explores-collaborations/>);
- July 31, 2024: Key highlights from the Latin America Climate Summit: Emphasizing the region's role in carbon markets (see Quadriz's blog here: <https://quadriz.com/key-highlights-from-the-latin-america-climate-summit-emphasizing-the-regions-role-in-carbon-markets/>); and

- Quadriz's Carbon Newsletter via LinkedIn:
<https://www.linkedin.com/newsletters/quadriz-carbon-newsletter-7074329874110291968/>

Throughout 2024-2025, Quadriz continued to meet in-person with stakeholders such as MADES and INFONA.

Meetings with local landowners are set up in advance via word-of-mouth, phone calls, WhatsApp messages, or via email. Several private meetings with the local landowner of the initial project instance, Atenil, have been held in-person throughout 2020-2025. Such meetings included discussions about the project's costs, risks and benefits, about the minimum project lifetime, updates on the sales of the Project's Verified Carbon Units (VCUs), and how Atenil must forego deforesting and selling the property (see Section 2.3.7. for additional information).

Throughout 2020-2025, personnel meetings between Quadriz and Ostrya Conservation, including with local staff, were held online via Zoom every 1 - 2 weeks. Such meetings, which were set up in advance via WhatsApp and via email, included discussions on topics such as, but not limited to: updates on local Project activities; updates on the sales of the Project's VCUs; new developments in the voluntary carbon market; policy updates in Paraguay; and the status of the current (or upcoming) audits.

The first time Quadriz made contact with the Maria Auxiliadora community, Gabriela Viñales and Fredy Montoya spoke to another indigenous leader in Puerto Casado, Francisca Centurión, who knew the Maria Auxiliadora community well. Gabriela Viñales got the contact information for Francisca Centurión from the Atenil landowner. Francisca Centurión made the connection for Gabriela Viñales and Fredy Montoya with Hermenegildo Vera, the leader of the Maria Auxiliadora community. For the first in-person visit, held in March 2021, Gabriela Viñales, Fredy Montoya, and Francisca Centurión visited the Maria Auxiliadora community together. During this first in-person visit, Gabriela Viñales and Fredy Montoya met Hermenegildo Vera (i.e., who publicized the meeting via his community), Patricia Villalba (the daughter of Hermenegildo Vera), and with other people in the community. Gabriela Viñales and Fredy Montoya also did in-person interviews via the Forest Degradation Surveys and via the Participatory Rural Assessments with three people from the community. Also, during this first in-person visit, Gabriela Viñales and Fredy Montoya got the cell phone / WhatsApp number for Patricia Villalba.

After the first in-person visit to the Maria Auxiliadora community, Gabriela Viñales, Fredy Montoya and Francisca Centurión visited the nearby San Isidro community in-person. Gabriela Viñales and Fredy Montoya mentioned they had just visited the Maria Auxiliadora, but the San Isidro community were not ready for outsiders and wanted more time to decide whether to participate in the Project.

A second in-person visit to the Maria Auxiliadora community and to the San Isidro community took place in August 2021. In 2022, Quadriz met in-person with the Maria Auxiliadora community on July 27, August 28, September 7, October 17, and November 2.

In 2023, Quadriz met in-person with the Maria Auxiliadora community six times (dates of May 21, June 22, June 27, August 23, August 30, and September 19). Throughout 2024-2025, Quadriz continued to meet in-person with the Maria Auxiliadora community, for example, to provide food assistance, to provide financial support for education, and to administer the second round of Participatory Rural Assessments (PRAs) community surveys on January 30, 2024.

For all future in-person visits to the Maria Auxiliadora community, including visits to inform the community about the upcoming validation and ongoing verifications, Gabriela Viñales, Florencia Arano, or Andrea Samaniego will contact the community. Since 4th August 2025, Maria Auxiliadora community has a new leader, Adolfo Sosa. During an in-person meeting, he indicated the new communication channel should be to himself or once of the members if his core: Norma Sandoval, Pablo Cantero, Samuel Torales and Adriana Cantero.

It is important to note that all stakeholders can access the Project's full documentation at the Project's dedicated Verra Registry page, which can be found here:

<https://registry.terra.org/app/projectDetail/VCS/2611>

2.3.5 Risks from the Project and No Net Harm (VCS, 3.18, 3.19)

Please see Appendix 2, the "Project Risks Table," for additional information.

2.3.6 Community Costs, Risks, and Benefits (CCB, G3.2)

There are two communities in the initial Project Zone and there are no communities living in the initial Project Area. The communities in the initial Project Zone are two small indigenous communities known as the Maria Auxiliadora and San Isidro. Maria Auxiliadora has approximately 20 families and San Isidro has approximately 14 families.¹⁸

The community at San Isidro has been visited twice by Quadriz, but the community would like more time to decide whether to participate in the Project.

Nevertheless, community surveys known as a Degradation Survey and a Participatory Rural Assessment (PRA) were initially administered in March and August 2021 at the Maria Auxiliadora community in order to help identify perceived costs or risks from the community, along with the desired benefits from the Project. The second round of Degradation Surveys took place on August 30, 2023 and the second round of PRAs took place on January 30, 2024.

¹⁸ Federation for Self-Determination of Indigenous Peoples. "Map." Available: <https://www.tierrasindigenas.org/Mapa>

The initial PRAs were administered by Federico (“Fredy”) Montoya, the Field Manager at Investancia / Quadriz Paraguay SA, and Gabriela Viñales, the REDD+ Lead Project Manager. The follow up surveys were administered by Andrea Samaniego. Gabriela Viñales, Andrea Samaniego, and Fredy Montoya are from Paraguay, speak the local languages, and visited the communities to discuss in person all aspects of the Project. The Maria Auxiliadora community did not foresee any costs or risks for their community and appreciated the benefits by the Project. The Project Proponent believes there are no costs or risks for the community at San Isidro. Further, the Project Proponent will continue to try to engage with the San Isidro to understand whether they foresee any potential costs or risks of the Project to their community and the Project Proponent will offer to provide the Project’s benefits to their community.

2.3.7 Information to Stakeholder on Verification Process (VCS, 3.18.6, 3.19; CCB, G3.3)

The summary information with monitoring results were, and will continue to be, actively disseminated to communities by Federico (“Fredy”) Montoya, the Field Manager at Investancia / Quadriz Paraguay S.A., Gabriela Viñales, the REDD+ Manager at Quadriz Paraguay S.A., and/or Andrea Samaniego, the community specialist at Quadriz Paraguay S.A. This dissemination took place for the October 6, 2021 to November 5, 2021 public comment period for the Project’s validation and this took place for the April 25, 2022 to May 24, 2022 public comment period for the Project’s verification of the 2020-2021 monitoring period and for the May 26, 2023 to June 25, 2023 public comment period for the Project’s verification of the 2022 monitoring period. For the Project’s verification of the 2023 monitoring period, this took place during the public comment period dates of February 23, 2024 to March 24, 2024 and of June 2, 2025 to July 2, 2025. More specifically:

- The Project’s first Public Comment Period for the 2023 activities was publicly announced in February 2024 via Quadriz’s webpage and in Quadriz’s LinkedIn profile (see here: <https://quadriz.com/redd-corazon-verde-del-chaco-project-commences-ccb-verification-public-comment-period-for-the-2023-monitoring-period/>);
- The Project’s second Public Comment Period for the 2023 activities, which took place in June 2025, a spot was broadcast through the radio station Pa’i Puku 720 AM, in Spanish and Guaraní, thus ensuring its understanding and reach. In addition, direct communication was reinforced by sending a text message to the leader of the María Auxiliadora community on June 17, 2025, with the following content: “We would like to inform you that the Public Comment Period for the Corazón Verde del Chaco Project has begun. It is being broadcast on Pa’i Puku radio 720 AM.”
- The Project’s second Public Comment Period for the 2023 activities was also publicly announced in June 2025 via Quadriz’s webpage and in Quadriz’s LinkedIn profile (see here: <https://quadriz.com/redd-corazon-verde-del-chaco-project-commences-ccb-verification-public-comment-period-for-the-2023-monitoring-period-2/> and see here: <https://www.linkedin.com/feed/update/urn:li:activity:7335682950828584961>).

More specifically, Andrea also visited the Maria Auxiliadora community in-person in January and April 2024. In April 2024, Andrea talked about the auditors' upcoming visit to check on the project activities that were carried out during 2023. Andrea prepared a presentation in the local Guarani language so the community could better understand the Project and their relationship with the Project.

Further, Fredy Montoya, Gabriela Viñales, and/or Andrea Samaniego explained the validation/verification audit process, solicited public comments, and informed the local communities and other stakeholders about the upcoming auditor visits. The same process was followed for the 2020-2021 verification, for the 2022 verification, for the 2023 verification, for the 2024-2025 verification, and will be followed for ongoing verifications. With this in mind and regarding communication methods used for the communities to inform them of the validation process, Gabriela Viñales and Fredy Montoya got the cell phone / WhatsApp number for Patricia Villalba, the daughter of the community leader, during their first visit to the Maria Auxiliadora community. For all future in-person visits to the Maria Auxiliadora community, including to inform the community about the ongoing verifications, Gabriela Viñales, Andrea Samaniego, and/or Florencia Arano will Adolfo Sosa via his cell phone / WhatsApp and then Adolfo Sosa or his advisors will inform the Maria Auxiliadora community of Quadriz's upcoming visit. More specifically, for the verification of the 2023 activities, Quadriz undertook the following activities with the Maria Auxiliadora community before the auditors' site visit:

- December 19, 2023: Annual meeting with the community was held in person by Andrea Samaniego, Quadriz' social specialist, who explained about the Project's next steps, about the upcoming community surveys, and about the auditors' upcoming site visit;
- January 2024: Quadriz's Andrea Samaniego administered the Participatory Rural Assessment (PRA) and Forest Degradation surveys in-person with the Maria Auxiliadora community. Some of the PRA questions were generally related to Public Comment Period, but Andrea Samaniego did not specifically mention the upcoming Public Comment Period for the 2023 activities because the exact dates were not known as of January 2024; and
- April 18, 2024: Quadriz's Andrea Samaniego met with the Maria Auxiliadora community to announce the auditors' site visit in May. Andrea Samaniego also explained about the auditors' site visit objectives.

Regarding other stakeholders, such as MADES and INFONA, these entities were informed of the validation process and the 2020-2021, 2022, 2023, and 2024-2025 verifications via email, via phone calls, and/or in person meetings. More specifically, for the verification of the 2023 activities, the following emails were sent to inform stakeholders about the upcoming auditors' visit:

- May 7, 2024: official communication about auditor site visit to Nicole Thiessen of Atenil S.A.;

- May 7, 2024: official communication about auditor site visit to Patricia Flor of GHP S.A.;
- May 7, 2024: official communication about auditor site visit to Pedro Guggiari of Guggiari Livieres S.A.;
- May 7, 2024: official communication about auditor site visit to MADES; and
- May 7, 2024: official communication about auditor site visit to INFONA.

During the site visit period, Quadriz sent an additional email with INFONA, sharing access to the Verra's webpage, as well as the Project's VCS ID. This email sent on May 23, 2024, and an in-person meeting with INFONA was held on May 27, 2024.

The same process will be followed for ongoing verifications.

Further, local radio announcements were made in July 2021 about the Project and in November 2021 about the Project's public comment period. Local radio announcements were not made in 2023 for the 2022 verification, nor were radio announcements made in 2024 for the 2023 verification. However, in June 2025, a spot was broadcast through the radio station Pa'i Puku 720 AM, in Spanish and Guaraní, thus ensuring its understanding and reach, for the Project's second Public Comment Period for the 2023 verification.

2.3.8 Site Visit Information and Opportunities to Communicate with Auditor (VCS, 3.18.6, 3.19; CCB, G3.3)

Fredy Montoya and/or Gabriela Viñales explained the validation audit process, solicited public comments, and informed the local communities and other stakeholders about the upcoming auditor visits. The same process was followed for the 2020-2021 verification, for the 2022 verification, for the 2023 verification, for the 2024-2025 verification, and will be followed for ongoing verifications. For the onsite validation, the 2020-2021 verification, the 2022 verification, the 2023 verification, the 2024-2024 verification, and for all future verification audits, the auditors will have direct and independent communication with both the local communities and other stakeholders. Further, Quadriz will facilitate all of the visits with local communities and other stakeholders (e.g., schedule and confirm meetings, provide transportation, exchange contact information, draft agendas, etc.) and Quadriz will either participate in the interviews or will be absent if requested by the validation and verification body (VVB).

Ongoing communication with local communities and other stakeholders will continue after site visits, including opportunities for the VVB to ask follow up questions, along with Quadriz being available to answer any questions or grievances with such stakeholders.

2.3.9 Stakeholder Consultation (VCS, 3.18; CCB, G3.4)

Below are a few of the stakeholder consultations which took place during the recent 2024-2025 monitoring period.

Ongoing consultation	Quadriz sent INFONA the Corazon Verde del Chaco Project's 2023 Monitoring Report, which includes all of the monitoring results of 2023.
Date(s) of stakeholder consultation	May 2024
Communication of monitored results	Quadriz frequently meets with INFONA and INFONA was emailed the 2023 Monitoring Report in order to have the document in digital format.
Consultation records	A copy of the email has been provided to the VVB.
Stakeholder input	Confirmation of receipt was provided, but INFONA had no further comments or inputs on the 2023 Monitoring Report. This said, no updates to the project design were made as INFONA did not have any comments or inputs.

Ongoing consultation	Quadriz continued to engage MADES.
Date(s) of stakeholder consultation	March 2025; May 2025; October 2025
Communication of monitored results	March 2025: Quadriz's 2024 Annual Report was emailed to MADES (along with to INFONA, Atenil, GHP lawyers and Livieres lawyers). May 2025: Quadriz attended MADES' Launch of NDC 3.0 and also participated in the Launch of Sustainable Development National Policy (i.e., an event led by MADES). October 2025: Quadriz participated as a speaker in an event called "Inspiring Leadership: Women and Youth for Climate Action" lead by MADES.
Consultation records	A copy of the emails and attendance records can be provided to the VVB.
Stakeholder input	No specific stakeholder input was received.

Ongoing consultation	Quadriz continued to engage INFONA.
Date(s) of stakeholder consultation	July 2025; December 2025

Communication of monitored results	July 2025: Quadriz participated in the launch of the “Integrated Fire Management Portal and the Forest Fire Monitoring Viewer,” organized by INFONA. December 2025: Quadriz participated in a 3-day workshop led by INFONA called “Training for GHG Accounting and Generation of Forest GHG Projections.”
Consultation records	A copy of the emails and attendance records can be provided to the VVB.
Stakeholder input	No specific stakeholder input was received.

Below is an outline of the history of stakeholder consultations.

The Project Proponent has held numerous stakeholder consultations with communities and other stakeholders, including several meetings, which have influenced the overall project design. A sample of these stakeholder consultations are included below, including those undertaken during the 2024-2025 monitoring period:

August 16-22, 2019: Quadriz and Ostrya Conservation visit Paraguay to visit Quadriz’s local Chaco headquarters and meet the local management team and local staff.

February 2-8, 2020: Quadriz and Ostrya Conservation visit Paraguay to visit potential REDD+ project sites; meet local landowners; better understand local ecological and social conditions leading to deforestation; meet government officials in Asunción, including representatives from United Nations Development Programme (UNDP), Ministerio del Ambiente y Desarrollo (MADES; Ministry of Environment and Development) and Instituto Forestal Nacional (INFONA; National Forestry Institute); meet representative from a local forestry firm for potential forest carbon inventory work; and to meet with law firm Livieres Guggiari to better understand land ownership and carbon rights in Paraguay.

February – September 2020: Ongoing discussions with various Paraguay landowners.

June 4, 2020: Marcel van Heesewijk and Christian Nielsen of Quadriz and James Eaton of Ostrya Conservation held a call with Naomi Swickard from Verra about VCS jurisdictional baselines and Verra’s work with Paraguay.

June 15, 2020: Marcel van Heesewijk, Christian Nielsen, and James Eaton held a follow up call with Manuel Estrada and Angelo Sartori from Verra to further discuss VCS jurisdictional baselines and Verra’s work in Paraguay.

July 1, 2020: A deal was verbally agreed upon, and within days after having reached the initial deal (on July 9), Marcel van Heesewijk informed by email Investancia/Quadriz's nominated lawyers Brigitte Urbieto and Pedro Bruno Guggiari at Paraguayan law firm Livieres Guggiari, about the details of the deal with a further request to proceed with establishing Quadriz Paraguay S.A. to lead the REDD+ project.

August 10, 2020: Christian Nielsen, Marcel van Heesewijk, James Eaton, Gabriela Viñales (Technical Specialist from UNDP), and Ulises Lovera Gaona (National Climate Change Director, MADES) met virtually to discuss VCS jurisdictional baselines for Paraguay, how to incorporate projects, and how to avoid double counting.

August 13, 2020: Christian Nielsen, Marcel van Heesewijk, and James Eaton gave a formal presentation to Kiantar Betancourt and Diego Puente from Atenil to explain the overall carbon markets and how REDD+ projects are developed to encourage expansion of the initial project instance under usufructo. This meeting led to Atenil requesting to change the Agreement from the original usufructo long term lease to an agreement to include Atenil as part of the project (passive landowner) with Quadriz in the role as land manager and developer of the carbon project.

September 29, 2020: Agreement signed between Quadriz and Atenil.

November 9, 2020: Marcel van Heesewijk met with Guido Cubilla, Karim Musalem (Director), Lucy Aquino (Director), and Calixto Saguier from WWF Paraguay to discuss biodiversity monitoring plans and to discuss the Indigenous Peoples charter that was prepared by WWF Paraguay.

November 10, 2020: Marcel van Heesewijk met with Pedro Bruno Guggiari from the Livieres Guggiari law firm about setting up Quadriz Paraguay and to discuss other potential REDD+ projects.

December 15, 2020: Quadriz communicated via email with WWF Paraguay for next steps, shared meeting minutes, and requested clarification on a number of points. Guido Cubilla, Karim Musalem (Director), Lucy Aquino (Director), and Calixto Saguier were included.

February 18, 2021: Christian Nielsen and Gabriela Viñales explained the Participatory Rural Assessment and the Degradation Surveys to Fredy Montoya, who was to later administer the surveys around Corazón Verde del Chaco I.

March – April 2021: Christian Nielsen visited Paraguay to meet local staff in Asuncion and at Santa Rosanna, along with a variety of stakeholders including Atenil, WWF, Andrea Weiler at the University, and additional potential project partners.

May – June 2021: James Eaton and Gabriela Viñales held an in-person training in regard to the forest carbon inventory for Fabrizio Radice Gorostiaga. James Eaton and Marcel van Heesewijk also visited additional, potential REDD+ sites during this trip.

August 2021: Fredy Montoya and Gabriela Viñales visited the San Isidro and Maria Auxiliadora communities to administer the Participatory Rural Assessments. The PRAs provided useful information on the Maria Auxiliadora community. The Project design did not change as a result of these PRAs, in part because the community is not reliant on the initial Project Area and the community did not seek additional benefits to the ones initially proposed by Quadriz. If the community was reliant on the initial Project Area, then the Project would have revised its GHG accounting and modified its deforestation patrols. If the community sought additional benefits, the Project would have considered whether the implementation of such benefits was feasible.

January 2022: Quadriz reached out to Guyra Paraguay / BirdLife International and Solidaridad Network, which are two additional “other stakeholders.” More specifically, Gabriela Viñales contacted Solidaridad Network to learn more about their work, to inform them about Quadriz’s work with REDD+ projects, and to see if there are any areas of cooperation. Regarding Guyra Paraguay / BirdLife International, Gabriela Viñales knows them from her time at UNDP and worked with them doing an environmental services project in 2018 and 2019. Gabriela Viñales reached out to Guyra Paraguay / BirdLife International again in January 2022 to inform them about Quadriz’s work on REDD+ projects and to see if they have any suggestions for modifying the project design given their previous experience working on AFOLU projects in Paraguay.

July – November 2022: Quadriz met with the Maria Auxiliadora community, including on July 27, August 28, September 7, October 17, and November 2. Such visits provided further awareness of the Project, delivered a computer and school supplies, and conducted trainings such as on the implementation of vegetable gardens.

July 18, 2022: Quadriz held a meeting with the AbeChaco Project (led by MADES and UNEP) to identify potential synergies.

July 29, 2022: Quadriz held a meeting with Fundación Moisés Bertoni to identify potential synergies.

August 8, 2022: Quadriz met with the Wildlife Conservation Society to also identify potential synergies.

August 18, 2022: Quadriz met with MADES to further discuss and learn about how the project registration system works in view of Project being validated to the VCS and CCB.

September 27, 2022: Quadriz participated in event hosted by INFONA, which included a presentation of, “The National Report on Forest Cover and Land Use Change, 2017-2020.”

October 24, 2022: Quadriz participated in a panel for “Climate Change Day,” an official event organized by MADES.

November 17-18, 2022: Quadriz participated in the first workshop, held by INFONA, to elaborate on the National Plan of Forest Restoration, with the participation of more of 100 actors.

March 22-24, 2023: Quadriz participated in the second workshop held by INFONA, to elaborate on the National Plan of Forest Restoration.

May 9-11, 2023: Quadriz participated in the third workshop held by INFONA, to elaborate on the National Plan of Forest Restoration.

July 21, 2023: Quadriz participated in the fifth workshop held by INFONA, to elaborate on the National Plan of Forest Restoration.

May 2024: Marcel van Heesewijk and Gabriela Viñales of Quadriz met with the Minister of MADES to inform him that the Project was included in the Sylvera ranking and that Quadriz was a member of the International Emissions Trading Association (IETA).

July 2024: Gabriela Viñales of Quadriz made a presentation in the Environmental Table of the UN Global Compact.

July 2024: Christian Nielsen of Quadriz participated in the Latin America Climate Summit, held in Colombia.

August 2024: Quadriz, represented by Gabriela Viñales and Florencia Arano, participated from the beginning of the process through to the construction of the reglementary decree to the Carbon Law (i.e., which totalled at least 5 meetings with stakeholders).

October 2024: Gabriela Viñales of Quadriz made a presentation at an event organized by the Commerce and Industry Ministry, with the presence of national authorities like the Industry Minister.

October 2024: Quadriz, represented by Gabriela Viñales and Florencia Arano, attended the Chile Carbon Forum.

October 2024: Quadriz was invited by B Corp Paraguay to be expositors in the Day B event, the most important event for B Corp. Gabriela Viñales gave an overview of Quadriz's experience as a relevant example of a Paraguayan REDD+ Project and as a carbon project developer.

November 2024: Marcel van Heesewijk of Quadriz made a presentation at an event called "Sustainable Forestry Investment: Challenges and Opportunities for Paraguay and the Region" organized by FMO bank. Marcel van Heesewijk was also on the panel "Demonstrating the Integrity of Carbon Credits" along with Angelo Sartori from Verra and Victor Gonzalez from MADES.

May 2025: Florencia Arano of Quadriz gave a presentation at a public event lead by UN Global Compact, talking about carbon markets.

May 2025: Florencia Arano of Quadriz attended the Launch of NDC 3.0 in MADES.

May 2025: Florencia Arano of Quadriz participated in the Launch of Sustainable Development National Policy, an event led by MADES.

May 2025: Quadriz, represented by Marcel van Heesewijk, was part of the official team to Singapore to sign the Bilateral Agreement between Paraguay and Singapore, to the implementation of the Article 6.

June 2025: Gabriela Viñales of Quadriz was a speaker at the Investment Forum 2025, an event organized by the European Union. The panel was about sustainable forestry production

July 2025: Quadriz, represented by Gabriela Viñales and Florencia Arano, attended the event “Carbon markets – Art 6 Paris Agreement” during the Rural Expo (i.e., a relevant annual expo led by the Industry Ministry where Paraguay production is presented).

July 2025: Florencia Arano of Quadriz participated in the launch of the “Integrated Fire Management Portal and the Forest Fire Monitoring Viewer,” organized by INFONA.

July 2025: Nicholas O'Brien of Quadriz participated as a speaker in an England talk called Paraguay Speaks, organized by Paraguayan doctoral students in England.

August 2025: Quadriz, represented by Gabriela Viñales, participated in the Latin American Summit in Sao Paulo, Brazil.

August 2025: Florencia Arano made a presentation about the Project at an event called “Environmental Seminar: Business Leadership for a Sustainable Future,” organized by PARESA (Coca Cola Company) and the UN Global Compact.

September 2025: Quadriz reviewed the NDC 3.0 and submitted comments to the Paraguay NDC 3.0.

September 2025: Florencia Arano of Quadriz participated in the 1st Paraguayan Forestry Congress organized by the National University of Asunción. The Congress included a Pre-Congress event about carbon opportunities.

October 2025: Gabriela Viñales of Quadriz participated as a speaker in an event called “Inspiring Leadership: Women and Youth for Climate Action,” lead by MADES.

December 2025: Florencia Arano of Quadriz participated in a 3-day workshop led by INFONA called “Training for GHG Accounting and Generation of Forest GHG Projections.”

2.3.10 Continued Consultation and Adaptive Management (VCS, 3.18; CCB, G3.4)

The Project Proponent will continue to communicate and consult with local communities and other stakeholders about the Project. The processes the Project will use throughout the Project Lifetime, including during the 2024-2025 monitoring period, to consider this input and adapt management accordingly includes:

- Meeting stakeholders either in person, or at Quadriz’s Asuncion headquarters, or at Quadriz’s regional Chaco headquarters at Estancia Santa Rosanna, or at the local Chaco headquarters. Thus stakeholders, including local communities and local

landowners, can meet at Estancia Santa Rosanna and this is specifically where constant feedback takes place, along with ongoing training and research. Quadriz met with stakeholders at Quadriz’s Asuncion headquarters, at Estancia Santa Rosanna, and at the stakeholders’ offices throughout 2020- 2025;

- Using the ongoing Degradation Surveys (for communities dependent on the Project Area) and the Participatory Rural Assessments (PRAs) to identify the risks, costs, and benefits to local community members. The Degradation Surveys and PRAs were administered with the Maria Auxiliadora community (and attempted to be administered with the San Isidro community) in March and August 2021. Additional visits by Quadriz to the Maria Auxiliadora community took place in April 2022, May 2022, July 2022, August 2022, September 2022, October 2022, and November 2022. The second round of Degradation Surveys took place on August 30, 2023 and the second round of PRAs took place on January 30, 2024. Visits by Quadriz to the Maria Auxiliadora community also took place in 2023 on May 21, June 22, June 27, August 23, August 30, and September 19; and throughout 2024-2025; and
- Using the wildlife camera studies to identify rare, threatened, and endemic species, along with High Conservation Value (HCV) species.

Summary of comments received	Actions taken
Quadriz understands that for some local communities, such as the community at Maria Auxiliadora, the distance and lack of transportation could be a major concern and could present a limitation for the community’s participation. This concern was raised during the 2020-2021 monitoring period and is the main way the communities have thus far informed the project design and implementation.	To assuage this concern, Quadriz committed to either meet in person with these communities (i.e., as was done throughout 2020-2025) or will offer to provide for their transportation. To date, all such meetings have taken place at the Maria Auxiliadora community.

2.3.11 Stakeholder Consultation Channels (CCB, G3.5)

Quadriz has used a variety of consultation channels depending on the particular stakeholder(s), including but not limited to:

- Extensive in person meetings held in both English and Spanish with the private landowner’s legal representatives in Paraguay for the initial project instance;
- Several in person meetings held in both Spanish and Guarani with the Maria Auxiliadora indigenous community, including with the community leader Hermenegildo Vera and Arnaldo Sosa, located in the initial Project Zone. Several attempts have also been made to meet in person with the San Isidro indigenous community;
- Information sharing about developments in the carbon markets via WhatsApp;

- Ongoing phone calls and videoconferences via Zoom, Teams, etc. with a variety of stakeholders including with the private landowner's legal representatives for the initial project instance, with the Project's partners, and with government officials;
- Newsletters;
- Announcements of Quadriz's accomplishments via LinkedIn and Press Releases;
- Since 2024, Quadriz has an Instagram account to share relevant news;
- Press Releases:
 - Spanish: <https://www.einpresswire.com/article/527957314/el-proyecto-redd-m-s-grande-del-chaco-paraguayo-ya-est-en-marcha>
 - English: <https://www.einpresswire.com/article/527899981/largest-redd-project-in-the-paraguayan-chaco-now-underway>
 - <https://quadriz.com/largest-redd-project-in-the-paraguayan-chaco/>
- Informational videos produced (https://www.youtube.com/watch?v=QOSW_J9tjs4); and
- Periodic announcements are made on local TV and radio stations (such as in July 2021 and November 2021; and June-July 2025 on the radio station Pa'i Puku 720 AM, in Spanish and Guaraní).

The Spanish Press Release was also picked up by the Filadelfia-based Chaco Communication Network (Red Chaqueña de Comunicaciones or RCC in Spanish), which further distributed the press release via TV and radio.¹⁹

Thus, Quadriz has ensured that all consultations and participatory processes have been undertaken directly with communities and stakeholders with extensive levels of information provided about the Project.

2.3.12 Stakeholder Participation in Decision-Making and Implementation (VCS, 3.18, 3.19; CCB, G3.6)

There are several measures needed and designed to enable the effective participation of communities in a culture- and gender-sensitive manner. This includes:

¹⁹ <https://rcc.com.py/chaco/ponen-en-marcha-proyecto-de-captura-de-carbono-mas-grande-del-chaco/>

- Quadriz’s management team must, and currently does include, several local professionals, including Gabriela Viñales and Fredy Montoya, who were employed throughout the 2020-2025, and Andrea Samaniego, social specialist, who were employed during the 2024-2025 monitoring period. Gabriela Viñales, Fredy Montoya and Andrea Samaniego are both Paraguay, speak Spanish and Guaraní, and they understand the local culture. Speaking Guaraní is perhaps the most important aspect to ensuring culturally-sensitive communication with local communities. Gabriela Viñales, who is originally from Asunción, works from Asunción and is in frequent communication with government officials and other stakeholders. In addition, Gabriela Viñales worked on REDD+ and social safeguards while at UNDP. Gabriela Viñales also worked on REDD+ strategy for indigenous peoples during a World Bank project and from 2013 to 2015, Gabriela Viñales worked directly with indigenous communities. Fredy Montoya, who is originally from the Chaco Region, also speaks the local language Guaraní, which further helps with culturally-sensitive communication throughout the Chaco;
- Quadriz will strive to have both a male and female representative present during meetings with local communities to help ensure gender-sensitivity. This male and female representation was, for example, done during the March and August 2021 meetings with the Maria Auxiliadora community; and
- Quadriz will either meet in person with communities or will provide for their transportation to mitigate the concerns over the lack of transportation. To date, including during the 2024-2025 monitoring period, all community visits have taken place at the Maria Auxiliadora community.

2.3.13 Anti-Discrimination Assurance (VCS, 3.19; CCB, G3.7)

Quadriz is proud to be an equal opportunity employer and has an experienced local team of professionals. Furthermore, Quadriz is considering B Corporation certification, which are “businesses that meet the highest standards of verified social and environmental performance, public transparency, and legal accountability to balance profit and purpose.”²⁰ In October 2024, Quadriz was invited by B Corp Paraguay to be expositors in the Day B event, the most important event for B Corp. Gabriela Viñales gave an overview of Quadriz’s experience as a relevant example of a Paraguayan REDD+ project and as carbon project developer.

In May 2024, Quadriz's adherence to the UN Global Compact was confirmed and in 2025, Quadriz sent its first communication progress to the UN Global Compact.²¹

²⁰ B. Lab. “About B Corps.” Available: <https://bcorporation.net/about-b-corps>

²¹ UN Global Compact. “Quadriz Paraguay S.A.” Accessed November 17, 2025. Available: <https://unglobalcompact.org/what-is-gc/participants/164028-Quadriz-Paraguay-S-A->

Anti-discrimination protocols will be filed Asunción's office and are included in the safety manual for new hires.

Furthermore, all private landowners with suitable lands for conservation will be approached and will be considered for participation in the Project.

Thus, the measures needed and designed to ensure that all entities involved in project design and implementation are not involved in, or complicit in, any form of discrimination or sexual harassment with respect to the project are:

- The tone needs to, and is, set from the top. Thus, senior management at Quadriz has made it clear that any form of discrimination is not allowed;
- That discrimination is not allowed amongst any entities involved in project design and implementation must be clearly stated and written down. This has been done in Quadriz's new hire onboarding procedures and is contained within Quadriz's HSE Policy and Procedures manual;
- Independent assessment should take place. Thus, to help ensure discrimination is not taking place at the Project, Quadriz will continue to undertake ongoing independent CCBS verification audits and Quadriz will also have ongoing audits to B Corp certification (if applicable); and
- There must be a mechanism for any entity who feels they have been discrimination against or been sexually harassed. Thus, the Project has a feedback and grievance redress procedure (please see Section 2.3.14 below).

To date, and throughout the 2024-2025 monitoring period, Quadriz has not been complicit in any form of discrimination or sexual harassment.

2.3.14 Grievances (VCS, 3.18.4; CCB, G3.8)

Project structuring is primarily based off an agreement between Quadriz and the private landowner, with each party fully aware of their roles and responsibilities. If a conflict arises, Quadriz and the private landowner will seek to resolve the issue. If the two parties are unable to resolve the issue, then mediation will be sought. If necessary, Quadriz will utilize the nationally competent courts, as outlined in Quadriz's Agreement with the landowners, as the third stage for any of the grievance processes.

If there are any grievances with staff (i.e., such as personnel issues), the issue will be initially handled by local Quadriz management. The office address and contact information is:

Quadriz Paraguay

Avda. Aviadores del Chaco 2581, SkyPark, Torre 3, Piso 19

Asunción, Paraguay

Phone: +595 984865500

Larger issues (i.e., such as investor issues, issues with local landowners, etc.) will be handled by the CEO of Quadriz.

If there is any unresolved grievance with a local community or other stakeholder, Quadriz will refer the matter to the Ministerio del Ambiente y Desarrollo Sostenible (MADES; Ministry of Environment and Sustainable Development), which will act as the Project's third-party ombudsman. This said, MADES has a Safeguards Information System and has a mechanism for receiving complaints and claims related to forest carbon projects. The contact information for MADES is as follows:

Ministerio del Ambiente y Desarrollo Sostenible (MADES)

Dirección Nacional de Cambio Climático

Avenida Madame Lynch N° 3500

esq. Reservista de la Guerra del Chaco

Phone: (021) 287-9000

Email: secretaria.general@maDES.gov.py

Email: dncc@maDES.gov.py

MADES has a process for receiving, hearing, responding to and attempting to resolve grievances within a reasonable time period which takes into account traditional conflict resolution methods.

There are many channels for filing a complaint, claim, or grievance with MADES. Likewise, the process for MADES receiving grievances will be via phone (021 287-9000), email secretaria.general@maDES.gov.py, and/or dncc@maDES.gov.py, a form provided by MADES when visiting communities, visiting MADES in person, or via a link on the MADES website (<https://apps.mades.gov.py/siam/portal/consultas-reclamos>; also see here for additional information: <http://dncc.mades.gov.py/sistema-de-informacion-de-salvaguardas>).

MADES' hearing of the complaint, claim, or grievance will be done following the procedures made public by MADES. MADES would likely give the case, depending on the nature of the case, to the relevant ministry or department. For example, if the matter concerned sexual harassment, then MADES would likely refer the matter to the Ministry of Women,²² whereas if the matter concerned labor discrimination, then MADES would likely refer the matter to the Ministry of Labor, Employment and Social Security.²³

²² Ministry of Women. "Home." Available: <http://www.muJER.gov.py/>.

²³ Ministry of Labor, Employment, and Social Security. "Home." Available: <https://www.mtess.gov.py/>.

Responding to and attempting to resolve the grievance will likely be done by MADES and will likely be done within 90 days. The specifics of responding to and attempting to resolve the grievance by MADES are in the draft plans. It is Quadriz's belief that for instance, the Ministry of Labor, Employment and Social Security would facilitate mediation, depending on the problem. Further, it is Quadriz's belief that such grievances referred to MADES and the Project's responses will be documented and made publicly available.

Per the draft form of the MADES grievance procedure, it is unclear whether MADES will utilize arbitration or the courts as part of its third stage for any of the grievance processes.

With respect to how the feedback and grievance redress procedure will be publicized and accessible, more detailed information about this grievance redress procedure (upon MADES' completion and public posting of its procedures) will be provided in future summary documents and future monitoring reports and will be communicated to directly to communities (particularly the Maria Auxiliadora community for the initial project instance) and other stakeholders.

No grievances were received by Quadriz throughout 2020-2025, including during the 2024-2025 monitoring period. Likewise, community members – including from the Maria Auxiliadora community – did not submit any specific grievances related to forest patrols, usage rights, or other impacts of the project during the 2024-2025 monitoring period.

If the community members had specific grievances related to forest patrols, usage rights, or other impacts of the project during the 2024-2025 monitoring period, there were a variety of means (e.g. by phone, email, in person at MADES, etc.) for the community to submit these grievances. The official way to submit a grievance, whether for local communities or other stakeholders, is via MADES. This would particularly apply to the local communities' concerns over usage rights. However, it is important to note that the Project is being implemented on private property and there are no overlapping customary usage rights.

Regarding grievances about forest patrols, there are signs located by the access gates to the Project that have the corporate telephone number and email address to communicate directly with the Quadriz team. Thus, the local communities could directly contact Quadriz about grievances with the forest guards or if the community did not feel comfortable contacting Quadriz, the community could contact MADES.

If the communities had grievances about other impacts of the project (e.g., such as the presence of fires, the presence of wildlife camera traps, etc.), then the communities could submit their grievances to the forest guards, Quadriz, and/or MADES.

Lastly, the validated grievance procedure is appropriate to account for grievances related to forest patrols, which are a very common project activity for REDD+ projects, and which can be readily handled by MADES if need be.

Grievances received	Resolution and outcome
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No grievances were received by Quadriz throughout 2020-2025, including during the 2024-2025 monitoring period.

Not applicable.

2.3.15 Worker Training (VCS, 3.19; CCB, G3.9)

There are numerous measures needed, and designed, to provide orientation and training. This includes:

- Orientation for a wide-range of stakeholders, from European and United States-based investors to local landowners, to local Quadriz employees, to Paraguay Government officials, about the importance of the Chaco, REDD+ projects, and how the carbon markets work, has been provided. This orientation took place throughout the 2020-2025, including during the 2024-2025 monitoring period.
- Trainings have included, but are not limited to:
 - James Eaton of Ostrya Conservation and Gabriela Viñales of Quadriz provided in-person training on standard procedures for a forest carbon inventory to Fabrizio Radice Gorostiaga and his inventory team;
 - The initial guard was trained by local Quadriz management and the original plan called for a Standard Operating Procedures (SOP) document to be developed by Quadriz. This SOP was to provide guidance for what the guards should do, for instance, if they see deforestation, illegal logging, poaching, or in-migration. However, Quadriz ended up hiring a guard service called “Los Guardianes” which provides all necessary training. In 2023, a new guard service called “Araucanos S.A.” was hired and provided with orientation to the Project. Araucanos S.A. provides its guards with extensive training, including on the use of firearms, professional ethics, first aid, and self-defense;
 - The wildlife photography crew were briefed on the Project and were trained on how to identify particular species, such as the Chacoan peccary;
 - Christian Nielsen and Gabriela Viñales explained the Participatory Rural Assessment and the Degradation Surveys to Fredy Montoya. A refresher training will be provided in advance of the 2023 surveys. In 2023, training was provided to Quadriz on the use of KoboToolbox to administer future community surveys;

- Andrea Weiler from the Universidad Nacional de Asunción (National University of Asuncion) provided training to Fredy Montoya about how to conduct preventative maintenance on the wildlife cameras, along with how to replace the cameras' memory and batteries. In addition, Yolanda Ramos is a biologist and she was in charge of the biodiversity monitoring plan for Quadriz. In 2022, Quadriz hired a new biologist to help replace Yolanda Ramos;
- Orientation by Ostrya Conservation to Nicholas O'Brien, Head of Sales for Quadriz, to the Verra Registry and Verra Project Hub platforms;
- Orientation and training for local guards; and
- English speaking course was provided for some Quadriz staff.
- Trainings for Quadriz staff in 2024 and 2025 have included, but are not limited to:
 - Emergency response and basic knowledge of the Occupational Health and Safety Management System according to ISO 45001;
 - Hazard identification training;
 - Road safety and defensive driving;
 - First aid and firefighting knowledge;
 - Fire control;
 - Good manufacturing in kitchen practices training;
 - Chemical handling (i.e., small scale application of insecticides around the visitor center);
 - Also, in 2024 and 2025, all employees of Quadriz participated in health campaigns and vaccination drives.
- From July to August 2024, Florencia Arano received a 32-hour online technical training on the carbon markets named "Carbon markets and nature-based solutions with an emphasis on forestry projects." This training was organized by a Chilean organization (Foredor) and Verra.

