

MONITORING REPORT

REDD+ PROJECT

RESGUARDO INDÍGENA UNIFICADO – SELVA DE MATAVÉN (RIU-SM)



Document Prepared By



Asociación de *Cabildos* y Autoridades Tradicionales Indígenas de la Selva de Matavén – **ACATISEMA**



MEDIAMOS F&M S.A.S.

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History of CCB Status	<p>There is no any history about CCB Status, but there is about VCS Program:</p> <p>Validation under VCS Program:</p> <p>VCS VALIDATION DEED OF REPRESENTATION - 6th December, 2016</p> <p>JOINT VALIDATION & VERIFICATION REPORT - 10th June, 2017</p> <p>Verification under VCS Program 2013 & 2014-2015 periods:</p> <p>VCS VERIFICATION DEED OF REPRESENTATION - 6th December, 2016</p> <p>JOINT VALIDATION & VERIFICATION REPORT - 10th June, 2017</p> <p>Verification under VCS Program 2016 – 2017 period:</p> <p>VERIFICATION REPORT - 19th November, 2018</p> <p>VCS VERIFICATION DEED OF REPRESENTATION - 20th November, 2018</p> <p>Verification under VCS Program 2018 & 2019 periods:</p> <p>VERIFICATION REPORT - 10th November, 2020</p> <p>VCS VERIFICATION DEED OF REPRESENTATION - 11th November, 2020</p>
Gold Level Criteria	<p>REDD+ Project RIU-SM Activities are: surveillance and control of RIU-SM territory, information / communication / transportation systems, strengthening of governance, family agri-food production unit system to ensure food guarantee, develop educational programs, implement projects in productive chains. In addition to these, the ACATISEMA Reserves are implemented, which are intended to bring benefits in different sensitive aspects for the Indigenous Reservation. With all these actions, it is expected to apply to all the Gold Level criteria (in Climate, Community and Biodiversity)</p> <p>GL1 Climate Change Adaptation Benefits</p> <p>REDD+ Project RIU-SM Activities are aimed at the protection, conservation, and recovery of the of natural forests of the Selva de Matavén, in a Project Area of 1,150,212 has., and avoid the GHG emission of 108,670,562 tCO₂ in the crediting period. The Project Activities also seek to generate infrastructure, logistics, resources and capacity to face the effects of climate change, such as surveillance and communication to be alert to alterations, administrative strength to manage contingency care, assurance of food and resources in seasons critical and in case of loss of vital elements.</p> <p>GL2 Exceptional Community Benefits</p> <p>Strengthening of human skills to ensure their means of subsistence and their quality of life, in relation to installed capacities to defend the autonomy of indigenous people; have administrative and economic strength, with gender equity, with spaces for the participation of different community groups in decision-making and when receiving benefits and seeking to meet the sustainable development goals; produce more and</p>

better food; develop training-participation processes, in basic and higher education; develop productive projects to ensure self-consumption and trade of different products, goods and services, to generate family and circulating economy; have more possibilities of receiving health services, treated water for consumption, improvement of housing and wellness elements (in an environmentally friendly way); attention to special population and in case of contingencies that threaten the welfare conditions of the communities; and protection of the HCVs: areas that provide critical ecosystem services for regulation and support, areas that are critical to the livelihood of communities and areas that are critical to the traditional cultural identity of communities.

GL3 Exceptional Biodiversity Benefits

Through the Project Activities, whose main purpose is to generate the conditions with which it is possible to protect and conserve the natural forests of the RIU-SM, collateral benefits are generated for the protection and conservation of the optimal conditions with which the care of subsistence resources for important and necessary species of flora and fauna, especially those vulnerable and in danger and, therefore, the protection of HCVs: species diversity (including endemic species and rare, threatened and/or endangered that are significant at local, regional, national, and global levels), landscape (significant at local, regional, national, and global levels, that contain viable populations of the great majority of the naturally occurring species in natural patterns of distribution and abundance), and rare, threatened, or endangered ecosystems, habitats or refugia.

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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
<p>1) Reduction of the aspects of vulnerability in the RIU-SM, by:</p> <ul style="list-style-type: none"> • Capacity for the development of the surveillance and control of the RIU-SM, which allows the indigenous authorities to be present in all locations of their territory, generating confidence to assert the protection of the forests and related natural resources. • Improvement of the information, communication and transportation means systems, to contribute to reducing physical distances between the RIU-SM communities. • Strengthening of governance for the Indigenous Reservation through its association ACATISEMA, which allows indigenous communities to have elements to ensure their autonomy, self-management and self-determination. 	<p>These outcomes or impacts corresponds with the Product 1 of the Matrix of Logic Structure. In 2018 & 2019 these aspects were reinforced:</p> <ul style="list-style-type: none"> • Better organization, equipment, resources and endowment were provided for development of the surveillance and control of the RIU-SM. • The information, communication and transportation systems are used in a massive way for the benefit of the indigenous authorities and the communities of the RIU-SM. • The indigenous authorities and the ACATISEMA Association have improved their governance and management capacity, to the point that they are the ones who carry out most of the Project Activities in the RIU-SM territory. 	<p>Verified Monitoring Report – VCS 2018 & 2019, Section “3.1.1 / Product 1”.</p>	<p>In the first years of the Project’s implementation, the measures to reduce vulnerability in the RIU-SM were designed and initiated. The surveillance routes were defined and the traditional indigenous guard was commissioned to report the events that were detected that affected the forests. Many meetings were held to socialize aspects of the Project and to train on, among other topics, surveillance and control of territory and governance.</p> <p>In subsequent years (2016 - 2019) the implementation of Activities A1.1, A1.2 and A1.3 was reinforced with the injection of more economic resources, to integrate more people to the indigenous guard, provide logistics, equipment, endowment, transportation, training, administrative capacity and promote the holding of additional training meetings and workshops and cultural events.</p>
<p>2) Sustainable production system and alternative economy initiatives through the implementation of a Sustainable</p>	<p>The Project provided tools, cassava graters, kitchen utensils, and agricultural machinery to reinforce the</p>	<p>Verified Monitoring Report – VCS 2018 & 2019,</p>	<p>In the first years of the Project’s implementation the FAPUS was designed and trainings on it were carried</p>

Outcome or Impact	Achievements during the Monitoring Period	Section Reference	Achievements during the Project Lifetime
Management Plan for Land and Forest of the RIU-SM, to guarantee food guarantee and products for self-consumption and commercialization.	implementation of FAPUS.	Section "3.1.1 / Activity A2.1".	out. In subsequent years (2016 - 2019) the training on best agricultural practices, the rotation of farms for recovery and reuse, and the provision of tools to improve food production were intensified.
3) Provision of financial resources to meet various needs of the indigenous communities of the RIU-SM.	In 2018 the second verification process was achieved.	Verified Monitoring Report – VCS 2018 & 2019, Section "3.1.1 / Activity A3.2".	The REDD+ Project RIU-SM achieved its validation under VCS Program in 2017, including the first verification, with which the economic breakeven point was achieved. In 2018 it achieved the second verification, with which the possibility of having more resources to potentiate the Project Activities and provide benefits to the communities was expanded. In 2020 the third verification process was completed.
4) Generation and updating of the socio-economic and geographical information of the territory.	With the indigenous self-census carried out in 2018, the social and economic information of indigenous communities was improved. The geographic information, now more available, continued to be analyzed, thus completing the spatial characterization of the territory.	Verified Monitoring Report – VCS 2018 & 2019, Section "3.1.1 / Task T2.1.5".	In the first years of the Project's implementation, the analyzes of first geographical information were carried out, with which the design of the spatial limits and the baseline was developed. A socio-economic survey was also conducted that revealed the first data on the RIU-SM population. In subsequent years (2016 - 2019) more available geographic information continued to be analyzed and socio-economic

Outcome or Impact	Achievements during the Monitoring Period	Section Reference	Achievements during the Project Lifetime
			information on the population was improved.
<p>5) Measures to bring other elements of well-being to the RIU-SM communities, through programs to:</p> <ul style="list-style-type: none"> • House improvement with materials that are not taken from the forest. • Attention to special population, such as children, the elderly and women. • Infrastructure to provide administrative workplaces and cultural activities. • Attention to calamities due to the occurrence of natural and human events that control indigenous communities. 	<p>Within the framework of Project implementation during 2018 & 2019, other actions are being carried out that provide benefits to the RIU-SM population in aspects such as health, supply of water, house and infrastructure improvement, attention of special population and calamities.</p>	<p>Verified Monitoring Report – VCS 2018 & 2019, Section “3.1.1 / Acatisema Reserves”.</p>	<p>In the first years of the Project's implementation, other needs and proposals were identified, and some managed to be satisfied.</p> <p>In subsequent years (2016 - 2019), the availability of greater resources allowed to provide more benefits according to the needs identified and the proposals made by the indigenous communities.</p>

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	2018: 4,422,586 tCO ₂ 2019: 6,500,811 tCO ₂	Verified Monitoring Report – VCS 2018 & 2019, Section “5.1 Baseline Emissions”.	2013 – 2019: 35,493,739 tCO ₂
Forest ¹ cover	For REDD ² projects: Number of hectares of reduced forest loss in the project area measured against the without-project scenario	In Project Area, a deforestation of 24,477 ha. was expected in without Project scenario in 2018 & 2019. In Project Area, an anthropic deforestation of 1,409 ha. occurred in with Project scenario in 2018 & 2019. The difference between the deforestation expected in the without Project scenario vs. that occurred in the with-Project scenario is the reduced forest loss of 23,068 ha. in 2018 & 2019.	Folder “calculation_tables”, file “spatial_model_results.xlsx” and “monitoring.xlsx”, sheet “Gral_defor_PA_LB”.	In Project Area, a deforestation of 82,444 ha. was expected in without Project scenario in 2013 - 2019. In Project Area, an anthropic deforestation of 3,941 ha. occurred in with Project scenario in 2013 - 2019. The difference between the deforestation expected in the without Project scenario vs. that occurred in the with-Project scenario is the reduced forest loss of 78,503 ha. in 2013 -

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*)

Category	Metric	Achievements during Monitoring Period	Section Reference	Achievements during the Project Lifetime
				2019.
	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	With the agro-forestry productive project (cocoa, corn, plantain, and <i>abarco</i>), 100 has. of Heterogenous Agricultural Areas are under management in 2018 & 2019.	Verified Monitoring Report – VCS 2018 & 2019, Section “3.1.1 / Activity A2.3.	Idem 2018 & 2019.
Training	Total number of community members who have improved skills and/or knowledge resulting from training provided as part of project activities	1,043 community members have participated in training process and have improved skills and/or knowledge.	Verified Monitoring Report – VCS 2018 & 2019, Annex 1.	3,165 community members have participated in training process and have improved skills and/or knowledge.
	Number of female community members who have improved skills and/or knowledge resulting from	125 women of communities have participated in training process and have		359 women of communities have participated in training process and have

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*)

Category	Metric	Achievements during Monitoring Period	Section Reference	Achievements during the Project Lifetime
	training provided as part of project activities of project activities	improved skills and/or knowledge.		improved skills and/or knowledge.
Employment	Total number of people employed in of project activities, ⁵ expressed as number of full time employees ⁶	<p>40 jobs are generated at the headquarters of the Project Proponents.</p> <p>About contracts with companies:</p> <p>2018: 2,047</p> <p>2019: 2,118</p> <p>On the other hand, the same people who receive training have achieved occupation by participating in the execution of the Project Activities (members of Coordinator Committee and <i>Cabildos</i> Board, indigenous guardians, Captains).</p>	Verified Monitoring Report – VCS 2018 & 2019, Section “3.1.1” (Acatisema and Mediamos staff and contracts).	Idem 2018 & 2019.
	Number of women employed in project activities, expressed as number of full time employees	<p>15 women have jobs at the headquarters of the Project Proponents.</p> <p>The number of women who work for the contractors is not known.</p> <p>125 indigenous women are participating directly in the execution of the Project Activities.</p>		

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])

Category	Metric	Achievements during Monitoring Period	Section Reference	Achievements during the Project Lifetime
Livelihoods	Total number of people with improved livelihoods ⁷ or income generated as a result of project activities	The Project ensures that the benefits reach all the communities and inhabitants of the RIU-SM (15,943 persons), thus, they are improving their livelihoods. The income will be perceived in the coming years, when the productive projects advance.	Verified Monitoring Report – VCS 2018 & 2019, Section “3.1.1”.	Idem 2018 & 2019.
	Number of women with improved livelihoods or income generated as a result of project activities	7,603 indigenous women are improving their livelihoods by benefits of Project.		
Health	Total number of people for whom health services were improved as a result of project activities, measured against the without-project scenario	4,714 indigenous persons are improving their health services.	Verified Monitoring Report – VCS 2018 & 2019, Section “3.1.1 / RA1”.	Idem 2018 & 2019.
	Number of women for whom health services were improved as a result of project activities, measured against the without-project scenario	2.120 indigenous women are improving their health services.		
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	121 students belonging to the communities of the RIU-SM are receiving education in technical, technologic and professional careers.	Verified Monitoring Report – VCS 2018 & 2019, Section “3.1.1 / A2.2”.	Idem 2018 & 2019.
	Number of women and girls	52 women belonging to the		

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.