Future orientations and ongoing trainings will include:

- Ongoing training for local guards on how to do their jobs (i.e., anti-poaching operations);
- Orientation to participants in Chaco Alert; and
- Orientation at the Visitor Center.

Also in 2022, orientation and trainings were provided to the Maria Auxiliadora community, including on the implementation of vegetable gardens. More specifically, on October 3rd, 2022, Quadriz collected data about the type of vegetables that members of the Maria Auxiliadora community would like to plant and a total of 19 families were interested in the distribution of vegetables seeds. Quadriz then purchased the seeds in Asunción and send the boxed seeds to the community. In parallel, Quadriz helped the community with land preparation, using a tractor, on October 25th, 2022. Then, when the community received the seeds on November 2nd, the community leader distributed the seeds for each family and this activity benefitted 12 women and 7 men.

The orientation and training that has taken place, along with future orientations and trainings, are intended to build locally useful skills and knowledge to increase local participation in project implementation. Quadriz has already hired local personnel, including for management positions, such as Florencia Arano, Fredy Montoya, and Gabriela Viñales. These Quadriz personnel have received orientation and training, for example, on implementing private forest carbon projects, conducting community surveys, and conducting biodiversity impact monitoring. These skills and knowledge are becoming even more locally useful as Quadriz seeks to expand into additional project instances and thus, there will be more career opportunities and more trainings for local GIS specialists, local forest inventory teams, local biologists, and local project managers. To help further their knowledge, ongoing training will take place on matters such as understanding new carbon methodologies, new approaches to forest inventory, and the latest developments in the voluntary carbon market industry. Further, the skills and knowledge being taught may also lead to local personnel pursuing degrees, or teaching, environmental engineering and forest engineering degrees at the university level.

Quadriz has a few approaches to help ensure local capacity is not lost through staff turnover. First, there is a lot of cross training. For instance, Gabriela Viñales is providing a lot of training and orientation to her colleague Florencia Arano, Gabriela Viñales also provided a lot of training and orientation to her former colleague Yolanda Ramos, and James Eaton of Ostrya Conservation is teaching several members of the forest carbon inventory teams. Second, there are written plans being developed (i.e., such as a general biodiversity monitoring plan and the HSE Policy and Procedures manual) and lots of information, sources, lessons learned, etc. are being documented in the Project's project documents. Most, if not all, of this information is being remotely backed up in case of staff turnover, so that such information is not lost. Lastly, Quadriz will request that all departing staff give a sufficient notice so that some of their local capacity can be properly handed over.

2.3.16 Community Employment Opportunities (VCS, 3.19.13; CCB, G3.10)

Quadriz will employ people from the nearby villages of Puerto Casado, Vallemiti and the vicinities, following Quadriz's standard company recruitment policies and procedures. This includes reaching out to indigenous communities in the vicinity. For example, during the 2020-2021 monitoring period, Quadriz hired one forest guard in October 2021. During the 2022 monitoring period, a guard service called "Los Guardianes" was hired. Note, this new guard service "Los Guardianes" replaced the previous guard who was hired in October 2021. Further, while the Project will aim to hire guards from the local area as much as possible, the guard service "Los Guardianes" hired three Paraguayan guards, but these guards were not from the Project Area and nor were the guards from the Maria Auxiliadora community. In 2023, the guard service "Los Guardianes" was replaced by a new guard service called "Araucanos." Throughout 2024-2025, guards from Araucanos were continuously employed.

People from these communities will be given an equal opportunity to fill all work positions, including management positions, if the job requirements are met. Workers will be selected for their positions based off their merit and availability. New hires start on a grace period and if everything works out, the new hire will stay on.

There are several measures needed, and designed, to ensure community members, including women, vulnerable, and/or marginalized people, are given a fair chance to fill positions for which they can be trained. These measures include:

- Positions are announced on the local radio to ensure everyone can hear about open positions and listeners are informed about how to apply; and
- Puerto Casado is a relatively small city, where word-of-mouth spreads fast.

With respect to measures designed to ensure community members, specifically indigenous community members from the Maria Auxiliadora, are given a fair chance to fill positions for which they can be trained:

- First, Quadriz has actively reached out to the Maria Auxiliadora community to inform the community about the Project, its goals, its potential impacts and benefits, and about potential positions available in the future. For example, this initially took place in March and August 2021;
- Next, this engagement and consultation process has led to trust between Quadriz and the Maria Auxiliadora community and there is now open communication between both. This is evidenced by more frequent communication and visits by Quadriz to the Maria Auxiliadora community in 2024 and 2025; and
- Although there are not many positions to fill for the first project instance, Quadriz has committed to informing the Maria Auxiliadora community about open positions, such as when Fredy Montoya needs help in the field with building infrastructure and undertaking maintenance-related work.

Potential employment opportunities for local communities, include:

- Assistance with community and biodiversity studies;
- Project management positions;
- Forest patrols/guards;
- Helping with Chaco Alert;
- Assistance with the forest carbon inventory; and
- Workers to build and/or renovate the Visitor Center.

To date, there are approximately 13 full-time Quadriz staff.

As of December 31, 2025, there was three local guards that were hired by the Project and these guards did not come from the Maria Auxiliadora community.

2.3.17 Occupational Safety Assessment (VCS, 3.19; CCB, G3.12)

Some of the relatively substantial risks to worker safety that could arise due to project implementation are detailed below.

Snake Bites - Snake bites, particularly several species of coral snakes and vipers, pose a substantial risk to all visitors to the Chaco.²⁴ To help mitigate this risk, snake bite anti-venom is stored at the Project's visitor Center.

Other Wildlife - One potential occupational risk, particularly for biologists, forest inventory team, and forest guards is other wildlife, such as jaguars. However, these individuals are familiar with the working conditions in the Chaco.

Tropical Diseases - The main tropical diseases in the Gran Chaco are Chagas disease, dengue fever, chikungunya, and Zika virus. The Project Proponent, along with visitors and affiliates, will be encouraged to take precautions by using bug spray, sleeping with mosquito nets, and taking vaccines (if applicable).

Getting Lost - Getting lost in the Chaco is a real concern as navigation and mobile phones do not work well in many parts of the Chaco and the Chaco dry forests can be very dense. To mitigate the risk of getting lost, all project participants will be encouraged, if not required, to travel with locals who are familiar with the area and know the Chaco well.

Driving Around the Chaco - Driving at night, driving during flooded conditions, and driving on roads with dust clouds can create potentially hazardous conditions. To mitigate these risks associated with driving, Quadriz will only use drivers with extensive knowledge of these local conditions. In addition, in 2024, trainings on "Road Safety and Defensive Driving" was provided to Quadriz staff.

²⁴ Fauna Paraguay, "Gallery of Reptiles," Available: <http://www.faunaparaguay.com/imagesreptiles.html>

Heat and Dehydration Related Illnesses During Fieldwork – The Chaco’s high summer temperatures can lead to heat and dehydration related illnesses, particularly during fieldwork. To mitigate the risk of heat and dehydration related illnesses, the following measures will be undertaken:

- Fieldwork, including forest inventory work and onsite independent audits, will be prioritized for transition periods during the wet and dry season to minimize the chances of heat related illnesses;
- Fieldwork will be prioritized for early morning or early evening to avoid the midday sun;
- Supplies, such as water and suntan lotion, will be provided to visitors by Quadriz; and
- All visitors to the Project will be informed of these potential risks.

Potential Hostile Confrontations with Illegal Hunters, Illegal Loggers or Narcotraffickers – There is a potential for illegal hunting, illegal logging, and/or narcotrafficking at the Project and inadvertent confrontation with these actors could lead to a hostile situation. To mitigate the potential of encountering illegal hunters, illegal loggers, or narcotraffickers in the first place, the Project will employ forest guards who will regularly patrol the area for such activities.

The Project’s forest guards were hired by Araucanos S.A. and the forest guards received a wide-range of training by the company, including how to handle hostile confrontations. In addition, there is an access gate to the Project which is permanently closed. If any person wants to enter the Project Area, the guards may or may not grant access (i.e., if the person has firearms, they are not allowed access, which reduces the likelihood of encountering illegal hunters) and the guards will make a registry entry (e.g., name of the person seeking access, ID number, date, reason for entry, etc.) of all visitors. Lastly, it is important to note that the guards carry protective equipment and firearms (for which they have received training from Araucanos S.A.) as both a deterrent to trespassers and to mitigate the risk of hostile confrontations to themselves.

Further, visitors will be informed of these risks and on most occasions, visitors will be accompanied by a representative from Quadriz, particularly Fredy Montoya, who is familiar with how to deescalate the situation.

These risks, including any future risks identified, will be added to the latest version of the HSE Policy and Procedures manual to help inform workers of the Project’s known risks.

2.4 Management Capacity

2.4.1 Required Technical Skills (VCS, 3.19; CCB, G4.2)

The key technical skills required to successfully implement the Project, include:

- Stakeholder identification and community engagement;

- Legal analysis of landownership documentation;
- Government policy;
- Biodiversity assessment and monitoring;
- Carbon stock measurement and monitoring;
- Regional deforestation and land-use modelling;
- Project management;
- Local knowledge and fluency in Spanish and Guarani; and
- Sales of carbon offset credits to raise climate finance.

The Project's management team and advisors have both the expertise and prior experience with financing, designing, and implementing forest carbon projects. Thus:

- Stakeholder identification and community engagement is being led by Quadriz, particularly Federico ("Fredy") Montoya and Gabriela Viñales in the initial stages of the Project;
- Legal analysis of landownership documentation is being led by Quadriz and the law firm Livieres Guggiari;
- Government policy is being led by Quadriz;
- Biodiversity assessment and monitoring is being led by Quadriz and Dr. Andrea Weiler;
- Carbon stock measurement and monitoring is being led by James Eaton of Ostrya Conservation and Fabrizio Radice Gorostiaga;
- Regional deforestation and land-use modelling is being led by James Eaton of Ostrya Conservation;
- Project management is being led by Quadriz;
- Local knowledge and fluency in Spanish and Guarani is being led by Quadriz and particularly Marcel van Heesewijk, Federico ("Fredy") Montoya, and Gabriela Viñales; and
- Sales of carbon offset credits to raise climate finance is being led by Quadriz, particularly Nicholas O'Brien.

Further, Quadriz hired an advisor in 2023 to assist the Project with stakeholder engagement and community monitoring.

2.4.2 Management Team Experience (VCS, 3.19; CCB, G4.2)

The management team, in conjunction with its partnerships, has extensive expertise and experience implementing land management and carbon projects at the scale of this Project.

Marcel van Heesewijk, Founder and CEO, Investancia and Quadriz

Marcel van Heesewijk is Founder and CEO of the Investancia group. Marcel van Heesewijk has extensive international business development experience focused on company creation, growth strategies, and financing. Marcel van Heesewijk holds a bachelor's degree in economics from the University of Groningen in the Netherlands and a master's degree from the ESCP Europe (École Supérieure de Commerce de Paris), a 3-year MBA course studying and working in Paris, Oxford and Berlin. Marcel van Heesewijk was born in Sao Paulo, Brazil from Dutch parents and is fluent in six languages.

Marcel van Heesewijk has broad working experience covering various industries such as packaged consumer products (Nestle), computer hardware (Siemens), computer software packages (B+S Multisoft), software development & consulting and Biofuel production from reforestation and carbon certification projects. In 1993, Marcel van Heesewijk founded SourcingLink, an electronic product sourcing software-as-a -service (SAAS) platform for worldwide retailers that went public on NASDAQ. SourcingLink was an innovative technology company based in California. It developed on-line catalogs and negotiation applications, which revolutionized how large retailers source products globally. As one of the first b-2-b internet operators, the company reached a market value of over \$300 million in 1999 and later formed strategic partnership with the largest e-commerce exchanges for retailers connecting with their suppliers in Europe, the US and Asia.

Since then, Marcel van Heesewijk has been mainly active in South America where he incorporated livestock trading and land real estate operations in Uruguay. In 2013, he founded Investancia.

Nicholas O'Brien, Head of Sales

Originally from Australia, Nicholas has over 15 years' experience across APAC and EMEA working in a range of climate focused exploits, including sustainability consulting, corporate decarbonization, and carbon markets. As Head of Carbon Finance, Nicholas is responsible for setting credit trading strategy, business development execution and investment raising. His work involves buyer / intermediary relationships development, supply and demand markets analysis (voluntary and compliance), and environmental policy engagement. His objective is to secure spot and offtake trading at maximum value for Quadriz's projects and its stakeholders, and to engage investors to secure funding for expansion of Quadriz's work in Paraguay and beyond.

Florencia Arano, REDD+ Projects Lead

Florencia is a Forestry Engineer, a graduate of the National University of Asunción. She works as the Carbon Project Lead for Quadriz Paraguay, the team under her charge consists of 4 people and she also works directly with Quadriz's country manager. With over 15 years of professional experience, Florencia has been responsible for monitoring and executing Quadriz's projects in the Chaco region for the past three years. She closely oversees project implementation, manages the team responsible for daily activities, attends verification audits, manages the entire certification process, and ensures all documentation is up-to-date. She has represented Quadriz at important events, highlighting the company's commitment to sustainability.

Federico ("Fredy") Montoya, Field Manager at Investancia / Quadriz Paraguay SA

Born in the Gran Chaco, Paraguay, Fredy Montoya knows the Chaco and its challenges more than most. For the past 20 years Fredy Montoya has been working within the areas of agriculture, livestock and reforestation. Since 2015, Fredy Montoya has been the Field Manager at Investancia Paraguay SA, in charge of the areas of logistics, development and the reforestation program. More recently, Fredy Montoya has been working to support the conservation efforts and monitoring of Quadriz Paraguay SA in relation to its REDD+ programs.

Gabriela Viñales, Country Director

Gabriela Viñales is an Environmental Engineer and holds an MSc. in Natural Resources Management and Environmental Management of the Territory. Since February 2021, Gabriela Viñales joined the Quadriz team, as the Country Director. During the previous six years, Gabriela Viñales was working in the REDD+ preparation phase of Paraguay, in the United Nations Environment Programme (UNEP) for the implementation of the UN REDD National Program and lastly in the United Nations Development Programme (UNDP) for the execution of a Forest Carbon Partnership Facility (FCPF) project called Forests for Sustainable Growth (BCS). The results of both processes have allowed the country to access financing from the Green Climate Fund (GCF), through the results-based payment of 23,000,000 mtCO₂eq.

During the last two years, in the role as UNDP technical specialist, Gabriela Viñales supported the process of preparing the National JNR Program and its monitoring report, managing the execution of technical actions and generating dialogue between stakeholders in the process (MADES, Verra, INFONA and others). In addition to stakeholder mapping and stakeholder engagement, Gabriela Viñales also worked on REDD+ and social safeguards while at UNDP. Gabriela Viñales also worked on REDD+ strategy for indigenous peoples during a World Bank project and from 2013 to 2015, Gabriela Viñales worked directly with indigenous communities.

Further, Gabriela Viñales supported the development of important tools for the carbon market such as MADES' Registry of Reductions and a proposal for a legal tool that addresses the ownership of carbon and the benefit sharing plan.

Gabriela Viñales' experience is based on the management and execution of projects, mainly in the area of climate change and environment, which implies a technical, operational and administrative management, accompanied by the relationship with the different actors that the execution of a project demands.

2.4.3 Project Management Partnerships/Team Development (VCS, 3.19; CCB, G4.2)

James Eaton, Director, Ostrya Conservation

To help address the technical requirements associated with implementing land management and carbon projects at this scale, Quadriz has entered into a partnership with Ostrya Conservation.

Jamie decided to start Ostrya Conservation after working for nearly a decade developing and implementing ecosystems services projects around the world. He has extensive experience in the fields of forest ecology, geographic information systems, soil biogeochemistry, land-use change science, and tropical ecology. For 14 years, Jamie has led the planning and design, and assisted with the implementation of, conservation projects which have conserved over a million acres of land throughout the world. These ecosystem service projects work with local communities and landowners to provide financing which enable these stakeholders to protect and conserve natural lands. While many of these projects have been in the realm of voluntary and compliance greenhouse gas mitigation projects, he has also developed nutrient banks, wetland mitigation banks, and stream mitigation banks. Project management skills and consulting experience has allowed Jamie to pull together diverse stakeholders' including private individuals, environmental non-governmental organizations, public companies, and government agencies in pursuit of these conservation efforts worldwide.

Jamie hails from the mid-west but he fell in love with the Virginia mountains, piedmont, and coastal regions upon moving there in 2001 after completing a B.A. in Biology from Saint Louis University. He obtained a M.S. in Environmental Science with a concentration in Forest Ecology from the University of Virginia, after spending three summers battling mosquitos while measuring biomass and soils in the dry tropical forests of Mexico's Yucatan Peninsula. As a 2005-2006 Fulbright Scholar, he worked to better understand ecological succession and land-use change in central Europe's Carpathian Mountains. In 2009, he was part of an interdisciplinary team to win the Sustainability Science Award from the Ecological Society of America.

Andrea Weiler

Andrea Weiler was born in Asunción and is a graduate of Bachelor of Science, Mention in Biology at the Faculty of Exact and Natural Sciences-National University of Asunción, Paraguay. She did her Master of Science's Degree in Wildlife at New Mexico State University. She is currently doing her PhD in Biology and Biodiversity Conservation, at the University of Salamanca, Spain. Her research is entitled: "Determination of the value of livestock landscapes for the conservation of biodiversity (beetles, amphibians, reptiles, birds and mammals) in the Paraguayan Dry Chaco". She is a Research Professor in the Department of Biology at the Faculty of Exact and Natural Sciences (FACEN), General Coordinator of the Biodiversity Research Nucleus (NIB) and Director of Postgraduate Studies at FACEN. In addition, she is a Tutor of the Scientific Initiation Program at the Faculty of Exact and Natural Sciences (FACEN-UNA). She is part of the PRONII: Level I-Res.: 148/2020. She currently participates as coordinator of several projects in areas of Ecology and Biodiversity Conservation and is dedicating her life to conservation and environmental education to raise awareness in society about the state of the local fauna.

2.4.4 Financial Health of Implementing Organization(s) (CCB, G4.3)

Quadriz has the financial health to ensure adequate financial support over the Project Lifetime. Quadriz B.V.'s financial statements were annually audited by Binder Dijker Otte (BDO), the international assurance, tax, and financial advisory services company. In the future, Quadriz Paraguay's financial statements will be audited by PricewaterhouseCoopers PwC. Such audited financial statements will be provided to the Project's independent validation and verification body (VVB) upon request.

2.4.5 Avoidance of Corruption and Other Unethical Behavior (VCS, 3.19; CCB, G4.3)

Quadriz is considering B Corporation certification, which are "businesses that meet the highest standards of verified social and environmental performance, public transparency, and legal accountability to balance profit and purpose."²⁵ Quadriz is not involved in, or complicit in, any form of corruption such as bribery, embezzlement, fraud, favoritism, cronyism, nepotism, extortion, and collusion. Ongoing B corporation certification, along with ongoing independent verification to the VCS and CCB and ongoing reports to the UN Global Compact, shall provide this assurance. Furthermore, and as previously mentioned, Quadriz Paraguay will be annually audited by PwC. No corruption or unethical behavior took place throughout 2020-2025, including during the 2024-2025 monitoring period.

2.4.6 Commercially Sensitive Information (VCS, 3.5.2-3.5.4; CCB Program Rules, 3.5.13 – 3.5.14)

²⁵ B. Lab. "About B Corps." Available: <https://bcorporation.net/about-b-corps>

There was no commercially sensitive information excluded from the public version of the Corazón Verde del Chaco Project's CCB VCS 2024-2025 Monitoring Report, except for the Project's confidential financial documents which were used to assess the Project's VCS Non-Permanence Risk Report.

2.5 Legal Status and Property Rights

2.5.1 National and Local Laws (VCS, 3.1, 3.6, 3.7, 3.14, 3.18, 3.19; CCB, G5.6)

The Project is in compliance with all laws, statutes, and regulatory requirements. The local and national government supports the efforts to conserve parts of the Chaco. As no project activity is mandated by law and the project activity does not involve the clearing of native ecosystems, the project activities are in compliance with all environmental laws. Compliance can be demonstrated via satellite imagery analysis and via firsthand observations.

The Ministry of Environment and Sustainable Development (MADES) is responsible for environmental regulations under the Environmental Impact Assessment Law (Law N° 294/93). As part of this responsibility, rural properties larger than 20 hectares are subject to the assessment of environmental impacts and the environmental licensing process (Decree 954/2013 and Decree N° 453/2013).

The most important law pertaining to land use in the Paraguay is the Forestry Law 422/73. As part of this law, the National Forest Institute (INFONA) and MADES approve forest clearing and non-forest use of cleared lands. To ensure compliance, Quadriz has been in regular contact with INFONA and MADES, particularly during the monitoring period.

Other pertinent and relevant laws stemming from the above regulation pertinent to conservation projects include:

- The 1973 Paraguay Forest Law, mentioned above, which also requires “landowners to set aside 25 percent of each parcel as forest and preserve natural greenery around rivers and streams as a bulwark against erosion and water pollution. Compliance with this law can be demonstrated via the Project Area maps and the alternative use map provided in section 2.1.5;”²⁶
- Law N° 4,241/10 and Decree N° 9,824/12, provide for riparian and wetland buffers on properties cleared for agricultural production. This law is not directly applicable as the Project does not involve clearing for agricultural production;
- The 2004 Zero Deforestation Law which only affects part of the country was extended

²⁶ Alberto Yanosky, “The Challenge of Conserving a Natural Chaco Habitat in the Face of Severe Deforestation Pressure and Human Development Needs,” Page 381.

through 2018;²⁷ This law stops the conversion of natural forests to other land uses in Eastern Paraguay (Law N° 2,524/2004 and subsequently N° 3,139/ 2006, N° 3,663/2008, N° 5,045/2013, N° 6,256/2018 and N° 6676/2020). This law is not directly applicable as the Project is not located in Eastern Paraguay;

- Law N° 4890/13 Real Right of Forest Surface (Derecho real de superficie forestal)²⁸ allows the legally decoupling of forest ownership from land ownership; and
- 3001 Act for Payment for Ecosystem Services – “The rescheduling of the 2006 Act for Payment for Ecosystem Services (PES) to compensate for the environmental debt of landowners in the Eastern Region may be directed toward the Chaco territory.”²⁹

In 2023, Paraguay's National Carbon Law 7190/2023 was discussed and approved. This law indicates that: the Project Proponent owns the carbon assets; the relevant authority regarding carbon issues is MADES; and MADES will define a discount percentage (i.e., quantity to be retained by the Government) of VCUs. Essentially, Law 7190/2023 established a legal framework for the generation, ownership, registration and trading of carbon credits in Paraguay. Its objective is to formalize the national credit market, encourage investment, and ensure the traceability of credits generated in the territory. These rules were implemented in the Decree 3369/2025. This said, Decree 3369/2025, regulates the operational aspects of the Carbon Credit Law 7190/2023, establishes the Ministry of Environment as the enforcement authority, creates administrative structure, and provides the implementation of the National Carbon Credit Registry. The Decree defines terms like absorption, ITMOs, ownership, and establishes the obligation to register projects and results in the National Registry.

In addition to the aforementioned national laws, Paraguay is a party to the United Nations Framework Convention on Climate Change (UNFCCC). Paraguay has submitted a Nationally Determined Contribution (NDC) to the UNFCCC, with updates in 2021, which is essentially Paraguay's non-binding commitment for how it will seek to achieve GHG emission reductions.³⁰ A World Bank analysis indicates that Paraguay intends to seek involvement from the private sector, intends to include a carbon pricing / international market mechanism, and that Paraguay has an economy-wide goal (which includes the forestry sector) of reducing GHG emissions by 20% (as compared to business-as-usual) by 2030.³¹

²⁷ World Wildlife Fund, “Paraguay extends Zero Deforestation Law to 2018,” Available:

<http://wwf.panda.org/?210224/Paraguay-extends-Zero-Deforestation-Law-to-2018>

²⁸ INFONA, “Ley N. 4890,” Available:

http://www.infona.gov.py/application/files/6914/2902/7121/Ley_N_4890_DERECHO_REAL_DE_SUPERFICIE_FORESTAL.pdf

²⁹ Alberto Yanosky, “The Challenge of Conserving a Natural Chaco Habitat in the Face of Severe Deforestation Pressure and Human Development Needs,” Page 381.

³⁰ UNFCCC, Paraguay,” Available: <https://www4.unfccc.int/sites/NDCStaging/pages/Party.aspx?party=PRY>

³¹ World Bank Group's Climate Policy Team. “Paraguay: (Intended) Nationally Determined Contribution – (I)NDC.” Available: spappssecext.worldbank.org/sites/indc/PDF_Library/PY.pdf

As of January 1, 2026, Paraguay is a council member state of the International Civil Aviation Organization (ICAO), but has not agreed to participate in the voluntary phase of the Carbon Offset and Reduction Scheme for International Aviation (CORSIA).³²

The Paraguay-Singapore Implementation Agreement, under the Article 6 of the Paris Agreement for cooperation on carbon credits, was signed in May 2025 and includes annexes with processes for the authorization of mitigation activities, the issuance and transfer of Internationally Transferred Mitigation Outcomes (ITMOs) and a creation of a joint committee.

As previously mentioned, other project activities include Chaco Alert and the Visitor Center. Quadriz consulted Livieres Guggiari to outline the relevant laws and regulations pertaining to Chaco Alert and the Visitor Center.

For Chaco Alert, a few applicable laws are:

- National Constitution of the Republic of Paraguay;
- Law No. 836/80 of the Sanitary Regulatory Code;
 - Regulatory Decrees of the Sanitary Code: Decree No. 10,735/91 which regulates Art. 270°;
 - Decree No. 1,635/99 which regulates Art. 175°; and
 - Decree No. 7,441/00 by which Decree No. 6,967 is modified, by which Art. 206 is regulated;
- Decree No. 7,885/00 by which Art. 65 is regulated, which declares the obligation of prior medical control of the units authorized by the Ministry of Public Health and Social Welfare, to obtain licenses for drivers of land and river vehicles or air; and
- Law No. 1,032/96 creating the National Health System;
 - Regulatory Decrees of Law No. 1,032/96: Decree No. 19,966/98, which regulates Local Health Decentralization, Citizen Participation and Self-Management in Health, as strategies for the development of the National Health System;
 - Law No. 1,032/96, Decree No. 22,385/98 which regulates the operation of the National Health Council and the Regional and Local Health Councils;
 - Decree No. 20,553/98 which regulates Articles 31 and 33 of Law No. 1,032/96, which establishes the Superintendence of Health;

³² International Civil Aviation Organization. "CORSIA States for Chapter 3 State Pairs." Accessed November 17, 2025. Available: <https://www.icao.int/environmental-protection/CORSIA/Pages/state-pairs.aspx>

- Law No. 3,007/06 which modifies and expands Law No. 1,032/96 that creates the National Health System;
- Law No. 2,319/06 that establishes the functions and powers of the Superintendence of Health created by Law No. 1,032/96; and
- Decree No. 21,376/98 establishing the new functional organization of the Ministry of Public Health.

Upon initiation of Chaco Alert, Quadriz will abide by all applicable laws and regulations, including those mentioned above, as they relate to Chaco Alert.

For the Visitor Center, a few applicable laws are:

- National Constitution of the Republic of Paraguay; and
- Law No. 836/80 of the Sanitary Regulatory Code;
 - Regulatory Decrees of the Sanitary Code: Decree No. 10,735/91 which regulates Art. 270°;
 - Decree No. 1,635/99 which regulates Art. 175°; and
 - Decree No. 7,441/00 by which Decree No. 6,967 is modified, by which Art. 206 is regulated.

Quadriz will abide by all applicable laws and regulations, including those mentioned above, as they relate to the Visitor Center.

Regarding subsistence hunting, subsistence hunting is defined in Article 36 of the Wildlife Law 96/92 of Paraguay, as the hunting that is carried out to satisfy one's own food needs and of the family nucleus and that is practiced by the indigenous according to their traditions and customs.

Article 37 defines that hunting, transporting, marketing, export, import and re-export of all species of wildlife, as well as their parts and/or derived products, are prohibited, unless that has the express authorization of the Enforcement Authority.

Article 39 - Hunting authorized by the regulations of this law may be practiced with a permit issued by the Enforcement Authority, which in granting it will attend exclusively to the criteria of protection of wildlife, as long as there are studies that support the hunting permit and in accordance with the provisions of Articles 10 and 37. Hunting licenses or permits will be of a personal nature, of temporary validity and non-transferable.

Article 40 - The Enforcement Authority shall periodically announce and communicate to the other authorities, private associations or international entities, species whose hunting is permitted or restricted, allowable quotas, the size or age of the individuals likely to be hunted, the seasons and the places enabled or prohibited, as well as the other regulations that it considers relevant. Species that have been classified as pests as set forth herein shall have no restrictions as to appropriation or publicity.

Article 41 - Sport and commercial hunting are prohibited in the areas of settlement of indigenous communities, except in the case of indigenous settlers, in accordance with this law.

Article 42 - It is prohibited to damage or destroy eggs, nests, caves and dens, as well as the hunting of young or adults on whom they depend. It is prohibited to do any form of hunting that destroys or causes damage to the habitat of the species.

Article 43 - It is prohibited all types of hunting in protected areas, zoos and in those areas established by the Enforcement Authority. An exception shall be made for hunting for the purpose of carrying out studies and investigations, provided that it is carried out with the permission and control of the Enforcement Authority.

This said, hunting is prohibited unless there are studies that support the hunting permit, and hunting licenses or permits should be obtained personally from the Enforcement Authority. While subsistence hunting from local communities is a common practice, because enforcement of the Law is uncommon, no community groups or individuals are allowed to hunt in the Project Area in the with-project scenario. Indigenous communities, such as Maria Auxiliadora, are allowed to hunt in their settlement areas, as defined in Article 41 of the Paraguay Wildlife Law 96/92, but no indigenous communities are settled in the Project Area. Thus, no rights or permissions to hunt for subsistence within the Project Area have been granted, as there are no hunting licenses or permits from the Enforcement Authority that allow hunting in the Project Area, and no indigenous communities live within the Project Area.

Regarding the use of a professional guard services firm, the most relevant law is the 2015 Paraguayan Law No. 5424, "Regulating the Provision of Surveillance and Security Services for Persons and Property within the Field of Private Security." The relevant clauses include:

{guards} must ensure the basic service necessary to avoid endangering the life or property of people. {...}

Article 6. Private security companies, in order to carry out their activities, must guarantee the ongoing professional training and development of their security personnel. To this end, training and professional development centers may be established for security company personnel, in accordance with the provisions of this Law, and their curricula will be authorized by the National Police's Security and Related Companies Regulatory Body. {...}

Article 7.- The authorization for the operation of private security companies and, where applicable, individuals, requires the submission of the following documents to the National Police's Security and Related Companies Enforcement and Oversight Body: {...}

- j) Business license and municipal permit.
- k) Description of the firearms to be used by the company; these will be provided by the Security Company and are its property.
- l) Description of the company's communication systems, with a copy of the permit to operate the radio communication frequency or a contract with the authorized concessionaire. {...}
- n) Internal Regulations of the company approved by the Ministry of Labor, Employment and Social Security. {...}
- p) Insurance policy to guarantee civil liability arising from the activities of the company and its employees.
- q) Life insurance policy for the private security guard.
- r) List of contracted personnel, accompanied by police and judicial background check certificates.
- s) Description of the uniforms and insignia to be used during the provision of services, which will be provided by the Security Company and are its property.
- t) The uniforms and insignia to be used by private companies, duly described, must not bear any resemblance to the design and color of the uniforms used by members of the Public Force. Any modification must be communicated to the competent oversight body. If any company uses any insignia of its own or similar to those of the public security forces, the enforcement authority must immediately demand the change, which must be complied with within the peremptory period of 1 (one) year. {...}

Article 11.- Once the favorable resolution has been issued, the authorized company shall immediately request the competent body to carry the respective weapons, in the name of the company. Once the carrying card has been obtained, the list with their respective registration numbers must be sent to the Enforcement and Inspection Body of the National Police. {...}

Article 17. Persons serving as Security Guards may be of either sex and must meet the following requirements:

- a) Be of Paraguayan nationality or a foreigner with permanent legal residence in the territory of the Republic of Paraguay.
- b) Be of legal age; in cases where the service requires the carrying of firearms, the Firearms Law and its regulations shall apply.
- c) Not be an active member of the Public Forces or an active public official.
- d) Have completed at least the Third Cycle of Basic School Education.
- e) Have no criminal or police record.

- f) Be in good physical and psychological health.
- g) Present a certificate of completion of the basic training course for private security guards. {...}

Article 22.- Security guards who carry weapons must do so inside the buildings or properties to which their function is intended.

Article 23.- Under no circumstances may the Security Guard carry weapons outside of working hours, either on public roads or on public transport. {...}

Article 62. The following weapons are authorized for use by private security companies:

- a) Revolver up to .357 caliber.
- b) Shotgun up to 12 gauge.
- c) Magnum revolver up to .357 caliber, pistol up to 9 mm, and long gun up to 5.56 mm for armored transport companies.
- d) Duly authorized bodyguards may carry pistols up to 9 mm caliber.

Article 63.- The weapons provided to private security service personnel must belong to the companies and be duly registered for possession and authorized for carrying by the competent bodies.

Article 64.- Private security companies must have a secure place designated for the storage of weapons and ammunition with restricted access.

Article 65.- Private security companies may use authorized weapons in the maximum proportion of one weapon for each security guard on payroll. {...}

Article 72. Operational oversight shall be the responsibility of the National Police's Security and Related Companies Enforcement and Oversight Unit. This oversight shall consist of verifying the premises of private security companies, as well as their vehicles, weapons, communication equipment, uniforms, and the suitability of their operational personnel; it shall also include verifying checkpoints equipped with electronic systems.

Article 73. – Inspections will be carried out ordinarily every one (1) year and extraordinarily at any time when circumstances so require.

The result will be recorded in a report signed by the parties, and if satisfactory, the certificate of renewal of the operating license will be issued.

In the event that irregularities are found in the administrative and operational verification, the company's license will be temporarily suspended until it rectifies its situation. {...}

Article 90.- The training, updating and instruction centers for Private Security personnel will be authorized and supervised by the Application and Supervision Body of Security and Related Companies of the National Police.

Article 91.- The training, updating and instruction centers for private security personnel will submit the list of graduating students to the Application Body for Oversight and Security and Related Companies of the National Police, for their respective registration.³³

The Project, and its armed guards service Araucanos S.A., remain in full compliance with said legislation.

2.5.2 Relevant Laws and Regulations Related to Worker's Rights (VCS, 3.18, 3.19; CCB, G3.11)

According to the International Labour Organization, there are several relevant laws and regulations related to workers' rights in Paraguay. These include:

1. Constitution of the Republic of Paraguay (CRP), of 1992 as amended to 2011 - Constitución de la República de Paraguay de 1992;
2. Law establishing the Labor Code (CT), No. 213 of 1993 - Ley que establece el Código del Trabajo, No. 213 de 1993 1993;
3. Law (LNCSP) that regulates the Collective Bargaining of the Public Sector, No. 508 of 1994 - Ley que regula la Negociación Colectiva del Sector Público, No. 508 de 1994; and
4. Law (CPT) that sanctions the Labor Procedural Code, No. 742 of 1961 - Ley que sanciona el Código Procesal del Trabajo, No. 742 de 1961.³⁴
5. In addition, decree No. 9584/2023, regarding the adjustment of the legal minimum wage, was issued. Quadriz staff with the minimum wage will now get this annual salary increase.

The following additional new laws or regulations related to worker's rights were passed during the 2024-2025 monitoring period:

- Resolution 1290/2024, that regulates the granting of vacations for private-sector workers under the Labour Code. The Resolution clarifies how vacations are granted, paid, accumulated, and fractioned;
- Decree 4122/2025, that raises the national minimum wage, following the annual review under the Labour Code; and
- Law 7534/2025, that standardises maternity leave across public and private sectors.

³³ Base Legal. "Law No. 5424: Regulating the Provision of Surveillance and Security Services for Persons and Property within the Field of Private Security." 2015. Accessed January 12, 2026. Available: <https://baselegal.com.py/docs/e7269286-4687-11ea-85c4-525400c761ca/text>

³⁴ ILO, "Paraguay – 2016," Available: <https://www.ilo.org/dyn/irlex/en/f?p=LEGPOL:1000>

The measures needed and taken by the project team to inform workers about their rights includes:

- Providing orientation to new hires;
- Providing a safety manual, which outlines worker's rights; and
- Posting what is required by law (i.e., for example, minimum salaries) on the wall at offices.

Furthermore, phone numbers for emergency services are publicly posted at the headquarters. This said, Quadriz assures the Project meets or exceeds each of the relevant laws and regulations related to worker's rights in Paraguay.

2.5.3 Human Rights (VCS, 3.19)

The Project continues to recognize, respect, and promote the protection of the rights of the indigenous communities, local communities, and the customary rights holders adjacent to the Project Area, including the articles found in the United Nations Declaration on the Rights of Indigenous Peoples and ILO Convention 169 on Indigenous and Tribal Peoples.³⁵ Thus, the Project has, for instance:

- Directly communicated with the local communities;
- Designed the Project and its activities in close consultation with the local communities;
- Seeks to improve the health and education amongst the local communities; and
- Respects the local land rights and is not encroaching or encumbering adjacent communities.

2.5.4 Indigenous Peoples and Cultural Heritage (VCS, 3.18, 3.19)

The Project continues to preserve and protect the cultural heritage of the local communities as part of the Project's activities. This includes respecting local customs and practices of the local Maria Auxiliadora community, direct engagement with the local community, and hiring a community specialist to assist with such engagements. Such respect and ongoing engagement can be demonstrated via firsthand observations, the completed community surveys, and the ongoing verification to the Verified Carbon Standard and the Climate, Community & Biodiversity Standards.

2.5.5 Recognition of Property Rights (VCS, 3.7, 3.18, 3.19; CCB, G5.1)

³⁵ International Labour Organization. "C169 - Indigenous and Tribal Peoples Convention, 1989 (No. 169)." Available: https://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:55:0::NO::P55_TYPE,P55_LANG,P55_DOCUMENT,P55_NODE:REV,en,C169,/Document

Disputes over rights to territories and resources	Not applicable.
Respect for property rights	The initial project area is owned by Atenil S.A. as documented in the Project's database. All land use and access rights are owned by Atenil S.A. as the project is implemented on private land. Atenil provided consent to Quadriz for access and use of the property and "provide[s] all necessary consent to Quadriz, as necessary, for the development of VERs" for the specific purpose of developing a REDD+ project in their Letter of Agreement for Verified Carbon Unit Credits.