Category	Metric	Achievements during Monitoring Period	Section Reference	Achievements during the Project Lifetime
	for whom access to, or quality of, education was improved as a result of project activities, measured against the without-project scenario	communities of the RIU-SM are receiving education in technical, technologic and professional careers.		
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	1,685 persons have increased water quality and/or improved access to drinking water.	Verified Monitoring Report – VCS 2018 & 2019, Section “3.1.1 / RA2”.	Idem 2018 & 2019.
	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	792 women have increased water quality and/or improved access to drinking water.		
Well-being	Total number of community members whose well-being ⁸ was improved as a result of project activities	The Project ensure that the benefits reach all the communities and inhabitants of the RIU-SM (around 15,943 persons), thus, they are improving their well-being.	Verified Monitoring Report – VCS 2018 & 2019, Section “3.1.1”.	Idem 2018 & 2019.
	Number of women whose well-being was improved as a result of project activities	7,603 indigenous women are improving their well-being by benefits of Project.		

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.

Category	Metric	Achievements during Monitoring Period	Section Reference	Achievements during the Project Lifetime
Biodiversity conservation	Change in the number of hectares significantly better managed by the project for biodiversity conservation, ⁹ measured against the without-project scenario	23,068 has. of forest have been protected in Project Area in 2018 & 2019, which result in the conservation of biodiversity.	Folder “calculation_tables”, file “spatial_model_results.xlsx” and “monitoring.xlsx”, sheet “Gral_defor_PA_LB”.	78,503 has. of forest have been protected in Project Area in 2013 - 2019, which result in the conservation of biodiversity.
	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	The species identified by Project as <i>Threatened and Endemic Species</i> are being protected by forest conservation.	5.1.4	Idem 2018 & 2019.

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

2 GENERAL

2.1 Project Goals, Design and Long-Term Viability

Next Table presents the Tasks executed during 2018 & 2019 and, therefore, the execution of Activities and other actions that provide benefits to indigenous communities (community groups) and other stakeholders, which contribute to the achievement of the Products and the Objectives of the Project. Special comments are made in which events or situations of importance for the development of the Project and its current implementation status are highlighted.

Table 1. Products, Activities and Tasks executed during this Monitoring Period 2018 & 2019

Products	Activities	Executed tasks
Product 1: Measures to reduce the vulnerability of the RIU-SM generated by external factors, designed and implemented.	Activity A1.1: Monitor and control the conservation and recovery of forests and lands of the RIU-SM.	Task T1.1.1: Review and adjustment of the design and planning of the surveillance and control of the forests and lands of the RIU-SM to avoid deforestation and degradation.
		Task T1.1.2: Execution of the established measures to implement the surveillance and control routes in the RIU-SM territory.
		Task T1.1.3: Review permanently the early warnings issued by the IDEAM on areas susceptible to forest fires within RIU-SM.
		Task T1.1.4: Supervision of the execution of the established measures to implement the surveillance and control routes of the territory and definition of contingency measures, if necessary, and reports.
		Task T1.1.5: Systematization and divulgation of results about surveillance and control of territory and early warnings about forest fires within RIU-SM.
	Activity A1.2: Develop and implement a communication and information system in the RIU-SM.	Task T1.2.1: Review and adjustment of design and planning of communication, information and transport systems.
		Task T1.2.2: Execution of the established measures to implement the communication system.
		Task T1.2.3: Execution of the established measures to implement the information system.
		Task T1.2.4: Execution of the established measures to implement the transport system.
		Task T1.2.5: Supervision of the execution of the established measures to implement the communication, information, and transport systems, definition of contingency measures, if it is necessary, and report of informs.
		Task T1.2.6: Systematization and divulgation of results about the implementation of the communication, information, and transport systems.

Products	Activities	Executed tasks
	<p>Activity A1.3: Design and establish a system of governance for development and sustainability of ACATISEMA Association.</p>	<p>Task T1.3.1: Management special affairs: military situation, service of graduates, socialization of Project, alliances, census, woman in coordinator board, government system, indigenous jurisdiction, oversight, exchange with <i>Consejo Regional Indígena del Cauca</i> - CRIC (Regional Indigenous Council of Cauca)-, native culture, pastors.</p> <p>Task T1.3.2: Management of the normative and regulatory aspects of ACATISEMA.</p> <p>Task T1.3.3: Support to review of Life Plans in relation to the characteristics of the REDD+ Project RIU-SM.</p> <p>Task T1.3.4: Management of the boundaries.</p> <p>Task T1.3.5.1: Design, planning, and execution of the measures related to ACATISEMA headquarters.</p> <p>Task T1.3.5.2: Supervision of the execution of the established measures related to ACATISEMA headquarters.</p> <p>Task T1.3.6.1: Design and planning of the measures related to remuneration of authorities, indigenous guard, and Family Agrifood Production Units System - FAPUS activities.</p> <p>Task T1.3.6.2: Execution of the established measures related to remuneration of authorities, indigenous guard, and FAPUS activities.</p> <p>Task T1.3.6.3: Supervision of the execution of the established measures related to remuneration of authorities, indigenous guard, and FAPUS activities.</p> <p>Task T1.3.7.1: Design and planning of the measures to provide economic support to students.</p> <p>Task T1.3.7.2: Supervision of the execution of the established measures to provide economic support to students.</p> <p>Task T1.3.8.1: Design and planning of the measures to offer transport services in RIU-SM.</p> <p>Task T1.3.8.2: Supervision of the execution of the established measures to offer transport services in RIU-SM.</p> <p>Task T1.3.9: Perform internal financial audit.</p>
<p>Product 2: Sustainable production system implemented.</p>	<p>Activity A2.1: Establish and develop a Family Agrifood Production Units System - FAPUS.</p>	<p>Task T2.1.1: Review and adjustment of the design and planning of the Family Agrifood Production Units System (FAPUS) (endowment, crops, minor species, silvopastoral system, orchards, pisciculture, <i>plátano</i>, cassava).</p> <p>Task T2.1.2: Execution of the established measures to develop the FAPUS.</p> <p>Task T2.1.3: Supervision of the execution of the established measures to develop the FAPUS.</p> <p>Task T2.1.4: Systematization and divulgation of results about the implementation of the FAPUS.</p> <p>Task T2.1.5: Design and implementation of the indigenous self-census to update the social and economic characterization of the RIU-SM population.</p>

Products	Activities	Executed tasks
	Activity A2.2: Design and develop a training and education program plan for the administration and management of natural resources RIU-SM.	Task T2.2.1: Management of special educational aspects.
		Task T2.2.2: Management to provide libraries and educational endowment.
		Task T2.2.3: Management to build / remodeling of schools.
		Task T2.2.4.1: Design and planning of the measures to develop training programs.
		Task T2.2.4.2: Execution of the established measures to develop training programs.
		Task T2.2.4.3: Supervision of the execution of the established measures to develop training programs.
		Task T2.2.4.4: Systematization and divulgation of management to develop training programs.
	Activity A2.3: Manage resources for project design and establishment of production chains.	Task T2.3.1.1: Design and planning of the measures related to development of productive projects.
		Task T2.3.1.2: Execution of the established measures related to development of productive projects.
		Task T2.3.1.3: Supervision of the execution of the established measures related to development of productive projects.
		Task T2.3.1.4: Systematization and divulgation of results about the management to develop productive projects.
		Task T2.3.2.1: Design and planning of the measures related to development of commercialization and cooperativism projects.
		Task T2.3.2.2: Execution of the established measures related to development of commercialization and cooperativism projects.
		Task T2.3.2.3: Execution of the established measures related to development of commercialization and cooperativism projects.
Product 3: A mechanism for valuation and compensation for environmental services generated in the RIU-SM, validated and verified.	Activity A3.1: Validate a REDD+ Project with international standards.	Task T3.1.1: Review and adjustment of the design of the REDD+ Project RIU-SM fulfilling with international standards. <i>Task already executed in previous years.</i>
		Task T3.1.2: Implementation of required adjustments according to review of the design of the REDD+ Project RIU-SM (baseline, boundaries, stocks of aboveground and belowground carbon, GIS, calculations, quantity to reduced emissions, etc.). <i>Task already executed in previous years.</i>
		Task T3.1.3: Execution of validation process according to review and adjustment of the design of the REDD+ Project RIU-SM. <i>Task already executed in previous years.</i>
	Activity A3.2: Verify the	Task T3.2.1.1: Planning of verification process of the REDD+ Project RIU-SM.

Products	Activities	Executed tasks
	Project and to registry the units of forest compensation for avoided deforestation.	Task T3.2.1.2: Execution of verification process of the REDD+ Project RIU-SM.
		Task T3.2.1.3: Systematization and divulgation of results about the verification process of the REDD+ Project.
		Task T3.2.2.1: Commercialization (planning, execution, supervision, systematization, divulgation) of carbon credits issued by REDD+ Project RIU-SM, according to opportunities and conditions of market and customer requirements.

In general, the Project Activities are carried out constantly, each year, with the exception of Activity A3.1, which refers to validation (which was executed in 2016 and part in 2017) and Activity A3.2, which refers to verification (which has been executed annually in some cases and biennially in other cases); what varies is the intensity of the execution of the Tasks, according to the time and the state of the Project. Therefore, it is important to examine compliance, adjustments and corrections of Tasks, when required, and their progress and contribution in terms of Products and Objectives, based on the indicators presented in the Matrix of Logical Structure (MLS). The evaluation of the execution is done based on this last table, to understand the achievement of the Objectives and Products of the Project and, therefore, to determine the effectiveness of the budget execution.

To consult details of the planning, execution, compliance, expected outputs, evidences, dates, indicators, assumptions and actions for monitoring and reporting of the Tasks of Activities in 2018 & 2019, see Section 1.2 "Annual Program by Activities" of the YPOs 2018 & 2019 (Annexes 2.1 and 2.3 of Monitoring Report - VCS 2018 & 2019) and its corresponding Project Progress Reports 2018 & 2019 (Annex 2.2 and 2.4 of Monitoring Report - VCS 2018 & 2019), Section 1.1 "Progress in implementation of the Activities, Tasks and Outputs achievement".

ACATISEMA Reserves

In addition to the Project Activities, other actions are also carried out to provide benefits and meet particular needs in the indigenous communities of the RIU-SM, which are called ACATISEMA Reserves:

RA1: Program of health care.

RA2: Program of drinking water and basic sanitation.

RA3: Program of housing construction and improvement.

RA4: Program of attention to special population.

RA5: Center of Indigenous Environmental Thought of the *Selva Matavén*.

RA6: Aspects of domestic calamity.

As stated above, this budget item and its execution is freely determined by ACATISEMA. The budget of these aspects is determined and executed also by ACATISEMA.

Development of Project Activities

The following are the results, indicators and benefits generated by the implementation of the Project Activities in 2018 & 2019, discriminated by Products, Activities and Tasks (as it was presented in the

previous table), identifying the specific results and achievements of each one. Special comments are also made in which the events or situations of importance for the development of the Project and its current implementation status are highlighted. This point is essential to understand and evaluate the projection and execution of the budget for 2018 & 2019.

PRODUCT 1: Measures to reduce the vulnerability of the RIU-SM generated by external factors, designed and implemented.

• **ACTIVITY A1.1:** Monitor and control the conservation and recovery of forests and lands of the RIU-SM

This Activity constitutes an important axis of the Project and it is, essentially, an activity of conservation and sustainable management of the land, forests and other natural resources of the territory, protecting these resources from different threats, such as illegal logging of trees, the presence of illegal miners, the exploitation of flora and fauna, among others, avoiding deforestation in all sectors of the RIU-SM. This Activity is achieved by fulfilling the following tasks:

Task T1.1.1: Review and adjustment of the design and planning of the surveillance and control of the forests and lands of the RIU-SM to avoid deforestation and degradation.

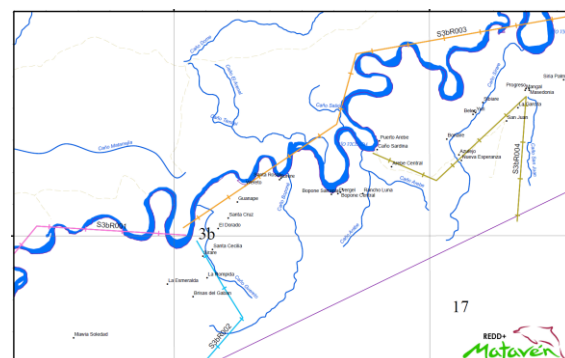
Updated documentary tools with which the Project seeks to facilitate the surveillance and control of the territory that the indigenous guard performs has been made. These tools correspond to:

- Template for the description of events or presence of stranger individuals that may occur in the territory and that cause effects on the resources of the RIU-SM. In this template they can register: moment, place, identified affectation, corrective action executed and responsible (Annex 4.1.1 of Monitoring Report - VCS 2018 & 2019).
- Maps with 37 surveillance routes that the indigenous guard permanently travels in the compliance of its work, and listed with the description of these routes (Annex 4.1.2 of Monitoring Report - VCS 2018 & 2019).
- Document with Regulation of the indigenous guard. With this seeks to regulate the structure and responsibilities of this surveillance and control body (Annex 4.1.3 of Monitoring Report - VCS 2018 & 2019).

Illustration 1. Material for indigenous guard work



Illustration 2. An updated map of routes



Additionally, an important Task has been accomplished: the training of the indigenous guard. The

indigenous guards were trained in 2018 & 2019, as in other years, through workshops held between August 20th and 30th, 2018 and between March 18th and 29th, 2019, in which aspects of the REDD+ Project were addressed (climate change, REDD mechanism, international and national regulatory framework, historical review of the Project and logical framework) and about the achieve of Products and implementation of Activities, specifically Activity 1.1 regarding the surveillance and control of the territory of the RIU-SM, responsibilities and internal regulations (see *Task T2.2.4.2.14 Training for the indigenous guard* and Annex 4.5.5 of Monitoring Report - VCS 2018 & 2019).

Illustration 3. Indigenous guards in training, Camuniana community, RIU-SM. 2018



For more information about training of the indigenous guard, see “*Task T2.2.4.2: Execution of the established measures to development training programs/Task T2.2.4.2.14: Training for the indigenous guard*”.

Task T1.1.2: Execution of the established measures to implement the surveillance and control routes in the RIU-SM territory

o Task T1.1.2.1: Indigenous Guard

In 2018 & 2019 there were 300 indigenous guards to perform the tasks of watching over and controlling the territory of the RIU-SM, as is defined. There were 150 indigenous individuals for the first semester of each year and another 150 indigenous individuals for the second semester of each year (see the list of these guards in Annexes 4.1.4a -2018- and 4.1.4b -2019- of Monitoring Report - VCS 2018 & 2019). The selection of people for this task is carried out autonomously by indigenous communities.

Illustration 4. Indigenous guard in Zone 1 (left) and Zone 4 (right) of RIU-SM, semester 2 - 2018



Illustration 5. Indigenous guards in Zones 3, 4 and 5, RIU-SM. 2019



These indigenous guards receive economic aids in compensation for the tasks they leave to perform in their respective communities, when they dedicate their time to the surveillance and control of the territory of the RIU-SM, what has generated occupation and some resources to improve their economy.

o Task T1.1.2.2: Fuel / Task T1.1.2.3: Food

The Project provides the necessary fuel for the mobility of the indigenous guard in its work of surveillance and control of the territory, through the 37 surveillance routes.

Food provisions have been delivered as basic support in the feeding of indigenous guards, which, consequently, constitutes a strengthening of the task of surveillance and control of the territory. These provisions are delivered due to these people stop performing their own economic tasks (such as planting of conucos, hunting, fishing and gathering of fruits) to dedicate part of their time and effort in the care and protection work of the territory.

- According to Annex 4.1.5.1 of Monitoring Report - VCS 2018 & 2019 (Contract No. 25, 2018) the delivered food provisions are described in the phase I.
- According to Annex 4.1.5.2a of Monitoring Report - VCS 2018 & 2019 (Contract No. 19, 2019) the delivered food provisions are described in the phase II:

In this Contract also the supplies delivered for the mobilization of the indigenous guard are described: 3,024 gallons of gasoline and 216 gallons of lubricant for boat engines. The Annex 4.1.5.2b (start minutes of the Contract No. 19, 2019), Annex 4.1.5.2c (supervisory report and certificate of compliance with the Contract No. 19, 2019) and Annex 4.1.5.2d (execution report) of Monitoring Report - VCS 2018 & 2019, provide more information about the effective execution of this Task.

Illustration 6. Victuals, fuel and lubricant delivered to indigenous guard



o Task T1.1.2.4: Control stations

- 5 control stations were built to support the surveillance and control of the RIU-SM territory. These control stations are in:

Zone 1, Sector 1 *Caño Cavasi*

Zone 1, Sector 2 *Aiwa Cuna Tsepajivo*

Zone 2, Sector 3a *Bajo Río Vichada 1*

Zone 2, Sector 3b *Bajo Río Vichada 2*

Zone 3, Sector 4 *Atana Piririami*

In Annex 4.1.6.1 of Monitoring Report - VCS 2018 & 2019 (Contract No. 27, 2018) are the specifications required for the construction of these control stations, which were made by same indigenous people. These consist in huts of 48 m² built of wood, ceilings zinc, among other characteristics.

Illustration 7. Control station in Sector 1



Illustration 8. Control station in Sector 2



Illustration 9. Construction in Sector 3a



Illustration 10. Control station in Sector 3b



Illustration 11. Control station in Sector 4



These control stations serve to support the actions carried out by the indigenous guard, related to the protection and care of the natural resources of the RIU-SM. These control stations were built in strategic places, such as near rivers, from where indigenous guards can watch.

The Annex 4.1.6.2 (start minutes of the Contract No. 27, 2018), Annex 4.1.6.3 (liquidation minutes of the Contract No. 27, 2018), Annex 4.1.6.4 (supervisory report and certificate of compliance with the Contract No. 27, 2018) and Annex 4.1.6.5 (execution report) of Monitoring Report - VCS 2018 & 2019, provide more information about the effective execution of this Task.

- Managements were made to acquire four (4) floating fluvial "hangar" rafts in a metal structure, which can function as mobile control stations, for the organizational strengthening of the indigenous guard (Annex 4.1.7 of Monitoring Report - VCS 2018 & 2019, Contract No. 36, 2019).

o Task T1.1.2.5: Boats / Task T1.1.2.6: Engines

- Boats were provided to offer adequate river transportation to the indigenous guard in the Task of surveillance and controlling the RIU-SM. As it is recorded in Annex 4.1.8.1a of Monitoring Report - VCS 2018 & 2019 (Contract No. 16, 2018), 6 metallic boats of 12 meters in length were purchased with their respective 40 HP outboard engines. With the acquisition of these fluvial transport elements, with the economic resources of the Project, the indigenous guard can mobilize more easily and quickly, being able to make a more effective control of what happens in the RIU-SM.

The Annex 4.1.8.1b (start minutes of the Contract No. 16, 2018), Annex 4.1.8.1c (liquidation minutes of the Contract No. 16, 2018), Annex 4.1.8.1d (supervisory report and certificate of compliance with the Contract No. 16, 2018) and Annex 4.1.8.1e (execution report) of Monitoring Report - VCS 2018 & 2019, provide more information about the effective execution of this Task.

Illustration 12. Boats and engines delivered to the indigenous guard in 2018



- According to Annex 4.1.8.2 of Monitoring Report - VCS 2018 & 2019, Contract No. 9, 2019, another 14 boats (with their respective engines) were delivered to provide transportation to the indigenous guard, integral health and zonal coordinators of the Project. In this Annex are liquidation minutes, supervisory report with certificate of compliance and execution report.

Illustration 13. Boats for the indigenous guard, integral health and zonal coordinators (2019)



o Task T1.1.2.11: Information hoardings

Hoardings were installed, which seeks to strengthen the presence of indigenous authorities in different strategic points of the RIU-SM boundaries.

Illustration 14. A hoarding installed in a strategic location, in Zone 4 of the RIU-SM



o Task T1.1.2.12: Endowment for indigenous guard

Elements for the endowment of the indigenous guard were provided in relation to clothing, such as shirts, vests, pants, caps and life jackets.

Illustration 15. Endowment for the indigenous guard



Illustration 16. Indigenous guards receiving endowment during training workshops



Task T1.1.3: Review permanently the early warnings issued by the IDEAM on areas susceptible to forest fires within RIU-SM

The official information provided by the *Instituto de Hidrología, Meteorología y Estudios Ambientales - IDEAM* (Institute of Hydrology, Meteorology and Environmental Studies) is constantly being reviewed about the status of the threat of deforestation and the predictions of the occurrence of fires applicable to Vichada department and, in particular, to the RIU-SM area. Based on the information found, an increase in the prognosis of fires in terms of severity is being observed, which can be identified as a consequence of the climate change that is occurring and that affects the natural and human resources of the Indigenous Reservation. For more details about early warnings see the synthesis presented in Annex 4.1.10 of Monitoring Report - VCS 2018 & 2019.

The indigenous guard reports that there have been small fires that were controlled in an effort made by inhabitants of the affected communities. These fires were attended and measures to suppress and/or prevent its spread and further damage were implemented.

Task T1.1.4: Supervision of the execution of the established measures to implement the surveillance and control routes of the territory and definition of contingency measures, if necessary, and reports

- Some actions were carried out due to events that were detected, which was notified to the zone indigenous authority and, in conjunction with the indigenous guard, the people who enter into the Indigenous Reservation were intervened. Venezuelan neighbors (some indigenous) were found fishing and hunting without authorization (in Sectors 4 *Atana-Pirariami*, 5 *Caño Zama* and 6 *Matavén Fruta*) and logging was found in communities *San Piñalito Morichal* and *Mangal* (of Sector 3b *Bajo Río Vichada 2*). Settlers were also found cutting trees to expand the pastures near the communities *Río-Arbolito-Warracaña* (Sector 2 *Aiwa-Cuna*), *San Luis* (Sector 8 *Lagunas Negra y Cacao*), *Sejalito* (Sector 9 *Sejalito-San Benito*) and *San Rafael* (Sector 16 *Morocoto*).
- The indigenous guard detected some deforestation in Zone 1 - Sectors 1 and 2, forest losses due to illegal mining in Sector 3b, flooding in Sectors 4 and 6, fires in Sector 4, and presence of strangers in Sectors 3a and 3b. Some measures were taken such as preventing further deforestation, deterring illegal mining and contacting the national authority.
- Some damages were found due to external factors, such as the strong winds that brought down trees (Sector 13 *Cumara*) and some fires near the communities of *San Piñalito Morichal*, *Tirso Atana* (Sector 3b *Bajo Río Vichada 2*), *Barranco Colorado*, *Nueva Esperanza*, *Pirariami*, *San Antonio* (Sector 4 *Atana-Pirariami*), *Berrocal*, *Guayabal Anapo*, *Sabanita Sucariepo*, *Pueblo Escondido* (Sector 6 *Matavén Fruta*), *Santa Cruz - Ajota* (Sector 7 *Berrocal Ajota*), *Cumara* (Sector 13 *Cumara*) and *Sabanita* (Sector 15 *Giro*).
- The intervention actions made have also been carried out within the limits of the Indigenous Reservation, in order to clearly determine the boundaries, which allows to determine with certainty what territory should be protected from incursion by strangers. There were some conflicts that have been resolved with the intervention of indigenous authorities.

Task T1.1.5: Systematization and divulgation of results about surveillance and control of territory and early warnings about forest fires within RIU-SM

- Members of the *Cabildos* Board, Coordinator Committee, Captains and indigenous leaders of RIU-SM know the results of the implementation of surveillance and control system. Communities also collaborate with identifying threats and communicate them to their leaders.

- Periodically, meetings and workshops are held to socialize the progress of the REDD+ Project RIU-SM Activities, in such a way that the indigenous authorities of the Coordinator Committee, *Cabildos*, Captains, leaders and other inhabitants of the communities know the events that have occurred, the state of development of the Tasks and benefits achieved (Annexes 1.22 to 1.26 of Monitoring Report - VCS 2018 & 2019: Zonal Meetings for socialization of the implementation of REDD+ Project RIU-SM Activities and budget execution, and Annex 4.2.1 of Monitoring Report - VCS 2018 & 2019: minutes of socialization meetings and workshops in 2018).
- By the end of 2019, copies of the bulletin were printed and delivered to leaders (for its distribution in RIU-SM communities), with which seeks to disseminate the results and benefits of the implementation of the Project Activities during 2018 & 2019 in the RIU-SM. This bulletin contains general elements of the Project, its objective, the problem to be solved, and the developments that have been achieved and that, precisely, are described in more detail in this Monitoring Report (on all its Section 3.1.1). In Annex 4.2.7 is this bulletin.

- **ACTIVITY A1.2:** Develop and implement a communication and information system in the RIU-SM

This activity constitutes the solution to a very felt need of all the communities of RIU-SM. Before the implementation of this Activity, there were many difficulties in communication, in the management of information and in the means of transport available to indigenous peoples, due to geographical characteristics (there are no internal land routes), long river distances and the high costs to establish communication and transport systems. This Activity is achieved by completing the following tasks:

Task T1.2.1: Review and adjustment of design and planning of communication, information and transport systems

In the 5 Zonal Meetings held in November 2017, the community representatives expressed, among other aspects, their communication, information and transport needs, and they presented their proposals to determine how to develop improvements in these three aspects, in order to consolidate as systems (Annexes 1.2 to 1.8 of Monitoring Report - VCS 2018 & 2019: minutes of Zonal Meetings of November 2017, lists of needs and proposals). Thus, these needs and proposals were reflected in the budget for 2018 & 2019 (Annexes 1.9a and 1.9b of Monitoring Report - VCS 2018 & 2019), in order to satisfy and develop them.

Task T1.2.2: Execution of the established measures to implement the communication system

ACATISEMA has improved its organization and provision of logistics and equipment in order to establish better means for the authorities (members of the *Cabildos* Board, Coordinator Committee, Directive Board, Captains), other indigenous leaders and the RIU-SM communities in general, keep in touch and communication, including their participation in tours throughout the territory, meetings/workshops of socialization and training that support the dissemination of information for indigenous peoples. To communication of information also is available the Project website at: <http://selvamatavenredd.org>.