2.5.6 Benefit Sharing Mechanism (VCS, 3.18, 3.19)

The Project does not impact property rights, as described in Section 2.5.5.

Summary of the benefit sharing plan	The Project is being conducted on a privately-owned property and there are no local communities that live on, or who are dependent on, the Project Area. Nevertheless, Quadriz has actively engaged the Maria Auxiliadora community to gauge their level of interest in the Project and to explore how the Project can provide some benefit sharing through the design, finance, and implementation of local projects and programs.
Benefit sharing during the monitoring period	Some of the benefit sharing that took place in 2023, included Quadriz assisting with the implementation of vegetable gardens, food security programs were offered to 19 families, Quadriz conducted a survey of schooling needs in the María Auxiliadora community, and Quadriz hired a person who will be exclusively in charge of carrying out consultations with the community to define who will be the beneficiaries of this type of support in 2024. Some of the benefit sharing that took place in 2024-2025, included Quadriz: first aid and environmental education training was provided to 18 members of the María Auxiliadora community; in 2024, academic support was provided to 3 students from the Maria Auxiliadora community; between 2024 and September 2025, the Project donated food and supplies to 6 community kitchens; in 2024, Quadriz planned and completed the repair of 3 water reservoirs (which had a crack) and in 2025, Quadriz refurbished the gutters to optimize the use of the reservoir during the rainy season, which benefits the ~99 community members of Maria Auxiliadora; in November 2025, there was the delivery and installation of 6 fans at the María Auxiliadora school, the delivery of 25 pairs of moccasins (shoes) for the students of the school, and the delivery of 20 traditional Paraguayan outfits for the children of the community.

2.5.7 Free, Prior, and Informed Consent (VCS, 3.18, 3.19; CCB, G5.2)

The Project is taking place on private property and will not encroach on other private property, community lands, or government lands. This said, Quadriz undertook a Free, Prior, and Informed Consent process with the private landowner.

Free	Quadriz presented an agreement to the private landowners. The private landowners are a group of well-educated, sophisticated investors who are familiar with negotiating contracts. Likewise, the landowners were free to accept the agreement, to discuss with counsel, and to accept alternative offers.
Prior	Quadriz met with the private landowners several times, including visits to the property, and further discussed the Project's details on numerous occasions prior to presenting a draft agreement.
Informed	As previously mentioned, Quadriz met with the private landowners several times, and further discussed the Project's details on numerous occasions prior to proceeding with an Agreement. These discussions included: • Informing the landowners about the potential risks, benefits and costs associated with undertaking a REDD+ project; • The minimum Project Lifetime; and • The potential volumes and pricing of Verified Carbon Units (VCUs). Further, for undertaking a forest conservation project and foregoing the opportunity to convert the land to a cattle ranch, or to sell the land to ranchers, the private landowner will be compensated with a share of the revenue from the verified emission reductions (VERs). The landowners were kept informed throughout the 2024-2025 monitoring period, including about the Project's achievements and carbon offset sales.
Consent	Consent by the private landowners is formally demonstrated by a signed Letter of Agreement for Verified Carbon Unit Credits. Consent was obtained prior to the current monitoring period and no additional consent was needed, nor obtained, during the current monitoring period.
Outcome of FPIC	The outcome of the FPIC process, which occurred prior to the current monitoring period, is detailed above.

2.5.8 Property Right Protection (VCS, 3.18, 3.19; CCB, G5.3)

The Project's activities do not lead to any involuntary removal or relocation of property rights holders from their lands or territories and does not force rights holders to relocate activities important to their culture or livelihood. No such involuntary removal or relocation took place throughout 2020-2025, including during the 2024-2025 monitoring period. This said, the Maria Auxiliadora community does not use the Project Area (as evidenced by the Participatory Rural Assessments and site visits by the VVB to the community) and the landowners' rights are protected per the signed Letter of Agreement.

2.5.9 Identification of Illegal Activity (VCS, 3.19, CCB, G5.4)

The three main potential illegal activities that could negatively affect the Project's climate, community and biodiversity impacts are encroachment (i.e., including from neighboring farms and/or narcotraffickers), fire, and poaching. This said, there are no perceived positive benefits that will, or could be, derived from these illegal activities.

The measures designed and undertaken to reduce encroachment and fire are focused around on-the-ground monitors, periodic aerial surveillance, and satellite imagery analysis. With respect to poaching, the installation of guard houses and periodic biodiversity impact monitoring via wildlife cameras should be able to identify the presence of illegal poaching.

Specifically, during the 2020-2021 monitoring period to identify the presence of fires, along with to mitigate encroachment and poaching, the following measures were taken:

- A guard was hired in October 2021, to establish a presence and to initiate informal monitoring;
- Posters/signs were placed at strategic points; and
- A monitoring for deforestation template was designed.

During the 2022 monitoring period, the following measures were taken:

- A guard house was built;
- A guard service, called "Los Guardianes" was hired for the area, who are in charge of patrols and in charge of the entrance to the property;
- A Fire Prevention and Control Plan was finalized in March 2022;
- Patrols officially started during the first quarter of 2022; and
- A patrol log started during the last quarter of 2022.

During the 2020-2021 monitoring period, there was some evidence of a fire that came from the Easterly direction and evidence that there have been instances of poaching occurring off the main road.

With respect to narcotrafficking, there have been no signs of such activities in the Project Area throughout 2020-2025.

With respect to poaching, this was likely subsistence poaching for consumption by local people in the without-project scenario and as of October 2021, when the guard was hired, there have been no signs of additional hunting. It is important to note that subsistence hunting is defined in Article 36 of the Paraguay Wildlife Law 96/92, and its Articles 37, 39, 40 and 41 defines what conditions allow hunting. Hunting is prohibited unless there are studies that support the hunting permit, and hunting licenses or permits should be obtained personally from the Enforcement Authority. While subsistence hunting from local communities is a common practice, because enforcement of the Law is uncommon, no community groups or individuals are allowed to hunt in the Project Area in the with-project scenario. Indigenous communities, such as Maria Auxiliadora, are allowed to hunt in their settlement areas, as defined in Article 41 of the Paraguay Wildlife Law 96/92, but no indigenous communities are settled in the Project Area. Thus, no rights or permissions to hunt for subsistence within the Project Area have been granted, as there are no hunting licenses or permits from the Enforcement Authority that allow hunting in the Project Area, and no indigenous communities live within the Project Area.

With respect to signs of fire, Quadriz is unsure exactly what happened, but monitoring for fire has been implemented, a Fire Prevention and Control Plan has been developed, and Quadriz cleaned up the firebreak roads that were already on the property.

During the 2023 monitoring period, the guard service "Los Guardianes" was replaced by the guard service "Araucanos S.A." It is important to note that a fire occurred in the Project during October 2023 as a result of the poor practices by the neighbours which triggered a fire forest. The firebreaks were in good condition, but the fire affected approximately 3,000 hectares of palm savannah as a result of extremely dry conditions and high wind speeds. Fortunately, rains helped to stop the fire completely.

During the 2024-2025 monitoring period, the guard service Araucanos S.A. continued to be used. In addition, trainings in 2024 for Quadriz staff included First Aid and Firefighting Knowledge and Fire Control. One large fire occurred in June 2024. This fire originated on an adjacent property to the southeast of the project area and was contained to approximately 512 ha of palm savanna (449 of which were inside the project area). This fire burned dry grass, litter, and dead wood in the understory, and impacts to live tree biomass were negligible. Section 3.2.2. provides further details about the fire that occurred during the 2024-2025 monitoring period.

Further, the Project does not use victims of human trafficking, forced labor, or child labor in any of its operations. Quadriz has not been accused of, nor convicted of, any such offenses and Quadriz's Code of Conduct has been provided to the validation and verification body.

2.5.10 Ongoing Disputes (VCS, 3.18, 3.19; CCB, G5.5)

To the best of the Quadriz and the landowner's knowledge, there are no ongoing or unresolved conflicts or disputes over the rights to the initial Project Area's lands and resources. In addition, there have been no such disputes that were resolved during the last twenty years at the initial Project Area.

3 CLIMATE

3.1 Monitoring GHG Emission Reductions and Removals

3.1.1 Data and Parameters Available at Validation (VCS, 3.16)

Data and parameters calculated during the course of project development include those listed in this section.

Data Unit / Parameter:	$\Delta C_{BSL,PA,planned}$		
Data unit:	t CO ₂ -e		
Description:	Net greenhouse gas emissions in the baseline from planned deforestation		
Source of data:	Derived in Section 3.2 of PD		
Value applied:	Year	$\Delta C_{BSL,PA,planned}$	
	2020	286,132	
	2021	710,712	
	2022	1,273,924	
	2023	1,718,731	
	2024	1,351,192	
	2025	547,113	
	2026	130,617	
	2027	130,617	
	2028	130,617	
	2029	130,617	
	2030	124,702	
Justification of choice of data or description of measurement methods and procedures applied:	Derived and justified in Section 3 of PD in which baseline is set		
Purpose of Data	Calculation of baseline emissions		
Comments	Needs to be updated every 10 years as part of the baseline revision		

Data Unit / Parameter:	NewR _{i,t}
Data unit:	Ha
Description:	New calculated forest clearance in stratum i at time t by the baseline agent of the planned deforestation where no leakage is occurring
Source of data:	Derived in Section 3.2.3 of PD

Value applied:	Year	NewRi,t (ha)	
	2024	642,813	
	2025	642,813	
Justification of choice of data or description of measurement methods and procedures applied:	Derived and justified in Section 3 of PD		
Purpose of Data	Calculation of leakage emissions		
Comments	Needs to be updated every 10 years as part of the baseline revision		

Data Unit / Parameter:	CFn
Data unit:	t C t ⁻¹ d.m.
Description:	Carbon fraction of biomass
Source of data:	IPCC 2006GL
Value applied:	0.47
Justification of choice of data or description of measurement methods and procedures applied:	Global default
Purpose of Data	Calculation of baseline emissions
Comments	

Data Unit / Parameter:	fj(X,Y)
Data unit:	t d.m. tree ⁻¹
Description:	Allometric equation for species j linking measured tree variable(s) to aboveground biomass of living trees.
Source of data:	Data resulting from the forest inventory.
Value applied:	See forest inventory excel workbook.
Justification of choice of data or description of measurement methods and procedures applied:	Chave, Jérôme, Christophe Andalo, Sandra Brown, Michael A. Cairns, Jeffrey Q. Chambers, Derek Eamus, Horst Fölster et al. "Tree allometry and improved estimation of carbon stocks and balance in tropical forests." <i>Oecologia</i> 145, no. 1 (2005): 87-99.
Purpose of data	Calculation of baseline emissions Calculation of project emissions
Comments	
Data Unit / Parameter:	Root Biomass Density
Data unit:	t d.m. ha ⁻¹
Description:	Allometric equation for predicting root biomass density as a function of aboveground biomass density.
Source of data:	Data resulting from the forest inventory.

Value applied:	See forest inventory excel workbook.
Justification of choice of data or description of measurement methods and procedures applied:	Cairns et al. 1997 is a widely accepted peer reviewed scientific publication. Cairns, M. A., S. Brown, E. H. Helmer, and G. A. Baumgardner. 1997. Root biomass allocation in the world's upland forests. <i>Oecologia</i> 111, 1-11.
Purpose of data	Calculation of baseline emissions Calculation of project emissions
Comments	

Data Unit / Parameter:	LIF
Data unit:	t C m ⁻³
Description:	Logging infrastructure factor;
Source of data:	LK-ME
Value applied:	0.29
Justification of choice of data or description of measurement methods and procedures applied:	Default value in LK-ME
Purpose of data	Calculation of leakage emissions
Comments	

Data Unit / Parameter:	BEF
Data unit:	Dimensionless
Description:	Biomass expansion factor for conversion of merchantable volume to total aboveground tree biomass
Source of data:	N/A
Value applied:	N/A
Justification of choice of data or description of measurement methods and procedures applied:	N/A
Purpose of data	Calculation of baseline emissions Calculation of leakage emissions
Comments	While no timber harvest occurred in the baseline for the initial project instance, there is potential for timber harvest as part of the baseline land clearing for future project instances.

Data Unit / Parameter:	LDF
Data unit:	t C m ⁻³

Description:	Logging damage factor
Source of data:	LK-ME
Value applied:	0.53
Justification of choice of data or description of measurement methods and procedures applied:	Default value for broadleaf and mixed forests in LK-ME
Purpose of data	Calculation of leakage emissions
Comments	While no timber harvest occurred in the baseline for the initial project instance, there is potential for timber harvest as part of the baseline land clearing for future project instances.

Data Unit / Parameter:	LFME
Data unit:	Dimensionless
Description:	Leakage factor for market-effects calculations
Source of data:	LK-ME
Value applied:	0.4
Justification of choice of data or description of measurement methods and procedures applied:	The species that would be extracted in the project area are Chaco species, and could only be sourced from other native forest in the area.
Purpose of data	Calculation of leakage emissions
Comments	While no timber harvest occurred in the baseline for the initial project instance, there is potential for timber harvest as part of the baseline land clearing for future project instances.

Data Unit / Parameter:	SLFs
Data unit:	Dimensionless
Description:	Fraction of wood products that will be emitted to the atmosphere within 5 years of timber harvest for sawn wood
Source of data:	CP-W module
Value applied:	0.2
Justification of choice of data or description of measurement methods and procedures applied:	Default value from the CP-W module
Purpose of data	Calculation of baseline emissions Calculation of project emissions Calculation of leakage emissions
Comments	While no timber harvest occurred in the baseline for the initial project instance, there is potential for timber harvest as part of the baseline land clearing for future project instances.

Data Unit / Parameter:	Ofts
Data unit:	Dimensionless
Description:	Fraction of wood products that will be emitted to the atmosphere between 5 and 100 years of timber harvest for sawn wood
Source of data:	CP-W module
Value applied:	0.84
Justification of choice of data or description of measurement methods and procedures applied:	Default value from the CP-W module
Purpose of data	Calculation of baseline emissions Calculation of project emissions Calculation of leakage emissions
Comments	While no timber harvest occurred in the baseline for the initial project instance, there is potential for timber harvest as part of the baseline land clearing for future project instances.

Data Unit / Parameter:	WWs
Data unit:	Dimensionless
Description:	The fraction immediately emitted through mill inefficiency for sawn wood
Source of data:	CP-W module
Value applied:	0.24
Justification of choice of data or description of measurement methods and procedures applied:	Default value from the CP-W module
Purpose of data	Calculation of baseline emissions Calculation of project emissions Calculation of leakage emissions
Comments	While no timber harvest occurred in the baseline for the initial project instance, there is potential for timber harvest as part of the baseline land clearing for future project instances.

Data Unit / Parameter:	VBSL,EX,i,t		
Data unit:	m ³		
Description:	Volume of timber projected to be extracted from within the project boundary during the baseline in stratum i at time t		
Source of data:	Calculated		
Value applied:	Year	VBSL,EX,i,t (m ³)	
	2021	0	
	2022	0	
	2023	0	

	2024	0	
	2025	0	
	2026	0	
	2027	0	
	2028	0	
	2029	0	
	2030	0	
Justification of choice of data or description of measurement methods and procedures applied:	Derived using Equation 4 of the LK-ME module		
Purpose of data	Calculation of leakage emissions		
Comments	While no timber harvest occurred in the baseline for the initial project instance, there is potential for timber harvest as part of the baseline land clearing for future project instances.		

Data Unit / Parameter:	Dmn
Data unit:	t d.m. m ⁻³
Description:	Mean wood density of commercially harvested species
Source of data:	Calculated
Value applied:	N/A
Justification of choice of data or description of measurement methods and procedures applied:	This value uses site specific data on commercial log volume and estimates of wood density as found in Chave et al. 2006.
Purpose of data	Calculation of baseline emissions Calculation of project emissions
Comments	While no timber harvest occurred in the baseline for the initial project instance, there is potential for timber harvest as part of the baseline land clearing for future project instances.

Data Unit / Parameter:	PMLFT
Data unit:	%
Description:	Mean merchantable biomass as a proportion of total aboveground tree biomass for each forest type
Source of data:	Feldpausch, T. R., McDonald, A. J., Passos, C. A., Lehmann, J., & Riha, S. J. (2006). Biomass, harvestable area, and forest structure estimated from commercial timber inventories and remotely sensed imagery in southern Amazonia. <i>Forest Ecology and Management</i> , 233(1), 121-132
Value applied:	8%-12%
Justification of choice of data or description of	Volumetric weighted wood density as suggested by the methodology and volume by species.

measurement methods and procedures applied:	
Purpose of data	Calculation of baseline emissions Calculation of project emissions
Comments	While no timber harvest occurred in the baseline for the initial project instance, there is potential for timber harvest as part of the baseline land clearing for future project instances.

Data Unit / Parameter:	COMF i
Data unit:	Dimensionless
Description:	Combustion factor for stratum i
Source of data:	Derived from Table 2.6 of IPCC, 2006.
Value applied:	0.50
Justification of choice of data or description of measurement methods and procedures applied:	Value is for primary moist tropical forest.
Purpose of the data	Calculation of baseline emissions Calculation of project emissions
Comment	For all new project instances located in areas with an average annual precipitation of less than 1000 mm/yr, a COMF value of 0.36 derived for “All primary tropical forests” will be used as there is no specific value listed in Table 2.6 for “Primary tropical dry forest”.

Data Unit / Parameter:	Gg,i				
Data unit:	kg t ⁻¹ dry matter burnt				
Description:	Emission factor for stratum i for gas g				
Source of data:	Derived from Table 2.5 of IPCC, 2006.				
Value applied:	<table border="1"> <tr> <td>G,N₂O (kg/t d.m. burnt)</td><td>G,CH₄ (kg/t d.m. burnt)</td></tr> <tr> <td>0.2</td><td>6.8</td></tr> </table>	G,N ₂ O (kg/t d.m. burnt)	G,CH ₄ (kg/t d.m. burnt)	0.2	6.8
G,N ₂ O (kg/t d.m. burnt)	G,CH ₄ (kg/t d.m. burnt)				
0.2	6.8				
Justification of choice of data or description of measurement methods and procedures applied:	Default parameter from IPCC				
Purpose of the data	Calculation of baseline emissions Calculation of project emissions				
Comment	None				

3.1.2 Data and Parameters Monitored (VCS, 3.16)

Details on data and parameters monitored are provided below.

Data Unit / Parameter:	$\Delta C_{P,Def,i,t}$		
Data unit:	t CO ₂ -e		
Description:	Net carbon stock change as a result of deforestation in the project case in the project area in stratum i at time t		
Source of data:	Calculated		
Description of measurement methods and procedures to be applied:	As this parameter was calculated rather than measured, no measurements methods are noted. Monitoring responsibilities are listed in section 3.3, below.		
Frequency of monitoring/recording:	Every ≤ 5 years		
Value applied:	Year	$\Delta C_{P,DefPA,i,t}$ (t CO ₂ -e)	
	2024	508.1	
	2025	508.1	
Monitoring equipment:	None.		
QA/QC procedures to be applied:	Neither QA/QC procedures nor calibration are relevant for this calculated parameter.		
Purpose of data	Calculation of project emissions		
Calculation method:	Equation 3, VMD0015		
Comments	None		

Data Unit / Parameter:	$\Delta C_{P,DistPA,i,t}$		
Data unit:	t CO ₂ -e		
Description:	Net carbon stock change as a result of natural disturbance in the project case in the project area in stratum i at time t		
Source of data:	Calculated		
Description of measurement methods and procedures to be applied:	As this parameter was calculated rather than measured, no measurements methods are noted. Monitoring responsibilities are listed in section 3.3, below.		
Frequency of monitoring/recording:	Every ≤ 5 years		
Value applied:	Year	$\Delta C_{P,DistPA,i,t}$ (t CO ₂ -e)	
	2024	0	
	2025	0	
Monitoring equipment:	None.		
QA/QC procedures to be applied:	Neither QA/QC procedures nor calibration are relevant for this calculated parameter.		
Purpose of data	Calculation of project emissions		
Calculation method:	Equation 20, VMD0015		

Comments	None				
Data Unit / Parameter:	A _{DefPA,u,i,t}				
Data unit:	Ha				
Description:	Area of recorded deforestation in the project area stratum i converted to land use u at time t				
Source of data:	Monitored at each monitoring/verification event through the use of classified satellite imagery				
Description of measurement methods and procedures to be applied:	Detailed procedures are provided below under monitoring plan description. Monitoring responsibilities are listed in section 3.3, below.				
Frequency of monitoring/recording:	Every ≤ 5 years				
Value applied:	Year	Paleo-Drainage A _{DefPA,u,i,t} (ha)	Palm Savanna A _{DefPA,u,i,t} (ha)	Forest A _{DefPA,u,i,t} (ha)	
	2024	0.00	2.29	0.45	
	2025	0.00	2.29	0.45	
Monitoring equipment:	ArcGIS				
QA/QC procedures to be applied:	Detailed procedures provided below under monitoring plan description				
Purpose of data	Calculation of project emissions				
Calculation method:	Not relevant				
Comments	None				

Data Unit / Parameter:	AdefLK,i,t				
Data unit:	Ha				
Description:	The total area of deforestation by the baseline agent or class of agent of the planned deforestation in stratum i in year t				
Source of data:	Conservatively estimated using the amount of land converted from forest lands to other land uses in Paraguay for 2020. This estimate is undeniably conservative as the estimate is for the entire country as opposed to just the Chaco Region. Source: FAO. 2020. Evaluación de los recursos forestales mundiales 2020. Informe Paraguay, 2020. Roma				
Description of measurement methods and procedures to be applied:	Monitored as part of LKAplanned,i,t Monitoring responsibilities are listed in section 3.3, below.				
Frequency of monitoring/recording:	Every ≤ 5 years				
Value applied:	<table> <tr> <th>Year</th><th>AdefLK,i,t (ha)</th></tr> <tr> <td></td><td></td></tr> </table>	Year	AdefLK,i,t (ha)		
Year	AdefLK,i,t (ha)				

	2024	279,334.80	
	2025	279,334.80	
Monitoring equipment:	None		
QA/QC procedures to be applied:	Detailed procedures provided below under monitoring plan description		
Purpose of data	Calculation of leakage		
Calculation method:	Calculated as per LK-ASP		
Comments	None		

Data Unit / Parameter:	$A_{DistPA,q,i,t}$														
Data unit:	Ha														
Description:	Area impacted by natural disturbance in post-natural disturbance stratum q in stratum i, at time t														
Source of data:	Monitored at each monitoring/verification event through the use of classified satellite imagery														
Description of measurement methods and procedures to be applied:	Detailed procedures provided below under monitoring plan description. Monitoring responsibilities are listed in section 3.3, below.														
Frequency of monitoring/recording:	Every ≤ 5 years														
Value applied:	<table border="1"> <thead> <tr> <th>Year</th><th>Paleo-Drainage $A_{DistPA,q,i,t}$</th><th>Palm Savanna $A_{DistPA,q,i,t}$</th><th>Forest $A_{DistPA,q,i,t}$</th></tr> </thead> <tbody> <tr> <td>2024</td><td>0.0</td><td>448.8</td><td>0.0</td></tr> <tr> <td>2025</td><td>0.0</td><td>0.0</td><td>0.0</td></tr> </tbody> </table>			Year	Paleo-Drainage $A_{DistPA,q,i,t}$	Palm Savanna $A_{DistPA,q,i,t}$	Forest $A_{DistPA,q,i,t}$	2024	0.0	448.8	0.0	2025	0.0	0.0	0.0
Year	Paleo-Drainage $A_{DistPA,q,i,t}$	Palm Savanna $A_{DistPA,q,i,t}$	Forest $A_{DistPA,q,i,t}$												
2024	0.0	448.8	0.0												
2025	0.0	0.0	0.0												
Monitoring equipment:	ArcGIS														
QA/QC procedures to be applied:	Detailed procedures provided below under monitoring plan description														
Purpose of data	Calculation of project emissions														
Calculation method:	Not relevant														
Comments	None														

Data Unit / Parameter:	$C_{BSL,i}$
Data unit:	t CO ₂ -e ha ⁻¹
Description:	Carbon stock in all pools in the baseline case in stratum i
Source of data:	Estimated from forest carbon inventory.
Description of measurement methods and procedures to be applied:	Detailed procedures provided below under monitoring plan description Monitoring responsibilities are listed in section 3.3, below.

Frequency of monitoring/recording:	Every ≤ 10 years.		
Value applied:	Strata	CBSL _i (t CO ₂ -e ha ⁻¹)	
	Paleo-Drainage	132.1	
	Palm Savanna	136.7	
	Forest	433.2	
Monitoring equipment:	dbh tape, measuring tape, GPS, clinometer		
QA/QC procedures to be applied:	Detailed procedures provided below under monitoring plan description		
Purpose of data	Calculation of baseline emissions Calculation of project emissions		
Calculation method:	Use equations as stated in the forest inventory, including allometric equations as found in Chave et al. (2005), Cairns et al. (1997), Van Wagner (1968)		
Comments	None		

Data Unit / Parameter:	$\Delta C_{pools,Def,u,i,t}$		
Data unit:	t CO ₂ -e ha ⁻¹		
Description:	Net carbon stock changes in all pools in the project case in land use u in stratum i at time t		
Source of data:	Calculated.		
Description of measurement methods and procedures to be applied:	As this parameter was calculated rather than measured, no measurements methods are noted. Monitoring responsibilities are listed in section 3.3, below.		
Frequency of monitoring/recording:	Every ≤ 10 years.		
Value applied:	317.2		
Monitoring equipment:	None.		
QA/QC procedures to be applied:	Detailed procedures provided below under monitoring plan description		
Purpose of data	Calculation of baseline emissions Calculation of project emissions		
Calculation method:	Equation 5, VMD0015		
Comments	None		

Data Unit / Parameter:	$A_{DegW,i,t}$		
Data unit:	Ha		
Description:	Area potentially impacted by degradation processes in stratum i		

Source of data:	Delineated based on survey results indicating general area of project potentially accessed and typical depth of penetration of illegal harvest activities from points of access.		
Description of measurement methods and procedures to be applied:	Detailed procedures provided below under monitoring plan description. Monitoring responsibilities are listed in section 3.3, below.		
Frequency of monitoring/recording:	Repeated each time the PRA indicates a potential for degradation. PRA conducted every < 5 years or if verification occurs on a frequency of less than every 5 years PRA must occur prior to any verification event".		
Value applied:	Year	A _{DegW,i,t} (ha)	
	2024	0	
	2025	0	
Monitoring equipment:	None.		
QA/QC procedures to be applied:	Detailed procedures provided below under monitoring plan description.		
Purpose of data	Calculation of project emissions		
Calculation method:	Not relevant		
Comments	PRAs indicated no degradation		

Data Unit / Parameter:	C _{DegW,i,t}		
Data unit:	t CO ₂ -e		
Description:	Biomass carbon of trees cut and removed through degradation process from plots measured in stratum i at time t		
Source of data:	Estimated from diameter measurements of cut stumps in sample plots		
Description of measurement methods and procedures to be applied:	Detailed procedures provided below under monitoring plan description. Monitoring responsibilities are listed in section 3.3, below.		
Frequency of monitoring/recording:	Every ≤ 5 years where surveys and limited sampling continue to indicate possibility of illegal logging in the project area		
Value applied:	Year	C _{DegW,i,t} (t CO ₂ -e)	
	2024	0.0	
	2025	0.0	
Monitoring equipment:	None.		
QA/QC procedures to be applied:	Detailed procedures provided below under monitoring plan description.		
Purpose of data	Calculation of project emissions		
Calculation method:	Equation 8, VMD0015		
Comments	PRAs indicated no degradation		

Data Unit / Parameter:	AP _i
Data unit:	Ha

Description:	Total area of degradation sample plots in stratum i
Source of data:	Calculated as 3% of $A_{DegW,i,t}$
Description of measurement methods and procedures to be applied:	Detailed procedures provided below under monitoring plan description. Monitoring responsibilities are listed in section 3.3, below.
Frequency of monitoring/recording:	Every ≤ 5 years where surveys and limited sampling continue to indicate possibility of illegal logging in the project area
Value applied:	N/A
Monitoring equipment:	ArcGIS
QA/QC procedures to be applied:	Detailed procedures provided below under monitoring plan description.
Purpose of data	Calculation of project emissions
Calculation method:	Not relevant
Comments	None

Data Unit / Parameter:	$\Delta C_{P,Deg,i,t}$
Data unit:	t CO ₂ -e
Description:	Net carbon stock changes as a result of degradation in stratum i in the project area at time t
Source of data:	Calculated
Description of measurement methods and procedures to be applied:	As this parameter was calculated rather than measured, no measurements methods are noted. Monitoring responsibilities are listed in section 3.3, below.
Frequency of monitoring/recording:	Every ≤ 5 years where surveys and limited sampling continue to indicate possibility of illegal logging in the project area
Value applied:	0
Monitoring equipment:	None
QA/QC procedures to be applied:	Neither QA/QC procedures nor calibration are relevant for this calculated parameter.
Purpose of data	Calculation of project emissions
Calculation method:	Equation 8, VMD0015
Comments	PRAs indicated no degradation

Data Unit / Parameter:	$A_{burn,q,i,t}$
Data unit:	Ha
Description:	Area burnt in post-natural disturbance stratum q in stratum i, at time t;
Source of data:	See parameter $A_{DistPA,q,i,t}$ and $A_{DefPA,u,i,t}$
Description of measurement methods and procedures to be applied:	Monitored as part of $A_{DistPA,q,i,t}$ Monitoring responsibilities are listed in section 3.3, below.

Frequency of monitoring/recording:	Every $\leq$ 5 years			
Value applied:	Year	Paleo-Drainage Aburn,q,i,t (ha)	Palm Savanna Aburn,q,i,t (ha)	Forest Aburn,q,i,t (ha)
	2024	0.0	448.8	0.0
	2025	0.0	0.0	0.0
Monitoring equipment:	None.			
QA/QC procedures to be applied:	Detailed procedures provided below under monitoring plan description			
Purpose of data	Calculation of project emissions			
Calculation method:	Aburn,q,i,t = A _{DistPA,q,i,t} (area burnt in natural disturbance) + A _{DefPA,u,i,t} (area burnt via deforestation in project ex post)			
Comments	None			

Data Unit / Parameter:	Dbh
Data unit:	Cm
Description:	diameter at breast height
Source of data:	Monitored during the course of each forest inventory
Description of measurement methods and procedures to be applied:	Detailed procedures provided in the Standard Operating Procedures Monitoring responsibilities are listed in section 3.3, below.
Frequency of monitoring/recording:	Every $\leq$ 10 years
Value applied:	See forest inventory excel sheet.
Monitoring equipment:	dbh tape, measuring tape,
QA/QC procedures to be applied:	Detailed procedures are provided below under monitoring plan description.
Purpose of data	Calculation of baseline emissions Calculation of project emissions
Calculation method:	Not relevant
Comments	None

Data Unit / Parameter:	Dbasal
Data unit:	Cm
Description:	Basal diameter
Source of data:	Monitored during the course of each forest inventory
Description of measurement methods and procedures to be applied:	Detailed procedures provided in the Standard Operating Procedures. Monitoring responsibilities are listed in section 3.3, below.

Frequency of monitoring/recording:	Every ≤ 10 years
Value applied:	See forest inventory excel sheet.
Monitoring equipment:	dbh tape, measuring tape,
QA/QC procedures to be applied:	Detailed procedures are provided below under monitoring plan description.
Purpose of data	Calculation of baseline emissions Calculation of project emissions
Calculation method:	Not relevant
Comments	Dbh may be used as a conservative estimate of dbasal

Data Unit / Parameter:	H
Data unit:	M
Description:	Height of tree
Source of data:	Monitored during the course of each forest inventory
Description of measurement methods and procedures to be applied:	Detailed procedures provided in the Standard Operating Procedures. Monitoring responsibilities are listed in section 3.3, below.
Frequency of monitoring/recording:	Every ≤ 10 years
Value applied:	See forest inventory excel sheet.
Monitoring equipment:	measuring tape, clinometer
QA/QC procedures to be applied:	Detailed procedures are provided below under monitoring plan description.
Purpose of data	Calculation of baseline emissions Calculation of project emissions
Calculation method:	Not relevant
Comments	None

Data Unit / Parameter:	Dn
Data unit:	Cm
Description:	Diameter of piece n of dead wood along the transect
Source of data:	Monitored during the course of each forest inventory
Description of measurement methods and procedures to be applied:	Detailed procedures provided in the Standard Operating Procedures. Monitoring responsibilities are listed in section 3.3, below.
Frequency of monitoring/recording:	Every ≤ 10 years
Value applied:	See forest inventory excel sheet.
Monitoring equipment:	dbh tape, measuring tape

QA/QC procedures to be applied:	Detailed procedures are provided below under monitoring plan description.
Purpose of data	Calculation of baseline emissions Calculation of project emissions
Calculation method:	Not relevant
Comments	None

Data Unit / Parameter:	N
Data unit:	Dimensionless
Description:	Total number of wood pieces intersecting the transect
Source of data:	Monitored during the course of each forest inventory
Description of measurement methods and procedures to be applied:	Detailed procedures provided in the Standard Operating Procedures. Monitoring responsibilities are listed in section 3.3, below.
Frequency of monitoring/recording:	Every ≤ 10 years
Value applied:	See forest inventory excel sheet.
Monitoring equipment:	None
QA/QC procedures to be applied:	Detailed procedures are provided below under monitoring plan description.
Purpose of data	Calculation of baseline emissions Calculation of project emissions
Calculation method:	Not relevant
Comments	None

Data Unit / Parameter:	L
Data unit:	M
Description:	Length of the transect
Source of data:	Monitored during the course of each forest inventory
Description of measurement methods and procedures to be applied:	Detailed procedures provided in the Standard Operating Procedures. Monitoring responsibilities are listed in section 3.3, below.
Frequency of monitoring/recording:	Every ≤ 10 years
Value applied:	200 m
Monitoring equipment:	measuring tape,
QA/QC procedures to be applied:	Detailed procedures are provided below under monitoring plan description.
Purpose of data	Calculation of baseline emissions Calculation of project emissions

Calculation method:	Not relevant
Comments	None

Data Unit / Parameter:	U _{P,SS,i,pool#}
Data unit:	%
Description:	Percentage uncertainty (expressed as 95% confidence interval as a percentage of the mean where appropriate) for carbon stocks and greenhouse gas sources in the with-project case (1,2...n represent different carbon pools and/or GHG sources)
Source of data:	Calculations arising from field measurement data
Description of measurement methods and procedures to be applied:	Uncertainty in pools derived from field measurement with 95% confidence interval calculated as the standard error of the averaged plot measurements in each stratum multiplied by the t value for the 95% confidence level. Monitoring responsibilities are listed in section 3.3, below.
Frequency of monitoring/recording:	Monitored at least once every 10 years (on re-measurement of forest carbon stocks)
Value applied:	Same as UBSL,SS,i,pool# values below.
Monitoring equipment:	None
QA/QC procedures to be applied:	Neither QA/QC procedures nor calibration are relevant for this calculated parameter.
Purpose of data	Calculation of baseline emissions Calculation of project emissions
Calculation method:	Not relevant
Comments	Same as UBSL,SS,i,pool# values below as forest carbon stock growth was not tracked.

Data Unit / Parameter:	EBSL SS,i, pool#				
Data unit:	t CO ₂ -e				
Description:	Carbon stock or GHG sources (e.g. trees, dead wood, soil organic carbon, emission from fertilizer addition, emission from biomass burning etc.) in the baseline case				
Source of data:	Calculated				
Description of measurement methods and procedures to be applied:	As this parameter was calculated rather than measured, no measurements methods are noted. Monitoring responsibilities are listed in section 3.3, below.				
Frequency of monitoring/recording:	Every ≤ 10 years.				
Value applied:	Strata	Live aboveground tree biomass	Belowground biomass	Litter	Dead wood
	EBSL,SS,Paleo-Drainage,pool# (tCO ₂ e)	59,651	14,981	4,755	9,116

	EBSL,SS,PalmSavanna,pool# (tCO ₂ e)	784,689	196,111	96,826	12,049
	EBSL,SS,Forest,pool# (tCO ₂ e)	6,890,151	1,573,708	242,007	282,083
Monitoring equipment:	None				
QA/QC procedures to be applied:	Neither QA/QC procedures nor calibration are relevant for this calculated parameter.				
Purpose of data	Calculation of baseline emissions Calculation of project emissions				
Calculation method:	Not relevant				
Comments	Baseline stocks and sources are estimated ex-ante for each baseline period				

Data Unit / Parameter:	UBSL,SS,i,pool#				
Data unit:	%				
Description:	Percentage uncertainty (expressed as 95% confidence interval as a percentage of the mean where appropriate) for carbon stocks and greenhouse gas sources in the baseline case (1,2,...n represent different carbon pools and/or GHG sources)				
Source of data:	Calculated				
Description of measurement methods and procedures to be applied:	As this parameter was calculated rather than measured, no measurements methods are noted. Monitoring responsibilities are listed in section 3.3, below.				
Frequency of monitoring/recording:	Every ≤ 10 years.				
Value applied:	Strata	Live aboveground tree biomass	Belowground biomass	Litter	Dead wood
	UBSL,SS,Paleo-Drainage,pool# (%)	95.9%	88.4%	45.7%	169.1%
	UBSL,SS,PalmSavanna,pool# (%)	24.9%	23.2%	100.2%	0.0%
	UBSL,SS,Forest,pool# (%)	4.1%	3.8%	18.1%	22.2%
Monitoring equipment:	None				
QA/QC procedures to be applied:	Neither QA/QC procedures nor calibration are relevant for this calculated parameter.				
Purpose of data	Calculation of baseline emissions Calculation of project emissions				
Calculation method:	See equation 4 in the X-UNC module.				
Comments	Baseline stocks and sources are estimated ex-ante for each baseline period				

Data Unit / Parameter:	EBSL SS,i
Data unit:	t CO ₂ -e

Description:	Sum of combined carbon stocks and GHG sources in stratum i multiplied by the area of stratum i (Ai) in the baseline case		
Source of data:	Calculated		
Description of measurement methods and procedures to be applied:	As this parameter was calculated rather than measured, no measurements methods are noted. Monitoring responsibilities are listed in section 3.3, below.		
Frequency of monitoring/recording:	Every ≤ 10 years.		
Value applied:	Strata	EBSL,SS,t,I (tCO2e)	
	Paleo-Drainage	88,503	
	Palm Savanna	1,089,676	
	Forest	8,987,949	
Monitoring equipment:	None		
QA/QC procedures to be applied:	Neither QA/QC procedures nor calibration are relevant for this calculated parameter.		
Purpose of data	Calculation of baseline emissions Calculation of project emissions		
Calculation method:	Not relevant		
Comments	Baseline stocks and sources are estimated ex-ante for each baseline period		

Data Unit / Parameter:	UBSL,SS,i		
Data unit:	%		
Description:	Percentage uncertainty in the combined carbon stocks and greenhouse gas sources in stratum i in the baseline case		
Source of data:	Calculated		
Description of measurement methods and procedures to be applied:	As this parameter was calculated rather than measured, no measurements methods are noted. Monitoring responsibilities are listed in section 3.3, below.		
Frequency of monitoring/recording:	Every ≤ 10 years.		
Value applied:	Strata	UncertaintyBSL,SS,I (%)	
	Paleo-Drainage	68.6%	
	Palm Savanna	20.5%	
	Forest	3.3%	
Monitoring equipment:	None		
QA/QC procedures to be applied:	Neither QA/QC procedures nor calibration are relevant for this calculated parameter.		
Purpose of data	Calculation of baseline emissions		

	Calculation of project emissions
Calculation method:	See equation 5 in the X-UNC module.
Comments	Baseline stocks and sources are estimated ex-ante for each baseline period

Data Unit / Parameter:	Bi,t			
Data unit:	tonnes d. m. ha ⁻¹			
Description:	Average aboveground biomass stock before burning stratum i, time t			
Source of data:	Calculated using forest inventory data			
Description of measurement methods and procedures to be applied:	Detailed procedures provided in the Standard Operating Procedures. Monitoring responsibilities are listed in section 3.3, below.			
Frequency of monitoring/recording:	Every ≤ 10 years			
Value applied:	Paleo-Drainage B,i,t (t d.m./ha)	Palm Savanna B,i,t (t d.m./ha)	Forest B,i,t (t d.m./ha)	
	63.7	65.0	207.3	
Monitoring equipment:	None			
QA/QC procedures to be applied:	Detailed procedures are provided below under monitoring plan description.			
Purpose of data	Calculation of baseline emissions Calculation of project emissions Calculation of leakage			
Calculation method:	Use equations as stated in the forest inventory, including allometric equations as found in Chave et al. (2005), Cairns et al. (1997), Van Wagner (1968)			
Comments	Ex-ante Bi,t is the weighted average across all strata			

Data Unit / Parameter:	AGB
Data unit:	tonnes d. m. ha ⁻¹
Description:	Aboveground biomass density
Source of data:	Calculated using forest inventory data
Description of measurement methods and procedures to be applied:	Detailed procedures provided in the Standard Operating Procedures. Monitoring responsibilities are listed in section 3.3, below.
Frequency of monitoring/recording:	Every ≤ 10 years
Value applied:	Plot level values can be found in the Forest Inventory Report
Monitoring equipment:	None
QA/QC procedures to be applied:	Detailed procedures are provided below under monitoring plan description.