Illustration 17. Socialization meeting in *Pueblo Escondido* community



In particular, throughout 2018 a series of meetings was held with the indigenous people of different RIU-SM communities, in order to socialize the progress in the execution of the REDD+ Project RIU-SM Activities and to specify the needs and proposals of people, especially everything related to productive projects that are desired and can be implemented. Minutes of these meetings are recorded, as listed below, which include assistance signatures and photographs:

In Zone 3:

- Meeting in *Barranco Colorado* community with 11 participants, June 12, 2018 (Annex 4.2.1.1).
- Meeting in *Pueblo Nuevo* community with 28 participants, June 13, 2018 (Annex 4.2.1.2).
- Meeting in *San Luis Caño Zama* community with 24 participants, June 13, 2018 (Annex 4.2.1.3).
- Meeting in *La Urbana* community with 33 participants, June 14, 2018 (Annex 4.2.1.4).
- Meeting in *Pueblo Escondido* community with 26 participants, June 14, 2018 (Annex 4.2.1.5).
- Meeting in *Sarrapia* community with 23 participants, June 14, 2018 (Annex 4.2.1.6).
- Meeting in *Guayabal Anapo* community with 25 participants, June 15, 2018 (Annex 4.2.1.7).

In Zone 4:

- Meeting in *Berlín 1* and *2* communities with 12 participants, June 25, 2018 (Annex 4.2.1.8).
- Meeting in *Laguna Colorada* community with 14 participants, June 25, 2018 (Annex 4.2.1.9).
- Meeting in *Sejalito* community with 26 participants, June 25, 2018 (Annex 4.2.1.10).
- Meeting in *Laguna Cacao* community with 22 participants, June 26, 2018 (Annex 4.2.1.11).
- Meeting in *Laguna Negra* community with 19 participants, June 26, 2018 (Annex 4.2.1.12).
- Meeting in *San Luis de la Rompida* community with 12 participants, June 26, 2018 (Annex 4.2.1.13).

In Zone 5:

- Meeting in *Palmarito* community with 16 participants, June 22, 2018 (Annex 4.2.1.14).

- Meeting in *Buena Vista* community with 13 participants, June 23 2018 (Annex 4.2.1.15).
- Meeting in *Morichal* community with 19 participants, June 23 2018 (Annex 4.2.1.16).
- Meeting in *Morocoto* community with 9 participants, June 23 2018 (Annex 4.2.1.17).
- Meeting in *Manajuare* and *Miraluz* communities with 17 participants, June 23 2018 (Annex 4.2.1.18).
- Meeting in *Cumaral* community with 22 participants, June 24 2018 (Annex 4.2.1.19).
- Meeting in *Giro* community with 12 participants, June 24 2018 (Annex 4.2.1.20).
- Meeting in *Yuri* community with 20 participants, June 24 2018 (Annex 4.2.1.21).
- Meeting in *Caño Bocón* community with 9 participants, June 25 2018 (Annex 4.2.1.22).

Illustration 18. Socialization meeting in *La Urbana* community



As mentioned in the minutes (according to previous annexes of Monitoring Report - VCS 2018 & 2019), meetings were held to socialize about the REDD+ Project RIU-SM and productive projects with 412 indigenous people in 24 communities in Zones 3, 4 and 5 in 2018.

- o *Task T1.2.2.1: Tour across Zone 1; Task T1.2.2.2: Tour across Zone 2, Sector 3a; Task T1.2.2.3: Tour across Zone 2, Sector 3b; and Task T1.2.2.4: Tour across Zone 3*

To carry out socialization and training meetings and workshops, budgetary resources were provided to the communities. Several boats acquired were used to transport the people that realize the tours across territory.

Task T1.2.3: Execution of the established measures to implement the information system

ACATISEMA has improved its provision of equipment and means for the generation of information and its classification, storage, maintenance, support and recovery, mainly in the office that the Association has established in Villavicencio city, considering that in the headquarters in Cumaribo and Inírida the information is collected firsthand. Now it also has personnel in charge of the management of its own information and that related to the execution of the Project activities.

The information generated during the development of the Project is recorded, stored in appropriate media and available (Information System: digital information and physical documents are available in the

MEDIAMOS office and in the ACATISEMA headquarters).

The public information generated in the development of the Project is exposed on the web page of the VCS project database: http://www.vcsprojectdatabase.org/#/project_details/1566.

o Task T1.2.3.2: Office equipment endowment

As support for the administrative management of ACATISEMA, the REDD+ Project RIU-SM has provided equipment endowment in the offices of the Association: furniture, computers, printers, etc.

Illustration 19. Office equipment at the headquarters of Cumaribo (left) and Inírida (right)

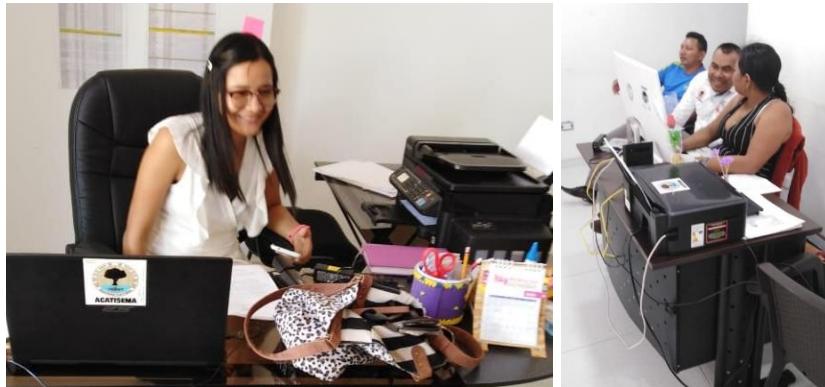
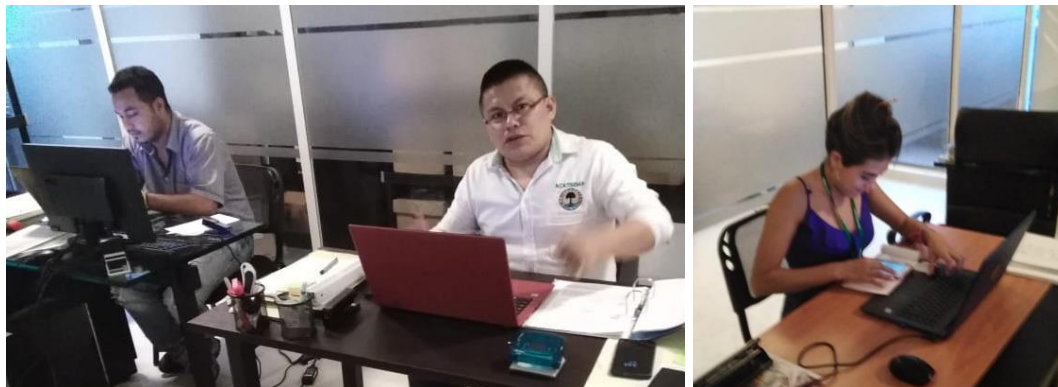


Illustration 20. Office equipment at the Villavicencio headquarters



Task T1.2.4: Execution of the established measures to implement the transport system

Fluvial equipment for the ACATISEMA headquarters in Cumaribo and Inírida were acquired to provide adequate transportation to member of Coordinator Committee, Fiscal Observer, *Cabildos*, authorities, Project Co-Director and Zonal Coordinators, in their need to be in better contact with the communities.

o Task T1.2.4.1: Boats to strengthen Governance in the RIU-SM

- Fluvial transport equipment for the headquarters of the Association in Cumaribo and Inírida was provided,

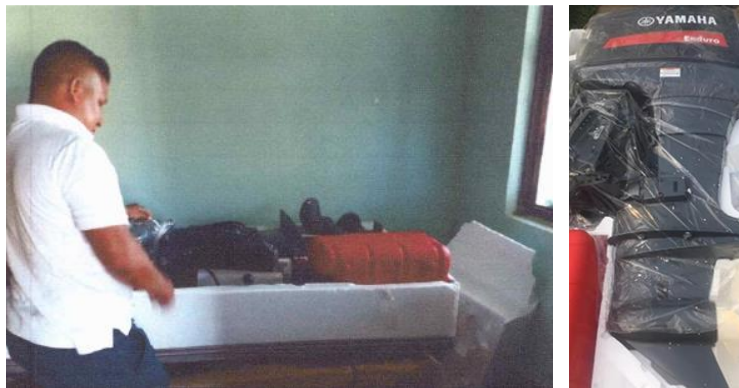
according to Annex 4.2.2.1 of Monitoring Report - VCS 2018 & 2019 (Contract No. 15, 2018). Thus, 2 fast boats of 8 meters in length, with their respective 75 HP outboard engines were acquired.

The Annex 4.2.2.2 (start minutes of the Contract No. 15, 2018), Annex 4.2.2.3 (supervisory report and certificate of compliance with the Contract No. 15, 2018) and Annex 4.2.2.4 (execution report) of Monitoring Report - VCS 2018 & 2019, provide more information about the effective execution of this Task.

Illustration 21. Boats for the ACATISEMA headquarters in Cumaribo and Inirida



Illustration 22. Engines for boats of the ACATISEMA headquarters



o Task T1.2.4.2: Service boats for communities in Zones 4 and 5 (with fluvial equipment)

To facilitate and assist in the transportation and communication of the indigenous people who inhabit the regions further away in the RIU-SM (especially communities in Zones 4 and 5), service boats with their respective fluvial equipment were provided. In Annex 4.2.3.1 are the reports about the provision of transport service from May to July 2019.

o Task T1.2.4.3: Service boats for communities in Zones 1 and 3 (with fluvial equipment)

- 1 boat type “flying” made in fiberglass, 6 engines 15 HP, 2 engines 40 HP and 1 engine 75 HP were delivered to strengthen the transport service in Zone 1 of RIU-SM, according to Annex 4.2.3.2 of Monitoring Report - VCS 2018 & 2019 (Contract No. 37, 2019).

Illustration 23. Boat and engines delivered in Zone 1



- Fluvial transport equipment to provide school transportation service in Zone 3 (2 metal boats of 15 meters in length, with fluvial equipment and fuel) and institutional flags of Acatiseма were delivered, according to Annex 4.2.3.3 of Monitoring Report - VCS 2018 & 2019 (Contract No. 18, 2019).

Illustration 24. Boats for school transport and institutional flags delivered in Zone 3



o *Task T1.2.4.7: Neighborhood bridges*

- 3 neighborhood wooden bridges were built to satisfy the urgent need of improve the way that is frequently transited in traditional roads and crosses of ancestral territory over *Watuliba*, *Yatuy* and *Marumaru* streams, of Sector 2 *Aiwa Cuna Tsepajivo*, according to Annex 4.2.4.1a of Monitoring Report - VCS 2018 & 2019 (Contract No. 22, 2018). The construction of these bridges allows better access to health services, education and local markets, contributing to the improvement of the socioeconomic conditions of the indigenous communities of this Sector.

The Annex 4.2.4.1b (start minutes of the Contract No. 22, 2018), Annex 4.2.4.1c (liquidation minutes of the Contract No. 22, 2018), Annex 4.2.4.1d (certificate of compliance with the Contract No. 22, 2018) and Annex 4.2.4.1e (execution report) of Monitoring Report - VCS 2018 & 2019, provide more information about the effective execution of this Task.

Illustration 25. Neighborhood bridges built on the *Watuliba*, *Yatuy* and *Marumaru* streams



- 21 neighborhood wooden bridges were built in the Sectors 1- *Caño Cavasi*, 2- *Aiwa-Cuna Tsepajivo*, 3a- *Bajo Rio Vichada 1*, 3b- *Bajo Rio Vichada 2*, and 4- *Atana Pirariami*, according to Annex 4.2.4.2a of Monitoring Report - VCS 2018 & 2019 (Contract No. 25, 2019).

Table 2. Bridges built on Zones 1, 2 and 3 (Sector *Atana Pirariami*)

Zone	Sector	Creek / Community
1	1- <i>Caño Cavasi</i>	<i>Arikiana</i> creek, <i>El Retiro</i> community
		<i>Cavasi</i> creek, <i>Macocoba</i> community
		<i>Juwata</i> creek, <i>Ocupamo</i> community
	2- <i>Aiwa-Cuna Tsepajivo</i>	<i>Makanale</i> creek, <i>Tsawaliwali</i> community
		<i>Waukusia</i> creek, <i>Simeria</i> community
		<i>Yakojale</i> creek, <i>Brisas</i> community
		<i>Maniare</i> creek, <i>Maniare</i> community
		<i>Cajaro</i> creek, <i>Cajaro</i> community
		<i>Cajaro 2</i> creek, <i>Cajaro</i> community
2		3a- <i>Bajo Rio Vichada 1</i>
	<i>Checa Morichal</i> creek, <i>Checa</i> community	
	<i>Sire</i> creek, <i>Trinidad</i> community	
	3b- <i>Bajo Rio Vichada 2</i>	<i>Palometa</i> creek, <i>Palometa</i> community
		<i>Gualiba</i> creek, <i>Santa Cecilia</i> community
		<i>Siviare</i> creek, <i>Lejanía</i> community
3	4- <i>Atana Pirariami</i>	<i>Niña</i> creek, <i>Cochibo</i> community
		<i>Morichal</i> creek, <i>Cochibo</i> community
		<i>Cochibo</i> creek, <i>Atana</i> community
		<i>Agua Blanca</i> creek, <i>Atana</i> community
		<i>Raudal</i> creek, <i>Atana</i> community
		<i>Mure</i> creek, <i>Atana</i> community

The Annex 4.2.4.2b (start minutes of the Contract No. 25, 2019), Annex 4.2.4.2c (liquidation minutes of the Contract No. 25, 2019), Annex 4.2.4.2d (supervisory report and certificate of compliance with the Contract No. 25, 2019) and Annex 4.2.4.2e (execution report) of Monitoring Report - VCS 2018 & 2019, provide more information about the effective execution of this Task.

Illustration 26. Bridges built on Cavasi, Cajaro, Amue Chenebo, and Niña creeks



- 5 pedestrian bridges were built and neighborhood roads were maintained as support to people in the Sectors 1- *Caño Cavasi* (*Galilea, Corocito, San Juan de Dios, and Nuevo Horizonte* communities) and Sector 2- *Aiwa-Cuna Tsepajivo* (*Mangal Yopalito, Kirey Central, Kirey Loma, Guayabetal, Karraba, Palmita, Capturama, Nuevo Camino, and Miraflores* communities), according to Annex 4.2.4.3 of Monitoring Report - VCS 2018 & 2019 (Contract No. 35, 2019).

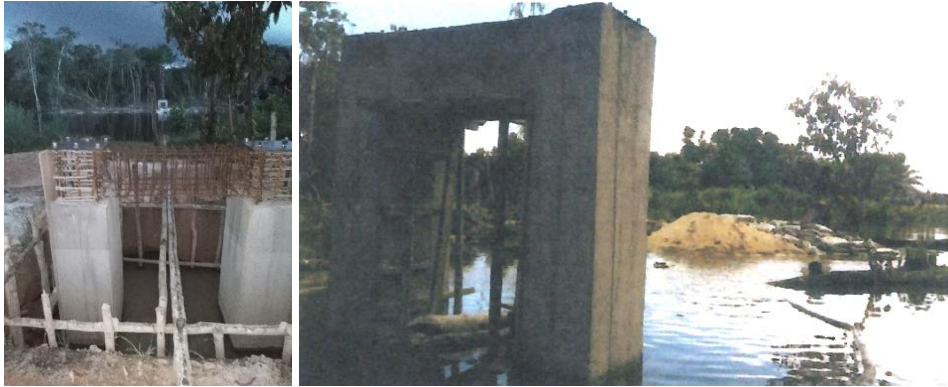
Illustration 27. Pedestrian bridge in Kirey Central and maintenance in road towards Corocito



It should be noted that the construction of these pedestrian bridges in wood (for which large amounts of this input were not required) corresponds to the attention of a need that the indigenous communities of the RIU-SM identified as important to carry out (Annexes 1.2 to 1.8 of Monitoring Report - VCS 2018 & 2019: minutes of Zonal Meetings of November 2017, lists of needs and proposals), obeying their autonomy and to the proper right, enshrined in Colombian laws, to proceed according to their uses and customs.

- The construction of a hanging pedestrian bridge is being carried out in Caño Dume, Sector Bajo Río Vichada 1, according to Annex 4.2.4.4 of Monitoring Report - VCS 2018 & 2019 (Contract No. 10, 2019), where the supervisory report with certificate of compliance and the partial execution report are presented.

Illustration 28. Construction of hanging pedestrian bridge in Caño Dume



o Task T1.2.4.8: Neighborhood roads

- The improvement of the ancestral path "Caracol pass" that communicates to Sector 1- *Caño Cavasi* with the Cumaribo municipality was made, according to Annex 4.2.5.1 of Monitoring Report - VCS 2018 & 2019 (Contract No. 11, 2019)

Illustration 29. Improvement of the ancestral path "Caracol pass"



- The improvement of the ancestral path "Santa Marta pass" that communicates towards Sector 1- *Caño Cavasi* was made, according to Annex 4.2.5.2 of Monitoring Report - VCS 2018 & 2019 (Contract No. 16, 2019).

Illustration 30. Improvement of the ancestral path " Santa Marta pass"



o Task T1.2.4.9: Road towards Cumariana, embankment, and bridge

The improvement of the road from Cumaribo municipality towards *Cumariana* community was made, including construction of embankment and bridges (some ones large and others as box culverts), for facilitate the transportation towards this community, where the XV General Assembly of ACATISEMA was made, according to Annex 4.2.6.1 of Monitoring Report - VCS 2018 & 2019 (Contract No.4, 2019).

The Annex 4.2.6.2 (start minutes of the Contract No. 4, 2019), Annex 4.2.6.3 (liquidation minutes of the Contract No. 4, 2019), Annex 4.2.6.4 (supervisory report and certificate of compliance with the Contract No. 4, 2019) and Annex 4.2.6.5 (execution report) of Monitoring Report - VCS 2018 & 2019, provide more information about the effective execution of this Task.

Illustration 31. Improvements made in the road from Cumaribo towards Cumariana



Task T1.2.5: Supervision of the execution of the established measures to implement the communication, information, and transport systems, definition of contingency measures (if it is necessary), and report of informs.

- In the contracts executed by ACATISEMA, and through which several of the Tasks are accomplished, there are reports of supervision of the same and certificates of compliance of the contractor, which shows that supervision is being carried out about the execution of the measures established for implementation of communication, information and transport systems.

- The Fiscal Observer of ACATISEMA, in accordance with its statutory responsibility, verifies if the Project Activities and Tasks are being fulfilled in the measures, times and scope that they are defined, and presents reports for 2018 and 2019 about the degree of development in which they are found (Annexes 3.4 and 3.5 of Monitoring Report - VCS 2018 & 2019).

Task T1.2.6: Systematization and divulgation of results about the implementation of the communication, information, and transport systems

- The members of the *Cabildos* Board, Coordinator Committee, the Captains, the indigenous leaders of the RIU-SM and the direct beneficiaries know the results of the implementation of communication, information and transport systems.
- Periodically meetings and workshops are held to socialize the progress in the REDD+ Project RIU-SM Activities, in such a way that the indigenous authorities of the Coordinator Committee, *Cabildos*, Captains, leaders and other inhabitants of the communities know the events that have occurred, the state of development of the Tasks and benefits achieved (Annexes 1.22 to 1.26 of Monitoring Report - VCS 2018 & 2019: Zonal Meetings for socialization of the implementation of REDD+ Project RIU-SM Activities and budget execution, and Annex 4.2.1 of Monitoring Report - VCS 2018 & 2019: minutes of socialization meetings in 2018).
- By the end of 2019, copies of the bulletin were printed and delivered to leaders (for its distribution in RIU-SM communities), with which seeks to disseminate the results and benefits of the implementation of the Project Activities during 2018 & 2019 in the RIU-SM. This bulletin contains general elements of the Project, its objective, the problem to be solved, and the developments that have been achieved and that, precisely, are described in more detail in this Monitoring Report (on all its Section 3.1.1). In Annex 4.2.7 is this bulletin.

- **ACTIVITY A1.3:** Design and establish a system of governance for development and sustainability of ACATISEMA Association.

This Activity is in permanent execution and aims to strengthen the government and the organization of the Association, also seeking to enhance the ancestral customs, traditions and culture of the indigenous peoples of the RIU-SM.

Task T1.3.1: Management special affairs

o *Task T1.3.1.1: Transport for management*

Project provided transportation, food and all conditions for that the indigenous individuals that arrived to meetings of the indigenous authorities of the RIU-SM participated and discussed issues about the progress in the implementation of REDD+ Project RIU-SM. These meetings carried out in Sector 1 *Caño Cavasi* (Annex 4.3.1.1 of Monitoring Report - VCS 2018 & 2019: documents related to the execution of Contract No. 1, 2018), Sector 3a *Bajo Río Vichada 1* (Annex 4.3.1.2 of Monitoring Report - VCS 2018 & 2019: documents related to the execution of Contract No. 2, 2018) and Sector 2 *Aiwa Cuna Tsepajivo* (Annex 4.3.1.3 of Monitoring Report - VCS 2018 & 2019: documents related to the execution of Contract No. 3, 2018).

Cabildos, members of the Coordinator Committee and Zonal Coordinators express their support for the REDD+ Project RIU-SM and authorize the Directive Board of ACATISEMA to design and implement the necessary measures for the continuity and strengthening of the Project, taking into account the Strategic

Alliance Agreement ACATISEMA-MEDIAMOS. Indigenous authorities of the Reservation affirm that they will continue with a second cycle of the REDD+ Project RIU-SM (Annex 1.1 of Monitoring Report - VCS 2018 & 2019, page 8).

Illustration 32. Transportation and food for the participants to the meeting in Sector 3a



o *Task T1.3.1.2: Autochthonous games; Task T1.3.1.4: “El Bocón” festival; and Task T1.3.1.6: Matavén Cup*

Project provided the logistics required to carry out cultural and sporting events, such as the “First Sports Cup Selva Matavén” and the First Cultural Meeting and Siren “*El Bocón*” in Sector 6 *Matavén Fruta* of the RIU-SM (Annex 4.3.2 of Monitoring Report - VCS 2018 & 2019: documents related to the execution of Contract No. 6, 2018). These events are also constituted as elements to enhance the ancestral customs, traditions and culture of the indigenous peoples of the RIU-SM. The performance of these activities was requested by the same indigenous people, which can be seen in the lists of needs and proposals in Annexes 1.7 and 1.8 of Monitoring Report - VCS 2018 & 2019 (inventory of proposals and description).

The actions and services provided were the following:

- Delivery of 240 sports uniforms alluding to the “First Sports Cup Selva Matavén”.
- Award for the first places in different modalities in the development of the “First Sports Cup Selva Matavén”.
- Awards for the first, second and third places in the modalities: blowgun, drawing of *El Bocón*, the mat, race of the morrocoy, the traditional stove, fishing of *El Bocón*, artisanal exhibition, siren of *El Bocón*, allusive song to *El Bocón*, traditional dances, grated of the bitter cassava and the typical dish of the “First Cultural Meeting and Sirena *El Bocón*”.
- Service of fluvial transport for the delegations and technical-logistic staff of the “First Cultural Meeting and Sirena *El Bocón*”.

Delegations from 251 communities from all Sectors of the RIU-SM attended these events.

Illustration 33. Sport team participating, traditional costumes



Project provided the logistics required to carry out other cultural and sporting events, such as the “First Meeting of Indigenous Games” and the “Second Sports Cup Selva Matavén” in the *Laguna Checa* community of Sector 3a *Bajo Río Vichada 1* of the RIU-SM (Annex 4.3.3 of Monitoring Report - VCS 2018 & 2019: documents related to the execution of contract No. 20, 2018). These events were attended by 200 indigenous people.

The actions and services provided were the following:

- Delivery of sports equipment kits: 2 soccer balls No. 5, 2 futsal nets and trophies for the first and second places.
- Awards for the first and second places in the modalities: target shooting with bow and arrow, blowgun, rafting, sport fishing, men's soccer and female futsal.
- Service of professionals in performing arts "*Ilanera* musical grouping" (it includes transport).
- Service of professionals in performing arts "singer of popular genre" (it includes transport).
- Service of fluvial transport for the delegations and participants.
- Service of feeding for participants (for three days).

Illustration 34. Some of indigenous games (rafting, target shooting with arrow)



o *Task T1.3.1.3: Traditional dances and handicrafts*

Logistical services were provided for the development of the activities of the “First Cultural and Crafts Meeting of ‘La Mochila’” carried out in the *Cumariana* community of Sector 2 *Aiwa Cuna Tsepajivo* of the RIU-SM (Annex 4.3.4 of Monitoring Report - VCS 2018 & 2019: documents related to the execution of Contract No. 10, 2018).

The actions and services provided were the following:

- Delivery of sports equipment kits.
- Award for the first and second places in the modalities better stand of handicrafts, target shooting with bow and arrow, reign and futsal.
- Logistics operations: adaptation of cultural scene, stage and lighting.
- Service of professionals in performing arts "*llanera* musical grouping" (it includes transport base group).
- Service of professionals in performing arts "singer of popular genre" (it includes transport).
- Service of feeding for participants.
- Service of lights and rhythmic audio (includes installation and operator).

Illustration 35. Sample of crafts, traditional costumes and musical group



o *Task T1.3.1.7: Support to activity of cultural leaders*

Project provides support in transportation, food and other logistics for leaders of various communities to carry out meetings and cultural activities, such as:

- Meetings of authorities in communities *Matsuldani* (March 12), *Raya* and *Wereto* (April 11 - 12), *Macocoba* (April 12), in the ACATISEMA headquarters in Cumaribo (April 12) and in *Caño Cajaro* community (April 18).
- Workshop with leaders of *Sirakusa* community.
- Inter-school event in *Los Ángeles*.
- Children's Day celebration.
- Cultural event of women in *Yuri*, *Cumara*, and *Caño Bocón* communities.
- Sports event for women in *Kirey Loma* community.