Purpose of data	Calculation of baseline emissions Calculation of project emissions
Calculation method:	Use equations as stated in the forest inventory, including allometric equations as found in Chave et al. (2005), Cairns et al. (1997), Van Wagner (1968)
Comments	None

Data Unit / Parameter:	Asp
Data unit:	ha
Description:	Area of sample plots in ha
Source of data:	Recording and archiving of number and size of sample plots
Description of measurement methods and procedures to be applied:	Detailed procedures provided in the Standard Operating Procedures. Monitoring responsibilities are listed in section 3.3, below.
Frequency of monitoring/recording:	Every ≤ 10 years
Value applied:	0.16619 ha or a 23m radius circle
Monitoring equipment:	M
QA/QC procedures to be applied:	Detailed procedures provided below under monitoring plan description
Purpose of data	Calculation of baseline emissions Calculation of project emissions
Calculation method:	Not relevant
Comments	None

Data Unit / Parameter:	Hsdw
Data unit:	M
Description:	Height of standing dead tree in m
Source of data:	Monitored during the course of each forest inventory
Description of measurement methods and procedures to be applied:	Detailed procedures provided in the Standard Operating Procedures. Monitoring responsibilities are listed in section 3.3, below.
Frequency of monitoring/recording:	Every ≤ 10 years
Value applied:	See forest inventory excel workbook.
Monitoring equipment:	measuring tape, clinometer
QA/QC procedures to be applied:	Detailed procedures are provided below under monitoring plan description.
Purpose of data	Calculation of baseline emissions Calculation of project emissions
Calculation method:	Not relevant

Comments	None
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Data Unit / Parameter:	DDWdc		
Data unit:	t d.m. m-3		
Description:	Mean wood density of dead wood in the density class (dc) – sound (1),intermediate (2), and rotten (3); t d.m. m-3		
Source of data:	Monitored during the course of each forest inventory		
Description of measurement methods and procedures to be applied:	Detailed procedures provided in Appendix B of the project document. Monitoring responsibilities are listed in section 3.1.3, below.		
Frequency of monitoring/recording:	Every ≤ 10 years		
Value applied:	Density Class	Density (t d.m. m-3)	
	Rotten (P)	0.358	
	Intermediary (I)	0.622	
	Solid (S)	0.716	
Monitoring equipment:	dbh tape, measuring tape, drying oven		
QA/QC procedures to be applied:	Detailed procedures provided below under monitoring plan description		
Purpose of data	Calculation of baseline emissions Calculation of project emissions		
Calculation method:	Not relevant		
Comments	None		

Data Unit / Parameter:	CP,Dist,q,i		
Data unit:	t CO ₂ -e ha-1		
Description:	Carbon stock in all pools in post-natural disturbance q in baseline stratum i		
Source of data:	Monitored		
Description of measurement methods and procedures to be applied:	Detailed procedures provided in the Standard Operating Procedures. Monitoring responsibilities are listed in section 3.3, below.		
Frequency of monitoring/recording:	Prior to each verification event and at least every 5 years.		
Value applied:	0		
Monitoring equipment:	dbh tape, measuring tape, GPS, clinometer		
QA/QC procedures to be applied:	Detailed procedures provided below under monitoring plan description		
Purpose of data	Calculation of project emissions		
Calculation method:	Use equations as stated in the forest inventory, including allometric equations as found in Chave et al. (2005), Cairns et al. (1997), Van Wagner		

	(1968). Carbon stocks must be measured and estimated using the methods given in module CP-AB and CP-D.
Comments	Alternatively, it can be conservatively assumed that a post-natural disturbance live and dead vegetation pool is equal to zero.

Data Unit / Parameter:	Ai								
Data unit:	ha								
Description:	Total area of stratum i								
Source of data:	GIS coverages								
Description of measurement methods and procedures to be applied:	N/A								
Frequency of monitoring/recording:	Every ≤ 10 years								
Value applied:	<table border="1"> <tr> <td>Strata in Initial Project Area</td><td>Ai (ha)</td></tr> <tr> <td>Paleo-Drainage</td><td>548.2</td></tr> <tr> <td>Palm Savanna</td><td>7,470.5</td></tr> <tr> <td>Forest</td><td>12,496.3</td></tr> </table>	Strata in Initial Project Area	Ai (ha)	Paleo-Drainage	548.2	Palm Savanna	7,470.5	Forest	12,496.3
Strata in Initial Project Area	Ai (ha)								
Paleo-Drainage	548.2								
Palm Savanna	7,470.5								
Forest	12,496.3								
Monitoring equipment:	ArcGIS								
QA/QC procedures to be applied:	Detailed procedures provided below under monitoring plan description								
Purpose of data	Calculation of baseline emissions Calculation of project emissions Calculation of leakage								
Calculation method:	N/A								
Comments	Ex-ante, it shall be assumed that stratum area will remain constant for the baseline period								

Data Unit / Parameter:	AAplanned,i,t
Data unit:	Ha
Description:	Annual area of baseline planned deforestation for stratum i at time t
Source of data:	Calculated
Description of measurement methods and procedures to be applied:	N/A
Frequency of monitoring/recording:	Every ≤ 10 years

Value applied:	Year	AAplanned,i,t (ha)	
	2020	2,274	
	2021	4,547	
	2022	4,547	
	2023	4,547	
	2024	3,437	
	2025	1,163	
	2026	0	
	2027	0	
	2028	0	
	2029	0	
	2030	0	
Monitoring equipment:	N/A		
QA/QC procedures to be applied:	N/A		
Purpose of data	Calculation of baseline emissions		
Calculation method:	Uses Equation 3 in BL-PL		
Comments	None		

Data Unit / Parameter:	Aplanned,i
Data unit:	Ha
Description:	Total area of planned deforestation over the baseline period for stratum i
Source of data:	Monitored
Description of measurement methods and procedures to be applied:	Determined using a GIS
Frequency of monitoring/recording:	Every ≤ 10 years
Value applied:	31,858.6
Monitoring equipment:	GIS
QA/QC procedures to be applied:	None
Purpose of data	Calculation of baseline emissions
Calculation method:	N/A
Comments	This is the total area of the initial project property.

Data Unit / Parameter:	CWP100,i
Data unit:	t CO ₂ /ha
Description:	Carbon stock entering the wood products pool at the time of deforestation that is expected to be emitted over 100-years from stratum i; t CO ₂ -e ha-1
Source of data:	Calculated

Description of measurement methods and procedures to be applied:	N/A
Frequency of monitoring/recording:	Every ≤ 10 years
Value applied:	0
Monitoring equipment:	N/A
QA/QC procedures to be applied:	N/A
Purpose of data	Calculation of baseline emissions Calculation of project emissions Calculation of leakage
Calculation method:	Uses Equation 2 in the CP-W module
Comments	None

Data Unit / Parameter:	CWP, _i
Data unit:	t CO ₂ /ha
Description:	Carbon stock entering wood products pool at time of deforestation from stratum i
Source of data:	Calculated
Description of measurement methods and procedures to be applied:	N/A
Frequency of monitoring/recording:	Every ≤ 10 years
Value applied:	0
Monitoring equipment:	N/A
QA/QC procedures to be applied:	N/A
Purpose of data	Calculation of baseline emissions Calculation of project emissions Calculation of leakage
Calculation method:	Uses Equation 2 in the CP-W module
Comments	None

3.1.3 Monitoring Plan (VCS, 3.16, 3.20)

This monitoring plan has been developed in close conjunction with module VMD0015 of the REDD Methodological Module, “Methods for monitoring of greenhouse gas emissions and removals (M-REDD).” This section focuses on establishing procedures for monitoring deforestation, illegal degradation, natural disturbance, and project emissions ex-post in the Project Area and leakage areas. Further, procedures for updating the forest carbon stocks and

revising the baseline are also provided below.

For accounting purposes, the Project conservatively assumes stable stocks and no biomass monitoring is conducted in areas undergoing carbon stock enhancement, as permitted in the methodology monitoring module VMD0015, hence $\Delta C_{P,Enh,i,t}$ is set to 0.

Further, as no commercial harvest of timber (including FSC selective logging) occurs in the with-project case, the degradation due to harvest of timber will not be monitored, thus parameter $\Delta C_{P,SelLog,i,t}$ is set to 0.

A separate section on quality assurance/quality control and data archiving procedures covers all monitoring tasks.

Organizations responsible for monitoring are listed below in Table 3.8. These organizations are responsible for implementing all aspects of a particular monitoring task, as described in the monitoring sub-sections below.

Estimation of Ex-Post Net Carbon Stock Changes and Greenhouse Gas Emissions

Ex-post net carbon stock changes and greenhouse gas emissions can only be calculated after monitoring:

- The net carbon stock change as a result of deforestation in the Project Area;
- The net carbon stock change as a result of degradation in the Project Area;
- The net carbon stock change as a result of natural disturbance in the Project Area; and
- The greenhouse gas emissions as a result of deforestation and degradation activities within the Project Area.

Monitoring Deforestation and Natural Disturbance

Forest cover change due to deforestation and natural disturbance is monitored through periodic assessment of classified satellite imagery, see below, covering the Project Area. Emissions ($\Delta C_{P,Def,i,t}$ and $\Delta C_{P,DistPA,i,t}$ for deforestation and natural disturbance, respectively) are estimated by the multiplying areas $A_{DefPA,u,i,t}$ and $A_{DistPA,q,i,t}$, for deforestation and natural disturbance, respectively, by average forest carbon stock per unit area. Note that $A_{DistPA,q,i,t}$ is limited to the area where credits have been issued and is identified as the overlap between the delineated area of the disturbance and the summed area of deforestation in the Project Area to the year in which the disturbance occurred. Stock estimates from the initial field inventory are valid for 10 years (per VM0007). Table 3.1 shows the data and parameters monitored.

Table 3.1. Data and Parameters for Monitoring Deforestation and Natural Disturbance.

Parameter	Description	Units	Source/ Justification of Choice of Data or Description of Measurement Methods
$\Delta C_{P,Def,i,t}$	Net carbon stock change as a result of deforestation in the project case in the project area in stratum i at time t	t CO ₂ e	Calculated
$\Delta C_{P,DistPA,i,t}$	Net carbon stock change as a result of natural disturbance in the project case in the project area in stratum i at time t	t CO ₂ e	Calculated
$A_{DefPA,u,i,t}$	Area of recorded deforestation in the project area stratum i converted to land use u at time t	Ha	Monitored for each verification event
$A_{DistPA,q,i,t}$	Area impacted by natural disturbance in post-natural disturbance stratum q in stratum i, at time t	Ha	Monitored for each verification event
$C_{BSL,i}$	Carbon stock in all pools in the baseline case in stratum i	t CO ₂ e ha ⁻¹	Estimated from the forest carbon inventory

Changes in forest cover ($A_{DefPA,u,i,t}$ and $A_{DistPA,q,i,t}$) will be monitored via classification of remotely sensed imagery and land use change detection procedures completed as part of each monitoring event. The definition of forest used in the classified dataset is in broad agreement with the Paraguayan definition of a forest,³⁶ as set by the Clean Development Mechanism Designated National Authority.

The classification methodology will outline atmospheric and geometric correction procedures and uses a supervised classification approach. Where Landsat Imagery is used, only images with cloud cover covering less than 10% of a scene will be downloaded. These images will be corrected for any atmospheric problems (using Carlotto HAZE algorithm) and geometric correction issues. Georeferencing will be conducted with the nearest neighbor method, using a

³⁶ The Clean Development Mechanism Designated National Authority in Paraguay has set the forest definition as:

1. Minimum tree crown cover of 25 per cent;
2. Minimum land area of 0.5 hectare; and
3. Potential to reach a minimum tree height of 5 meters at maturity.

See <http://cdm.unfccc.int/DNA/ARDNA.html?CID=30>, accessed March 5, 2012.

minimum of 20 points, and had an error (RMS) of less than 1 pixel. Then representative samples (training sites) of Forest, Non-Forest, Water, Cloud and Cloud Shadow will be selected using expert knowledge whereby training sites are distributed throughout the image and represent the variability within each class. A supervised classification³⁷ approach will be used with the Random Forest classification algorithm. All processing will be implemented in ArcMap 10.8 in combination with Google Earth Engine Platform except georeferencing which will be carried out using ERDAS IMAGINE 9. Any deviations from the above approach will be detailed in the monitoring report.

Deforestation and natural disturbance will be distinguished using ancillary data which may include but is not limited to high resolution imagery, digital elevation models (to identify steep areas prone to landslides), information from local land managers, etc.

The Project Area as set in the Project Description (PD), will serve as the initial “forest cover benchmark map” against which changes in forest cover will be assessed over the interval of the first monitoring period; the entire Project Area has been demonstrated to meet the forest definition at the beginning of the crediting period. For subsequent monitoring periods, change in forest cover will be assessed against the preceding classified forest cover map marking the beginning of the monitoring interval. Thus, the forest benchmark map is updated at each monitoring event.

Monitoring Illegal Degradation

Emissions due to illegal logging will be tracked by conducting surveys in the surrounding areas every two years. Locations surveyed will include:

- Families residing in areas adjacent to the project property; and
- Communities within 20 km of the project property.

Degradation surveys will be conducted for communities who give consent to being interviewed and are reliant on the Project Area. Surveys will produce information on wood consumers (fuel wood and wood for construction and charcoal production) in the surroundings areas, as well as general indications on the areas where wood is sourced from and maximum depth of penetration of harvest activities from access points. In the event that any potential of illegal logging occurring in the Project Area is detected from the surveys (i.e., $\geq 10\%$ of those interviewed/surveyed believe that degradation may be occurring within the project boundary), then an estimation of emissions associated with illegal logging will be produced from the survey data and the T-SIG tool applied. The information collected in the Participatory Rural Assessments (PRAs) will be used to calculate logging emissions in conjunction with conservative assumptions/estimates including that all wood collected was live (unless otherwise stated), use of a regional charcoal recovery rate, use of a logging damage factor from

³⁷ There is no overlap between the accuracy assessment points and the data used for classification.

the methodology, and that trees harvested were in the 99th percentile in terms of dbh (for the harvested species, if known).

In the event that the initial assessment indicated that illegal logging is occurring and significant in the area, the potential degradation area within the Project Area ($A_{\text{DegW},i}$) will be delineated based on survey results, incorporating general area information and depth of penetration. Degradation monitoring plots will be allocated to achieve a 3% sample of this area. Rectangular plots 10 meters by 1 kilometer (1 ha area) will be randomly or systematically allocated in the area, sufficient to produce a 3% sample of the area, and any recently cut stumps or other indications of illegal harvest will be noted and recorded. Diameter at breast height, or diameter at height of cut, whichever is lower, of cut stumps will be measured. Biomass will be estimated from measured diameters (conservatively assuming that diameters of stumps cut below breast height are equivalent to diameter at breast height) applying the allometric equations and analytical procedures in the original forest inventory report. Emissions due to illegal logging ($\Delta C_{P,\text{DegW},i,t}$) are estimated by multiplying area ($A_{\text{DegW},i}$) by average biomass carbon of trees cut and removed per unit area ($C_{\text{DegW},i,t}/AP_i$).

The 3% sample will be conducted once every 5 years where initial surveys continue to indicate possibility of illegal logging in the Project Area to produce an estimate of emissions resulting from illegal logging ($\Delta C_{P,\text{DegW},i}$). Estimates of emissions will be annualized (to produce estimates in t CO₂e per year) by dividing the emission for the monitoring interval by the number of years in the interval.

Table 3.2. Data and Parameters for Monitoring Illegal Degradation.

Parameter	Description	Units	Source/ Justification of Choice of Data or Description of Measurement Methods
$A_{\text{DegW},i,t}$	Area potentially impacted by degradation processes in stratum i	Ha	Delineated based on survey results indicating general area of project potentially accessed and typical depth of penetration of illegal harvest activities from points of access
$C_{\text{DegW},i,t}$	Biomass carbon of trees cut and removed through degradation process from plots measured in stratum i at time t	t CO ₂ e	Estimated from diameter measurements of cut stumps in sample plots
AP_i	Total area of degradation sample plots in stratum i	Ha	Calculated as 3% of $A_{\text{DegW},i,t}$

$\Delta C_{P,DegW,i,t}$	Net carbon stock changes as a result of degradation in stratum i in the project area at time t	t CO ₂ e	Calculated
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Monitoring Project Emissions

With-project emissions are calculated as the sum of emissions from fossil fuel combustion ($E_{FC,i,t}$) + non-CO₂ emissions due to biomass burning ($E_{BiomassBurn,i,t}$) + direct N₂O emissions as a result of nitrogen application ($N_2O_{direct-N,i,t}$). As stipulated in the methodology, fossil fuel combustion in all situations is an optional emission source. Further, no nitrogen is applied on pasture land in the with-project case and hence project emissions therefore equal $E_{BiomassBurn}$ and are calculated using the VMD0013, “Estimation of greenhouse gas emissions from biomass and peat burning (E-BPB)” of the AD Partners modular REDD Methodology.

Non-CO₂ emissions from biomass burning in the project case include emissions from burning associated with deforestation and burning associated with natural disturbance, i.e., forest fire. It will be conservatively assumed that the total area burnt during the deforestation process is equal to the area deforested, $A_{DefPA,u,i,t}$. Thus, the area used when calculating E-BPB is equal to $A_{burn,i,t}$ (area burnt) = $A_{burn,q,i,t}$ (area burnt in natural disturbance) + $A_{DefPA,u,i,t}$ (area burnt via deforestation in project ex post).

Also, it is conservatively assumed that burning is a part of the forest conversion process in all incidents of deforestation taking place in the activity shifting leakage areas. Thus, the parameter $A_{burn,i,t}$ (Area burnt for stratum i at time t; ha) will be set equal to monitored parameter $A_{DefLK,i,t}$ (Area of recorded deforestation in the activity shifting leakage areas at time t; ha). The T-SIG tool can then be applied, and if parameter $E_{BiomassBurn,t}$ (Greenhouse emissions due to biomass burning as part of deforestation activities in stratum i in year t) is determined to be insignificant, $E_{BiomassBurn,t}$, can be assumed equal to zero.

Table 3.3. Data and Parameters for Monitoring Emissions from Biomass Burning.

Parameter	Description	Units	Source/ Justification of Choice of Data or Description of Measurement Methods
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E BiomassBurn,t	Greenhouse emissions due to biomass burning as part of deforestation activities in stratum i in year t	tCO ₂ e of each GHG (CH ₄ , N ₂ O)	Calculated
Aburn,i,t	Area burnt for stratum i at time t	Ha	Monitored for each verification event
Bi,t	Average aboveground biomass stock before burning stratum i, time t	tonnes d. m. ha ⁻¹	Conservatively assumed to be the carbon stock in all pools in the baseline case (CBSL,i).
COMF i	Combustion factor for stratum i; dimensionless	dimensionless	0.50 for primary moist tropical forest. Derived from Table 2.6 of IPCC, 2006.
Gg,i	Emission factor for stratum i for gas g	kg t ⁻¹ dry matter burnt	GCH ₄ = 6.8 g kg ⁻¹ and GN ₂ O = 0.2 g kg ⁻¹ . Derived from Table 2.5 of IPCC, 2006.
GWPg	Global warming potential for gas g	t CO ₂ /t gas g	Default values from IPCC 2014 AR5 GWP100: CH ₄ = 28; N ₂ O = 265).

Monitoring of Leakage Carbon Stock Changes and Greenhouse Gas Emissions

Two sources of leakage will be monitored: activity-shifting leakage and market leakage.

Activity-Shifting Leakage

Activity-shifting leakage will be monitored by identifying all the areas that may be expected to be converted to non-forest land by the agent/class outside the project boundaries during the baseline period (Aplanned,i,OP). Further, the total area of deforestation by the baseline agent or class of agent of the planned deforestation (AdefLK,i,t) will be estimated for each monitoring period. This will be accomplished by examining remote sensing data, legal records, and/or survey information.

The area monitored for the fourth monitoring period was the entire country. For the following monitoring periods the entire Paraguayan Chaco area or country will be monitored depending on data availability. The value incorporated was the estimated total forest lands converted to other uses in Paraguay in 2020. This is a conservative value as it addresses deforestation in the whole country and not only that associated with the baseline agent.

Table 3.4. Data and Parameters for Activity-Shifting Leakage.

Parameter	Description	Units	Source/ Justification of Choice of Data or Description of Measurement Methods
Aplanned,i,OP	Total area of planned deforestation outside the project boundaries over the entire project lifetime for stratum i	ha	Must be re-evaluated whenever the baseline is revised.
AdefLK,i,t	The total area of deforestation by the baseline agent or class of agent of the planned deforestation in stratum i in year t	ha	Must be reexamined at least every 5 years or if verification occurs on a frequency of less than every 5 years examination must occur prior to any verification event. Must be re-evaluated whenever the baseline is revised.

Market Leakage

Market leakage values calculated ex-ante are also used ex-post. No market leakage is calculated for the initial project instance as there is no harvesting of timber for commercial markets.

Table 3.5. Data and Parameters for Market Leakage.

Parameter	Description	Units	Source/ Justification of Choice of Data or Description of Measurement Methods
VBSL,EX,i,t	Volume of timber projected to be extracted from within the project boundary during the baseline in stratum i in year t (m3)	ha	Sources may include: 1. Timber harvest records and/or 2. Estimates derived from field measurements and/or 3. Assessments with aerial photography or satellite imagery.

Monitoring of Actual Carbon Stock Changes and Greenhouse Gas Emissions

Forest carbon stock estimates, including aboveground and belowground live tree, litter stocks, and dead wood stocks, will be derived from field measurements less than or equal to 10 years old. For each stratum, where the re-measured estimate is within the 90% confidence interval of the $t=0$ estimate, the $t=0$ stock estimate takes precedence and is re-employed, and where the re-measured estimate is outside (i.e., greater than or less than) the 90% confidence interval of the $t=0$ estimate, the new stock estimate takes precedence and is used for the subsequent period.

Sample plots will be randomly located and measured following the Project's standard operating procedures. Biomass will be estimated applying the following allometric equations and otherwise maintain consistency with analytical procedures applied in the original inventory.

For live trees, biomass is calculated as a function of diameter at breast height (DBH; in cm) and specific gravity (SG, g/cm^3) using the predictive model developed by Chave et al. (2005)³⁸ for tropical moist forest stands. Application of the "dry" equation reflects the annual precipitation for the inventoried area, 1000-1100mm/yr.

aboveground biomass (kg)

Equation 3.1

³⁸ Chave, Jérôme, Christophe Andalo, Sandra Brown, Michael A. Cairns, Jeffrey Q. Chambers, Derek Eamus, Horst Fölster et al. "Tree allometry and improved estimation of carbon stocks and balance in tropical forests." *Oecologia* 145, no. 1 (2005): 87-99.

$$=(SG*EXP((-0.667)+(1.784*LN(DBH))+(0.207*(LN(DBH))^2)-(0.0281*LN((DBH))^3)))$$

For palms, height and basal diameter measurements are used to estimate the aboveground volume of a paraboloid and then species level specific gravity (SG, estimated by Chave³⁹ et al. 2006) will be applied. The estimate of biomass for palms is therefore to be limited to the main trunk (bole) of the palm. Thus, for palms

$$\text{aboveground biomass (Mg)} = 0.5 * \pi * (\text{basal diameter(cm)}/200)^2 * \text{height(m)} * SG$$

Equation 3.2

Root biomass density is estimated at the cluster sample level applying the equation developed by Cairns et al.⁴⁰, where:

$$\text{Root Biomass Density (t/ha)} = EXP (-1.085 + 0.925 LN(\text{aboveground biomass density}))$$

Equation 3.3

The volume of lying dead wood per unit area is estimated using the equation (Warren and Olsen⁴¹) as modified by Van Wagner⁴² separately for each dead wood density class:

$$V_{LDW} = \frac{\pi^2 * \left(\sum_{n=1}^N D_n^2 \right)}{8 * L}$$

Equation 3.4

where:

V_{LDW} Volume of lying dead wood per unit area; $m^3 \text{ ha}^{-1}$

D_n Diameter of piece n of dead wood along the transect; cm

N Total number of wood pieces intersecting the transect; dimensionless

L Length of the transect; m

Length of each transect was corrected for slope. The volumes per unit area of each dead wood density class are then multiplied by their respective densities to convert to a mass per unit area.

³⁹ Chave, Jérôme, Helene C. Muller-Landau, Timothy R. Baker, Tomás A. Easdale, Hans ter Steege, and Campbell O. Webb. "Regional and phylogenetic variation of wood density across 2456 neotropical tree species." *Ecological applications* 16, no. 6 (2006): 2356-2367.

⁴⁰ Cairns, M. A., S. Brown, E. H. Helmer, and G. A. Baumgardner. 1997. Root biomass allocation in the world's upland forests. *Oecologia* 111, 1-11.

⁴¹ Warren, W.G. and Olsen, P.F. (1964) A line intersect technique for assessing logging waste. *Forest Science* 10: 267-276.

⁴² Van Wagner, C.E. (1968). The line intersect method in forest fuel sampling. *Forest Science* 14: 20-26.

Biomass of standing dead wood is estimated using the allometric equation for live trees in the decomposition class 1. In decomposition class 2, the estimate of biomass was limited to the main trunk (bole) of the tree, in which case the biomass was calculated converting volume to biomass using dead wood density classes. Volume was estimated as the volume of a cone, as specified in the VM0007 module, “Estimation of carbon stocks in the dead wood pool.”

Density of dead wood is determined through sampling and laboratory analysis. Discs are collected in the field and decomposition class and green volume determined as per standard operating procedures. The resulting dry weight is recorded and used to calculate dead wood density as oven-dry weight (g) / green volume (cm³) for each sample.

Dry mass is converted to carbon using the default carbon fraction of 0.47 t C/t d.m. (as recommended by IPCC⁴³ Guidelines for National Greenhouse Gas Inventories).

Table 3.6. Data and Parameters for Monitoring Carbon Stocks Changes and GHG Emissions.

Parameter	Description	Units	Source/ Justification of Choice of Data or Description of Measurement Methods
CWP100,i	Carbon stock entering the wood products pool at the time of deforestation that is expected to be emitted over 100-years from stratum i	t CO ₂ -e ha ⁻¹	Calculated
ΔCAB_tree,i	Baseline carbon stock change in aboveground tree biomass in stratum i	t CO ₂ -e ha ⁻¹	Estimated from the forest carbon inventory
ΔCBB_tree,i	Baseline carbon stock change in belowground tree biomass in stratum i	t CO ₂ -e ha ⁻¹	Estimated from the forest carbon inventory
ΔCDW,i	Baseline carbon stock change in dead wood in stratum i	t CO ₂ -e ha ⁻¹	Estimated from the forest carbon inventory

⁴³ IPCC 2006 Guidelines for National Greenhouse Gas Inventories. Chapter 4 AFOLU (Agriculture, Forestry and Other Land-use).

Revision of the Baseline

The baseline will be revised every 10 years from the Project's start date. Should an analysis of proxy areas be warranted to estimate a rate of deforestation, the BL-PL module will be consulted. Data collection procedures in regard to revision of the baseline will include Participatory Rural Appraisals, along with interviews and collaboration with MADES, INFONA, and municipal officials, where warranted. Deforestation maps will be prepared by classifying remotely sensed imagery, if warranted, to assist with development of the revised baseline. Other datasets used to substantiate aspects of the baseline will be from official government sources, peer reviewed publications, or other reputable sources.

Table 3.7. Data and Parameters for Revising the Baseline.

Parameter	Description	Units	Source/ Justification of Choice of Data or Description of Measurement Methods
$\Delta\text{CBSL}_{\text{planned}}$	Net greenhouse gas emissions in the baseline from planned deforestation	t CO ₂ e	Calculated every 10 years
$\Delta\text{CBSL}_{i,t}$	Net carbon stock changes in all pools in the baseline stratum i at time t	t CO ₂ -e	Calculated every 10 years
$\text{GHGBSL-E}_{i,t}$	Greenhouse gas emissions as a result of deforestation activities within the project boundary in the baseline stratum i during project year t	t CO ₂ -e year ⁻¹	Calculated every 10 years
$\text{AA}_{\text{planned},i,t}$	Annual area of baseline planned deforestation for stratum i at time t	Ha	Calculated every 10 years
$\Delta\text{C}_{\text{stocks},i}$	Baseline carbon stock change in stocks in stratum i	t CO ₂ -e ha ⁻¹	Estimated from the forest carbon inventory.

Quality Assurance/Quality Control and Data Archiving Procedures

Monitoring Deforestation, Natural Disturbance, and Leakage

To ensure consistency and quality results, spatial analysts carrying out the imagery processing, interpretation, and change detection procedures will strictly adhere to best practices and good practice guidelines, when using the alternative method for quantifying deforestation. All data sources and analytical procedures will be documented and archived (detailed under data archiving below).

Accuracy of the classification, for both the baseline and monitoring, will be assessed by comparing the classification with ground-truth points or samples of high-resolution imagery. Any data collected from ground-truth points will be recorded (including GPS coordinates, identified land-use class, and supporting photographic evidence) and archived. Any sample points of high-resolution imagery used to assess classification accuracy will also be archived. Samples used to assess classification accuracy should be well-distributed throughout the Project Area (as far as is possible considering availability of high-resolution imagery and/or logistics of acquiring ground-truth data), with a minimum sampling intensity of 50 points each for the forest and non-forest classes.

The classification will only be used in the forest cover change detection step if the overall classification accuracy, calculated as the total number of correct samples / the total number of samples, is equal to or exceeds 90%.

All data sources and processing, classification and change detection procedures will be documented and stored in a dedicated long-term electronic archive.

Information related to monitoring deforestation maintained in the archive will include:

- Forest / non-forest maps;
- Documentation of software type and procedures applied (including all pre-processing steps and corrections, spectral bands used in final classifications, and classification methodologies and algorithms applied), if applicable; and
- Data used in accuracy assessment - ground-truth points (including GPS coordinates, identified land-use class, and supporting photographic evidence) and/or sample points of high-resolution imagery.

Forest Carbon Stocks and Degradation

The following steps will be taken to control for errors in field sampling and data analysis:

1. Trained field crews will carry out all field data collection and adhere to standard operating procedures. Pilot sample plots shall be measured before the initiation of formal measurements to appraise field crews and identify and correct any errors in field measurements. Field crew leaders will be responsible for ensuring that field protocols are followed to ensure accurate and consistent measurements. To ensure accurate measurements, the height of diameter at breast height (1.3 m) will be periodically re-assessed by personnel during the course of the inventory.

2. Field measurement data will be recorded on standard field data sheets and entered into an excel database for data management and quality control. Potential errors in data entry (anomalous values) will be verified or corrected consulting the original data sheets or personnel involved in measurement. Original data sheets will be permanently archived in a dedicated long-term electronic archive. The electronic database will also archive GIS coverages detailing forest and strata boundaries and plot locations.

Quality control procedures for sampling degradation will include steps 1 and step 3, above.

Personnel involved in the revising of the baseline will have detailed knowledge in regard to spatial modeling and land use change and deep familiarity with REDD methodologies. Remote sensing data used will include officially published dataset, or classified imagery, which meets accuracy assessment requirements as laid out in the methodology.

All measurement and monitoring equipment requiring calibration will be calibrated according to the equipment's specifications and/or relevant national or international standards.

Data Archiving

Data archived will be maintained through at least two years beyond the end of the Project's crediting period. All project records are secure and retrievable. This includes project documents saved on Quadriz staff computers. An identical version of the project documents is remotely saved on an external hard drive or in the cloud via DropBox (or a similar online storage platform). Furthermore, many project documents (e.g., VCS Project Description, Monitoring Reports, CCBS Project Design Document, Project Implementation Reports, Validation and Verification Reports, etc.) are publicly available and stored on both the Standards' and Quadriz's website.

Organization, Responsibilities, and Monitoring Frequency

For all aspects of project monitoring, Quadriz staff will ensure that data collection, processing, analysis, management and archiving are conducted in accordance with the monitoring plan.

Table 3.8. Type of Monitoring and Party Responsible for Monitoring.

Variables to be monitored	Responsible	Frequency
Monitoring deforestation and natural disturbance	Quadriz Paraguay S.A.	Prior to each verification
Monitoring illegal degradation	Quadriz Paraguay S.A.	Every two years
Monitoring project emissions	Quadriz Paraguay S.A.	Prior to each verification

Activity shifting leakage assessment	Quadriz Paraguay S.A.	Prior to each verification
Updating forest carbon stocks estimates	Quadriz Paraguay S.A.	At least every 10 years.
Revision of the baseline	Quadriz Paraguay S.A.	At least every 10 years.

3.1.4 Dissemination of Monitoring Plan and Results (VCS, 3.18; CCB, CL4.2)

The climate monitoring plan and its results, in addition to being incorporated in the CCB-VCS Monitoring Reports, were also incorporated into the Spanish and English Summary Documents. These Summary Documents were shared with stakeholders, including local communities, and are physically available at Quadriz's Asuncion offices. All of the Project's project documents, including monitoring results, are available online at the Verra Registry. Further, weblinks to the project documents were publicly distributed during the CCBS Public Comment Period and are available on Quadriz's websites.

3.2 Quantification of GHG Emission Reductions and Removals

3.2.1 Baseline Emissions (VCS, 3.15)

Emissions for the baseline project activities are found in Table 3.9 below. These baseline emissions were derived from Section 3.2 of the VCS PD and are set at the time of initial project validation.

Table 3.9. Baseline emissions in the Project Area.

Year	$\Delta\text{CBSL,PA,planned}$
2020	286,132
2021	710,712
2022	1,273,924
2023	1,718,731
2024	1,351,192
2025	547,113
2026	130,617
2027	130,617
2028	130,617

2029	130,617
2030	124,702
2031	109,734
2032	80,638
2033	40,548
2034	10,252
2035	0
2036	0
2037	0
2038	0
2039	0
2040	0

3.2.2 Project Emissions (VCS, 3.15)

Project emissions are estimated by applying module M-REDD (VMD0015, Version 2.2) of Methodology VM0007.

Deforestation Data

The land cover data for monitoring deforestation was produced using ortho-rectified Sentinel 2 imagery with 10m spatial resolution, acquired on January 5, 2026, with 0% of cloud cover. Sentinel 2 imagery was used to monitor deforestation, as opposed to LandSat imagery, as allowed by the methodology⁴⁴ because “it is possible to change the source of the remotely sensed data” where “remotely sensed data [has] become available from new and higher resolution sources” during the monitoring period. This data was processed on the Google Earth Engine platform as described below.

To enhance the separability between dense forest, shrubland, and bare soil, the classification model utilized a composite of spectral bands (Blue, Green, Red, NIR, SWIR) augmented with calculated spectral indices:

- NDVI (Normalized Difference Vegetation Index): For general vegetation vigor.

⁴⁴ See Step 1VMD0015, v2.2

- MNDWI (Modified Normalized Difference Water Index): To improve water and wetland detection.
- EVI (Enhanced Vegetation Index): To minimize saturation in high-biomass forest areas.
- BSI (Bare Soil Index): To distinguish bare ground from built-up features.

Training samples were generated using a semi-automated approach to minimize sampling bias while incorporating local expert knowledge. First, 800 training points were generated from the Dynamic World dataset (Google/WRI). A stratified random sampling was performed, filtering only pixels where the model confidence exceeded 60% to ensure high-quality reference data. This dataset was augmented with 200 manual control points defined by the analyst. This step was crucial to correctly characterize transition zones and specific spectral signatures of the Dry Chaco that are often misclassified by global models, for a total of 1,000 training points balanced between Forest and Non-forest classes. The forest and non-forest map was elaborated by grouping the Forest and Palms classes into the Forest class and the remaining Others class to the Non-forest class.

The deforestation in the Project Area is derived by subtracting a) the non-forested area at the time of the last monitoring period from b) the non-forested area at the end of this monitoring period. Figure 3.1a shows the area of deforestation in the Project Area for this monitoring period and figure 3.1b shows all the deforestation in the Project Area by monitoring period. Figure 3.2a shows the initial benchmark map and forest cover at the start of the monitoring period. Figure 3.2b shows the forest benchmark map at the end of the 2024-25 monitoring period, which was produced using the aforementioned approach.

The Project Area was used to clip the results of the forest/non-forest classification, such that only Forest/Non-forest areas within the Project Area remained. Next, a union of 2023 land cover results was performed with the 2024-2025 non-forest layer. This union layer allows stratification of the non-forest class by year. An intersect with the forest strata layer was then performed. Finally, the forest class and deforestation which occurred prior to this monitoring period was removed, thus leaving the amount of deforestation by strata which occurred during the course of this monitoring period. This above process ensures consistent GHG emission and removal estimates such that an area cannot be deforested twice in the with-project case.

Figure 3.1a. Map of the deforestation over the project strata in the current monitoring period in the Project Area.