- Mother's Day celebration in *Raya*, *Kirey* and *Boponé* schools.
- 2 training of spiritual leaders in Sector 1 *Caño Cavasi*.

Support has also been provided for other needs, such as:

- Financial support for traditional rituals.
- Support for religious events in *Tamue Chenebo*, *Guayaquil* and *San Agustín* communities.
- Support for transportation to *Puerto Gaitán* for Technical Education procedures.
- Strengthening of traditional medicine of the *Piaroa* people.
- Commission for procedures with the *Registraduría Nacional* (National Registry).
- Support to transfer of sick patients.
- Materials to improve the churches of *Morachalito* and *Curicagua* communities.

o *Task T1.3.1.8: Support to step home in Cumaribo*

Support has been provided to offer lodging to indigenous people who arrive, for whatever reason, and do not have any place to stay in the Cumaribo municipality. For this, basic facilities have been built so that they can place hammocks to sleep and be momentarily in Cumaribo municipality.

Task T1.3.2: Management of normative and regulatory aspects of ACATISEMA

Logistical support, transportation and food have been provided for the realization of meetings of Joint Commission, Coordinator Committee and *Cabildos* Board (see Annexes 1.10 - 1.13, 1.15 - 1.16, 1.17 - 1.21 of Monitoring Report - VCS 2018 & 2019), where topics related to ACATISEMA are discussed and they make decisions in order to improve the organization.

Also, with resources from the REDD+ Project RIU-SM, Zonal Meetings were held in the Indigenous Reservation and the XV General Assembly of ACATISEMA on September 3-5, 2019. This is the most important event for the governance of the RIU-SM, since it is the largest meeting for the election of the authorities that will administer the Indigenous Reservation and the Association, in this case, from the year 2020 to the year 2022, in addition it is the space to make transcendental decisions for the future of indigenous communities. Among others aspects, in this assembly the following was decided "*The indigenous authorities of the Reservation ratify their decision to continue carry out the REDD+ Project RIU-SM*". The documentation related to the Zonal Meetings and the General Assembly are available at the ACATISEMA offices for any consultation.

Illustration 36. XV General Assembly of ACATISEMA



Task T1.3.3: Support for the revision of Life Plans

Logistic and organizational support has been provided to the communities of the RIU-SM for the revision and formulation of Life Plans of the 6 ethnic groups of the RIU-SM. Some steps to work related to these ethnic groups were developed (Annex 4.3.5 of Monitoring Report - VCS 2018 & 2019: minutes and report of the meeting for revision and formulation of the Life Plans of the 6 ethnic groups).

Task T1.3.4: Management of boundaries

Logistical support has been provided for the identification of places where the intervention of the *Agencia Nacional de Tierras* (National Land Agency) is necessary to resolve issues where the boundaries of the Indigenous Reservation are not clear or there is apparently invasion by foreign people in the RIU-SM. For example, negotiations are being carried out with property owners in order to recognize that they are within the territory of the RIU-SM, be evicted.

Task T1.3.5.1: Design, planning and execution of measures related to ACATISEMA headquarters

The ACATISEMA headquarters are improving.

- In the Cumaribo municipality an office was leased in 2018 for the operation of the Association's headquarters, while the works of the Center of Indigenous Environmental Thought of the *Selva Matavén* were being carried out, where the office is now located (see also ACATISEMA Reserve 5 - RA5 and Annex 4.8.5 of Monitoring Report - VCS 2018 & 2019: documents related to the execution of Contract No. 11, 2018).
- In Inírida city an office was acquired to establish the ACATISEMA headquarters in that place. Renovation works to improve its infrastructure are finished already (see Annex 4.3.6 of Monitoring Report - VCS 2018 & 2019: documents related to the execution of Contract No. 37, 2018).
- In Villavicencio city (Meta department) there is another leased office, due to the need to have better options than those available in Cumaribo and Inírida, such as greater coverage and quality of banking services, better media, closest contact with contractors and providers of services that can be taken to the Resguardo, among other aspects.

Illustration 37. ACATISEMA's headquarters in Cumaribo (left) and Inírida (right)



- In *Cumariana* community a multifunctional sports center was built, which will be used for sports practices and for holding important meetings of the indigenous authorities of the RIU-SM, such as the recent XV General Assembly of ACATISEMA. In the Annex 4.3.7 are the reports about this construction.

Illustration 38. Multifunctional sports center built in Cumariana community



- Provision of Rimax brand chairs for the administrative headquarters of ACATISEMA in the municipality of Cumaribo, according to Annex 4.3.8.1 (Contract No. 32, 2019), Annex 4.3.8.2 (liquidation minutes of the Contract No. 32, 2019), Annex 4.3.8.3 (supervisory report and certificate of compliance with the Contract No. 32, 2019) and Annex 4.3.8.4 (execution report) of Monitoring Report - VCS 2018 & 2019, provide more information about the effective execution of this Task.
- The construction of rural organizational headquarters in Sectors 1- *Caño Cavasi*, 2- *Aiwa Cuna Tsepajivo*, 3a- *Bajo Río Vichada 1*, 4- *Atana Pirariami*, and 9- *Sejalito San Benito* and the traditional medicine training centers of Sectors 3a- *Bajo Río Vichada 1* and *Bajo Río Vichada 2*.
- Progress is being made to provide sound amplifiers and accessories for the administrative headquarters of ACATISEMA and Sectors 1- *Caño Cavasi*, 2- *Aiwa Cuna Tsepajivo*, 3a- *Bajo Río Vichada 1*, 4- *Atana Pirariami*, and 9- *Sejalito San Benito*.
- Zinc sheets, outboard engines, and office implements were provided to support the headquarters of the

Sector 15 Giro (see Annex 4.3.9 of Monitoring Report - VCS 2018 & 2019).

Task T1.3.5.2: Supervision of the execution of the established measures related to ACATISEMA headquarters

o *Task T1.3.5.2.1: Air transport to carry out the supervision of the headquarters*

- In the works that ACATISEMA hires, and by which improvements are made in physical infrastructures, there are reports of supervision of the same, compliance certificates of contractor, and intervention contracts, which evidences that supervision is being carried out to the execution of the established measures related to the ACATISEMA headquarters. To carry out these supervision and audit, air transport services were provided to travel between the distinct Association headquarters.
- The Fiscal Observer of ACATISEMA, in accordance with its statutory responsibility, verifies if the Project Activities and Tasks are being fulfilled in the measures, times and scope that they are defined, and presents reports for 2018 and 2019 about the degree of development in which they are found (Annexes 3.4 and 3.5 of Monitoring Report - VCS 2018 & 2019).

Task T1.3.6.1: Design and planning of the measures related to remuneration of authorities, indigenous guard, and Family Agrifood Production Units System - FAPUS activities, and

Task T1.3.6.2: Execution of the established measures related to remuneration of authorities, indigenous guard, and FAPUS activities

In the 5 Zonal Meetings held in November 2017, participants proposed that the indigenous authorities, the members of the management bodies of ACATISEMA (Coordinator Committee, *Cabildos* Board), the members of the indigenous guard, and the Captains receive remuneration for the time of dedication and the services they provide to the Association and the REDD+ Project RIU-SM (Annexes 1.2 to 1.8 of Monitoring Report - VCS 2018 & 2019: minutes of Zonal Meetings of November 2017, lists of needs and proposals). Thus, these proposals were included in the budget for 2018 & 2019 (Annexes 1.9a and 1.9b of Monitoring Report - VCS 2018 & 2019), in order to develop them.

In this sense, economic remunerations have been granted in compensation for the dedication of time and the work made for the Project, the Association and the Indigenous Reservation, and by the positions held by some RIU-SM leaders and others who support administrative tasks, such as General Coordinator, General Secretary, Finance Coordinator, members of the Coordinator Committee, Fiscal Observer, accountants, legal adviser, secretaries, administrative support professionals, auxiliaries of general services, SENA practitioner, indigenous adviser and *Cabildos* of 16 sectors.

Annex 4.3.10 of Monitoring Report - VCS 2018 & 2019 presents the list of indigenous individuals that are member of the *Cabildos* Board and Coordinator Committee. Annexes 4.1.4a and 4.1.4b of Monitoring Report - VCS 2018 & 2019 present the list of indigenous guards for 2018 & 2019, and Annex 4.4.4 of Monitoring Report - VCS 2018 & 2019 presents the list of Captains of the communities.

Task T1.3.6.3: Supervision of the execution of the established measures related to remuneration of authorities, indigenous guard, and FAPUS activities

- The Fiscal Observer of ACATISEMA, in accordance with its statutory responsibility, verifies if the Project Activities and Tasks are being fulfilled in the measures, times and scope that they are defined, and presents reports for 2018 and 2019 about the degree of development in which they are found (Annexes

3.4 and 3.5 of Monitoring Report - VCS 2018 & 2019).

Task T1.3.7.1: Design and planning of the measures to provide economic support to students

In the 5 Zonal Meetings held in November 2017, the community representatives proposed to provide economic support to students that are members of the indigenous communities of the RIU-SM (Annexes 1.2 to 1.8 of Monitoring Report - VCS 2018 & 2019: minutes of Zonal Meetings of November 2017, lists of needs and proposals). Thus, these proposals were included in the budget for 2018 & 2019 (Annexes 1.9a and 1.9b of Monitoring Report - VCS 2018 & 2019), in order to develop them (see "*Task T2.2.4.1: Design and planning of the measures to develop training programs*"). In each community the Captains guide the young people (who qualify to develop their higher education studies), receive the documentation, evaluate it and manage the procedures so that the support can be effective.

Task T1.3.7.2: Supervision of the execution of the established measures to provide economic support to students

See Tasks "*Task T2.2.4.2.20 Professional programs*", "*Task T2.2.4.2.21 Educational bachelor programs*", "*Task T2.2.4.2.22 Programs at the technical, technological, and professional level*", "*Task T2.2.4.2.23 Educational bachelor programs (for teachers)*", and "*T2.2.4.3: Supervision of the execution of the established measures to develop training programs*". The Captains of the communities and the members of the Coordinator Committee in charge of the area of Education (3 indigenous individuals) also supervise the actions to offer Higher Education and obtain the expected results. Captains are responsible for carrying out this task properly.

Task T1.3.8.1: Design and planning of the measures to offer transport services in RIU-SM

In the 5 Zonal Meetings held in November 2017, the community representatives expressed, among other aspects, their transportation needs and presented their proposals to determine how to develop improvements in this aspect (Annexes 1.2 to 1.8 of Monitoring Report - VCS 2018 & 2019: minutes of Zonal Meetings of November 2017, lists of needs and proposals). Thus, these needs and proposals were reflected in the budget for 2018 & 2019 (Annexes 1.9a and 1.9b of Monitoring Report - VCS 2018 & 2019), in order to satisfy and develop them (it is related to "*Task T1.2.1: Review and adjustment of design and planning of communication, information and transport systems*"). A fluvial transport service is currently being offered for Zones 4 and 5, which periodically travels from different indigenous communities over *Amanavén* creek to Inírida city, reaching *Manajuare*, one of the most remote communities of Sector 16 *Morocoto Buenavista Manajuare* (Annex 4.2.3.1 of Monitoring Report - VCS 2018 & 2019: reports about fluvial transport activity for indigenous people). In Zones 1 and 3 also is implemented a transportation service (Annexes 4.2.3.2 and 4.2.3.3 of Monitoring Report - VCS 2018 & 2019).

Task T1.3.8.2: Supervision of the execution of the established measures to offer transport services in RIU-SM

See "*Task T1.2.5: Supervision of the execution of the established measures to implement the communication, information, and transport systems, definition of contingency measures, if it is necessary, and report of informs*" and "*Task T1.2.6: Systematization and divulgation of results about the implementation of the communication, information, and transport systems*".

Task T1.3.9: Perform internal financial audit

In ACATISEMA, financial audit activities are carried out, and the work of the Fiscal Observer chosen for this purpose. Reports are presented for 2018 and 2019 about the degree of development in which Project Activities are found (Annexes 3.4 and 3.5 of Monitoring Report - VCS 2018 & 2019). The documents derived from this audit and the accounting documents are in the offices of the Association. MEDIAMOS also supports this task through a specialized accounting professional.

Compliance with Product 1: Through the execution of Activities A1.1, A1.2 and A1.3, and their respective Tasks, in accordance with the Matrix of Logic Structure (MLS), the compliance with the indicators, means of verification and assumptions for 2018 & 2019 is as follows:

Product 1: Measures to reduce the vulnerability of the RIU-SM generated by external factors, designed and implemented.		
Indicators	Means of Verification	Assumptions
<p>1) 265 Captains, 6 zonal coordinators and 300 members of the indigenous guard applied environmental knowledge in the surveillance, control y monitoring of the RIU-SM.</p> <p><i>This indicator has been achieved, although not at the same level:</i></p> <ul style="list-style-type: none"> - The 6 zonal coordinators are at the highest level. - The members of Coordinator Committee and the Cabildos Board are with a minor level (the 17 Cabildos change annually). - The 302 Captains with a lower level. - There are a well number of teachers, students, women, youth people and other members of the Indigenous Reservation (not less than 150) who have reached a good level in the application of environmental knowledge. - There are 300 indigenous guards to carry out the surveillance, control and monitoring of the RIU-SM, who receive training, endowment, fluvial equipment, food and control stations. <p>2) A communication and information system for 5 zones of the RIU-SM has been established and applied.</p> <p><i>It has been achieved as following:</i></p> <ul style="list-style-type: none"> - The information system is implemented in 100% and the communication system 	<p>1) Reports about results, monitoring and evaluation of the surveillance and control of the RIU-SM.</p> <ul style="list-style-type: none"> - <i>Surveillance routes and maps of these routes are updated, and templates are fulfilled and processed (Annexes 4.1.2 and 4.1.9 of Monitoring Report - VCS 2018 & 2019).</i> - <i>Indigenous guard is organized with the several elements that it requires (Annex 4.1.1, 4.1.2, 4.1.3, 4.1.5, 4.1.6, 4.1.7, 4.1.8, of Monitoring Report - VCS 2018 & 2019).</i> <p>2) Reports about results, monitoring and evaluation of communication and information system of the RIU-SM.</p> <ul style="list-style-type: none"> - <i>Presentation of results is made in meetings (Cabildos Board, Coordinator Committee, Zonal Meetings, communities - Annex 1 and Annex 4.2.1 of Monitoring Report - VCS 2018 & 2019).</i> - <i>Web page (http://selvamatavenredd.org).</i> - <i>Also, the information of ACATISEMA is organized in its headquarters.</i> <p>3) Reports about results, monitoring and evaluation of the established</p>	<ul style="list-style-type: none"> • External actors support the implementation of Project through an appropriate institutional coordination. <i>It has been achieved. Agreements are being signed with other entities to support the development of Project Activities, for example, with FEDECACAO to implement the cocoa cultivation and marketing production project (Annex 4.6.1.1k of Monitoring Report - VCS 2018 & 2019).</i> • External actors do not interfere with the stability of the

Product 1: Measures to reduce the vulnerability of the RIU-SM generated by external factors, designed and implemented.

Indicators	Means of Verification	Assumptions
<p><i>in 60%.</i></p> <ul style="list-style-type: none"> - <i>The information system consists in the generation, collection, analysis, processing, storage and recovery of data related to the Project Activities in relation to the Indigenous Reservation. This information is in the offices of ACATISEMA and MEDIAMOS, digitally and physically.</i> - <i>The communication system has improved by the implementation of actions that increase the frequency of information exchange between communities, through the transport of people (with river equipment provided), adaptation of traditional roads (with bridges), meetings and delivery of informative material.</i> - <i>Cultural and sporting events also contribute to communication and to share and reinforce their ancestral customs.</i> <p>3) 17 members of the Coordinator Committee, 17 Cabildos, 6 zonal coordinators and 265 Captains of ACATISEMA apply knowledge in the statutory and organizational aspects.</p> <p><i>This indicator is 100% accomplished. The meetings of Cabildos Board, Coordinator Committee, Zonal Coordinators and the Zonal Meetings held during the Project implementation, showed the competence of the members of ACATISEMA and Captains of the RIU-SM in the application of knowledge in these aspects.</i></p>	<p>governance system.</p> <ul style="list-style-type: none"> - <i>They have been realized; minutes of meetings and workshops (Annex 1 and Annex 4.2.1 of Monitoring Report - VCS 2018 & 2019).</i> - <i>ACATISEMA members and Captains support the implementation of Project Activities.</i> - <i>ACATISEMA executes budget items.</i> - <i>ACATISEMA improves its administrative organization.</i> - <i>Formulation of the Life Plans of the 6 ethnic groups (Annex 4.3.5 of Monitoring Report - VCS 2018 & 2019).</i> - <i>ACATISEMA improves its offices.</i> <p>4) List of participants in the several events.</p> <p><i>It is 100% accomplished. There are lists of assistants to different events in the RIU-SM (Annex 1 and Annex 4.2.1 of Monitoring Report - VCS 2018 & 2019).</i></p> <p>5) Minutes of meetings and events.</p> <p><i>It is 100% accomplished. There are the minutes of several events held in the RIU-SM (meetings, workshops) (Annex 1 and Annex 4.2.1 of Monitoring Report - VCS 2018 & 2019).</i></p> <p>6) Audiovisual records.</p> <p><i>It has been achieved. The database of audiovisual records is in the Project offices, duly documented, in digital format and, due their size, cannot be attached to this report.</i></p>	<p>ACATISEMA governance.</p> <p><i>It has been achieved. Some situations of interference have been overcome by the authorities of the RIU-SM and ACATISEMA. The governmental structure of the country tends to respect indigenous authority.</i></p>

Conclusion about compliance with Product 1: The Project Activities and Tasks have been satisfactorily carried out (the surveillance and control of the territory, the information, communication, and transport systems and the governance actions). The indicators show an adequate compliance of this Product. The related assumptions are also fulfilled, as well as the strengthening of the training about the application of "environmental knowledge" and the control, surveillance and monitoring of the RIU-SM. It is emphasized that the communication system is being reinforced.

In the same way, as the aspects of Product 1 were presented, now the Product 2, its Activities and its Tasks will be presented as following.

PRODUCT 2: Sustainable production system implemented

- **ACTIVITY A2.1:** Establish and develop a Family Agri-food Production Units System - FAPUS.

This activity aims to guarantee the production of food for food security, and that it continues to implement in land lots/"conucos" already used. It corresponds to an action of the Strategic Element 4 of the Sustainable Management Plan for Land and Forest.

In Annex 4.1 of PDD the "Sustainable Management Plan for Land and Forest" was explained:

"Strategic Element 4: Implement actions for food security of communities in Heterogeneous Agricultural Areas (HAA) y Grasslands (known in the Indigenous Reserve as "conucos") in areas of Savannah and in some areas of natural regeneration. These shares can be agro-forestry and silvopastoral systems, which provide food (plant and animal) and wood products from plantations with native species in combination with agricultural crops or livestock systems. These systems can be a source of small timber for building houses, fences, barns and other facilities that are required by the RIU-SM, so that they can replace those from secondary forests and ensure that these forests can be transformed to primary forests".

Task T2.1.1: Review and adjustment of the design and planning of the Family Agrifood Production Units System - FAPUS (endowment, crops, minor species, silvopastoral system, orchards, pisciculture, plátano, cassava)

There is a survey format for the collection of information on the implementation of the Family Agri-food Production Units System - FAPUS (Annex 4.4.1 of Monitoring Report - VCS 2018 & 2019).

Maps have been updated where the lots/"conucos" of Family Agrifood Production Units System -FAPUS- can be identified (Annex 4.4.2 of Monitoring Report - VCS 2018 & 2019), land spaces that the inhabitants of the RIU-SM used for their crops in 2018 & 2019 (as it has been updated in previous years), in order to provide more accurate information about the areas that are being used for food production for indigenous communities.

Task T2.1.2: Execution of the established measures to develop the FAPUS

During this Monitoring Period, information about the type and amount of food produced by the communities of RIU-SM has been collected, by Sector and Zone. The Captains of the communities are consulted about the production of food and have expressed that indigenous people are implementing the Sustainable Management Plan for Land and Forest, making good use of land for crops.

In the food production survey, the Captains reported an estimation of the production in crops made by some families in the communities of RIU-SM. Based on this data (according indigenous census 2018 in the RIU-SM), **the determination of an estimation of food production for the total families** in the surveyed communities was possible.

The production of food for 2018 is as follows:

Table 3. Estimated food production in sample of 248 communities of the RIU-SM for 2018

Crops / Products	Quantity (tons.)	%	Fruits	Quantity (tons.)	%
Cassava	3,229.3	62.0%	Pineapple	414.6	82.9%
Plátano	948.9	18.2%	Guama	19.8	4.0%
Corn	440.8	8.5%	Papaya	19.7	3.9%
Sugar cane	200.4	3.8%	Watermelon	24.2	4.8%
Yam	106.0	2.0%	Orange	8.0	1.6%
Sweet potato	70.2	1.3%	Lulo	4.3	0.9%
Chili pepper	36.1	0.7%	Copo azul	2.7	0.5%
Tavena	24.3	0.5%	Merey	2.5	0.5%
Caimarón	21.1	0.4%	Temare	1.7	0.3%
Chontaduro	15.8	0.3%	Passion fruit	1.4	0.3%
Mapuey	15.3	0.3%	Cashew	0.7	0.1%
Madura verde	8.1	0.2%	Lemon	0.3	0.1%
Ahuyama	5.9	0.1%	Subtotal fruits	499.9	100%
Rice	2.9	0.1%			
Cocoa	2.5	0.05%			
Avocado	0.8	0.02%			
Others	77.6	1.5%			
Subtotal crops	5,205.9	100%			

TOTAL GENERAL	5,705.8 tons.	
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- For 2018, estimated food production in crops was 5,205.9 tons. in several products, and in fruits was 499.9 ton. in the sample of 248 communities. So, total estimated food production was 5,705.8 tons. (**annual average of 23 tons/community**).
- If the value of the average per community is inferred to the 265 communities of the RIU-SM, there would be approximately a production of **6,096.9** tons. in 2018 in all the Indigenous Reservation.

In Annex 4.4.3a of Monitoring Report - VCS 2018 & 2019 is the database with complete information about the food production in each surveyed community in 2018.

The production of food for 2019 is as follows:

Table 4. Estimated food production in sample of 210 communities of the RIU-SM for 2019

Crops / Products	Quantity (tons.)	%	Fruits	Quantity (tons.)	%
Cassava	4,031.2	78.6%	Pineapple	142.5	61.4%
Plátano	595.5	11.6%	Lulo	63.3	27.3%
Corn	224.9	4.4%	Guama	6.0	2.6%
Sugar cane	96.0	1.9%	Mango	5.4	2.3%
Sweet potato	50.3	1.0%	Papaya	4.7	2.0%

Crops / Products	Quantity (tons.)	%
Chili pepper	47.1	0.9%
Yam	27.9	0.5%
<i>Tavena</i>	12.7	0.2%
<i>Ahuyama</i>	12.1	0.2%
Cocoa	9.4	0.2%
<i>Caimarón</i>	8.9	0.2%
<i>Chontaduro</i>	8.0	0.2%
<i>Madura Verde</i>	2.3	0.0%
<i>Tupiro</i>	1.3	0.0%
Subtotal crops	5,127.8	100%

Fruits	Quantity (tons.)	%
<i>Merey</i>	2.7	1.2%
Guava	2.7	1.2%
Watermelon	2.7	1.2%
Lemon	1.3	0.6%
Cashew	0.7	0.3%
Subtotal fruits	231.9	100%

TOTAL GENERAL	5,359.7 tons.	
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- For 2019, estimated food production in crops was 5,127.8 tons. in several products, and in fruits was 231.9 ton. in the sample of 210 communities. So, total estimated food production was 5,359.7 tons. (annual average of 25.5 tons/community).
- If the value of the average per community is inferred to the 265 communities of the RIU-SM, there would be approximately a production of **6,763.4** tons. in 2019 in all the Indigenous Reservation.

In Annex 4.4.3b of Monitoring Report - VCS 2018 & 2019 is the database with complete information about the food production in each surveyed community in 2019.

Actions are also being taken to strengthen the production of cassava (*mañoco*), corn, *plátano*, chili pepper, yam, cocoa, sugar cane, fruits and pisciculture, many of which would be associated with the projects developed in productive chains (see *Activity A2.3: Manage resources for project design and establishment of production chains*).

o *Task T2.1.2.1 Local authority (economic support to Captains)*

The Captains of the RIU-SM are responsible for organizing and ensuring the correct execution of the Sustainable Management Plan for Land and Forest. To achieve this goal, the implementation of the Family Agrifood Production Units System -FAPUS- is carried out and quarterly financial support for all the Captains of the RIU-SM is given. Annexes 4.4.4a and 4.4.4b of Monitoring Report - VCS 2018 & 2019 contains a list of the Captains of communities of the RIU-SM, who are economically supported. The Captains also received special and particular socialization of Project results and training in workshops held in the months of May and June 2019 (see *Task T2.2.4.2.15 Training for the Captains* and Annex 4.5.6 of Monitoring Report - VCS 2018 & 2019).

o *Task T2.1.2.2 Cassava graters*

Cassava graters have been delivered to all indigenous communities in every Sector, to improve the production processes that are carried out to obtain derivative-products from this tuber. It corresponds to an action to satisfy a generalized need throughout the RIU-SM, with what the processing of this main source of food is supported, especially for women who are responsible for processing cassava.

In the first phase 350 cassava graters were delivered, and in the second phase another 100 graters were delivered (2018). In the third phase 125 (2019). The following table shows the distribution of the number of graters delivered to the communities by each Sector of the RIU-SM.