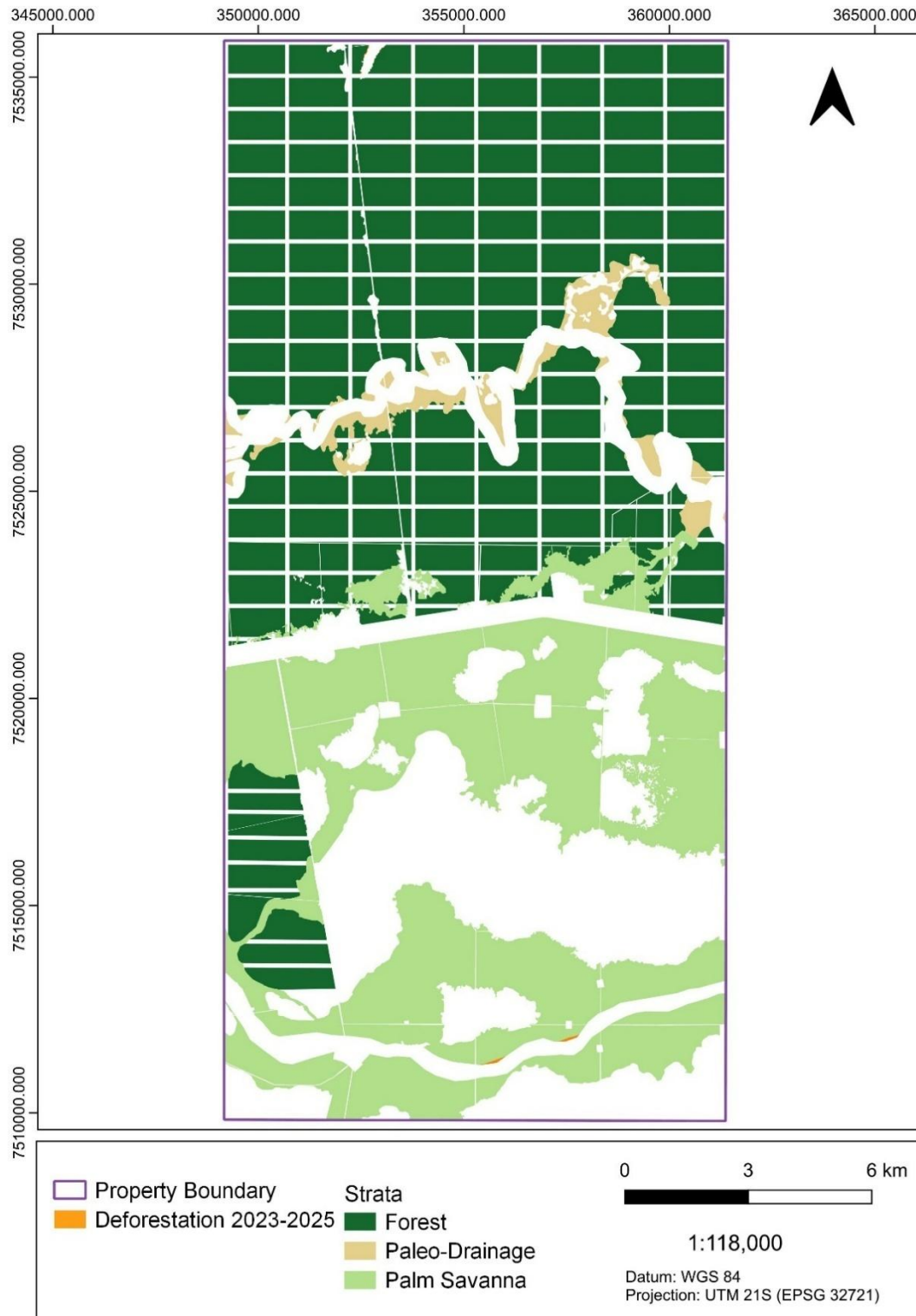


Figure 3.1b. Map of the deforestation over the project strata in the different monitoring periods in the Project Area

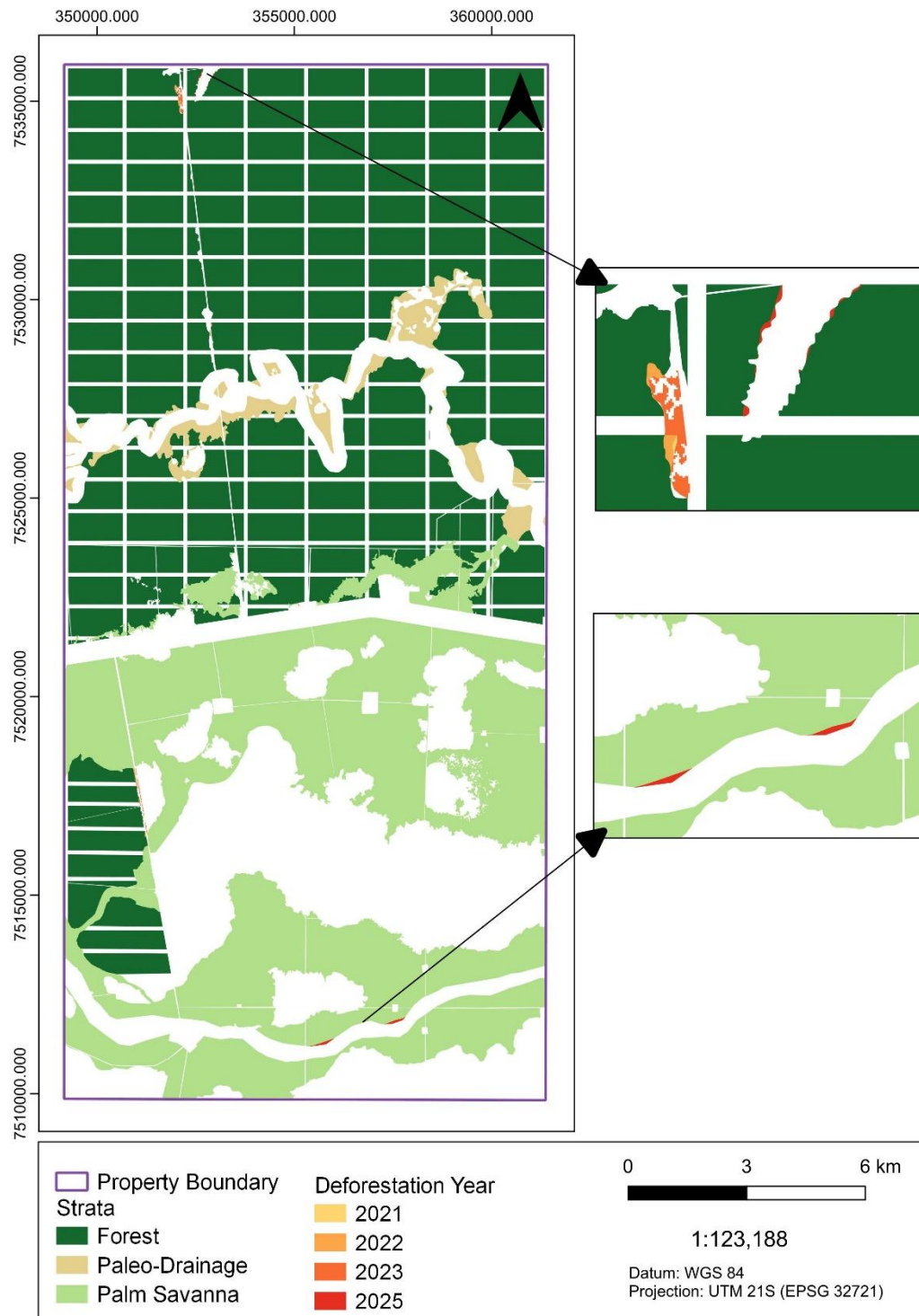


Figure 3.2a. Existing forest cover at the end of the last monitoring period and start of the current monitoring period.

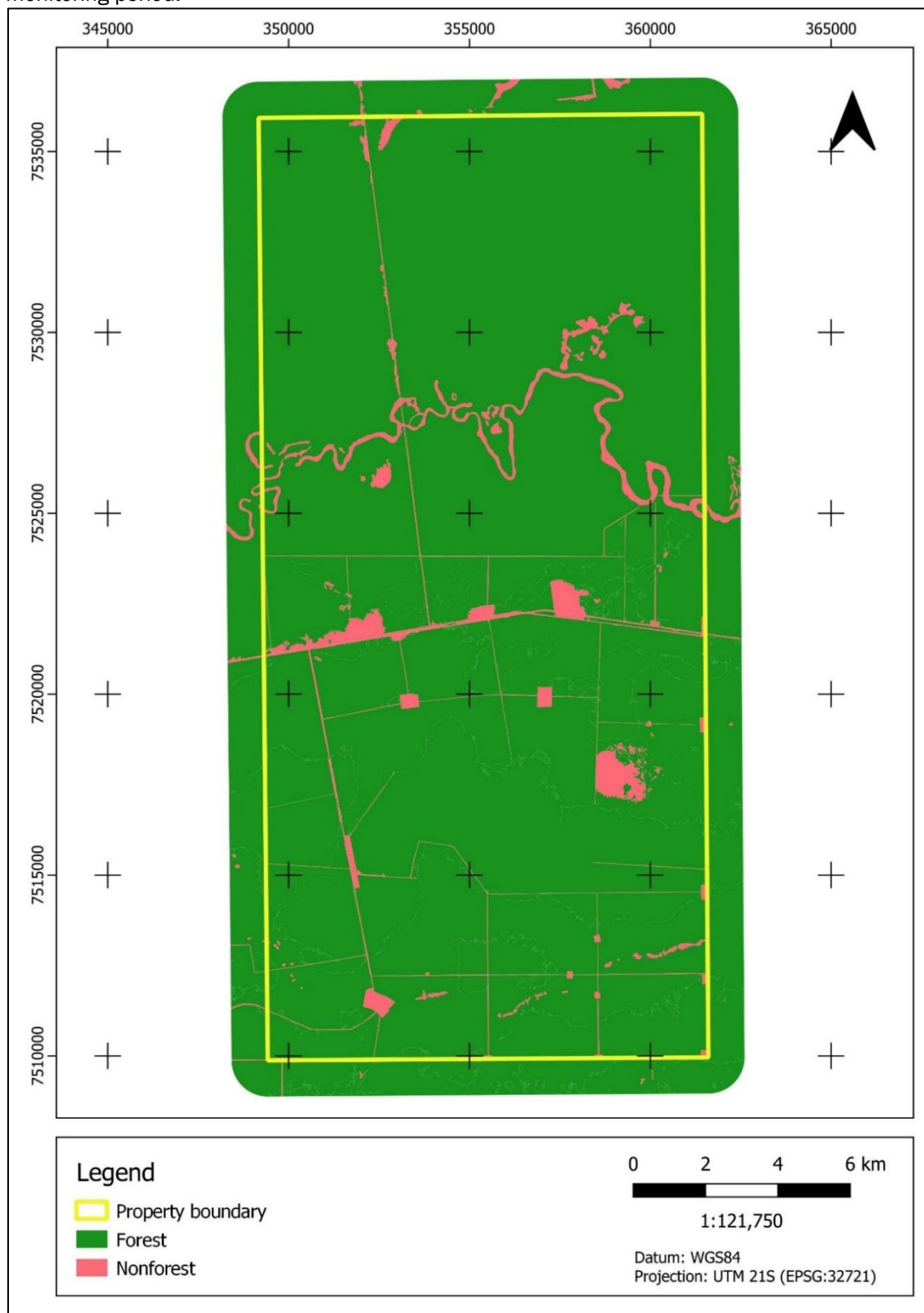
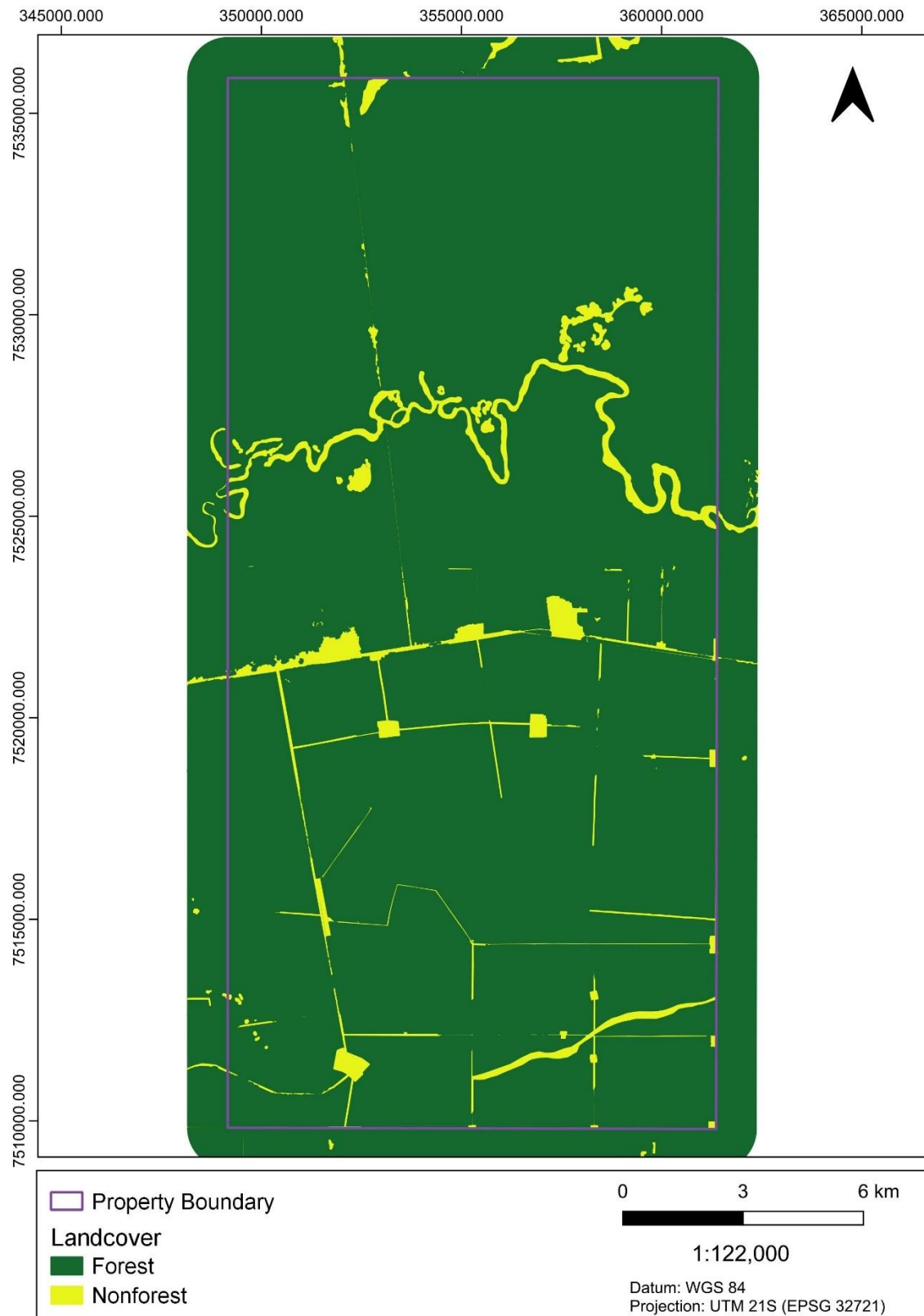


Figure 3.2b. Existing forest cover at the end of current monitoring period.



Accuracy Assessment

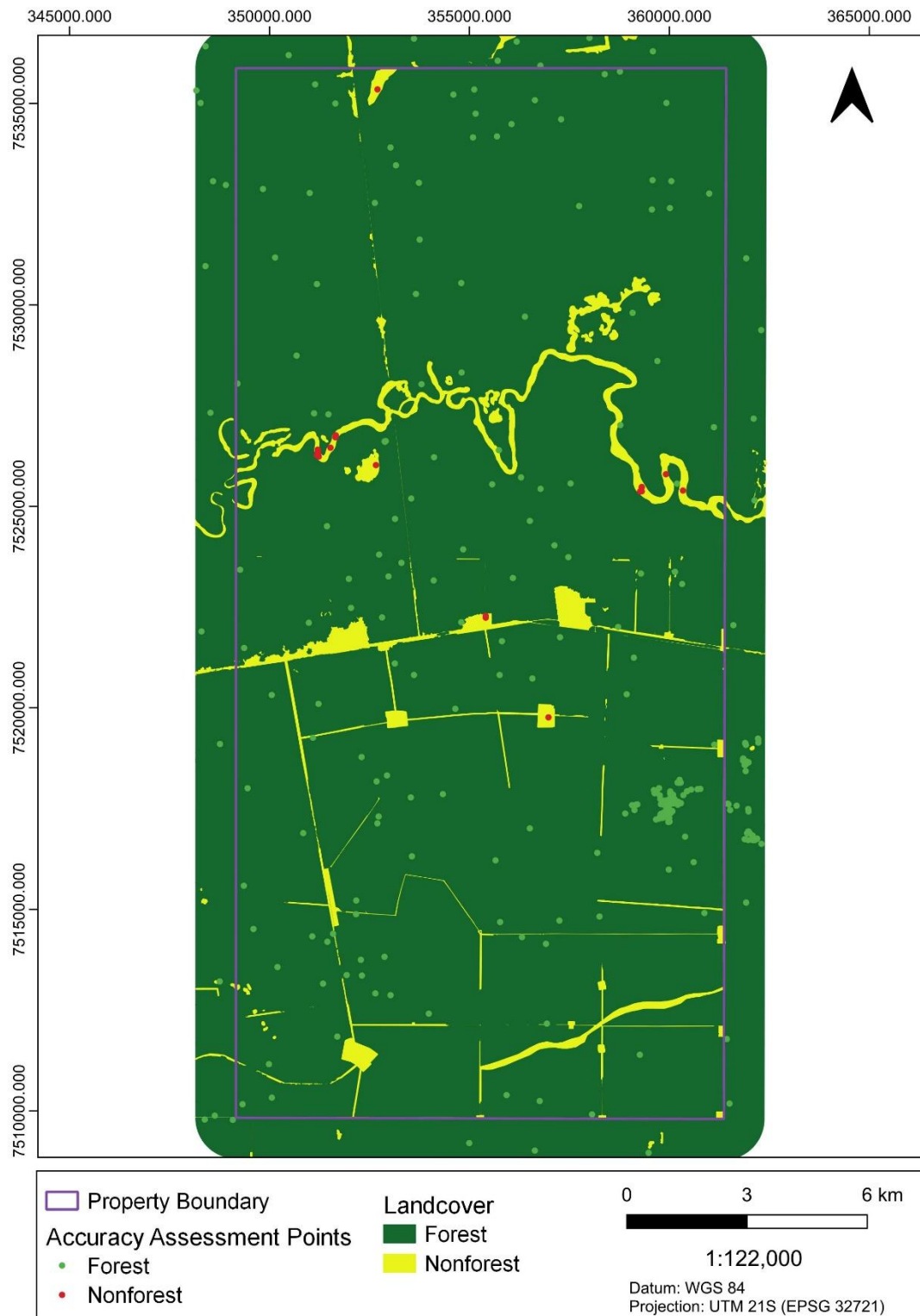
To evaluate the reliability of the automated model, a "split-validation" protocol, which employs independent datasets for training and validation, was implemented within GEE prior to the manual refinement stage. A data splitting approach was employed in which the reference dataset was randomly divided into two independent subsets: 70% for training the classifier and 30% for validation. A confusion matrix was generated to calculate the Overall Accuracy and the Kappa Coefficient, providing a statistical measure of the model's performance against the reference data. The assessment yielded an Overall Accuracy of 97.35%, indicating a very high degree of agreement between the reference data and the model's predictions. Furthermore, the Kappa Coefficient of 0.9470 confirms the excellent classification performance.

The confusion matrix demonstrates robust separability between the two classes. Out of 154 forest validation points, only 6 were misclassified, indicating a very low omission error for the Forest class. Similarly, commission errors were minimal, with only 2 Non-forest points mislabeled as Forest. The classification will only be used in the forest cover change detection step if the overall classification accuracy, calculated as the total number of correct samples/ the total number of samples, is equal to or exceeds 90%. The accuracy of the 2024-2025 classification meets this criteria, with an overall accuracy of 97.35%.

Results of the accuracy assessment are presented in the matrix below.

		Reference data		Total	User Accuracy
Classification		Forest	Non-forest		
Map data	Forest	146	2	148	98.6%
	Non Forest	6	148	154	96.1%
	Total	152	150	302	
	Producer Accuracy	96.05%	98.67%		97.35%

Figure 3.3. Distribution of accuracy assessment points in the classification area.



Equation 3.5 is used to calculate ex-post project emissions, along with parameters listed in Table 3.10.

Equation 3.5. Equation for calculating the net GHG emissions within the project area under the Project scenario.

$$\Delta C_{WPS-REDD} = \sum_{t=1}^{t^*} \sum_{i=1}^M (\Delta C_{P,DefPA,i,t} + \Delta C_{P,Deg,i,t} + \Delta C_{P,DistPA,i,t} + GHG_{P-E,i,t} - \Delta C_{P,Enh,i,t})$$

Table 3.10. Parameters used to calculate ex-post project emissions.

Parameter	Description
$\Delta C_{WPS-REDD}$	Net greenhouse gas emissions within the project area under the project scenario; t CO ₂ e
$\Delta C_{P,DefPA,i,t}$	Net carbon stock change as a result of deforestation in the project area in the project case in stratum i at time t; t CO ₂ e
$\Delta C_{P,Deg,i,t}$	Net carbon stock change as a result of degradation in the project area in the project case in stratum i at time t; t CO ₂ e
$\Delta C_{P,DistPA,i,t}$	Net carbon stock change as a result of natural disturbance in the project area in the project case in stratum i at time t; t CO ₂ e
$GHG_{P-E,i,t}$	Greenhouse gas emissions as a result of deforestation and degradation activities within the project area in the project case in stratum i in year t; t CO ₂ e
$\Delta C_{P,Enh,i,t}$	Net carbon stock change as a result of forest growth and sequestration during the project in areas projected to be deforested in the baseline in stratum i at time t; t CO ₂ e

Deforestation

Emissions resulting from deforestation in the with-project case ($\Delta C_{P,DefPA,i,t}$) are calculated as the area of deforestation ($A_{DefPA,u,i,t}$) multiplied by the net change in carbon stocks. All parameters in Table 3.11 are sourced from Section 3.1.1 and 3.1.2 of this report. The area deforested was derived from the 2023 forest/nonforest land cover layer (see above for detail) combined with the original strata map. CBSL, Cpost, and Cwp values were those derived in the original forest inventory and the project document, respectively.

Table 3.11. Net carbon stock change (t CO₂-e) as a result of deforestation in the project area ($\Delta C_{P,DefPA,i,t}$).

Year	Paleo- Drainage e $A_{DefPA,u,i,t}$ (ha)	Palm Savanna a $A_{DefPA,u,i,t}$ (ha)	Forest $A_{DefPA,u,i,t}$ (ha)	Paleo- Drainage e $CBSL,i$ (t CO ₂ -e/ha)	Palm Savanna a $CBSL,i$ (t CO ₂ -e/ha)	Forest $CBSL,i$ (t CO ₂ -e/ha)	Cpost (t CO ₂ -e/ha)	CWP,i With Project (t CO ₂ -e/ha)	$\Delta C_{P,DefPA,i,t}$ (t CO ₂ -e)
2024	0.00	2.29	0.45	132.1	136.7	433.2	0.0	0.0	508.1
2025	0.00	2.29	0.45	132.1	136.7	433.2	0.0	0.0	508.1

5.47 ha of deforestation were recorded in the Project Area over this monitoring period. As the amount of deforestation in the baseline over 2024-2025 (i.e. this monitoring period) was 4,600 ha ($A_{Planned,i,t}$), Project activities contributed to a reduction in deforestation of 4,594.5 ha.

Degradation

Net carbon stock change accounted as a result of degradation in the Project Area ($\Delta C_{P,Deg,i,t}$) is limited to emissions resulting from degradation due to illegal logging ($\Delta C_{P,DegW}$). No commercial logging occurs in the with-project case (i.e., $\Delta C_{P,SelLog,i,t}$ is equal to zero). PRA degradation surveys conducted in the Project Zone indicated no local communities were reliant on the Project Area for charcoal, fuelwood, or timber. The net carbon stock change as a result of degradation in the Project Area ($\Delta C_{P,Deg,i,t}$) is therefore equal to zero for the 2024-2025 monitoring period.

Natural Disturbance

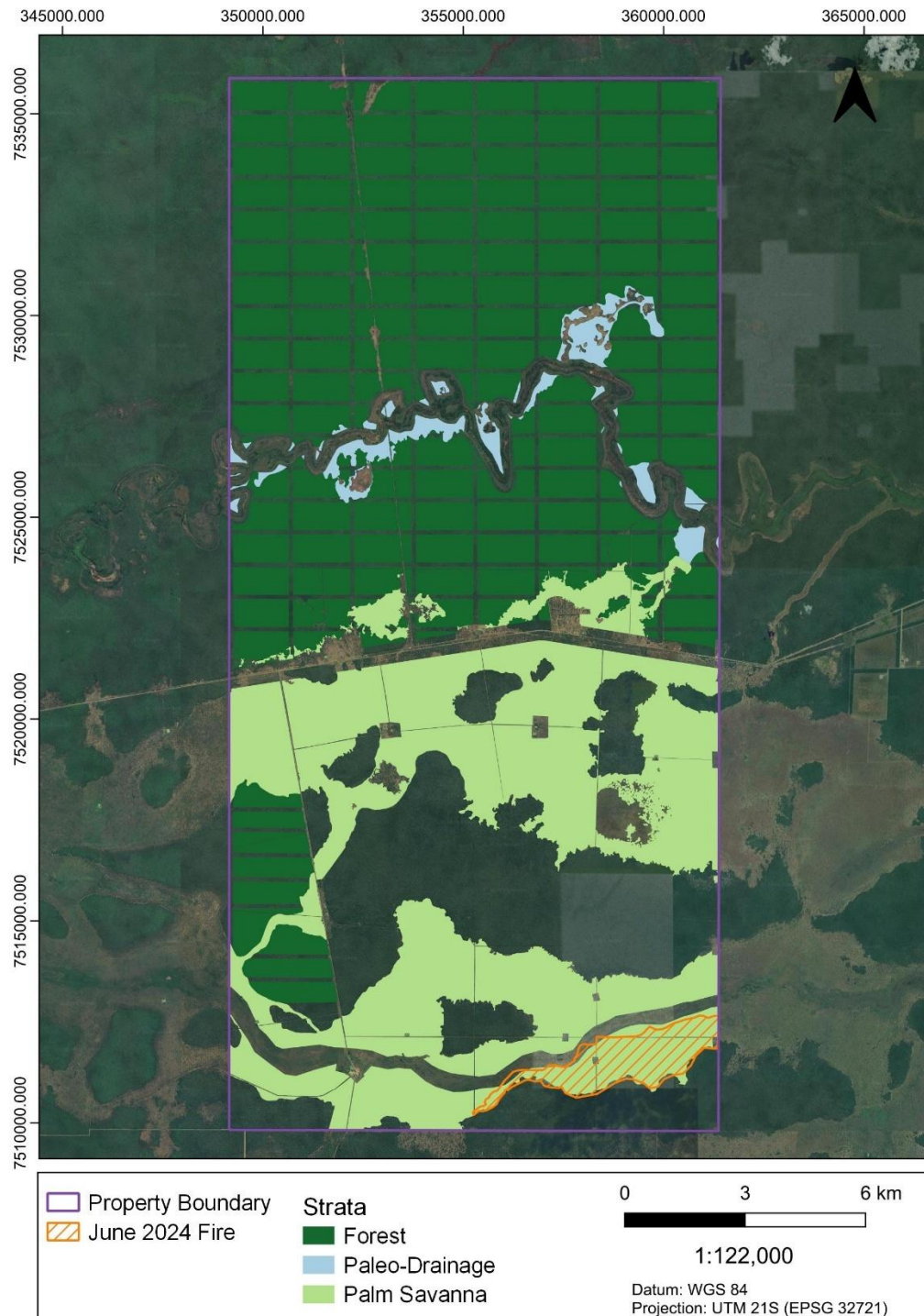
Fires play a key role in the maintenance of savannas and grasslands in the region.⁴⁵ Fast moving, low-intensity fires that burn primarily dry grass as fuel are common in the palm savanna ecosystem type, in which the dominant tree species is the palm species *Coperinica alba* (Figure 3.4). During the current monitoring period, a fire occurred in the Project Area from June 8 to 9, 2024. The fire originated on an adjacent property southeast of the Project Area, and despite the firebreaks being in good condition, the fire affected approximately 512 ha of palm savanna within the property, 449 of which were within the crediting area (Figure 3.5).

Figure 3.4. Palm savanna within the project area. Note the burn scars near on some of the trees.



⁴⁵ Vidal-Riveros, C., Souza-Alonso, P., Bravo, S., Laino, R., and Ngo Bieng, M.A. (2023). A review of wildfires effects across the Gran Chaco region. *Forest Ecology and Management*. <https://doi.org/10.1016/j.foreco.2023.121432>

Figure 3.5. Spatial extent of the June 2024 fire in the Project Area.



Fire is a historically common disturbance agent to the dry and humid Chaco, where it is often limited to the grasses of the palm savanna. Cisz (2011) stipulates “*C. alba* is resistant to most fires in the savannas, which can spread quickly by wind and are of light intensity.”⁴⁶ Cisz goes on to describe fires important effect on palm savannas dominated by *Copernicia alba* palm:

Fire disturbance could affect mortality or trigger seed germination similar to moisture availability (Neiff 2001). As many savanna fires are light in intensity and move fairly fast using grass as the primary fire fuel, this could provide an environment of reduced competition for the seedlings. Fires can enhance soil quality at a local scale level through the addition of available nutrients. For established plants such as the juveniles, fire could stimulate growth whether it be from increased nutrient loads in soils or from hypercellular repair mechanisms. For adults, fire could possibly stimulate the production of fruit. In relation to plant to plant interactions, annual fires may cause dieback, maintaining woody species in the understory, which ultimately could affect competition of juveniles (Hoffmann 1999; Cabral 2003). Although savanna fires can drive vegetation and trees to cluster at the landscape scale (Fulé & Covington 1998; Caylor 2006), fire impacts at a local scale are less predictable.

Low-intensity fires, such as the June 2024 fire, rarely kill *Copernicia alba*, even as small trees, and this species is by far the dominant species in both the palm savannas that burned in the current monitoring period.

While the grasses in the palm savanna burned, an assessment of the woody vegetation on the ground did not indicate any tree mortality or significant loss of woody biomass. The fire event report documents the location of the fire and includes imagery showing herbaceous regrowth in the fire zone by September 2024.⁴⁷

Few if any trees (>5 cm dbh) died such that emission resulting from loss of the aboveground biomass has been reported as zero ($\Delta\text{CP,DistPA}_{\text{aboveground}} = 0 \text{ tCO}_2/\text{ha}$). Emissions due to fire disturbance were limited to the dead wood and litter pools during the 2024-2025 monitoring period and can be considered de minimis as these emissions when conservatively estimated represent at most 2.9% of net emissions. In line with methodological guidance, found in VMD0015, v2.2, “Emissions resulting from natural disturbances may be omitted if they are deemed de minimis through the use of Tool T-SIG.” As there was no loss of woody biomass (i.e., $\Delta\text{CP,DistPA}_{\text{aboveground}}$ is 0, $\Delta\text{CP,DistPA}_{\text{litter}}$ is de minimis, and $\Delta\text{CP,DistPA}_{\text{deadwood}}$ is de minimis) net

⁴⁶ Cisz, M.E. (2011). The spatial distribution of *Copernicia alba* (Morong) in the district of Bahia Negra, Paraguay. Master’s Thesis. Michigan Technological University.

⁴⁷ The fire report (Reporte de incendio_Jun 2024.pdf) can be found in the project database.

carbon stock changes resulting from natural disturbance in the Project Area in the Project case are reported to be zero (i.e., $\Delta C_{P,DistPA,i,t} = 0$).

GHG Emissions

As fire is commonly used to clear land, N₂O and CH₄ emissions from biomass burning have been accounted for. Using parameters found in Section 3.1.1 and Table 3.3, emissions from biomass burning (EBB) were calculated as the product of the area burned, the aboveground carbon stocks, a combustion factor, a GHG emission factor, and the global warming potential. It was conservatively assumed that $A_{burn,i,t} = A_{DefPA,u,i,t}$ (i.e., all areas deforested in the Project Area were burnt).

Table 3.12. Calculation of E-BiomassBurning in the Project Area.

Year	Paleo-Drainage ADefPA ,u,i,t (ha)	Palm Savanna ADefPA, u,i,t (ha)	Forest ADefPA A,u,i,t (ha)	Paleo-Drainage B,i,t (t d.m./ha)	Palm Savanna B,i,t (t d.m./ha)	Forest B,i,t (t d.m./ha)	E-N ₂ O Biomass Burnin g (tCO ₂ e)	E-CH ₄ Biomass Burning (tCO ₂ e)	E- Biomass Burning (tCO ₂ e)	GHGP -E,i,t (t CO ₂ - e)
2024	0.00	2.29	0.45	63.7	65.0	207.3	6.4	23.1	29.5	29.5
2025	0.00	2.29	0.45	63.7	65.0	207.3	6.4	23.1	29.5	29.5

As justified in Section 3.1.1, total Project GHG emissions (GHGP) equal emissions from biomass burning (EBB) as other sources are equal to zero.

Forest Growth and Sequestration

As stated in the Project document, it is conservative to exclude forest growth and sequestration during the project, hence the parameter $\Delta C_{P,Enh,i,t}$ has been set to zero.

Net Project Emissions

Net emissions within the Project Area are calculated in Table 3.13.

Table 3.13. Net project emission within the Project Area, ΔC_P (t CO₂-e).

Year	$\Delta C_{P,DefPA,i,t}$ (t CO ₂ -e)	$\Delta C_{P,Deg,i,t}$ (t CO ₂ -e)	$\Delta C_{P,DistPA,i,t}$ (t CO ₂ -e)	GHGP-E,i,t (t CO ₂ -e)	$\Delta C_{P,Enh,i,t}$ (t CO ₂ -e)	$\Delta C_{WPS-REDD}$ (t CO ₂ -e)
2024	508.1	0.0	0.0	29.5	0.0	537.6
2025	508.1	0.0	0.0	29.5	0.0	537.6

3.2.3 Leakage Emissions (VCS, 2.5, 3.2, 3.6, 3.15, 4.3)

Leakage emissions from displacement of planned deforestation are estimated in conformance with the VCS modular REDD methodology VM0007, specifically the LK-ASP module and LK-ME

module. These modules provide for the accounting of activity shifting leakage resulting from the actions of the agent of deforestation and market effects leakage.

Activity Shifting Leakage

Activity-shifting leakage was tracked by monitoring areas of deforestation ($A_{defLK,i,t}$), across all lands outside of the Project Area owned or under management by the baseline agent. The parameter, $NewRi,t$ or the calculated forest clearance by the baseline agent of the planned deforestation was determine in Section 3.2.3 of the Project Description for the entire baseline period. Activity-shifting leakage ($LKA_{planned,i,t}$) is calculated as the area of leakage in the with-project case ($A_{defLK,i,t}$) minus the leakage baseline ($NewRi,t$). Leakage emissions were then calculated as the difference between stocks before and after deforestation, as for project emissions. Emissions due to biomass burning were also calculated as per the procedures in the E-BB module. CBSL and Cpost values were those derived in the original forest inventory and the project document, respectively.

Table 3.14. Calculation of the area of activity shifting leakage and associated leakage emissions.

Year	$A_{defLK,i,t}$ (ha)	$NewRi,t$ (ha)	$LKA_{planned,i,t}$ (ha)	$\Delta CBSL_i$ (t CO ₂ - e/ha)	E-N ₂ O Biomass Burning (tCO ₂ e)	E-CH ₄ Biomass Burning (tCO ₂ e)	E- Biomass Burning (tCO ₂ e)	GHGLK- E,i,t (t CO ₂ -e)	ΔCLK - AS,planned (t CO ₂ - e)
2024	279,334.8	642,813	0.0	317.2	0.0	0.0	0.0	0.0	0.0
2025	279,334.8	642,813	0.0	317.2	0.0	0.0	0.0	0.0	0.0

Market Leakage

Market leakage values calculated ex-ante (in Section 3.2.3 of the PD) are also used ex-post as no with project harvesting of timber, fuel wood or charcoal is destined for commercial markets. Please see Table 3.15 for market leakage estimates.

Table 3.15. Market leakage estimates for the first baseline period.

Year	ΔCLK -ME (t CO ₂ -e)
2020	0
2021	0
2022	0
2023	0
2024	0
2025	0
2026	0
2027	0
2028	0
2029	0
2030	0

Total Leakage

Total project leakage for this monitoring period is calculated as the sum of activity shifting leakage and market effects leakage (Table 3.16).

Table 3.16. Estimation of total leakage due to the displacement of planned deforestation.

Year	ΔCLK-AS,planned (t CO ₂ -e)	ΔCLK-ME (t CO ₂ -e)	ΔCLK (t CO ₂ -e)
2024	0	0	0
2025	0	0	0

3.2.4 GHG Emission Reductions and Carbon Dioxide Removals (VCS, 3.15, 4.1)

State the non-permanence risk rating (%)	19%
Has the non-permanence risk report been attached as either an appendix or a separate document?	☒ Yes ☐ No
For ARR and IFM projects with harvesting, state, in tCO ₂ e, the Long-term Average (LTA).	Not applicable.
Has the LTA been updated based on monitored data, if applicable?	☐ Yes ☒ No Not applicable.
State, in tCO ₂ e, the expected total GHG benefit to date.	4,859,342 tCO ₂ e (July 1, 2020 - December 31, 2025)
If a loss occurred (including a loss event or reversal), state the amount of tCO ₂ e lost:	Not applicable.

Vintage period	Baseline emissions (tCO ₂ e)	Project emissions (tCO ₂ e)	Leakage emissions (tCO ₂ e)	Buffer pool allocation (tCO ₂ e)	Reductions VCU (tCO ₂ e)	Removals VCU (tCO ₂ e)
01-Jul-2020 to 31-Dec-2020	286,132	18	0	38,625	247,488	0
01-Jan-2021 to 31-Dec-2021	710,712	37	0	95,941	614,734	0
01-Jan-2022 to 31-Dec-2022	1,273,924	1,452	0	152,706	1,119,766	0

01-Jan-2023 to 31-Dec-2023	1,718,731	0	0	378,121	1,340,610	0
01-Jan-2024 to 31-Dec-2024	1,351,192	538	0	256,230	1,094,024	0
01-Jan-2025 to 31-Dec-2025	547,113	538	0	103,855	442,720	0
Total	5,887,803	2,583	0	1,025,878	4,859,342	0

Vintage period	Ex-ante estimated reductions/removals	Achieved reductions/removals	Percent difference	Explanation for the difference
01-Jul-2020 to 31-Dec-2020	286,132	286,113	-0.006%	There was a negligible difference.
01-Jan-2021 to 31-Dec-2021	710,712	710,675	-0.005%	There was a negligible difference.
01-Jan-2022 to 31-Dec-2022	1,273,924	1,272,472	-0.114%	There was a negligible difference.
01-Jan-2023 to 31-Dec-2023	1,718,731	1,718,731	0%	There was no difference.
01-Jan-2024 to 31-Dec-2024	1,351,192	1,350,654	-0.040%	There was a negligible difference.
01-Jan-2025 to 31-Dec-2025	547,113	546,575	-0.098%	There was a negligible difference.
Total	5,887,803	5,885,221	-0.044%	There was a negligible difference.

3.3 Optional Criterion: Climate Change Adaptation Benefits

3.3.1 Activities and/or processes implemented for Adaptation (CCB, GL1.3)

Not applicable - The Project does not seek to be validated nor verified to the Gold Level for climate change adaptation benefits.

4 COMMUNITY

4.1 Net Positive Community Impacts

4.1.1 Community Impacts (CCB, CM2.1)

The community groups at Maria Auxiliadora – which could be categorized as ranchers, farmers, merchants (or traders), and subsistence hunters or as the five ethnic groups known as the Maskoi, Angaite, Zanapana, Guana, and Toba – are not being considered as distinct community groups because these community groups are all considered as harmonious community members of Maria Auxiliadora. Thus, the following will refer to all community groups living at the Maria Auxiliadora community and will describe all the impacts resulting from Project activities under the with-project scenario:

Community group	All community groups living throughout the Project Zone. This will initially include the Maria Auxiliadora community and possibly include the San Isidro community in the future, if the community chooses to participate in the Project.
Impact	The initial project instance's impact on the Maria Auxiliadora community will be better access to health services and improved health as a result of the Chaco Alert Program. This includes access to doctors and potentially life-saving medicine (i.e., anti-venom). Although Chaco Alert is a future activity, Quadriz consulted with the Maria Auxiliadora community and provided orientation to the Project throughout 2020-2025, including during the 2024-2025 monitoring period. In 2022-2023, additional work was done on Chaco Alert (e.g., identifying landing sites, plane designs, discussions with pilots, etc.). In 2024-2025: • In February 2024, discussions began with the Ministry of Public Health and Social Welfare (MSPBS) and its Extrahospital Medical Emergency Service (Servicio de Emergencias Médicas Extrahospitalarias, SEME). In June 2024, talks began with the Paraguayan Air Force (FAP). These institutions are currently working in a coordinated and efficient manner on emergency air transfers in Paraguay; • A draft of the "Framework Agreement for Cooperation and Interinstitutional Support" was prepared, and it was decided by the three parts that it would be a tripartite agreement between Quadriz Paraguay S.A., MSPBS and FAP; and • During 2025, the team focused on legal review, formalization of the agreement, and operational coordination. An adjusted version of the agreement and legal information were

	submitted to the MSPBS between March - April 2025. In August 2025, Quadriz received a Favorable Technical Opinion on the agreement. In September 2025, the proposed agreement was submitted to the FAP to move towards signing and program implementation. In December 2025, Quadriz received from FAP a Favorable Technical Opinion.
Type of benefit/cost/risk	Chaco Alert is a predicted, direct benefit to the local community at Maria Auxiliadora as it will provide potentially life-saving health services. It is anticipated that the new version of the Chaco Alert program will begin Q4 2025 and the benefits from the Chaco Alert program will be monitored via the Chaco Alert survey (see section 4.3.1 for more details). Although not related to Chaco Alert, one direct health-related community impact that was provided in 2022 (i.e., during the previous monitoring period) for the Maria Auxiliadora community was land preparation for vegetable gardens and the delivery of vegetable garden seeds. This impact also carried over to 2024-2025 (i.e., the current monitoring period). Further, in September 2024, a total of 18 people from the Maria Auxiliadora community received training in first aid and environmental education which was provided as part of the Project's activities.
Change in well-being	The community's change in well-being will be the result of having access to professional doctors, dentists and nurses, along with evacuation services with the emergency airplane.

Community group	All community groups living throughout the Project Zone. This will initially include the Maria Auxiliadora community and possibly include the San Isidro community in the future, if the community choses to participate in the Project.
Impact	The initial project instance's impact on the Maria Auxiliadora community will be increased and diversified income through employment opportunities offered to the Maria Auxiliadora community. Although there are few employment opportunities associated with the initial project instance, Quadriz consulted with the Maria Auxiliadora community and provided orientation to the Project, including about potential future employment opportunities, throughout 2020-2025 including during the 2024-2025 monitoring period.
Type of benefit/cost/risk	Employment opportunities are a predicted, direct benefit to the community at Maria Auxiliadora as it will provide both increased and diversified incomes.
Change in well-being	The community's change in well-being will be the result of having access to professional employment opportunities, increased and diversified incomes, trainings, and promotional opportunities.

Community group	All community groups living throughout the Project Zone. This will initially include the Maria Auxiliadora community and possibly include the San Isidro community in the future, if the community chooses to participate in the Project.
Impact	The initial project instance's impact on the Maria Auxiliadora community will be increased awareness and educational opportunities as a result of the Project's outreach and Visitor Center. Although a Visitor Center is a future activity, Quadriz consulted with the Maria Auxiliadora community and provided orientation to the Project throughout 2020-2025, including during the 2024-2025 monitoring period. In 2022, Quadriz also provided the Maria Auxiliadora community with school materials and a computer for the community. In 2022, the main activity related to the Visitor Center was the restoration of its infrastructure. This includes, but is not limited to, acquiring: furniture, a water well, a solar panel, a generator, Wi-Fi service, construction of the manager's house, and equipment for visitors (e.g., crockery, towels, and sheets). In 2023, a plan for the Visitor Center was developed, including the design of posters with a content proposal. Photos and videos from the Project's wildlife cameras traps were selected and ideas for the development of audiovisual materials for the Visitor Center were established. A trip to record environmental surrounding sounds of the Project has been done, and sounds are going to be available to use in the audiovisual materials of the Visitor Center. This was in the framework of a Master's degree thesis. Regarding equipment, facilities were remodeled to host visitors and the infrastructure of the area was completed in 2023. In 2024 and 2025, Quadriz started with the construction and improvement of the Visitor Center, including: • A new house was built with the required equipment (e.g., kitchen, bathroom, etc.) for Quadriz employees, as well as 2 more independent rooms; • An appropriate storage for tools and fuel; • Improvement of facilities in guards' house in the East entrance (e.g., new toilet, new kitchen, 2 bedrooms, water reservoir, mosquito netting around the house); • New antenna to facilitate communication; • Maintenance of main routes and access; • Maintenance of roof of the Visitor Center; • Internet access all the time by Starlink services; and • Exclusive truck for the Project.

	In 2024-2025, Quadriz also prepared some materials to be printed for the Visitor Center, that gives information about the Endangered Species: jaguar (<i>Panthera onca</i>), giant anteater (<i>Myrmecophaga trydactyla</i>), tapir (<i>Tapirus terrestris</i>), maned wolf (<i>Chrysocyon brachyurus</i>), white-lipped peccary (<i>Tayassu pecari</i>) and giant armadillo (<i>Priodontes maximus</i>). Although not related to the Visitor Center, Quadriz provided financial resources to three university students from the Maria Auxiliadora community during the 2024-2025 monitoring period.
Type of benefit/cost/risk	The Visitor Center is a direct and indirect benefit to the community at Maria Auxiliadora as it will provide a range of educational opportunities about the Chaco, the local cultures, and the local biodiversity.
Change in well-being	The community's change in well-being will be the result of having access to educational opportunities provided at the Visitor Center.

Community group	All community groups living throughout the Project Zone. This will initially include the Maria Auxiliadora community and possibly include the San Isidro community in the future, if the community choses to participate in the Project.
Impact	The initial project instance's impact on the Maria Auxiliadora community will be increased tree canopy cover and availability of Chaco Forest habitat, which will be more extensive in the initial Project Zone than in the without-project scenario of deforestation. Thus, in the baseline scenario, in the event of no REDD+ project, the landowner would have sold the land to a land purchaser who would have submitted a request to convert up to 75% of the native forest into a cattle ranch. Throughout 2020-2025, including during the 2024-2025 monitoring period, it was monitored and demonstrated that tree canopy cover and the availability of Chaco Forest habitat was greater in the with-project scenario than in the without-project scenario.
Type of benefit/cost/risk	Increased tree canopy cover and availability of Chaco Forest habitat is an indirect benefit to the community at Maria Auxiliadora.
Change in well-being	The community's change in well-being will be the result of, for example: ongoing deforestation at the Project Area would further shrink and degrade the habitat provided by the Chaco Forest, which could lead to fewer opportunities for subsistence hunting for the Maria Auxiliadora community (e.g., due to the spillover effect where in the with-project scenario, wildlife is provided a safe refuge within the Project Area and then such wildlife "spills over" to the Maria Auxiliadora community where the community could undertake

	subsistence hunting.⁴⁸ Also, some wildlife that is hunted outside of the Project Area – such as peccaries - have a wide range and that by preserving the Project Area, the population of this wildlife increases and this is a positive impact on the communities); and similarly, without the Project’s monitoring for outside encroachment, there could be an increase in poaching and illegal logging in the without-project scenario both at the Project Area and at the community of Maria Auxiliadora.
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Community group	All community groups living throughout the Project Zone. This will initially include the Maria Auxiliadora community and possibly include the San Isidro community in the future, if the community choses to participate in the Project.
Impact	The initial project instance’s impact on the Maria Auxiliadora community could possibly include the displacement of subsistence hunting and/or poaching to areas outside the Project Area. This impact is likely low or non-existent, as there was not substantial poaching (i.e., as evidenced by the project’s biodiversity impact monitoring plan) in the past. Thus, no displacement of subsistence hunting and/or poaching to areas outside the Project Area were identified in 2022, 2023, 2024 nor 2025.
Type of benefit/cost/risk	The possible displacement of subsistence hunting and/or poaching to areas outside the Project Area (i.e., including to the Maria Auxiliadora community) is a direct cost and a direct risk to the community at Maria Auxiliadora.
Change in well-being	The community’s change in well-being would be the result of, for example: less subsistence hunting opportunities on their lands; and possible hostile confrontations with illegal hunters/poachers.

⁴⁸ The spillover effect can be defined as “the pattern of unidirectional movement from a donor habitat to a different, adjacent recipient habitat.” (Source: Harman RR, Kim TN. Differentiating spillover: an examination of cross-habitat movement in ecology spillover in ecology. Proc Biol Sci. 2024 Feb 14;291(2016):20232707. doi: 10.1098/rspb.2023.2707. Epub 2024 Feb 14. PMID: 38351801; PMCID: PMC10865012.) Thus, the spillover effect, for instance, is where in the with-project scenario, wildlife is provided a safe refuge within the project area (i.e., the “donor habitat”) and then such wildlife “spills over” to the Maria Auxiliadora community (i.e., the “adjacent recipient habitat”) where the community could undertake subsistence hunting.

4.1.2 Negative Community Impact Mitigation (VCS, 3.19; CCB, CM2.2)

To the best of the Quadriz's knowledge, there were no negative community impacts throughout 2020-2025, including during the 2024-2025 monitoring period, and there are no negative community impacts expected to result from the Project. Likewise, there are no communities living in the initial Project Area and through the Participatory Rural Assessment, it does not appear the communities are reliant on the initial Project Area for their livelihoods (i.e., communities do not collect fuelwood or use the area to hunt, etc.). The one potential negative community impact is the possible displacement of subsistence hunting and/or poaching to areas outside the Project Area. To be clear, this displacement was not reported to Quadriz nor was it observed firsthand by Quadriz.

To mitigate this potential negative community impact, Quadriz is currently seeking to add additional project instances to the Project and this would help to both expand the conservation measures and the on-the-ground monitoring measures. Further, Quadriz will continue to engage other stakeholders in part to help identify if and where such possible displacement of subsistence hunting is taking place.

4.1.3 Net Positive Community Well-Being (VCS 3.19; CCB, CM2.3, GL1.4)

Although there are few communities living in the region, the Project had, and will continue to have, an overall net positive impact on community well-being at Maria Auxiliadora. This will result from the Project's employment opportunities provided to local community members, the establishment of a Visitor Center and its educational opportunities, and through the Chaco Alert program. In contrast, in the without-project scenario, the Project Area's Chaco Forest would be deforested and converted to cattle ranches. First, this deforestation increases greenhouse gas emissions, which contributes to global climate change and more greenhouse gas emissions could lead to more droughts and floods impacting the Maria Auxiliadora community. This is presumably also true for the community at San Isidro. Second, ongoing deforestation at the Project Area would further shrink and degrade the habitat provided by the Chaco Forest, which could lead to fewer opportunities for subsistence hunting (i.e., due to the spillover effect where wildlife is provided a safe refuge within the Project Area and then "spills over" to the Maria Auxiliadora community). Third, and similarly, without the Project's monitoring for outside encroachment, there could be an increase in poaching and illegal logging in the without-project scenario both at the Project Area and at the community of Maria Auxiliadora. Fourth, in the without-project scenario, there would not be the establishment of Chaco Alert and local employment opportunities offered. Thus, with the establishment of Chaco Alert in particular, the community at Maria Auxiliadora will have greater access to doctors and potentially life-saving medicine (i.e., such as anti-venom). Fifth, in the without-project scenario, the conversion of the Project Area to cattle ranches would increase soil erosion and degrade local water quality (i.e., due to the runoff of manure) and this would likely impact the local community at Maria Auxiliadora and presumably at the San Isidro community.

The community groups at Maria Auxiliadora – which could be categorized as ranchers, farmers, merchants (or traders), and subsistence hunters or as the five ethnic groups known as the Maskoi, Angaite, Zanapana, Guana, and Toba – were identified through community engagement, community consultations, and via the PRAs. These community groups are not being considered independently of each other because these community groups are harmonious and all these community groups are considered community members of Maria Auxiliadora. However, it is assumed that ongoing deforestation at the Project Area (i.e., which would further shrink and degrade the habitat provided by the Chaco Forest) would lead to fewer opportunities for subsistence hunting and this would particularly harm the subsistence hunters' community group. This said, all three interviewees from the Maria Auxiliadora community stated during the March and August 2021 Participatory Rural Assessments (PRAs) that the forests are important to them for wildlife consumption. Similarly, increasing droughts and floods, along with decreasing water quality, would particularly impact ranchers and farmers.

The one potential negative community impact is the possible displacement of subsistence hunting and/or poaching to areas outside the project area. However, this negative impact is likely low or non-existent, as there was not substantial poaching (i.e., as evidenced by the project's biodiversity impact monitoring plan) in the past. Further, it is unlikely this subsistence hunting and/or poaching was conducted by the Maria Auxiliadora community, as they are allowed to legally hunt within their lands. Thus, such illegal logging, subsistence hunting, and/or poaching are likely from people residing in the neighboring town of Puerto Casado.

Thus, the Project is expected to have net positive community well-being impacts. Furthermore, although the Project is in the early stages, the Project had net positive community well-being impacts during the 2024-2025 monitoring period, particularly due to the Project reducing deforestation.

4.1.4 Protection of High Conservation Values (CCB, CM2.4)

As an avoided deforestation, forest conservation project, the Project will not have any negative impact on the community's High Conservation Values (HCVs). Likewise, no HCVs were negatively affected during the 2024-2025 monitoring period as a result of the Project. This claim will be demonstrated over time by the community surveys and by the review of satellite imagery to determine the extent of deforestation within the Project Area, along with regular independent assessments of the Project against the Verified Carbon Standard and the Climate, Community & Biodiversity Standards.

4.2 Other Stakeholder Impacts

4.2.1 Mitigation of Negative Impacts on Other Stakeholders (VCS, 3.18, 3.19; CCB, CM3.2)

As mentioned above, there are unlikely to be any major, negative impacts on Other Stakeholders and no such major, negative impacts were identified during the 2024-2025 monitoring period. This said, general negative impacts might include surrounding land values could go up, or down, as a result of Quadriz's conservation projects. Specific negative impacts, for example, would be additional work for MADES and competition with WWF Paraguay and/or Guyra Paraguay / BirdLife International for partners and financing. If such a scenario occurs, Quadriz will dedicate more time to understanding the ramifications. This said, the measures needed to mitigate the specific, negative well-being impacts on Other Stakeholders are as follows:

- Quadriz has, and will continue, to participate in ongoing consultations and dialogue with Other Stakeholders; and
- Quadriz has, and will continue, to provide regular updates on the Project by providing ongoing updates and by providing the ongoing project documentation, such as summary reports and monitoring reports.

4.2.2 Net Impacts on Other Stakeholders (VCS, 3.18, 3.19; CCB, CM3.3)

The net impacts on Other Stakeholders, due to the Project's reduction in deforestation, reduction in greenhouse gas emissions, along with the preservation of the Chaco's biodiversity and cultural heritage within the Project Area, is positive. In contrast, there are no major, specific negative impacts envisioned for Other Stakeholders. Thus, the net impact on Other Stakeholders during the 2024-2025 monitoring period is positive.

4.3 Community Impact Monitoring

4.3.1 Community Monitoring Plan (CCB, CM4.1, CM4.2, GL1.4, GL2.2, GL2.3, GL2.5)

The main community objective of the Project is to provide social programs to improve the livelihoods of community members living in the vicinity of the Project. Improving the livelihoods of community members living in the vicinity of the Project (i.e., the community objective) will be accomplished through providing healthcare services, raising project awareness, and through establishing a project headquarters.

There will be four community surveys used for the community monitoring plan. One survey is known as a Participatory Rural Assessment (PRA), one survey is known as a Degradation Survey, another survey will be eventually used at the Visitor Center, and the fourth survey will be eventually used with Chaco Alert.

The Participatory Rural Assessment (PRA; also known as a Participatory Rural Appraisal) survey and the Degradation Survey were developed, reviewed in detail, and were then translated into Spanish throughout 2020-2021. The first Degradation Survey was administered to communities near the Corazón Verde del Chaco Project's initial project instance in March 2021, while the first PRA surveys were conducted in August 2021. The plan is to administer the Degradation Survey and the PRA every two years with communities near the Corazón Verde del Chaco Project's initial project instance, as well as communities near additional parcels. This said, the second round of Degradation Surveys took place on August 30, 2023 and the second round of PRAs took place on January 30, 2024.

The Degradation Survey asks questions about the communities' consumption of fuelwood, charcoal, and timber, including whether these are collected or purchased, and whether the communities sell any of the items.

The results of the first Degradation Survey, which was conducted in March 2021 and August 2023, indicated that:

- Many families have lived in the area for 10+ years;
- Families collect fuelwood (i.e., as opposed to charcoal);
- Families collect their own timber (i.e., as opposed to purchasing from a merchant);
- Families do not sell timber;
- The local families do not access, nor are they reliant on, the initial Project Area; and
- The families do not believe degradation is occurring throughout their area.

The Degradation Survey is not intended to monitor indicators of the Project's community objective. Rather, the Degradation Survey is a requirement of the VCS climate monitoring aspect of the Project.

The Participatory Rural Assessment is a guide to inform the communities about numerous aspects of the Project, along with to gather insights into their livelihoods and to solicit their comments about the Project. For example, the communities are informed about the:

- Overall Project description and the Project Proponent;
- Potential social projects and programs planned;
- Hiring process, potential vacant positions, and worker risks;
- Grievance Procedure; and
- Validation, verification, CCBS public comment period, and independent audit process.

The communities, as part of the ongoing PRA, are asked questions, including:

- How community-wide decisions are made?
- The community ranking of potential social projects and programs planned.
- What are your desired outcomes from the Project? How do you hope this project will improve your lives? What benefits are you hoping for from the project for your family and/or community? What would make this project a success for you?
- What are your concerns about the Project's potential negative impacts? How could this project make your lives worse? What would make this project a failure for you? What are your main concerns for the future without the project? What are your main concerns or issues with the project?
- Which areas provide critical ecosystem services (for example: hydrological services, erosion control, fire control, etc.) to your family and/or your community? What are these critical ecosystem services?
- Which topics or activities are most important for women?
- What is the best procedure for ongoing consultations? For example, would you prefer community-wide meetings or individual meetings? Prefer meetings on the weekends, in the morning, or in the evening? Would you like to be informed on the radio or in person by the local project manager?

The monitoring results of the initial Participatory Rural Assessment surveys conducted in August 2021 provided a wide-range of information about the local community at Maria Auxiliadora. These monitoring results include, but are not limited to:

- Community meetings, called by the community leader, are held at the school and decisions are made by the community;
- The community prefers in-person, face-to-face meetings, particularly on Sundays;
- The families at Maria Auxiliadora speak Guarani and there appear to be more young people and women, than men;
- The families at Maria Auxiliadora primarily grow subsistence crops, particularly pumpkin, manioc, and sweet potatoes. Some of the families sell their crops to Puerto Casado;
- In addition to growing crops, some of the families raise cattle, while others raise goats and chickens;
- Throughout the region, there are community members who are considered ranchers, farmers, merchants, and subsistence hunters;
- The top three priorities according to the Maria Auxiliadora community are employment opportunities, Chaco Alert, and monitoring wildlife in the area; and

- The availability of wild fauna for local consumption (e.g., deer and peccaries) are very important.

These initial findings were further corroborated during the January 2024 PRAs. Likewise, the monitoring results of the second PRA surveys conducted in January 2024 included, but were not limited to:

- The community still prioritize employment opportunities and health (i.e., Chaco Alert, especially for women and children), along with support for education and trainings;
- There are no perceived costs or risks to participating in the Project;
- Community-wide meetings are still preferred, along with communication via WhatsApp; and
- Repair of the water cisterns with the help of Quadriz is much desired.

The PRA contributes to the community objective, for example, by enabling Quadriz to better understand the community and to provide a formal process for the community to share their desired benefits from the Project. In addition, the process of identification and analysis of community groups within each community will be done through community engagement, community consultations, and via the Participatory Rural Assessment (PRA), as was done in August 2021. For instance, the community groups at Maria Auxiliadora – which could be categorized as ranchers, farmers, merchants (or traders), and subsistence hunters or as the five ethnic groups known as the Maskoi, Angaite, Zanapana, Guana, and Toba – were identified through community engagement, community consultations, and via the PRAs conducted in August 2021. These community groups are not being considered independently of each other because these community groups are harmonious and all these community groups are considered community members of Maria Auxiliadora.

The Visitor Center and Chaco Alert surveys were drafted in January 2021. The surveys will be administered on a regular basis once the Visitor Center is established and once the Chaco Alert program is officially established.

The visitor survey, which was drafted in January 2021, will ask:

- Your name:
- Today's date:
- Your age:
- Where do you live?
- What brought you to the Visitor Center today?
- What are the top 3 things you most liked about your visit to the Visitor Center? Please briefly explain why you liked these three things?

- What are the top 3 things you would like to see added to the Visitor Center?
- What are the top 3 things you least liked about the Visitor Center? Why did you not like these three things?
- Do you have any other suggestions, recommendations, or comments for Quadriz's Visitor Center?
- On a scale of 1 to 10 (1 being the least favorable and 10 being the most favorable), how would you rate your visit to the Visitor Center today?
- Would you like to receive ongoing updates about Quadriz's Reducing Emissions from Deforestation and forest Degradation Project? If yes, please provide your contact information.

The summary results of the 6 Visitor Center surveys administered in May-June 2024 are as follows:

Summary	
Total Surveys:	6
Participants:	5 men, 1 woman
Dates	May and June 2024
Reasons for Visit:	Project verification (2 people); Maintenance and technical support (4 people)
Three Main Categories of Satisfaction:	Hospitality and treatment of the staff; infrastructure and accommodation (clean, comfortable and well-equipped rooms); food and additional services (High-quality food, connectivity and functional common areas)
Recurring Suggestions	
1. Informational and environmental resources	Request for educational materials, maps, library, and wildlife records; inclusion of project documentation and forest cover data.
2. Infrastructure and convenience	Improvements in common area furniture; weather protection (wind cover); Electrical system check (electric showers, slippers)
3. Sustainability and management	Reducing the use of diesel and promoting clean energy; Responsible management of water and plastics; Socialization of the REDD+ project.

Similarly, the Chaco Alert survey, which was drafted in January 2021, will ask:

- Your name:
- Today's date:
- What is your role with Chaco Alert (are you a doctor, pilot, a patient, etc.)?
- Your age:
- Where do you live?
- What services were provided today by Chaco Alert?
- What are the top 3 things you most liked about Chaco Alert? Please briefly explain why you liked these three things?
- What are the top 3 things you would like to see added to Chaco Alert?
- What are the top 3 things you least liked about Chaco Alert? Why did you not like these three things?
- Do you have any other suggestions, recommendations, or comments for Quadriz's Chaco Alert?
- On a scale of 1 to 10 (1 being the least favorable and 10 being the most favorable), how would you rate your experience with Chaco Alert?
- Would you like to receive ongoing updates about Quadriz's Reducing Emissions from Deforestation and forest Degradation Project? If yes, please provide your contact information.

As of December 2025, no Chaco Alert surveys have been administered.

Quadriz will also keep record of how many people have been hired to assist with the Project.

Furthermore, the Project will also regularly monitor forest canopy cover using satellite imagery analysis to demonstrate the ongoing efforts to mitigate deforestation in the Project Area's Chaco Forest (i.e., a High Conservation Value). In 2022, Ostrya Conservation analyzed satellite imagery to determine that 6,821 hectares of deforestation were avoided during the 2020-2021 monitoring period. In 2023, Ostrya Conservation analyzed satellite imagery to determine that 4,543 hectares of deforestation were avoided during the 2022 monitoring period. In 2024, Ostrya Conservation analyzed satellite imagery to determine that 4,547 hectares of deforestation were avoided during the 2023 monitoring period. In 2026, Ostrya Conservation analyzed satellite imagery to determined that 4,595 hectares of deforestation were avoided during the 2024-2025 monitoring period.

High Conservation Values

The Chaco Forest within the Project Area is one of the Project's HCVs and the Chaco Forest within the Maria Auxiliadora community lands was identified as an HCV for the Maria Auxiliadora community for the provisioning of food and fuel. To assess the effectiveness of the measures taken to maintain all identified HCVs related to community well-being (i.e., large contiguous forested areas near their communal lands), the following is needed and was accomplished throughout 2020-2025, including during the 2024-2025 monitoring period:

- Quadriz needs (and has) a legally binding agreement in place with the private landowner to forego deforesting or selling of the property to a buyer who would convert the forest to a cattle ranch. This legally binding agreement was signed in September 2020 (i.e., during the 2020-2021 monitoring period and was abided by throughout 2022-2025).
- Quadriz will also (and has) monitor forest canopy cover via on-the-ground forest guards and via regular review of satellite imagery to help ensure the Chaco Forest within the Project Area is protected. This said, in October 2021, Quadriz hired a local forest guard and in 2022, Ostrya Conservation analyzed satellite imagery to determine that 6,821 hectares of deforestation were avoided during the 2020-2021 monitoring period. In 2023, Ostrya Conservation analyzed satellite imagery to determine that 4,543 hectares of deforestation were avoided during the 2022 monitoring period. In 2024, Ostrya Conservation analyzed satellite imagery to determine that 4,547 hectares of deforestation were avoided during the 2023 monitoring period. In 2026, Ostrya Conservation analyzed satellite imagery to determine that 4,595 hectares of deforestation were avoided during the 2024-2025 monitoring period.
- The Project will also protect medium-to-large mammals, including wide-ranging species such as white-lipped peccaries that are hunted for subsistence. Thus, Quadriz will not allow hunting or illegal logging in the Project and Quadriz will monitor for deforestation (i.e., which would lead to a loss of contiguous, forested habitat for these trigger species) and monitor for illegal hunting (i.e., which would lead to further population decreases). In addition to hiring a local guard in October 2021, Quadriz, in 2022, built a guard house, hired a guard service called "Los Guardianes," started official patrols during the first quarter of 2022, and started a patrol log during the last quarter of 2022. Furthermore, wildlife cameras were installed at the initial project instance from June 2021 to May 2022. During 2024, Quadriz installed two wildlife cameras for marketing purposes, from March 14, 2024 to May 20, 2024.

It is important to note that in 2023, the guard service "Los Guardianes" was replaced by the guard service "Araucanos." Guards from Araucanos were employed throughout 2024 and 2025.

With these measures in mind, Quadriz has been very effective. Thus, Quadriz has a legally binding agreement already in place with the private landowner, Quadriz has put in actions to ensure the Project Area is protected (i.e., such as hiring forest guards and building a guard house), and Quadriz has identified numerous medium-to-large mammals in the Project Zone using wildlife cameras. This said, the combination of monitoring forest cover via satellite imagery and using wildlife cameras should be very effective at assessing the measures taken to maintain all identified HCVs (i.e., the Chaco Forest, particularly the Chaco Forest within the communal lands of the Maria Auxiliadora community) related to community well-being. Likewise, ongoing satellite imagery analysis will determine the project area's remaining forest cover vis-à-vis the deforestation baseline, and the wildlife cameras will help to monitor whether there are healthy populations of medium-to-large mammals (i.e., some of which require large, contiguous blocks of forest and some of which are hunted for subsistence by the Maria Auxiliadora community).

To clarify the frequency of monitoring and reporting of monitoring results for all aspects of the community monitoring plan, the plan is as follows:

- The Degradation Survey will be administered at least once every two years;
- The Participatory Rural Assessment (PRA) will be administered at least once every two years;
- The Visitor Center surveys will be administered on a regular basis. For instance, if there are visitors to the Visitor Center once a week, then the surveys will be administered once a week.
- The surveys with the Chaco Alert program will also be administered on a regular basis.
- The reporting of the monitoring results from all four surveys will be done at each verification event. The initial monitoring, reporting of 2020-2021 monitoring results, and verification was initiated in May 2022. The second monitoring, reporting of 2022 monitoring results, and verification was initiated in June 2023. The third monitoring, reporting of 2023 monitoring results, and verification was initiated in February 2024. The fourth monitoring, reporting of 2024-2025 monitoring results, and verification will be initiated in 2026, and subsequent monitoring, reporting of monitoring results, and verifications will take place at least every five years thereafter. Thus, the results of all four community surveys will be reporting in the Project's Monitoring Reports and in the Project's Summary Documents.

As the Degradation Surveys and the Participatory Rural Assessments were not administered during the 2022 monitoring period, Quadriz used a notebook to register their six visits to the Maria Auxiliadora community, along with the benefits delivered. These primary benefits during the 2022 monitoring period, in addition to avoided deforestation, included the donation of school supplies, land preparation for the vegetable gardens, and the delivery of vegetable garden seeds. In addition, progress was made on the Visitor Center which will increase project awareness and educational opportunities

4.3.2 Monitoring Plan Dissemination (CCB, CM4.3)

The community monitoring plan and its results, in addition to being incorporated in the CCB-VCS Project Description and Monitoring Reports, were also incorporated into the Spanish and English Summary Documents. These Summary Documents were shared with stakeholders, including local communities, and were made physically available at Quadriz's project headquarters and Asuncion offices. All of the Project's project documents, including monitoring results, are available online at the Verra Registry. Further, weblinks to the project documents were publicly distributed during the CCBS Public Comment Period and are available on Quadriz's website.

More specifically, for the Project's validation, the public comment period dates were October 6, 2021 to November 5, 2021. Quadriz also posted the public comment period for the Project's validation announcement on its website on October 6, 2021. For the Project's verification of the 2020-2021 monitoring period, the public comment period dates were April 25, 2022 to May 24, 2022. Quadriz posted the public comment period for the Project's 2020-2021 verification announcement on its website on April 26, 2022. For the Project's verification of the 2022 monitoring period, the public comment period dates were May 26, 2023 to June 25, 2023. Quadriz posted the public comment period for the Project's 2022 verification announcement on its website on June 1, 2023. For the Project's verification of the 2023 monitoring period, the public comment period dates were from February 23, 2024 to March 24, 2024 and from June 2, 2025 to July 2, 2025. Quadriz posted the public comment period for the Project's 2023 verification announcement on its website on February 23, 2024 and then again on June 3, 2025.

The Summary Documents, with monitoring results, were and will continue to be, actively disseminated to communities by Federico ("Fredy") Montoya, the Field Manager at Investancia / Quadriz Paraguay S.A. and/or Gabriela Viñales, the REDD+ Manager at Quadriz Paraguay S.A. This took place for the October 6, 2021 to November 5, 2021 public comment period for the Project's validation and this took place for April 25, 2022 to May 24, 2022 public comment period for the Project's verification of the 2020-2021 monitoring period. For the Project's verification of the 2022 monitoring period, the public comment period dates were May 26, 2023 to June 25, 2023, and the delivery of the finalized Summary Documents took place on April 10, 2023. For the Project's verification of the 2023 monitoring period, the public comment period dates were February 23, 2024 to March 24, 2024 and from June 2, 2025 to July 2,

2025. Further, local radio announcements were made in July 2021 about the Project along with in November 2021 and June-July 2025 about the Project's public comment period. Since November 2023 when Andrea Samaniego was hired as social specialist, she is in charge of this communications with the community.

4.4 Optional Criterion: Exceptional Community Benefits

The Project does not seek to be validated nor verified to the Gold Level for exceptional community benefits because there are few, if any, local communities using the Project Area.

4.4.1 Short-term and Long-term Community Benefits (CCB, GL2.2)

No applicable.

4.4.2 Marginalized and/or Vulnerable Community Groups (CCB, GL2.4)

Not applicable.

Community Group	Not applicable.
Net positive impacts	Not applicable.
Benefit access	Not applicable.
Negative impacts	Not applicable.

4.4.3 Net Impacts on Women (CCB, GL2.5)

Not applicable.

4.4.4 Benefit Sharing Mechanisms (CCB, GL2.6)

Not applicable.

4.4.5 Governance and Implementation Structures (CCB, GL2.8)

Not applicable.

4.4.6 Smallholders/Community Members Capacity Development (CCB, GL2.9)

Not applicable.

5 BIODIVERSITY

5.1 Net Positive Biodiversity Impacts

5.1.1 Biodiversity Changes (VCS, 3.19; CCB, B2.1)

The following tables describe all the changes in biodiversity resulting from project activities under the with-project scenario in the Project Zone throughout 2020-2025, including during the 2024-2025 monitoring period.

Change in Biodiversity	Tree canopy cover and availability of Chaco Forest habitat.
Monitored Change	The tree canopy cover and availability of Chaco Forest habitat will be more extensive in the initial project area and in the initial Project Zone than in the without-project scenario of deforestation. This is an actual, positive and direct change that occurred as the result of Project activities. Thus, in the baseline scenario, in the event of no REDD+ project, the landowner would have sold the land to a land purchaser who would have submitted a request to convert up to 75% of the native forest into a cattle ranch. During the 2020-2021 time period, it was monitored and demonstrated that tree canopy cover and the availability of Chaco Forest habitat was greater in the with-project scenario than in the without-project scenario. Thus, it is estimated that 6,821 hectares would have been deforested over the 2020-2021 monitoring period, which would have emitted 800,000+ tonnes of carbon dioxide equivalent emissions. Similarly, during the 2022 time period, it was monitored and demonstrated that tree canopy cover and the availability of Chaco Forest habitat was greater in the with-project scenario than in the without-project scenario. Thus, it is estimated that 4,543 hectares would have been deforested over the 2022 monitoring period, which would have emitted 1,0000,000+ tonnes of carbon dioxide equivalent emissions. During the 2023 time period, it was monitored and demonstrated that tree canopy cover and the availability of Chaco Forest habitat was greater in the with-project scenario than in the without-project scenario. Thus, it is estimated that 4,547 hectares would have been deforested over the 2023 monitoring period, which would have emitted 1.7+ million tonnes of carbon dioxide equivalent emissions. Further, during the 2024-2025 time period, it was monitored and demonstrated that tree canopy cover and the availability of Chaco Forest habitat was greater in the with-project scenario than in the without-project scenario. Thus, it is estimated that 4,600 hectares would have been deforested over the 2024-2025 monitoring period,

	which would have emitted 1.89+ million tonnes of carbon dioxide equivalent emissions.
Justification of Change	The core activity of the Project is to conserve the Chaco Forest, particularly the Chaco Forest within the Project Area, and reduce deforestation. The tree canopy cover, and thus availability of Chaco Forest habitat, will be regularly monitored via satellite imagery, as was done throughout 2020-2025, including during the 2024-2025 monitoring period.
Change in Biodiversity	Population of endemic, threatened and endangered species.
Monitored Change	The population of endemic, threatened, and endangered species dependent on forested habitats, particularly the availability of Chaco Forest habitat, will be greater in the with-project scenario, including within the initial project instance and within the initial Project Zone. This is an actual, positive and direct change that occurred as the result of Project activities. During the 2020-2021 time period, it was monitored and demonstrated that tree canopy cover and the availability of Chaco Forest habitat, which benefit the population of many endemic, threatened and endangered species, was greater in the with-project scenario than in the without-project scenario. Thus, it is estimated that 6,821 hectares would have been deforested over the 2020-2021 monitoring period, but instead were conserved. During the 2022 time period, it was monitored and demonstrated that tree canopy cover and the availability of Chaco Forest habitat, which benefit the population of many endemic, threatened and endangered species, was greater in the with-project scenario than in the without-project scenario. Thus, it is estimated that 4,543 hectares would have been deforested over the 2022 monitoring period, but instead were conserved. During the 2023 time period, it was monitored and demonstrated that tree canopy cover and the availability of Chaco Forest habitat, which benefit the population of many endemic, threatened and endangered species, was greater in the with-project scenario than in the without-project scenario. Thus, it is estimated that 4,547 hectares would have been deforested over the 2023 monitoring period, but instead were conserved. Similarly, during the 2024-2025 time period, it was monitored and demonstrated that tree canopy cover and the availability of Chaco Forest habitat, which benefit the population of many endemic, threatened and endangered species, was greater in the with-project scenario than in the without-project scenario. Thus, it is estimated that 4,600 hectares would have been deforested over the 2024-2025 monitoring period, but instead were conserved.

	Further, the monitoring results and evaluation of the June 2021-May 2022 wildlife camera study yielded 66,423 photographs, of which 11,958 photographs corresponded to fauna and 6,581 photographs to medium and large mammals. Of these, a total of 3,082 records met the criteria to be considered independent. Of the 31 probable species to be recorded in the study area, based on literature and previous monitoring in nearby sites, 27 species were recorded through the photo-trapping methodology (26 native and 1 exotic), belonging to 14 families and 7 orders of mammals. Indirectly (i.e., a carcass) one species (<i>Lontra longicaudis</i>) was recorded that was not captured through the camera traps, thus adding 28 species of medium and large mammals for the study area during the June 2021 to May 2022 time period. Such photographed species included the giant armadillo (<i>Priodontes maximus</i>; considered Vulnerable by the IUCN Red List) and the lowland tapir (<i>Tapirus terrestris</i>; considered Vulnerable). It is important to note that the wildlife cameras will be deployed at the Project every five years and thus, the June 2021-May 2022 results were from the initial and most recent formal biodiversity impact monitoring event. For marketing purposes, Quadriz installed two wildlife cameras from March 14, 2024 to May 20, 2024. The cameras captured images of several key biodiversity species. Among them, the cameras photographed a female tapir (<i>Tapirus terrestris</i>) with her offspring, giant anteater (<i>Myrmecophaga tridactyla</i>) and jaguar (<i>Panthera onca</i>) with two cubs. The Quadriz team was also able to observe a maned wolf (<i>Chrysocyon brachyurus</i>). One of the most notable records for 2024 was the confirmed presence of the Chacoan peccary (<i>Catagonus wagneri</i>) in the Project Zone.
Justification of Change	Conserving the Chaco Forest and avoiding deforestation will help maintain tree canopy cover and expand availability of Chaco Forest habitat for endemic, threatened, and endangered species. According to Andrea Weiler, species such as the giant armadillo (<i>Priodontes maximus</i>; considered Vulnerable by the IUCN Red List) and the lowland tapir (<i>Tapirus terrestris</i>; considered Vulnerable) would not thrive in grasslands. Additional species which depend on the Project's forested habitats and which are of the greatest concern due to their conservation status are the jaguar and the ocelot. According to Andrea Weiler, as the initial project area would be deforested, the population of these four species would decrease until they disappeared entirely from the area. Furthermore, according to MADES, the following mammalian species which have been photographed at the initial project instance, are considered nationally endangered: the maned wolf (<i>Chrysocyon brachyurus</i>); the ocelot (<i>Leopardus pardalis</i>); the jaguar (<i>Panthera onca</i>); and the giant



armadillo (*Prionomys maximus*).⁴⁹ According to Andrew Weiler, endemic birds that could be lost due to ongoing deforestation are: the brushland tinamou (*Nothoprocta cinerascens*) and the black-bodied woodpecker (*Dryocopus schulzi*).

The presence of endemic, threatened, and endangered species will be monitored using wildlife cameras, including the first study which was initiated during the 2020-2021 monitoring period and which concluded during the 2022 monitoring period.

5.1.2 Mitigation Actions (VCS, 3.19; CCB, B2.3)

As a forest conservation and avoided deforestation project, the Project is unlikely to have any negative impacts on biodiversity. Likewise, no such negative impacts on biodiversity were identified throughout 2020-2025, including during the 2024-2025 monitoring period.

The measures needed to maintain the biodiversity HCV attributes, being the Chaco Forest and the vulnerable, threatened and endangered species, and to be consistent with the precautionary principle are as follows:

1. The landowner needs to forego deforesting or selling their land to a buyer who would convert the initial project instance's Chaco Forest to a cattle ranch. This includes installing little-to-no roads. This will maintain large areas of forested, contiguous habitat for jaguars and the white-lipped peccary and should reduce to impact of illegal hunting of species such as the lowland tapir. This is despite the Project not knowing how many jaguars and white-lipped peccaries exist in the initial Project Zone. During the 2020-2021 monitoring period, Quadriz signed an agreement with the landowner to forego deforestation or the selling of their land to a buyer, Quadriz hired a guard to monitor for deforestation in October 2021, and in 2022, Ostrya Conservation analyzed satellite imagery to determine that 6,821 hectares of deforestation were avoided during the 2020-2021 monitoring period. Further, the agreement to forego deforestation of the sale of the property was abided by throughout 2022-2025. Ostrya Conservation analyzed satellite imagery to determine that 4,543 hectares of deforestation were avoided during the 2022 monitoring period, 4,547 hectares of deforestation were avoided during the 2023 monitoring period, and 4,595 hectares of deforestation were avoided during the 2024-2025 monitoring period.

2. Ideally, additional project instances are added to the grouped project to further expand the forested habitat available for wide-ranging species, such as jaguars and white-lipped peccaries. Quadriz was actively working on securing additional project instances throughout 2020-2025, including during the 2024-2025 monitoring period. This included meeting with landowners throughout the Chaco and visiting potential project sites throughout 2020-2025.

⁴⁹ MADES. "Endangered Species." Available: http://www.mades.gov.py/wp-content/uploads/2018/06/peligro_de_extincion.pdf

3. The Project needs to continue monitoring medium-to-large mammals using wildlife cameras to better understand the population and distribution of the trigger species throughout the Project Zone. The initial wildlife camera study was initiated during the 2020-2021 monitoring period and concluded during the 2022 monitoring period. More specifically, the wildlife cameras were installed at the initial project instance from June 2021 to May 2022. During 2023, a total of six wildlife cameras were installed at the Project, from July 12th to September 28th for the purpose of getting videos of biodiversity to produce materials for marketing and for the Visitor Center. Similarly, two wildlife cameras were installed at the Project for marketing purposes from March 14, 2024 to May 20, 2024.

4. In addition to monitoring medium-to-large mammals, the Project also needs to monitor forest canopy cover to make sure deforestation is not taking place and the Project needs to monitor for illegal hunting (i.e., which is currently being done by the forest guards), even though the extent of illegal hunting is not fully understood. Specifically, during the 2020-2021 monitoring period and the 2022 monitoring period, to identify the presence of illegal hunting or deforestation, the following measures were undertaken:

- A guard was hired in October 2021, to establish a presence and to initiate informal monitoring;
- Posters/signs were placed at strategic points; and
- A monitoring for deforestation template was designed.

During the 2022 monitoring period, the following measures were taken:

- A guard house was built;
- A guard service, called "Los Guardianes" was hired for the area, who are in charge of patrols and in charge of the entrance to the property;
- Patrols officially started during the first quarter of 2022; and
- A patrol log started during the last quarter of 2022.

More recently, during the 2023 monitoring period, the guard service "Los Guardianes" was replaced by the guard service "Araucanos."

In 2024 and 2025, three guards continued to be employed by the Project from Araucanos.

5.1.3 Net Positive Biodiversity Impacts (VCS, 3.19; CCB, B2.2, GL1.4)

The Project had, and is expected to continue to have, net positive biodiversity impacts due to the Project's conservation of the Chaco Forest within the Project Area, conservation of important habitat, and its role in reducing topsoil runoff and its associated impact on water quality. In addition, the Project will monitor for deforestation and for illegal hunting. In contrast, without the Project, the likely land use scenario would have been forest clearing for cattle

ranching. While some forest areas would remain in the without-project scenario (i.e., such as buffers around riparian areas), the impact would still largely be negative for biodiversity in the without-project scenario. For example, jaguars and white-lipped peccaries are species that require, large contiguous areas. Other species, such as the lowland tapir (*Tapirus terrestris*),⁵⁰ in the absence of protective forest cover and with the introduction of more roads, could become more susceptible to hunting pressures in the open grasslands.⁵¹ The process of rapidly clearing land with bulldozers, including the potential use of fires to clear land, can quickly overcome slow-moving animals photographed at the initial project instance such as the yellow armadillo (*Euphractus sexcinctus*), the southern three-banded armadillo (*Tolypeutes matacus*) and the giant armadillo (*Priodontes maximus*). It is also important to note that many species, according to Andrea Weiler, would not thrive in grasslands (i.e., the without project land use scenario). This includes the giant armadillo (*Priodontes maximus*), the southern tamandua (*Tamandua tetradactyla*), the tayra (*Eira barbara*), and the lowland tapir (*Tapirus terrestris*).

Thus, the Project is expected to have net positive biodiversity impacts. Furthermore, although the Project is in the early stages, the Project had net positive biodiversity impacts during the 2020-2021 monitoring period, particularly due to the Project reducing deforestation of approximately 6,800 hectares. Similarly, during the 2022 monitoring period, the Project reduced deforestation of approximately 4,543 hectares and during the 2023 monitoring period, the Project reduced deforestation of approximately 4,547 hectares. In the 2024-2025 monitoring period, the Project reduced deforestation of approximately 4,595 hectares.

Furthermore, the Project had a net positive impact on biodiversity impacts throughout the project instance's Project Zone (i.e., within 20 kilometers of the project instance). Thus, wildlife that exists in the project zone and outside the initial project area are able to migrate into the initial project area. In addition, Quadriz is working with landowners in the project zone to considering undertaking a REDD+ project and to preserve the forests in the project zone, instead of selling their lands to agribusinesses implementing industrial scale cattle ranches.

Species and habitat	There are many rare, threatened, and endangered species that inhabit the Chaco forests within, and around, the Project Area. To date, vulnerable and near threatened species have been identified by the ongoing biodiversity impact monitoring plans. For instance, during January to May 2022, the wildlife cameras recorded vulnerable, threatened and endangered species such as the giant armadillo (<i>Priodontes maximus</i> ; considered Vulnerable by the IUCN Red List) and the lowland tapir (<i>Tapirus terrestris</i> ; considered Vulnerable), along with the maned wolf (<i>Chrysocyon brachyurus</i>), the ocelot (<i>Leopardus pardalis</i>), and
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⁵⁰ IUCN Red List, "Lowland Tapir: Population," Available: <https://www.iucnredlist.org/species/21474/45174127#population>

⁵¹ IUCN Red List, "Gray Brocket Deer: Population," Available: <https://www.iucnredlist.org/species/29620/22154584#population>

	the jaguar (<i>Panthera onca</i>), which are considered by MADES to be nationally endangered.⁵² The Project is a forest conservation project and thus, shall have a direct and net positive impact on the Project Zone's biodiversity as opposed to the "without-Project" land-use scenario that would have resulted in 4,600 hectares being cleared during the 2024-2025 monitoring period. Demonstration of the Project's net impact on biodiversity was done via monitoring, reporting and verifying the satellite imagery of forest cover, along with the results of the wildlife camera study.
Areas needed for habitat connectivity	As previously mentioned, the "without-Project" land-use scenario would have resulted in 4,600 hectares being cleared during the 2024-2025 monitoring period. In contrast, the Project, as can be demonstrated via firsthand observations and via satellite imagery analysis, has conserved this area of Chaco Forest and thus, the Project has not adversely impacted any areas needed for habitat connectivity (i.e., the Chaco Forest) during the 2024-2025 monitoring period.

5.1.4 High Conservation Values Protected (CCB, B2.4)

The Project is a conservation project and thus, no HCVs related to biodiversity are negatively affected by the Project. Likewise, no HCVs related to biodiversity were negatively affected throughout 2020-2025, including during the 2024-2025 monitoring period.

The Chaco Forest within the Project Area, which is one of the Project's HCVs, was protected throughout 2020-2025 and will continue to be protected over the project lifetime. Thus, Quadriz has a legally binding agreement in place with the private landowner to forego deforestation or selling of the property to a buyer who would convert the forest to a cattle ranch. This legally binding agreement was signed in September 2020 (i.e., during the 2020-2021 monitoring period) and was abided by throughout 2022 (i.e., during the 2022 monitoring period), 2023 (i.e., during the 2023 monitoring period), and 2024-2025 (i.e., during the 2024-2025 monitoring period). Quadriz also did, and will continue to, monitor forest canopy cover via on-the-ground forest guards and via regular review of satellite imagery to help ensure the Chaco Forest within the Project Area is protected. This said, in October 2021, Quadriz hired a local forest guard and in 2022, Ostrya Conservation analyzed satellite imagery to determine that 6,821 hectares of deforestation were avoided during the 2020-2021 monitoring period. In 2023, Ostrya Conservation analyzed satellite imagery to determine that 4,543 hectares of deforestation were avoided during the 2022 monitoring period. In 2024, Ostrya Conservation analyzed satellite imagery to determine that 4,547 hectares of deforestation were avoided during the 2023 monitoring period. In 2026, Ostrya Conservation analyzed satellite imagery to

⁵² It is important to note that the wildlife cameras will be deployed at the Project every five years and thus, the June 2021-May 2022 results were from the initial and most recent formal biodiversity impact monitoring event.

determine that 4,594 hectares of deforestation were avoided during the 2024-2025 monitoring period.

The Project did, and will continue to, protect vulnerable, threatened, and endangered species, which is the Project's other biodiversity HCV. Thus, Quadriz will not allow hunting in the Project and Quadriz will monitor for deforestation (i.e., which would lead to a loss of contiguous, forested habitat for these trigger species), monitor for illegal hunting (i.e., which would lead to further population decreases), and monitor the abundance and diversity of medium-to-large mammals, including vulnerable, threatened and endangered species. During the 2020-2021 monitoring period, there was some evidence of a fire that came from the Easterly direction and evidence that there have been instances of poaching occurring off the main road. With respect to poaching, this was likely subsistence poaching for consumption by local people and as of October 2021, when the guard was hired, there have been no signs of additional hunting. With respect to signs of fire, Quadriz is unsure exactly what happened, but monitoring for fire has been implemented, a Fire Prevention and Control Plan was finalized in March 2022, and Quadriz cleaned up the firebreak roads that were already on the property. In addition, wildlife cameras were installed at the initial project instance from June 2021 to May 2022. During this time, several vulnerable, threatened and endangered species were photographed including the giant armadillo (*Priodontes maximus*; considered Vulnerable by the IUCN Red List) and the lowland tapir (*Tapirus terrestris*; considered Vulnerable), along with the maned wolf (*Chrysocyon brachyurus*), the ocelot (*Leopardus pardalis*), and the jaguar (*Panthera onca*), which are considered by MADES to be nationally endangered. Furthermore, Quadriz will monitor the estimated population and population trends of jaguars.

Other project activities, such as Chaco Alert, the Visitor Center, and the forest carbon inventory work, are not expected to have any impacts on the Project's HCVs.

5.1.5 Species Used (VCS, 3.19; CCB, B2.5, 2.6)

The Project has not used any non-native species in the Project Area or Project Zone and thus, there have been no adverse effects. Likewise, no non-native species were used by the Project throughout 2020-2025, including during the 2024-2025 monitoring period.

Species introduced	Classification	Justification for use	Adverse effects and mitigation
Not applicable.	Not applicable.	Not applicable.	Not applicable.

5.1.6 Invasive Species (VCS, 3.19; CCB, B2.5)

No invasive species will be used by the Project and no invasive species were used throughout 2020-2025, including during the 2024-2025 monitoring period, except a feral pig and Cuban bulrush was identified. According to the Global Invasive Species Database, the following invasive species have been identified in the Departments of Alto Paraguay and Presidente Hayes:

- Rock pigeons (*Columba livia*; Alto Paraguay and Presidente Hayes);
- Golden mussel (*Limnoperna fortunei*; Alto Paraguay and Presidente Hayes);
- Wild tomato (*Solanum sisymbriifolium*; Alto Paraguay);
- *Oxycaryum cubense* (Cuban bulrush; Presidente Hayes); and
- Guava (*Psidium guajava*; Presidente Hayes).⁵³

This said, the Project will not introduce any of these known invasive species.

Existing invasive species	Mitigation measures to prevent spread or continued existence of invasive species
Feral pig (<i>Sus scrofa</i>)	The feral pig is an invasive species that is considered a threat to native fauna as it is a disease reservoir, competitor, and potential predator for native fauna. In 2023, biodiversity monitoring at the Project was focused on obtaining videos of the wildlife for social media diffusion, and six camera traps were installed with a total effort of 350 days/traps and 3,379 videos. No records of Feral pigs (<i>Sus scrofa</i>) were obtained during this period. However, in December 2024 and March 2025, there were direct observations of the feral pig. In addition, footprints which may belong to the feral pig, are periodically observed after the rains. Thus, the low number of encounters of feral pigs in the project area does not reflect evidence of the spread of this species. Still, monitoring efforts to identify any threat from the presence of this invasive species is being developed by Quadriz's forest guard. Quadriz is also working with its local biologist and exploring options with MADES.
Cuban bulrush (<i>Oxycaryum cubense</i>)	In June 2025, staff at Quadriz may have observed Cuban bulrush, or a similar species, after the floods. The Cuban bulrush is an invasive species that "forms large monotypic floating mats on the surface of standing water. These mats may send out runners over other emergent plant species and crowd them or exclude them (Schardt, 2006). Cuban bulrush does not appear to be a dangerous invasive throughout much of the world, but is described by Weakley (2007) as 'aggressively weedy' {...} (Carter in Bryson et al. 1996)."⁵⁴ The next steps are for Quadriz to confirm that the specimen is in fact Cuban bulrush. As Quadriz does not have a staff botanist,

⁵³ Global Invasive Species Database. "Search: Alto Paraguay, Presidente Hayes." Available: <http://www.iucngisd.org/gisd/search.php>

⁵⁴ Global Invasive Species Database. "*Oxycaryum cubense*." Accessed November 17, 2025. Available: <https://www.iucngisd.org/gisd/speciesname/Oxycaryum+cubense>

Quadriz will collect some specimens to check the identity with a specialist.

5.1.7 GMO Exclusion (CCB, B2.7)

Quadriz guarantees that no genetically modified organisms (GMOs) will be used in the Project to generate GHG emissions reductions or removals. No GMOs were used throughout 2020-2025, including during the 2024-2025 monitoring period.

5.1.8 Inputs Justification (VCS, 3.19; CCB, B2.8)

The Project does not anticipate using any inputs, including fertilizers, chemical pesticides, or biological control agents, during the Project Lifetime. Likewise, the Project did not use any such products throughout 2020-2025, including during the 2024-2025 monitoring period.

Name	Not applicable.
Justification of Use	Not applicable.
Adverse Effect	Not applicable.

5.2 Offsite Biodiversity Impacts

5.2.1 Negative Offsite Biodiversity Impacts (CCB, B3.1) and Mitigation Actions (CCB, B3.2)

Negative Offsite Impact	Mitigation Measure(s)
There are no negative offsite biodiversity impacts on biodiversity outside of the Project Zone resulting from project activities. The one possible exception is that there could possibly be the displacement of subsistence hunting and/or poaching to areas outside the project area. To be clear, this displacement was not reported to Quadriz and nor was it observed firsthand by Quadriz. Further, if such displacement is taking place, it is likely to only have a relatively low impact on the regional biodiversity.	To mitigate this potential negative offsite biodiversity impact, Quadriz is currently seeking to add additional project instances to the Project and this would help to both expand the conservation measures and the on-the-ground monitoring measures. Further, Quadriz will continue to engage other stakeholders in part to help identify if and where such possible displacement of subsistence hunting is taking place.

5.2.2 Net Offsite Biodiversity Benefits (VCS, 3.19; CCB, B3.3)

The Project had, and is expected to continue to have, net positive offsite biodiversity impacts due to the Project's conservation of the Chaco Forest within the Project Area and the conservation of important wildlife habitat. This includes 4,595 hectares of deforestation at the initial project instance being avoided during the 2024-2025 monitoring period and the preservation of habitat for a wide-range of species such as white-lipped peccaries (*Tayassu pecari*; Vulnerable per IUCN Red List), giant armadillos (*Priodontes Maximus*; Vulnerable per IUCN Red List), giant anteaters (*Myrmecophaga tridactyla*; Vulnerable per IUCN Red List), lowland tapirs (*Tapirus terrestris*; Vulnerable per IUCN Red List), jaguars (*Panthera onca*; nationally endangered per MADES) and maned wolves (*Chrysocyon brachyurus*; nationally vulnerable per MADES).

The one possible negative offsite biodiversity impact is there could possibly be the displacement of subsistence hunting and/or poaching to areas outside the project area. This impact is likely low or non-existent, as there was not substantial poaching (i.e., as evidenced by the project's biodiversity impact monitoring plan) at the Project in the past. Thus, when compared to the Project's large-scale avoided deforestation and the conservation of important wildlife habitat, the net effect of the Project, as a forest conservation project, on biodiversity is positive.

5.3 Biodiversity Impact Monitoring

5.3.1 Biodiversity Monitoring Plan (CCB, B4.1, B4.2, GL1.4, GL3.4)

The main biodiversity objective of the Project is the preservation of biodiversity, particularly medium-to-large mammals in the Project Area. To accomplish the main biodiversity objective, the Project will reduce deforestation in the Project Area and the Project's biodiversity monitoring plan will be centered around the use of wildlife cameras deployed throughout the Project Area on a regular basis. The specific biodiversity variables to be monitored are:

- 1. The confirmed presence and diversity of medium-to-large mammalian species;
- 2. The abundance of medium-to-large mammalian species;
- 3. Habitat occupation, which incorporates species' detectability into distribution models; and
- 4. The population size and population trend will be estimated for jaguars, which is a species that can be identified at the individual level.

Satellite imagery analysis conducted by Ostrya Conservation in 2022 determined that 6,821 hectares of deforestation at the initial project instance were avoided during the 2020-2021 monitoring period. Satellite imagery analysis was also conducted by Ostrya Conservation in 2023 and it was determined that 4,543 hectares of deforestation at the initial project instance were avoided during the 2022 monitoring period. In 2024, satellite imagery analysis was conducted by Ostrya Conservation and it was determined that 4,547 hectares of deforestation at the initial project instance were avoided during the 2023 monitoring period. In 2026, satellite imagery analysis was conducted by Ostrya Conservation and it was determined that 4,954 hectares of deforestation at the initial project instance were avoided during the 2024-2025 monitoring period.

The first study using wildlife cameras was initiated in June 2021 by Andrea Weiler from the Universidad Nacional de Asunción (National University of Asuncion). In addition to Andrea Weiler, the team that carried out the fieldwork in June 2021 was made up of the representatives from Quadriz, including Gabriela Viñales and Federico Montoya, with technical assistance from Daniela Tabilo and María Paz Albertini.

After selecting the location for camera traps installation, ten camera traps (i.e., Browning Trail Cameras - Spec Ops Elite HP4 brand model BTC-8E-HP4) were placed on paths associated with the different ecological strata in the initial project area, including palm savannas, forests, and in riparian areas. Memory cards correspond to each camera and each photo-trapping station was georeferenced and registered in the field sheet for a better organization of the data.

Camera traps were installed in each of the sites following the monitoring protocol for medium and large mammals (Díaz-Pullido & Payán Garrido, 2012). The cameras were placed approximately 50 cm from the ground, on main roads or trails, with a minimum distance of 1 km, each camera in metal boxes with chains and padlocks in order to prevent loss. The cameras were programmed as follows: tracking camera; image quality: 8MP; multi-focus mode: two standard photos; temperature: °C; image data: on; motion detection: normal range; battery type: alkaline; firing speed: normal; and flash power: long range.

Camera training and programming were carried out with Quadriz staff, who learned to equip each chamber with batteries, program according to the configuration established in the laboratory (FACEN-UNA), and place each chamber in the selected sites. Quadriz will be in charge of periodically checking the cameras and in the event of any technical failure, reprogram the cameras installed in the field. An installation and configuration manual were developed to outline the technical aspects to be considered during the monitoring and control of the cameras.

In May 2022, the first study using wildlife cameras was concluded and the wildlife cameras were retrieved from the field. In addition, the final report for the initial biodiversity impact monitoring plan using wildlife cameras was delivered to Quadriz in July 2022.

Going forward, every five years, the Project will deploy wildlife cameras at randomly selected, representative sites for up to one year (depending on the required trap-nights). The reporting of these monitoring results will take place after the conclusion of the monitoring (i.e., shortly after the wildlife cameras have been removed from the project instance). The ongoing results will be reported in a final report and included in both the summary reports and in the Project's monitoring report.

Photo 5.1. Installation of camera by Quadriz staff.



During 2023, a total of six wildlife cameras were installed at the Project, from July 12th to September 28th for the purpose of getting videos of biodiversity to produce materials for marketing and for the Visitor Center. Species such as the giant anteater (*Myrmecophaga tridactyla*; considered vulnerable per the IUCN), lowland tapir (*Tapirus terrestris*; vulnerable), jaguar (*Panthera onca*; near threatened), and the greater rhea (*Rhea americana*; near threatened) were photographed by the wildlife cameras.

Similarly, Quadriz installed two wildlife cameras for marketing purposes, from March 14, 2024 to May 20, 2024. The cameras captured images of several key biodiversity species. Among them, the cameras photographed a female tapir (*Tapirus terrestris*) with her offspring, giant anteater (*Myrmecophaga tridactyla*), and jaguar (*Panthera onca*) with two cubs. The Quadriz team was also able to observe a maned wolf (*Chrysocyon brachyurus*). Further, one of the most notable records for 2024 was the confirmed. presence of the Chacoan peccary (*Catagonus wagneri*) in the Project Zone.

Every five years, the biodiversity monitoring plan using wildlife cameras will take place at one of the randomly selected project instances of this grouped project. For the specific, future location of the wildlife cameras within the randomly selected project instance, the objective of the project will be taken into account. Thus, for example, to determine the diversity and abundance of medium-to-large mammals in the selected project instance in order to observe the ecological value and suggest conservation actions within the project instance, the following measures will be followed per recommendations from Andrea Weiler:

- 1. Map the location of the wildlife camera stations based on the environment (i.e., such as the different ecological strata present) or the species that we want to sample. This will serve as an orientation, always taking into account the conditions in which the project area is found.
- 2. Define the number of wildlife cameras to be used. Quadriz will strive to use 10-12 wildlife cameras during each monitoring event.
- 3. Regarding the sampling period and the number of trap-nights (i.e., which will define the duration of the sampling), the ideal situation would be to cover the different seasons of the year, as well as the different environments, to increase the possibility of detecting the species or individuals present. Quadriz will keep in mind that the closer the wildlife cameras are to each other, the less area that will be covered, but Quadriz will have a greater possibility of detecting all the individuals that are in that particular area.
- 4. To maximize the probability of photographing medium-to-large mammals, the participation of local personnel who know the area and the species is required, as well as the experience of a biodiversity specialist, such as Andrea Weiler, to identify the ideal sites at each project instance to be monitored. Thus, the wildlife cameras can be placed unsystematically in places where one would expect it to be more likely to detect more species, such as by trails used by fauna, burrows, nests, salt ponds or waterholes.
- 5. It should be taken into account that not all the medium-to-large mammalian species present may be recorded, due to their habits.
- 6. Lastly, Andrea Weiler recommends that each biodiversity monitoring event should always be accompanied by analysis such as species accumulation curves or rarefaction to have an idea of what is already recorded and when it would be appropriate to change the location of the sampling stations.

June 2021-May 2022 Monitoring Results

The monitoring results and evaluation of the June 2021-May 2022 wildlife camera study are based off a total sampling effort of 3,329 trap-nights. In total, 66,423 photographs were obtained, of which 11,958 photographs corresponded to fauna and 6,581 photographs to medium and large mammals. Of these, a total of 3,082 records met the criteria to be considered independent.⁵⁵

Of the 31 probable species to be recorded in the study area, based on literature and previous monitoring in nearby sites, 27 species were recorded through the photo-trapping methodology (26 native and 1 exotic), belonging to 14 families and 7 orders of mammals. Indirectly (i.e., a carcass) one species (*Lontra longicaudis*) was recorded that was not captured through the camera traps, thus adding 28 species of medium and large mammals for the study area during the June 2021 to May 2022 time period.

The diversity of moderately abundant species, which corresponds to the Shannon diversity exponent (1D), was 21.6 for the forest site and 19.3 for the palm grove site, with no significant differences between these sites. Similarly, the 2D values (the inverse of the Simpson index) show that the aquatic site had the lowest number of dominant species (2D= 7.2), which differs significantly from the forest (2D= 18.8) and palm grove sites (2D= 17.1). According to the first-order Hill numbers, “forest” and “palm” sites were found to be more than twice as diverse as the “aquatic” sites, finding a significant difference in diversity between forest and palm versus aquatic. This behavior increases with the extrapolation of the curves, by increasing the sampling effort. Regarding the completeness of the sampling, according to the “Sample Coverage” measure, the values are higher than 85% in the three sites, which indicates that the sampling was efficient to describe these communities and from the point of view of diversity, there are no marked differences between forest and palm grove.

The species were ordered according to their relative importance with respect to the number of records (abundance). The rank-abundance curve denotes *Cerdocyon thous* as the most dominant species, while the less abundant or ‘rare’ species correspond to *Tayassu pecari* and *Sus scrofa*; however, the assemblage of mammals in the sampling area was diverse and it was observed that the distribution of the species was mostly equitable.

Being an opportunistic and generalist predator, the *Cerdocyon thous* makes use of a wide variety of resources and is present in open forests, dry forests, flooded savannahs, and grasslands, so it is widely distributed throughout Paraguay and is considered an adaptable species (Berta, 1982; Trovati et al., 2007; Weiler et al., 2019; Canesini et al., 2021). While the *Tayassu pecari* is considered a specialist species, its potential niche must have a range of environmental conditions and without anthropogenic disturbances so that the populations of this species persist in the area (Keuroghlian & Eaton, 2008; Briceño-Méndez et al. al., 2014).

⁵⁵ Please note, a total of two wildlife cameras were left in the field after the conclusion of the first biodiversity monitoring plan. These two remaining wildlife cameras were used for communication purposes (i.e., to secure pictures for websites, blogs, press releases, etc.) and not for monitoring purposes.

Although the occasional record of *Sus scrofa* was obtained in the study area, the original distribution of this species does not correspond to the country and it is classified as an exotic-invasive species. Martínez-López et al. (2021) report that these pigs are found in free-range systems in some areas of the humid Paraguayan Chaco, such as the two extremes (northeast and southwest) of the Department of Presidente Hayes.

According to Andrea Weiler, the project's biologist, the biodiversity of the humid and transitional Chaco to the dry Chaco, where the Corazón Verde del Chaco Project is located, is closely linked to xerophytic forests, gallery forests that accompany watercourses and flooded savannahs of *Copernicia alba*. In recent decades, the main threat to these natural systems is the change in land use for agricultural purposes, which has increased to the point where it positions Paraguay as one of the countries with the highest rate of deforestation at the global level. That is why any alternative for the economic valuation of the forest remnants of the country is essential for the conservation of biological diversity. To date, there are few projects that seek economic development alternatives while conserving the forests, as is the case of the Corazón Verde del Chaco Project, through which the conservation of this forest area is guaranteed for at least thirty years. The Project not only conserves biodiversity by favoring connectivity and gene flow, but also guarantees the ecosystem services of these natural environments. In this baseline sampling, by means of photo-trapping, 27 species of native mammals were recorded from the 32 probable species in the study area, representing 84% of the medium and large mammals in the study area. Among them, four species were recorded that are under threat categories according to the International Union for the Conservation of Nature criteria: white-lipped peccary (*Tayassu pecari*; Vulnerable), giant armadillo (*Prionomys maximus*; Vulnerable), giant anteater (*Myrmecophaga tridactyla*; Vulnerable), and lowland tapir (*Tapirus terrestris*; Vulnerable). Species of great national interest have also been registered since they face local threats to their conservation, such as jaguars (*Panthera onca*; nationally endangered) and the maned wolf (*Chrysocyon brachyurus*; nationally vulnerable).

High Conservation Values (HCVs)

The two biodiversity HCVs identified for the Project are the Chaco Forest and the vulnerable, threatened and endangered species. To monitor the existing forest canopy cover of the Chaco Forest within each project instance, the Project has hired forest guards and will regularly monitor using satellite imagery analysis. This will demonstrate how effective the measures taken (i.e., agreement with private landowner, ongoing forest patrols, etc.) have been to maintain the Chaco Forest within the Project Area. During the 2020-2021 monitoring period, for instance, Quadriz hired a local forest guard in October 2021, posters/signs were placed at strategic points, and a monitoring for deforestation template was designed. In 2022, a guard house was built, a guard service called "Los Guardianes" was hired for the area, patrols officially started during the first quarter of 2022, and a patrol log was started during the last quarter of 2022. In 2023, the guard service "Los Guardianes" was replaced by the guard service "Araucanos." In 2024 and 2025, three guards from Araucanos continued to be employed by the Project.

Satellite imagery analysis conducted by Ostrya Conservation in 2022 determined that 6,821 hectares of deforestation of Chaco Forest (i.e., an HCV) at the initial project instance were avoided during the 2020-2021 monitoring period. Similarly, satellite imagery analysis conducted by Ostrya Conservation in 2023 determined that 4,543 hectares of deforestation of Chaco Forest at the initial project instance were avoided during the 2022 monitoring period. In 2024, satellite imagery analysis was conducted by Ostrya Conservation and it was determined that 4,547 hectares of deforestation of Chaco Forest at the initial project instance were avoided during the 2023 monitoring period. In 2026, satellite imagery analysis was conducted by Ostrya Conservation and it was determined that 4,595 hectares of deforestation of Chaco Forest at the initial project instance were avoided during the 2024-2025 monitoring period.

As previously mentioned, the Project will also monitor the diversity, abundance, and habitat occupation of medium-to-large mammals, including that of vulnerable, threatened and endangered species, and the Project will monitor estimated population size and population trend of jaguars. This said, the initial wildlife camera study took place from June 2021 to May 2022. Although the jaguar is only considered near threatened by the IUCN,⁵⁶ according to Andrea Weiler, the concentration of these species would qualify as HCVs at the national and regional levels. Further, according to MADES, jaguars are considered nationally endangered.⁵⁷ Thus, using wildlife cameras will demonstrate how effective the measures taken (i.e., agreement with private landowner, reducing deforestation, ongoing forest patrols, reduced hunting pressures, etc.) have been to maintain the quality of forested habitat for vulnerable, threatened and endangered species within the Project Area. During the 2020-2021, 2022, 2023, and 2024-2025 monitoring periods, several vulnerable, threatened and endangered species (i.e., an HCV) were photographed at the initial project instance. Such species include the giant anteater (*Myrmecophaga tridactyla*), the lowland tapir (*Tapirus terrestris*), the giant armadillo (*Priodontes maximus*), the white-lipped peccary (*Tayassu pecari*), and the jaguar (*Panthera onca*).

Trigger Species

The Project's trigger species are the giant anteater (*Myrmecophaga tridactyla*), the lowland tapir (*Tapirus terrestris*), the giant armadillo (*Priodontes maximus*), the white-lipped peccary (*Tayassu pecari*), and the jaguar (*Panthera onca*) (see section 5.4.1 for additional information).

As part of the biodiversity monitoring plan using wildlife cameras, the Project will monitor and estimate the population sizes and population trends of jaguars. Jaguars are selected because they are a species that can be identified at the individual level.

The main threat to all five of these trigger species is deforestation and the reduction in quality, forested habitat. For jaguars and white-lipped peccaries in particular, these species require

⁵⁶ IUCN Red List. "Jaguar." Available: <https://www.iucnredlist.org/species/15953/123791436>

⁵⁷ MADES. "Endangered Species." Available: http://www.mades.gov.py/wp-content/uploads/2018/06/peligro_de_extincion.pdf

large contiguous areas. Thus, the Project will monitor the availability of forested habitat within the Project Area via satellite imagery, which is the indicator of the threat (i.e., loss habitat and habitat fragmentation) to these five trigger species. The ongoing work of Quadriz with the private landowner to forego deforesting or selling of the property to a buyer who would convert the initial project instance, along with Quadriz's other activities (i.e., conducting forest patrols to reduce deforestation and illegal hunting, ongoing monitoring of forest canopy cover, and the monitoring and reporting of medium-to-large mammals using wildlife cameras), will demonstrate the effectiveness of these measures to maintain the population status of these trigger species.

5.3.2 Biodiversity Monitoring Plan Dissemination (CCB, B4.3)

The biodiversity monitoring plan, in addition to being incorporated in the CCB-VCS Project Description and Monitoring Reports, were also incorporated into the Spanish and English Summary Documents. These Summary Documents were shared with stakeholders, including local communities, and were made physically available at Quadriz's Asuncion offices. All of the Project's project documents, including monitoring plans, are available online at the Verra Registry. Furthermore, weblinks to the project documents are publicly distributed during the CCBS Public Comment Period and are available on Quadriz's website.

The wildlife camera study was conducted from June 2021 to May 2022. The final biodiversity report, with the results and evaluation, was completed in July 2022. The biodiversity monitoring results are provided in the 2020-2021, 2022, 2023, and 2024-2025 CCB-VCS Monitoring Reports and will also be incorporated into the final versions of the Spanish and English Summary Documents. These Summary Documents will be shared with stakeholders, including local communities, and will be made physically available at Quadriz's Asuncion offices. All of the Project's project documents, including monitoring results, are available online at the Verra Registry. Furthermore, weblinks to the project documents are publicly distributed during the CCBS Public Comment Period and are available on Quadriz's website.

5.4 Optional Criterion: Exceptional Biodiversity Benefits

5.4.1 Trigger Species Population Trends (CCB, GL3.2, GL3.3)

The Project Proponent assesses the threats to the Project's trigger species and the population trends of each trigger species at least once per monitoring event. This said, the primary project actions to maintain the population of each trigger species is to reduce deforestation vis-à-vis the without-project scenario, and to hire forest guards to prevent illegal timber harvesting and/or illegal hunting.

The following will describe the population trends the following trigger species: giant anteater (*Myrmecophaga tridactyla*), lowland tapir (*Tapirus terrestris*), giant armadillo (*Priodontes maximus*), white-lipped peccary (*Tayassu pecari*), and jaguar (*Panthera onca*).

Trigger Species	Giant anteater (<i>Myrmecophaga tridactyla</i>)
With-project Scenario	The giant anteater (<i>Myrmecophaga tridactyla</i>) is a Vulnerable species according to the IUCN Red List and its population trend is decreasing. This population trend is likely similar for the Project Zone. According to the IUCN, the giant anteater has experienced “population loss of at least 30% over the past 10 years {which} has been estimated based on local extinctions, habitat loss, and deaths caused by fires and road kills.”⁵⁸ While 1-2+ giant anteaters have been photographed at the initial project instance, there could be 54 to 390 individuals present. While several of the species photographed at the initial project instance, such as the giant anteater (<i>Myrmecophaga tridactyla</i>),⁵⁹ are adaptable to living in either forested landscapes, such as the Chaco Forest, or open grasslands, there is still a threat to these species if the initial project instance were converted to a cattle ranch. According to the IUCN, the giant anteater "<i>(Myrmecophaga tridactyla)</i> is locally uncommon to rare. Habitat loss, road kills, hunting, and wildfires have been substantially affecting the populations over the past 10 years, and there have been many records of population extirpation, especially in Central America and in the southern parts of its range.”⁶⁰ Thus, the without-project scenario would involve loss of forested habitat and potentially more roads, which could lead to greater hunting pressures. This, in turn, would likely further decrease the population of giant anteaters in the Project Zone. The measures needed and designed to maintain the giant anteater's population and to reduce threats are as follows: • The landowner needs to forego deforesting or selling their land to a buyer who would convert the initial project instance's Chaco Forest to a cattle ranch. This includes installing little-to-no roads. This will maintain forested habitat for the giant anteater; • The Project needs to continue monitoring medium-to-large mammals using wildlife cameras to better understand the population and distribution of giant anteaters throughout the Project Zone; and • In addition to monitoring medium-to-large mammals, the Project also needs to monitor forest canopy cover to make sure deforestation is not taking place and the Project needs to

⁵⁸ IUCN Red List, “Giant Anteater: Habitat and Ecology.” Available:

<https://www.iucnredlist.org/species/14224/47441961#habitat-ecology>

⁵⁹ IUCN Red List, “Giant Anteater,” Available: <https://www.iucnredlist.org/species/14224/47441961>

⁶⁰ IUCN Red List. “Giant Anteater: population in detail.” <https://www.iucnredlist.org/species/14224/47441961#population>

	monitor for illegal hunting (i.e., which is currently being done by the forest guards). During the 2020-2021 monitoring period, Quadriz: engaged a private landowner and an agreement was signed between the private landowner and Quadriz for the landowner to forego selling the property for eventual conversion; avoided deforestation; preserved habitat for several threatened and vulnerable mammals; reviewed wildlife camera models; purchased the wildlife cameras; hired a wildlife biologist to oversee the wildlife camera study; installed the wildlife cameras in the Project Zone; and recorded several vulnerable and threatened species, including giant anteaters. During the 2022 monitoring period, Quadriz: continued to engage the private landowner and the associated agreement was abided by; avoided deforestation; preserved habitat for several threatened and vulnerable mammals; recorded several vulnerable and threatened species, including giant anteaters; and concluded the first wildlife camera study. During the 2023 monitoring period, Quadriz: continued to engage the private landowner and the associated agreement was abided by; avoided deforestation; preserved habitat for several threatened and vulnerable mammals; recorded several vulnerable and threatened species, including giant anteaters; and hired a new guard service. During the 2024-2025 monitoring period, Quadriz: continued to engage the private landowner and the associated agreement was abided by; avoided deforestation; preserved habitat for several threatened and vulnerable mammals; photographed several vulnerable and threatened species, including giant anteater, during the deployment of wildlife cameras for marketing purposes; and continued to employ guards from Araucanos. At this time, the same regional threats (e.g., deforestation) apply to the population of giant anteaters. However, over the 2024-2025 monitoring period, the Project reduced threats to giant anteaters within the Project Area by preventing deforestation (i.e., thus preserving forested habitat), and the Project hired forest guards to prevent illegal timber harvesting and/or illegal hunting.
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Trigger Species	Lowland tapir (<i>Tapirus terrestris</i>)
With-project Scenario	The lowland tapir (<i>Tapirus terrestris</i>) is a Vulnerable species according to the IUCN Red List and its population trend is decreasing. This population trend is likely similar for the Project Zone. According to the IUCN, “very little is known of lowland tapir populations. Populations are decreasing across its range, though numerous

strongholds exist. However, there is insufficient information available to extrapolate population sizes across these regions.”⁶¹

While 2-3+ lowland tapirs have been photographed at the initial project instance, there could be 60 to 1,110 individuals present.

The without-project scenario would involve loss of forested habitat and potentially more roads, which could lead to greater hunting pressures. In the absence of protective forest cover and with the introduction of more roads, the lowland tapir could become more susceptible to hunting pressures in the open grasslands.⁶² For instance, Tapir are ecologically more prone to be impacted by hunting due to long gestation and generational time. Reproduction is slow enough to make recovery difficult for the species in areas where there is any prolonged hunting activity. Hunting is a serious threat along the numerous new road systems, settlement and along the agricultural frontier in the Amazon basin. Hunting also occurs around logging camps and can completely eliminate the species from seemingly viable habitat.⁶³

According to Andrea Weiler, the lowland tapir (*Tapirus terrestris*) would not thrive in the without-project scenarios of grasslands. Thus, in the without-project scenario, there would likely be a further decrease in the population of lowland tapirs.

The measures needed and designed to maintain the lowland tapir’s population and to reduce threats are as follows:

- The landowner needs to forego deforesting or selling their land to a buyer who would convert the initial project instance’s Chaco Forest to a cattle ranch. This includes installing little-to-no roads. This will maintain forested habitat for the lowland tapir;
- The Project needs to continue monitoring medium-to-large mammals using wildlife cameras to better understand the population and distribution of lowland tapirs throughout the Project Zone; and
- In addition to monitoring medium-to-large mammals, the Project also needs to monitor forest canopy cover to make sure deforestation is not taking place and the Project needs to monitor for illegal hunting (i.e., which is currently being done by the forest guards).

During the 2020-2021 monitoring period, Quadriz engaged a private landowner and an agreement was signed between the private landowner and Quadriz for the landowner to forego selling the property for eventual conversion; avoided deforestation; preserved habitat for several threatened and vulnerable mammals; reviewed

⁶¹ IUCN Red List. “Lowland tapir: population in detail.” Available:

<https://www.iucnredlist.org/species/21474/45174127#population>

⁶² IUCN Red List, “Lowland tapir: Population,” Available: <https://www.iucnredlist.org/species/29620/22154584#population>

⁶³ IUCN Red List. “Lowland tapir: Habitat and Ecology.” Available: <https://www.iucnredlist.org/species/21474/45174127>

	wildlife camera models; purchased the wildlife cameras; hired a wildlife biologist to oversee the wildlife camera study; installed the wildlife cameras in the Project Zone; and recorded several vulnerable and threatened species, including lowland tapirs. During the 2022 monitoring period, Quadriz: continued to engage the private landowner and the associated agreement was abided by; avoided deforestation; preserved habitat for several threatened and vulnerable mammals; recorded several vulnerable and threatened species, including lowland tapirs; and concluded the first wildlife camera study. During the 2023 monitoring period, Quadriz: continued to engage the private landowner and the associated agreement was abided by; avoided deforestation; preserved habitat for several threatened and vulnerable mammals; recorded several vulnerable and threatened species, including lowland tapirs; and hired a new guard service. During the 2024-2025 monitoring period, Quadriz: continued to engage the private landowner and the associated agreement was abided by; avoided deforestation; preserved habitat for several threatened and vulnerable mammals; photographed several vulnerable and threatened species, including a female tapir with her offspring, during the deployment of wildlife cameras for marketing purposes; and continued to employ guards from Araucanos. At this time, the same regional threats (e.g., deforestation and hunting) apply to the population of lowland tapirs. However, over the 2024-2025 monitoring period, the Project reduced threats to lowland tapirs within the Project Area by preventing deforestation (i.e., thus preserving forested habitat), and the Project hired forest guards to prevent illegal timber harvesting and/or illegal hunting.
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Trigger Species	Giant armadillo (<i>Priodontes maximus</i>)
With-project Scenario	The giant armadillo (<i>Priodontes maximus</i>) is a Vulnerable species according to the IUCN Red List and its population trend is decreasing. This population trend is likely similar for the Project Zone. According to the IUCN, "<i>Priodontes maximus</i> appears to be naturally rare where it occurs, with a very patchy distribution. {...} The wild population is decreasing."⁶⁴ While 1+ giant armadillos have been photographed at the initial project instance, there could be 1,008 to 1,884 individuals present. The without-project scenario would involve loss of forested habitat in the initial project instance. The process of rapidly clearing land with bulldozers, including the potential use of fires to clear land, can quickly overcome slow-moving animals photographed at the initial

⁶⁴ IUCN Red List. "Giant armadillo: population in detail." Available: <https://www.iucnredlist.org/species/18144/47442343#population>

project instance such as the giant armadillo (*Prionomys maximus*). Thus, in the without-project scenario, there would likely be a further decrease in the population of giant armadillos.

The measures needed and designed to maintain the giant armadillo's population and to reduce threats are as follows:

- The landowner needs to forego deforestation or selling their land to a buyer who would convert the initial project instance's Chaco Forest to a cattle ranch. This includes installing little-to-no roads. This will maintain forested habitat for the giant armadillo;
- The Project needs to continue monitoring medium-to-large mammals using wildlife cameras to better understand the population and distribution of giant armadillos throughout the Project Zone; and
- In addition to monitoring medium-to-large mammals, the Project also needs to monitor forest canopy cover to make sure deforestation is not taking place and the Project needs to monitor for illegal hunting (i.e., which is currently being done by the forest guards).

During the 2020-2021 monitoring period, Quadriz: engaged a private landowner and an agreement was signed between the private landowner and Quadriz for the landowner to forego selling the property for eventual conversion; avoided deforestation; preserved habitat for several threatened and vulnerable mammals; reviewed wildlife camera models; purchased the wildlife cameras; hired a wildlife biologist to oversee the wildlife camera study; installed the wildlife cameras in the Project Zone; and recorded several vulnerable and threatened species, including a giant armadillo.

During the 2022 monitoring period, Quadriz: continued to engage the private landowner and the associated agreement was abided by; avoided deforestation; preserved habitat for several threatened and vulnerable mammals; recorded several vulnerable and threatened species, including a giant armadillo; and concluded the first wildlife camera study.

During the 2023 monitoring period, Quadriz: continued to engage the private landowner and the associated agreement was abided by; avoided deforestation; preserved habitat for several threatened and vulnerable mammals; and hired a new guard service.

During the 2024-2025 monitoring period, Quadriz: continued to engage the private landowner and the associated agreement was abided by; avoided deforestation; preserved habitat for several threatened and vulnerable mammals; photographed several vulnerable and threatened species (although no giant armadillos) during the deployment of wildlife cameras for marketing purposes; and continued to employ guards from Araucanos S.A.

At this time, the same regional threats (e.g., deforestation) apply to the population of giant armadillos. However, over the 2024-2025

	monitoring period, the Project reduced threats to giant armadillos within the Project Area by preventing deforestation (i.e., thus preserving forested habitat), and the Project hired forest guards to prevent illegal timber harvesting and/or illegal hunting.
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Trigger Species	White-lipped peccary (<i>Tayassu pecari</i>)
With-project Scenario	The white-lipped peccary (<i>Tayassu pecari</i>) is a Vulnerable species according to the IUCN Red List and its population trend is decreasing. This population trend is likely similar for the Project Zone. While 7+ white-lipped peccaries have been photographed at the initial Project Zone, there could be 99 to 2,880 individuals present. The without-project scenario would involve loss of forested habitat, habitat fragmentation, and potentially more roads, which could lead to greater hunting pressures for white-lipped peccaries. This, in turn, would likely further decrease the population of white-lipped peccaries in the Project Zone. Further, according to the IUCN Red List, “the consensus is that white-lipped peccaries are clearly wide-ranging and require large areas for survival (Altrichter and Almeida 2002, Keuroghlian et al. 2004, Reyna-Hurtado 2007).”⁶⁵ Thus, in the without-project scenario, there would likely be a further decrease in the population of white-lipped peccaries. The measures needed and designed to maintain the white-lipped peccary’s population and to reduce threats are as follows: • The landowner needs to forego deforesting or selling their land to a buyer who would convert the initial project instance’s Chaco Forest to a cattle ranch. This includes installing little-to-no roads. This will maintain forested, contiguous habitat for the white-lipped peccary; • Ideally, additional project instances are added to the grouped project to further expand the forested habitat available for this wide-ranging species; • The Project needs to continue monitoring medium-to-large mammals using wildlife cameras to better understand the population and distribution of white-lipped peccaries throughout the Project Zone; and • In addition to monitoring medium-to-large mammals, the Project also needs to monitor forest canopy cover to make sure deforestation is not taking place and the Project needs to monitor for illegal hunting (i.e., which is currently being done by the forest guards).

⁶⁵ IUCN Red List. “White-lipped peccaries: habitat and ecology.” Available: <https://www.iucnredlist.org/species/41778/44051115#population>.”

	During the 2020-2021 monitoring period, Quadriz: engaged a private landowner and an agreement was signed between the private landowner and Quadriz for the landowner to forego selling the property for eventual conversion; avoided deforestation; preserved habitat for several threatened and vulnerable mammals; reviewed wildlife camera models; purchased the wildlife cameras; hired a wildlife biologist to oversee the wildlife camera study; installed the wildlife cameras in the Project Zone; and recorded several vulnerable and threatened species, including several white-lipped peccaries. During the 2022 monitoring period, Quadriz: continued to engage the private landowner and the associated agreement was abided by; avoided deforestation; preserved habitat for several threatened and vulnerable mammals; recorded several vulnerable and threatened species, including white-lipped peccaries; and concluded the first wildlife camera study. During the 2023 monitoring period, Quadriz: continued to engage the private landowner and the associated agreement was abided by; avoided deforestation; preserved habitat for several threatened and vulnerable mammals; and hired a new guard service. During the 2024-2025 monitoring period, Quadriz: continued to engage the private landowner and the associated agreement was abided by; avoided deforestation; preserved habitat for several threatened and vulnerable mammals; photographed several vulnerable and threatened species (although no white-lipped peccary) during the deployment of wildlife cameras for marketing purposes; and continued to employ guards from Araucanos. At this time, the same regional threats (e.g., deforestation and hunting) apply to the population of white-lipped peccaries. However, over the 2024-2025 monitoring period, the Project reduced threats to white-lipped peccaries within the Project Area by preventing deforestation (i.e., thus preserving forested habitat), and the Project hired forest guards to prevent illegal timber harvesting and/or illegal hunting.
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Trigger Species	Jaguar (<i>Panthera onca</i>)
With-project Scenario	The jaguar (<i>Panthera onca</i>) is a Near Threatened species according to the IUCN Red List, an endangered species according to MADES, and its population trend is decreasing. This population trend is likely similar for the Project Zone. While 3-4+ jaguars have been photographed at the initial Project Zone, there could be 6-8 individuals present.

While several of the species photographed at the initial project instance, such as the jaguar (*Panthera onca*),⁶⁶ are adaptable to living in either forested landscapes, such as the Chaco Forest, or open grasslands, there is still a threat to these species if the initial project instance were converted to a cattle ranch. For example, jaguars (*Panthera onca*) are at times shot by ranchers because the cats present a direct threat to cattle and their calves.

According to the IUCN, “jaguar populations in the Chaco region of northern Argentina and Brazil, and the Brazilian Caatinga, are low-density and highly threatened by livestock ranching and persecution (Altrichter et al. 2006, T. de Oliveira pers. comm. 2008).”⁶⁷ This is similar to the Paraguay Chaco and thus, in the without-project scenario, there would likely be a further decrease in the population of jaguars.

The measures needed and designed to maintain the jaguar’s population and to reduce threats are as follows:

- The landowner needs to forego deforestation or selling their land to a buyer who would convert the initial project instance’s Chaco Forest to a cattle ranch. This includes installing little-to-no roads. This will maintain large, contiguous, forested habitat for jaguars;
- Ideally, additional project instances are added to the grouped project to further expand the forested habitat available for this wide-ranging species;
- The Project needs to continue monitoring medium-to-large mammals using wildlife cameras to better understand the population and distribution of jaguars throughout the Project Zone; and
- In addition to monitoring medium-to-large mammals, the Project also needs to monitor forest canopy cover to make sure deforestation is not taking place and the Project needs to monitor for illegal hunting (i.e., which is currently being done by the forest guards) of jaguar’s prey (i.e., such as lowland tapirs and white-lipped peccaries).

During the 2020-2021 monitoring period, Quadriz: engaged a private landowner and an agreement was signed between the private landowner and Quadriz for the landowner to forego selling the property for eventual conversion; avoided deforestation; preserved habitat for several threatened and vulnerable mammals; reviewed wildlife camera models; purchased the wildlife cameras; hired a wildlife biologist to oversee the wildlife camera study; installed the wildlife cameras in the Project Zone; and recorded several vulnerable and threatened species, including several jaguars.

⁶⁶ IUCN Red List, “Jaguar: Population,” Available: <https://www.iucnredlist.org/species/15953/123791436#population>

⁶⁷ IUCN Red List, “Jaguar: Population,” Available: <https://www.iucnredlist.org/species/15953/123791436#population>

	During the 2022 monitoring period, Quadriz: continued to engage the private landowner and the associated agreement was abided by; avoided deforestation; preserved habitat for several threatened and vulnerable mammals; recorded several vulnerable and threatened species, including jaguars; and concluded the first wildlife camera study. During the 2023 monitoring period, Quadriz: continued to engage the private landowner and the associated agreement was abided by; avoided deforestation; preserved habitat for several threatened and vulnerable mammals; recorded several vulnerable and threatened species, including jaguars; and hired a new guard service. During the 2024-2025 monitoring period, Quadriz: continued to engage the private landowner and the associated agreement was abided by; avoided deforestation; preserved habitat for several threatened and vulnerable mammals; photographed several vulnerable and threatened species, including jaguar, during the deployment of wildlife cameras for marketing purposes; and continued to employ guards from Araucanos. At this time, the same regional threats (e.g., “livestock ranching and persecution”) apply to the population of jaguars. However, over the 2024-2025 monitoring period, the Project reduced threats to jaguars within the Project Area by preventing deforestation (i.e., thus preserving forested habitat), and the Project hired forest guards to prevent illegal timber harvesting and/or illegal hunting.
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APPENDIX 1: NEW PROJECT AREAS AND STAKEHOLDERS

There were no new project areas or stakeholders since the Project's inception, other than the addition of Los Guardianes as an Other Entity. In addition, Quadriz hired a new guard service Araucanos S.A. in August 2023 to replace the previous guard service Los Guardianes and Araucanos S.A. has been added as an Other Entity.

Stakeholder	Rights, interest, and overall relevance to the project	Demonstrate how they meet the eligibility criteria (G1.14)	Demonstrate how their inclusion does not violate the scalability limits (G1.15)
Not applicable.	Not applicable.	Not applicable.	Not applicable.

APPENDIX 2: PROJECT RISKS TABLE

	Identified risk(s)	Potential impact of risk on stakeholders, ecosystem health, and biodiversity	Mitigation or preventative measure(s) taken
Natural and human induced risks to stakeholders' wellbeing	The two main natural and human induced risks are encroachment into the Project Area by local farmers and fire.	Encroachment by farmers could result in accidental or intentional clearing of forest areas; Fire is a risk throughout the Paraguayan Chaco. This potential fire risk is not a natural fire risk (i.e., started naturally by lightning strike), but rather would be started by nearby farmers.	All conservation sites will be regularly monitored by local staff to mitigate the potential encroachment by farmers; The conservation sites will also be regularly monitored to quickly identify potential fires. Fire breaks have been established and will be maintained alongside access roads. Further, an online tool with fire alerts will be used. Such online tools might include the Global Forest Watch or the Global Risk Assessment Services (GRAS), which uses data based on the Fire Information for Resource Management System (FIRMS) provided by NASA. The Project also needs to work with adjacent landowners on best practices to minimize the spread of fires. Training sessions during 2024 for Quadriz staff included: emergency response, basic knowledge of the Occupational Health and Safety Management System according to ISO 45001, hazard identification training, first aid and firefighting knowledge, and fire control.

Risks to stakeholder participation	Risks to stakeholder participation related to a lack of participation.	Lack of stakeholder participation could lead to Project failure, less community and other stakeholder participation, and ultimately lead to degradation and/or deforestation at the Project.	Quadriz has undergone extensive stakeholder identification, mapping and engagement since the Project start date. This includes engaging the private landowner, technical experts, Paraguayan Government officials, and adjacent communities, including throughout the 2024-2025 monitoring period.
Working conditions	Risks from working conditions	Risks from working conditions, such as poisonous snakes, could result in injury or death to Project staff and stakeholders.	Quadriz has mapped the various risks arising from working conditions and have incorporated these risks in the ongoing monitoring reports, into the Project's Summary Documents (both English and Spanish), into Quadriz's Health and Safety Policy (which is publicly posted at the Visitor Center), and have directly communicated these risks to Project staff and stakeholders. Personal protective equipment (PPE) is provided to both Quadriz staff and visitors. This includes snake guards, gloves, hats, and neck guards. Further, there were several relevant trainings in 2024-2025, which included: basic knowledge of the Occupational Health and Safety Management System according to ISO 45001, hazard identification training, road safety and defensive driving, first aid and firefighting knowledge, good manufacturing in kitchen practices training, safety training, and chemical handling. In September 2024, a total of 18 people from the Maria Auxiliadora community received training in first aid as part of the Project's activities.

Safety of women and girls	Safety of women and girls	The lack of safety for women and girls could directly harm an important stakeholder through, to name a few, exploitation, further marginalization, and exclusion from project participation and economic activities.	The safety of women and girls is of paramount importance to both the Project and Quadriz. To this end, Quadriz has hired several women, including women in management positions, including during the 2024-2025 monitoring period. Quadriz also has a recently published a Code of Conduct and Quadriz has a “complaints and claims procedures.” Further, providing fair working conditions for women and girls is legally required per Article 67 of Paraguay’s Labor Code.
Safety of minority and marginalized groups, including children	Safety of minority and marginalized groups, including children	The lack of safety for minority and marginalized groups, including children, could directly harm an important stakeholder through, to name a few, exploitation, further marginalization, and exclusion from project participation and economic activities	The safety of minority and marginalized groups, including children, are also of paramount importance to both the Project and Quadriz. To this end, Quadriz is working directly with local communities to provide local social projects and programs. Quadriz also has a recently published a Code of Conduct and Quadriz has a “complaints and claims procedures.” Further, the equality of minority and marginalized groups is included in Paraguay’s Labor Code.
Use of armed guards	There are limited risks to the Project’s climate, community and/or biodiversity benefits due to the use of a professional guard services firm.	The primary risk is if the armed guards lack specialized training which could result in excessive or deadly force being used without justification.	The mitigation and prevention measures taken are: • Quadriz hired a professional guard services firm, for instance Los Guardianes and most recently Araucanos S.A., that provides its guards with extensive training;

			• Ongoing training of the professional guards; • Regular visits to the Project site by a VVB; and • Ongoing CCB verification audits to confirm no new risks associated with the use of armed guards has arisen. According to Araucanos S.A., additional mitigation and prevention measures followed by the Project's guards includes: <u>Firearms Training:</u> Training regarding current legislation, operating protocols, and safe firearm use is provided both remotely and in person. <u>Use of Lethal Force:</u> The guards receive clear instruction that lethal force may only be used in extreme situations, when there is a real and imminent risk to their own life or the lives of others, always within the framework of legitimate self-defense, in accordance with the law. <u>Interaction with Armed Personnel:</u> Personnel are trained in conflict management, risk assessment, and prioritizing deterrence and protection of life, avoiding direct confrontation whenever possible. The use of graduated force—verbal, physical, and, as a last resort, lethal force—is prioritized, in accordance with the law. <u>Procedure in Case of Accidental Discharges:</u> We have an immediate incident reporting protocol, which includes written notification of the incident to the supervisor. A logbook is kept at the post for this purpose, and, if necessary, the appropriate authorities are notified.
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			<u>Use and Storage of Off-Duty Weapons and Equipment:</u> Weapons and protective equipment must be securely stored, unloaded, and under authorized custody, following established internal procedures, especially during off-duty rest periods. <u>Monitoring Compliance with Procedures:</u> Araucanos S.A. conducts on-site inspections at the service posts, and in the case of the Corazon Verde del Chaco Project, these inspections are carried out during visits and through ongoing monitoring to ensure that guards comply with current procedures and regulations. Certain controls are performed via WhatsApp with daily reports reviewed by a security manager at Araucanos' base, such as checking the condition of weapons, ammunition, and other equipment.
Pollutants (air, noise, discharges to water, generation of waste, and release of hazardous materials and chemical pesticides and fertilizers)	No risk identified.	The Project is a forest conservation project and thus, there will be no air or noise pollution, nor discharges of waste to local water sources, nor the generation and/or release of waste and hazardous materials. Further, the Project will not utilize chemical pesticides and/or fertilizers.	Not applicable.
Discrimination	No risks of discrimination have been identified at the Project.	Discrimination could hurt staff morale and in some cases is illegal.	The mitigation and preventative measures taken are: • Management shall not tolerate any such discrimination; • Non-discrimination language must be included in hiring paperwork;

			• That no discrimination is tolerated at the Project must be communicated; and • Ongoing audits to the VCS-CCB to confirm discrimination is not taking place.
Sexual harassment	No risks of sexual harassment have been identified at the Project.	Harassment could hurt staff morale and, in some cases, such as sexual harassment, is illegal.	The mitigation and preventative measures taken are: • Management shall not tolerate any such harassment; • No harassment language must be included in hiring paperwork; • That no sexual harassment is tolerated at the Project must be communicated; • A confidential grievance and redress procedure (e.g., such as a suggestions box, a local hotline, and/or a trusted local human resource officer) must be established; and • Ongoing audits to the VCS-CCB to confirm sexual harassment is not taking place.
Equal pay for equal work	No risks of unequal pay for equal work have been identified at the Project.	Unequal pay for equal work could hurt staff morale and, in some cases, could be illegal.	The mitigation and preventative measures taken are: • Management shall not tolerate any wage discrimination; • A confidential grievance and redress procedure (e.g., such as a suggestions box, a local hotline, and/or a trusted local human resource officer) must be established; and • Ongoing audits to the VCS-CCB to confirm equal pay for equal work is being provided.

Gender equity in labor and work	No risks associated with gender inequity in labor and work have been identified at the Project.	Gender inequity in labor and work could hurt staff morale and, in some cases, could be illegal.	The mitigation and preventative measures taken are: • Management shall not tolerate any gender inequity; • A confidential grievance and redress procedure (e.g., such as a suggestions box, a local hotline, and/or a trusted local human resource officer) must be established; and • Ongoing audits to the VCS-CCB to confirm gender equity in labor and work is being provided.
Forced labor⁶⁸	No risks of forced labor have yet been identified at the Project. Per the Global Slavery Index, Paraguay “ranks 69th globally and 14th within the Americas.”⁶⁹	Forced labor is illegal.	The mitigation and preventative measures taken are: • Management shall not tolerate any such forced labor, and such violations shall be immediately reported; and • Ongoing audits to the VCS-CCB to confirm forced labor is not taking place.
Child labor	No risks of child labor have been identified at the Project.	Child labor is illegal.	The mitigation and preventative measures taken are: • Management shall not tolerate any such child labor, and any such violations shall be reported; and

⁶⁸ The identified risks and commensurate mitigation or preventative measure(s) for forced labor, child labor, and human trafficking, must be inclusive of staff and contracted workers employed by third parties.

⁶⁹ Walk Free. “Modern slavery in Paraguay: Global Slavery Index 2023: Country Snapshot.” Accessed March 10, 2025. Available: <https://cdn.walkfree.org/content/uploads/2023/09/28135448/GSI-Snapshot-Paraguay.pdf>

			Ongoing audits to the VCS-CCB to confirm child labor is not taking place.
Human trafficking	Although no cases of human trafficking have been identified in and around the Project Area, per the Global Organized Crime Index, Paraguay is tied for 29 th in the world for human trafficking. ⁷⁰	Human trafficking is illegal.	The mitigation and preventative measures taken are: - Management shall not tolerate any such human trafficking, in or around the Project, and any such violations shall be reported; and - Ongoing audits to the VCS-CCB to confirm human trafficking is not taking place throughout the Project Zone.
Recognition of, respect of, and promotion of the rights to IPs, LCs and customary rights holders	No risks of human rights violations have yet been identified at the Project.	The lack of recognition, respect and promotion of said rights could hurt relations with local communities and, in some cases, could be illegal.	The mitigation and preventative measures taken are: - Management shall not tolerate any such human rights violations, in or around the Project, and any such violations shall be reported; and - Ongoing audits to the VCS-CCB to confirm human rights violations are not taking place throughout the Project Zone.
Preserving and protecting cultural heritage	No risks to preserving and protecting cultural heritage have been identified at the Project.	The lack of preserving and protecting cultural heritage could hurt staff morale and/or relations with local communities and, in some cases, could be illegal.	The mitigation and preventative measures taken are: Management shall not tolerate any violations to preserving and protecting cultural heritages, in or around the Project, and any such violations shall be reported; and

⁷⁰ Global Organized Crime Index. "Human Trafficking." Accessed March 10, 2025. Available: https://ocindex.net/rankings/human_trafficking?f=rankings&view=List

			Ongoing audits to the VCS-CCB to confirm violations to cultural heritages are not taking place throughout the Project Zone.
Protecting and preserving property rights, customary rights, or protecting legal or customary tenure/access rights to territories, property, and resources, including collective and/or conflicting rights	No risks to protecting and preserving said rights have been identified at the Project.	The lack of protecting or preserving said rights could hurt staff morale and/or relations with local communities and, in some cases, could be illegal.	The mitigation and preventative measures taken are: - Management shall not tolerate any violations to protecting and said rights, in or around the Project, and any such violations shall be reported; and - Ongoing audits to the VCS-CCB to confirm said rights violations are not taking place throughout the Project Zone.
Impacts on biodiversity and ecosystems	No risk identified.	The Project is a forest conservation project and thus, there will be no negative impacts on local biodiversity and ecosystems.	Not applicable.
Soil degradation and soil erosion	No risk identified.	The Project is a forest conservation project and thus, the Project will not contribute to soil degradation or soil erosion.	Not applicable.
Water consumption and stress	No risk identified.	The Project is a forest conservation project and thus, there will be no water consumption and stress as a result of the Project.	Not applicable.
Habitats (and areas needed for habitat connectivity) for rare, threatened, and endangered species	There could be some select illegal logging or hunting or narcotrafficking.	Illegal logging could reduce the amount of carbon dioxide being stored at the Project sites. Illegal hunting could reduce biodiversity. Narcotrafficking could lead to deforestation and safety risks.	Illegal logging is unlikely, as the Project Area is privately owned and will be regularly monitored. In addition, illegal hunting is also unlikely given the distance of local communities from the Project Area. Wildlife cameras will be regularly placed at the Project sites to monitor medium-to-large

			mammals and such cameras will also be capable of identifying illegal hunting. There have been no signs of narcotrafficking in the Project Area from 2020-2025. To mitigate this risk, the Project has hired professional guards and the Project Area will be regularly monitored.
Areas needed for habitat connectivity	No risk identified.	The Project is a forest conservation project and thus, there will be no negative impact on areas needed for habitat connectivity.	Not applicable.
Invasive species	Disease or invasive species	Disease or invasive species could reduce tree growth and result in less canopy cover and fewer carbon dioxide emissions sequestered.	There are no known risks throughout the Project Zone associated with invasive species, pest or disease infestations, or risks associated with immigration from outside communities. According to the Global Invasive Species Database, the following invasive species have been identified in the Departments of Alto Paraguay and Presidente Hayes: • Rock pigeons (<i>Columba livia</i>; Alto Paraguay and Presidente Hayes); • Golden mussel (<i>Limnoperna fortunei</i>; Alto Paraguay and Presidente Hayes); • Wild tomato (<i>Solanum sisymbriifolium</i>; Alto Paraguay); • <i>Oxycaryum cubense</i> (Cuban bulrush; Presidente Hayes); and

			Guava (<i>Psidium guajava</i>; Presidente Hayes).⁷¹ The feral pig, <i>Sus scrofa</i>, is an invasive species that is considered a threat to native fauna as it is a disease reservoir, competitor, and potential predator for native fauna. The feral pig was identified at the initial project instance and the situation is being monitored.
Ecosystem conversion	No risk identified.	The Project is a forest conservation project and thus, there will be no ecosystem conversion.	Not applicable.

⁷¹ Global Invasive Species Database. "Search: Alto Paraguay, Presidente Hayes." Available: <http://www.iucngisd.org/gisd/search.php>

APPENDIX 3: COMMERCIALY SENSITIVE INFORMATION

Not applicable.

Section	Information	Justification
The Project's VCS Non-Permanence Risk Report, in accordance to Section 2.4.6.	The Project's confidential financial documents which were used to assess the Project's VCS Non-Permanence Risk Report, in accordance to Section 2.4.6, are considered commercially sensitive information.	The Project's confidential financial documents include detailed financial statements with budgeting, cost structures, projected cash flows, depreciation schedules, sales and investments; all of which are private and would be detrimental to the company if made public.

APPENDIX 4: EVIDENCE OF THE PROJECT'S SD CONTRIBUTIONS

Below is evidence of the Project's SD contributions.

Row number	SDG target	SDG indicator	Net impact on SDG indicator	Current project contributions	Supporting Evidence
	SDG Target number	Number and text of SDG indicator or, if no official SDG indicator is applicable, user-defined indicator	Indicate the project's contribution to the SDG Indicator (implemented activities to increase or decrease)	Brief description of the quantifiable impact of the project's activities related to the SDG indicator, during the monitoring period.	Evidence of the project's SD contributions shall be provided as appendices to this report.
1)	1.2	Proportion of staff living at or below the national minimum wage.	The Project is increasing incomes by providing good paying jobs.	In 2024-2025, 13+ full-time people (e.g., forest guards and Quadriz full-time staff) received wages exceeding the national minimum wage.	Supporting evidence for SDG Target 1.2 includes: VVBs' firsthand observations of individuals employed by the Project; VVBs' interviews with employed personnel; and review of hiring paperwork and legal contracts (e.g., such as with the external contractors Los Guardianes and later with Araucanos S.A.).

2)	2.1	2.1.1: Prevalence of undernourishment	The Project is increasing incomes which will help reduce hunger and the Project is providing food assistance (e.g., vegetable gardens) to the Maria Auxiliadora community.	Between January 2024 and September 2025, the Project donated food and supplies to 6 community kitchens.	Supporting evidence for SDG Target 2.1 includes: VVBs' firsthand observations of individuals employed by the Project; firsthand observations of the vegetable gardens; VVBs' interviews with employed personnel and with community members from Maria Auxiliadora; review of hiring paperwork and legal contracts (e.g., such as with the external contractors Los Guardianes and later with Araucanos S.A.); and pictures of vegetable gardens found below.
3)	3.8	Improve the communities' access to health care professionals	The Project is implementing activities, particularly Chaco Alert, to increase communities' access to health care professionals.	The Chaco Alert Program was updated during 2024 and 2025. In 2024, first aid kits were installed in the María Auxiliadora community, as well as several trainings (including on first aid) were provided to the Quadriz team and to the Maria Auxiliadora community members.	Supporting evidence for SDG Target 3.8 includes: VVBs' interviews with employed personnel, interviews with members of the Maria Auxiliadora community (i.e., a primary beneficiary of Chaco Alert), and interviews with Livieres Guggiari (i.e., the law firm who helped outline the relevant laws and regulations pertaining to Chaco Alert); and the VVBs' review of the draft Chaco Alert surveys.
4)	4.3	Provide educational support to local communities.	The Project is implementing activities, such as donating school supplies and sponsoring scholarships, to provide educational support to the Maria Auxiliadora community.	In 2024, financial assistance was provided to three university students from the Maria Auxiliadora community.	Supporting evidence for SDG Target 4.3 includes: VVB visit to, and interviews with, community members from Maria Auxiliadora.

5)	5.5	5.5.2 Proportion of women in managerial positions	Implemented activities to increase the proportion of women in managerial positions.	In 2024 and 2025, 5+ women were employed by the Project including 2+ women in a managerial position.	Supporting evidence for SDG Target 5.5 includes: the VVBs have had direct access to interview the Project Proponents, which includes women in leadership positions; review of hiring paperwork; and Quadriz's staff page (see here: https://quadriz.com/about-quadriz/).
6)	6.1	Proportion of staff who have easy access to a safe water supply.	The Project provides access to clean water and sanitation facilities to all Quadriz staff.	In 2024-2025, 13+ full-time people (e.g., forest guards and Quadriz full-time staff), equivalent to a proportion of 100% of staff, had access to clean water and sanitation facilities.	Supporting evidence for SDG Target 6.1 includes: VVBs' firsthand observations of Quadriz's facilities, which includes access to clean water and sanitation; and direct access to interview Quadriz's staff and Quadriz's external contractors (e.g., Los Guardianes and later Araucanos S.A.).
7)	7.2	7.2.1 Renewable energy share in the total final energy consumption	The Project has implemented activities, such as the installation of solar panels, to increase access to renewable energy.	In 2024 and 2025, the Project continued to benefit from the solar panels installed by Quadriz in 2022 at the visitor center and at the guards' house.	Supporting evidence for SDG Target 7.2 includes: VVBs' firsthand observations of Quadriz's rural facilities (i.e., the visitor center and guards' house), which includes solar panels; the VVBs' interviews with Quadriz's staff and Quadriz's external contractors (e.g., Los Guardianes and later Araucanos S.A.); purchase invoices for the solar panels; and pictures of the installed solar panels which are provided further below.
8)	8.8	Promote safe and secure working environments for all workers.	The Project is providing a safe and secure working environment for all Quadriz staff.	In 2024-2025, 13+ full-time people (e.g., forest guards and Quadriz full-time staff), equivalent to a proportion of 100% of staff, had access to a safe and secure working environment.	Supporting evidence of SDG Target 8.8 includes VVBs' firsthand observations of individuals employed by the Project; the VVBs' interviews with employed personnel; and pictures of the first aid kits installed at the visitor center (see below).

9)	9.2	Promote inclusive and sustainable development.	The Project is developing a new, innovative industry for the region focused on inclusivity and sustainability.	In 2024-2025, 13+ full-time people (e.g., forest guards and Quadriz full-time staff), equivalent to a proportion of 100% of staff, contributed to Quadriz's inclusive and sustainable development.	Supporting evidence for SDG Target 9.2 includes: VVBs' firsthand observations of individuals employed by the Project; VVBs' interviews with employed personnel; review of hiring paperwork and legal contracts (e.g., such as with the external contractors Los Guardianes and later with Araucanos S.A.); review of Paraguay's Carbon Law; and review of the legal constitution (i.e., founding documents) of Quadriz.
10)	10.3	Ensure equal opportunity and reduce inequalities of all workers	The Project is seeking to reduce inequalities by providing good paying jobs.	In 2024-2025, 13+ full-time people (e.g., forest guards and Quadriz full-time staff), equivalent to a proportion of 100% of staff, had access to equal opportunities and reduced inequalities due to their good paying jobs.	Supporting evidence for SDG Target 10.3 includes: VVBs' firsthand observations of individuals employed by the Project; VVBs' interviews with employed personnel; and review of hiring paperwork and legal contracts (e.g., such as with the external contractors Los Guardianes and later with Araucanos S.A.).
11)	11.4	Total expenditure on the preservation, protection and conservation of all cultural and natural heritage, by private sources of funding	Implemented activities to increase total expenditure on the preservation, protection and conservation of natural heritage.	In 2024 and 2025, private carbon finance was generated for the Project.	Supporting evidence for SDG Target 11.4 is primary from the historical VERPAs provided to VVBs, the issuance/transfer records of the Project's VCU's via the Verra Registry, and the Project's detailed pro formas which have been provided to the VVB.
12)	12.8	By 2030, ensure that people everywhere have the relevant information and awareness for sustainable development and lifestyles in harmony with nature.	Implemented activities to increase rural communities' access to relevant information and awareness for sustainable development and lifestyles in harmony with nature.	In September 2024, a total of 18 people from the Maria Auxiliadora community had improved skills and/or knowledge resulting from training in first aid and environmental education which was provided as part of the Project's activities.	Supporting evidence for SDG Target 12.8 includes: VVBs' interviews with members of the Maria Auxiliadora community; VVBs' firsthand observations of the distributed Summary Reports; and the VVBs' review of the Project's Participatory Rural Assessment (PRA) and Forest Degradation surveys.

13)	13	Tonnes of greenhouse gas emissions avoided or removed	Implemented activities to mitigate greenhouse gas emissions.	By conserving approximately 4,600 hectares of deforestation, the Project prevented the release of more than 1.8 million tCO ₂ e entering the atmosphere during the 2024-2025 monitoring period.	Supporting evidence for SDG Target 13.0 includes: GHG accounting workbooks provided to each VVB; the associated write up the calculations and satellite imagery analysis in each Monitoring Report; and the record issuances on the Verra Registry.
14)	14.2	Reduce siltation and chemical inputs to aquatic environments.	Conservation will reduce erosion and water runoff, which will benefit local waters.	Project activities contributed to a reduction in deforestation of 4,595 hectares during the 2024-2025 monitoring period.	Supporting evidence for SDG Target 14.2 includes: GHG accounting workbooks provided to each VVB; and the associated write up the calculations and satellite imagery analysis in each Monitoring Report.
15)	15.2	15.2.1 Progress towards sustainable forest management	Implemented activities to progress towards sustainable forest management and conservation.	Project activities contributed to a reduction in deforestation of 4,595 hectares during the 2024-2025 monitoring period.	Supporting evidence for SDG Target 15.2 includes: GHG accounting workbooks provided to each VVB; and the associated write up the calculations and satellite imagery analysis in each Monitoring Report.
16)	15.5	15.5.1 Red List Index	Implemented activities to conserve and protect vulnerable and near threatened species per the IUCN Red List.	Project activities contributed to a reduction in deforestation of 4,595 hectares during the 2024-2025 monitoring period. In addition, at least 5 Vulnerable or Near-Threatened species were conserved during the 2023 monitoring period, including: the giant anteater (<i>Myrmecophaga tridactyla</i>); the lowland tapir (<i>Tapirus terrestris</i>); the giant armadillo (<i>Priodontes maximus</i>); the white-lipped peccary (<i>Tayassu pecari</i>); and the jaguar (<i>Panthera onca</i>).	Supporting evidence for SDG Target 15.5 includes: GHG accounting workbooks provided to each VVB; the associated write up the calculations and satellite imagery analysis in each Monitoring Report; the biodiversity impact monitoring reports and their write up in each Monitoring Report; a review of the IUCN Red List (see here: https://www.iucnredlist.org/search); and select historical photographs are provided further below.

17)	16.7	Number of staff hired to ensure responsive, inclusive, participatory and representative decision-making at all levels.	The Project has hired a diversity of staff to ensure responsive, inclusive, participatory and representative decision-making at all levels.	In 2024-2025, 13+ full-time people (e.g., forest guards and Quadriz full-time staff), were employed. This includes field staff, forest guards and management; thus, ensuring responsive, inclusive, participatory, and representative decision-making at all levels.	Supporting evidence for SDG Target 16.7 includes: VVBs' firsthand observations of individuals employed by the Project; VVBs' interviews with employed personnel; and review of hiring paperwork and legal contracts (e.g., such as with the external contractors Los Guardianes and later with Araucanos S.A.).
18)	17.17	Number of effective public, public-private and/or civil society partnerships, building on the experience and resourcing strategies of partnership.	The Project is made of strong domestic and international partnerships.	In 2024 and 2025, the Project's primary partnerships continued to be between the Project Proponent Quadriz and its technical provider (i.e., "Other Entity") Ostrya Conservation, along with between Quadriz and the landowner Atenil S.A.	Supporting evidence for SDG Target 17.17 includes: VVBs' interviews with local communities, Atenil S.A., Quadriz, support staff/contractors (e.g., Ostrya Conservation, Los Guardianes, and later with Araucanos S.A.), and interviews with other stakeholders (e.g., MADES and INFONA); and the VVBs' review of the Letter of Agreement between Quadriz and Atenil and the Letter of Agreement between Quadriz and Ostrya Conservation.

Evidence for SDG 2.1: Pictures of Vegetable Gardens



Box of Seeds sent to the Maria Auxiliadora Community (Photo Credit: Quadriz)



Seeds being Distributed to the Maria Auxiliadora Community (Photo Credit: Quadriz)

Evidence for SDG 7.2: Pictures of Installed Solar Panels



Solar Panels Installed at Guards' House (Photo Credit: Ostrya Conservation)



Solar Panels Installed at Visitor Center (Photo Credit: Quadriz)

Evidence for SDG 8.8: Pictures of First Aid Kits at Visitor Center



First Aid Kits at the Visitor Center (Photo Credit: Quadriz)

Evidence for SDG 15.5: Select Historical Photographs of Wildlife



Jaguar Footprints (Photo Credit: Ostrya Conservation) and Giant Anteater (Photo Credit: Quadriz)
Photographed at the Project