Table 5. Distribution of the amount of cassava graters delivered in the RIU-SM, by Sectors

Zone		Sector		Quantity phase 1	Quantity phase 2	Quantity phase 3	Total quantity
1	Media Río Vichada	1	Caño Cavasi	51	26	52	129
		2	Aiwa Cuna Tsepajivo	58	5	14	77
		Total Zone 1		109	31	66	206
2	Baja Río Vichada	3a	Bajo Río Vichada 1	66	15	17	98
		3b	Bajo Río Vichada 2	69	0	27	96
		Total Zone 2		135	15	44	194
3	Río Orinoco	4	Atana Pirariami	18	7	15	40
		5	Caño Zama	6	3	0	9
		6	Matavén Fruta	11	5	0	16
		7	Berrocal - Ajota	10	4	0	14
Total Zone 3		45	19	15	79		
4	Baja Río Guaviare I	8	Laguna Negra y Cacao	6	5	0	11
		9	Sejalito - San Benito	5	5	0	10
		10	Laguna Anguila - La Macarena	16	12	0	28
		11	Barranquito - Laguna Colorada	8	4	0	12
		Total Zone 4		35	26	0	61
5	Baja Río Guaviare II	12	Caño Bocón	2	0	0	2
		13	CumaraI	2	0	0	2
		14	Yuri	2	0	0	2
		15	Giro	4	2	0	6
		16	Morocoto - Buenavista - Manajuaire	16	7	0	23
		Total Zone 5		26	9	0	35
Total RIU-SM				350	100	125	575

In Annex 4.4.5.4 of Monitoring Report - VCS 2018 & 2019 the detailed list of the number of cassava graters delivered in every community of the RIU-SM can be consulted.

Other elements that were included with the graters are listed below:

Table 6. Items delivered as part of the kits of cassava graters

Description	Unity	Quantity phase 1	Quantity phase 2	Quantity phase 3	Total quantity
Cassava grater	Grater	350	100	125	575
Gasoline	Gallon	2,100	500	250	2,850
Lubricant for 2T engine	0.25 gallon	350	200	125	675
Plastic cup with capacity for 2 liters	Cup	700	200	125	1025
Medium plastic tub to collect the product	Tub	700	200	250	1150
Large plastic tub for 110 liter with lid	Tub	700	200	250	1150
Institutional cap as an element of protection	Cap	2,000	200		2,200
Conventional Rula #24	Rula	350	200		550
Conventional Rula #18	Rula	350			350

Some photographs of cassava graters delivered in different Sectors are illustrated as following:

Illustration 39. Cassava graters delivered in Sectors 1 *Caño Cavasi* and 3a *Bajo Río Vichada 1*



Illustration 40. Cassava graters delivered in Sectors 4 *Atana Pirariami* and 8 *L. Negra y Cacao*



Documents in Annex 4.4.5.1 (about the Contract No. 5, 2018, for the acquisition of the cassava graters - Phase 1), documents in Annex 4.4.5.2 of Monitoring Report - VCS 2018 & 2019 (about the Contract No. 31, 2018, for the acquisition of the cassava graters - Phase 2) and documents in Annex 4.4.5.3 of Monitoring Report - VCS 2018 & 2019 (about the Contract No. 7, 2019, for the acquisition of the cassava graters - Phase 3) provide more information about the effective execution of this Task. There are contracts to purchase of graters, start minutes, liquidation minutes, supervisory reports, certificates of compliance with the Contracts, and execution reports submitted by the contractors, which includes photographs and proof of delivery of graters and other elements to the beneficiaries.

o Task T2.1.2.3 Farm machinery

With Project economic resources, agricultural machinery was acquired (as a pilot process) to strengthen the food sustainability of the indigenous reservation. The following are the delivered equipment:

Table 7. Farm machinery delivered

Description	Quantity
Tractor type MF 291: 105 HP, engine 1104A-14T / perlcins, 4 cylinders, transmission 12 * 4.	1

Description	Quantity
Land harrow MONTANA of 20 discs	1
Polisher T336RB MONTANA 22 discs	1
Agricultural trailer IDEAGRO LT 501 Series	1
Machine to apply lime and fertilizer AGROSHELL	1
Trencher INAMEC 21 -2	1
Front loader shovel - National Industrial	1
Hole maker M50/18 "	1
Corn Seeder MONTANA 4 lines	1
Gasoline - gallons	600
Fat - <i>caneca</i>	2
Hydraulic Oil - gallon	20
Valve for transmissions	20
Tractor filter kit	1
Air hose with couplings - meters	20
Manual pump for tank	1
Tractor basic tool kit	1

In Annex 4.4.6 of Monitoring Report - VCS 2018 & 2019 the supervisory report and certificate of compliance with the Contract No. 3, 2019 about the farm machinery delivered for the RIU-SM can be consulted.

Illustration 41. Farm machinery delivered to support the food sustainability in the RIU-SM



o Task T2.1.2.4: Cookware

Cookware (“*menaje*” in local language) was provided, with which the aim is to support indigenous women, as heads of household, in their food preparation task, with elements that can contribute to the improvement of health and life quality of the family members. Each of the kits delivered had the following elements:

Table 8. Items delivered as part of the 1000 kits of cookware

Description	Quantity / Kit	Total Quantity (2018)	Total Quantity (2019)	TOTAL
Aluminum pot 40 x 30 cm with handles	1	600	400	1,000
Pot #30 with handles	1	600	400	1,000
Molten Cauldron #30	1	600	400	1,000
Aluminum platter #45	1	600	400	1,000

Description	Quantity / Kit	Total Quantity (2018)	Total Quantity (2019)	TOTAL
Plastic bucket x 10 liters	2	1,200	800	2,000
Plastic plate for dry - Melamine	5	3,000	2,000	5,000
Deep dish - Melamine	5	3,000	2,000	5,000
Plastic cup x 10 ounces	5	3,000	2,000	5,000
Metal spoon for dining room	9	5,400	3,600	9,000
Plastic jug x 3,5 liters	1	600	400	1,000

Annex 4.4.7.1 (Contract No. 35, 2018) of Monitoring Report - VCS 2018 & 2019 and its related documents, and the Annex 4.4.7.2 (Contract No. 1, 2019) of Monitoring Report - VCS 2018 & 2019 and its related documents, offer more information about the effective execution of this Task.

Illustration 42. Cookware delivered to families of the RIU-SM



Task T2.1.3: Supervision of the execution of the established measures to develop the FAPUS

- In the contracts executed by ACATISEMA, and through which several of the Tasks are accomplished, there are reports of supervision of the same and certificates of compliance of the contractor, which shows that supervision is being carried out about the execution of the measures established for implementation of FAPUS.
- The Fiscal Observer of ACATISEMA, in accordance with its statutory responsibility, verifies if the Project Activities and Tasks are being fulfilled in the measures, times and scope that they are defined, and presents reports for 2018 and 2019 about the degree of development in which they are found (Annexes 3.4 and 3.5 of Monitoring Report - VCS 2018 & 2019).

Task T2.1.4: Systematization and divulgation of results about the implementation of the FAPUS

- The members of the *Cabildos* Board, Coordinator Committee, the Captains, the indigenous leaders of the RIU-SM and the direct beneficiaries know the results of the implementation of FAPUS.
- Periodically meetings and workshops are held to socialize the progress in the REDD+ Project RIU-SM Activities, in such a way that the indigenous authorities of the Coordinator Committee, *Cabildos*, Captains, leaders and other inhabitants of the communities know the events that have occurred, the state of development of the Tasks and benefits achieved (Annexes 1.22 to 1.26 of Monitoring Report - VCS 2018 & 2019: Zonal Meetings for socialization of the implementation of REDD+ Project RIU-SM Activities and

budget execution, and Annex 4.2.1 of Monitoring Report - VCS 2018 & 2019: minutes of socialization meetings in 2018).

- By the end of 2019, copies of the bulletin were printed and delivered to leaders (for its distribution in RIU-SM communities), with which seeks to disseminate the results and benefits of the implementation of the Project Activities during 2018 & 2019 in the RIU-SM. This bulletin contains general elements of the Project, its objective, the problem to be solved, and the developments that have been achieved and that, precisely, are described in more detail in this Monitoring Report (on all its Section 3.1.1). In Annex 4.2.7 is this bulletin.

Task T2.1.5: Design and implementation of the indigenous self-census to update the social and economic characterization of the RIU-SM population

In order to link the people of the Indigenous Reservation with the plans and events directed by the Colombian Government and other institutions related to the protection of natural resources and indigenous communities, a self-census was carried out based on the guidelines established by the *Ministerio del Interior* (Ministry of Interior) to update the social and economic characterization of the RIU-SM population, financed with the economic resources of the Project RIU-SM. This allowed providing the updated information required by the *Ministerio del Interior* to recognize people as potential beneficiaries. This census is very important because of it depends that the persons of the Indigenous Reservation are registered in the official institutional databases and can access the Government's programs.

Performing the self-census was a Task that the RIU-SM authorities had pending for many years. This task had not been fulfilled due to factors such as the high costs that they had to incur in order to survey the inhabitants (with different languages, customs and dynamics), the great extension of the territory, the distance between the communities and the difficult roads.

Annex 4.4.8 of Monitoring Report - VCS 2018 & 2019 offers more information about the effective execution of this Task. There is the Contract No. 14, 2018 (Annex 4.4.8.1), the start minutes (Annex 4.4.8.2), the certificate of compliance with the Contract (Annex 4.4.8.3) and the execution report (Annex 4.4.8.4) presented by the contractor, where it describes how it performed the Task, presents some results and includes photographs.

The self-census also showed that currently the Indigenous Reservation has 15,943 inhabitants, distributed in 3,591 families and in 265 communities. These results are also essential for planning and development of different activities in the RIU-SM. The data obtained in the self-census are in Annex 4.4.8.5 of Monitoring Report - VCS 2018 & 2019.

o *Task T2.1.5.1 Auxiliaries for survey in conducting the census*

For the realization of the self-census, indigenous individuals from the same RIU-SM were linked, who were properly trained to perform this Task and were paid.

Illustration 43. Group of indigenous who collected the self-census data



Illustration 44. Collecting data in Sectors 2 Aiwa Cuna Tsepajivo and 4 Atana Pirariami



Illustration 45. Collecting data in Sectors 8 L. Negra y Cacao and 11 Barranquito – L. Colorada



Illustration 46. Collecting data in Sectors 14 Yuri and 15 Giro



- **ACTIVITY A2.2:** Design and develop a training and education program plan for the administration and management of natural resources RIU-SM

This activity is being designed, programmed and budgeted taking into account the institutional programs, for example, of SENA and *Jóvenes en Acción* (Youth in Action). Since the Project has a 30-year horizon, the training of future indigenous reservation leaders is essential. This activity focuses mainly on young people (women and men).

Task T2.2.1: Management of special educational aspects

REDD+ Project RIU-SM aims that students acquire the skills to manage the natural resources of the RIU-SM. The design and implementation of the Project will be the practical basis for the design of the university academic programs.

In the 5 Zonal Meetings held in November 2017, the community representatives expressed, among other aspects, their needs in education and presented their proposals to determine how to manage improvements in this aspect and introduce educational programs in the RIU-SM (Annexes 1.2 to 1.8 of Monitoring Report - VCS 2018 & 2019: minutes of Zonal Meetings of November 2017, lists of needs and proposals). Thus, these needs and proposals were reflected in the budget for 2018 & 2019 (Annexes 1.9a and 1.9b of Monitoring Report - VCS 2018 & 2019), in order to satisfy and develop them.

Task T2.2.2: Management to provide libraries and educational endowment

o *Task T2.2.2.1 Library endowment*

Basic endowments were delivered in 2018 to the libraries of 7 educational centers: *Los Ángeles* of *Morrocroy* community (Sector 1 *Caño Cavasi*), *Villa Luz* of *Boponé* community (Sector 2 *Aiwa Cuna Tsepajivo*), *Bakatsolowa* of *Raya* community (Sector 3a *Bajo Río Vichada 1*), *Cadanapay* of *Progreso Integral* community (Sector 3b *Bajo Río Vichada 2*), Internship *Kuawai* of *Sarrapia* community (Sector 6 *Matavén Fruta*), Internship *El Sejal* of *El Sejal* community (Sector 9 *Sejalito San Benito*), and Internship *Manajuare* of *Manajuare* community (Sector 16 *Morocoto Buenavista*).

In 2019 basic endowments were delivered to the libraries of 6 educational centers: *Quince de Febrero* of *Kirey Rincón* community, *María Antonia* of *Kirey Central*, *San José de Kulaya* of *Kirey Loma* community, *Simeria* of *Simeria* community, *San Víctor Manuel Yalano* of *Maniare* community and *San Gerónimo* of *Jordán Tamude* community (Sector 2 *Aiwa Cuna Tsepajibo*).

Each kit of basic endowment for each of the libraries consists of:

Table 9. Items delivered as part of the 13 kits for libraries

Description	Total Quantity
Basic Dictionary of the Spanish Language	100
Board game for children - Mesa: Table: length: 70 cm; width: 70 cm; high: 51 cm; Chair: long: 43 cm; width: 37 cm; high 53 cm	130
Smart TV 49": diagonal measure 123 cm; resolution type 4K	13
Rule of 100 cm MDF	7
Portable compass MDF	7
Square 60° MDF	7
Square 45° MDF	7
DVD drive - component video player	13
Erasable portable board of 120 cm x 80 cm, platinum	13
Erasable marker in box x 10 units, black color	100
<i>Parqués</i> : double-sided board game, 6 seats	65
Large wooden chess	65
Didactic Encyclopedia x 5 volumes	35
Globe of 25 cm diameter	7
Atlas <i>El Mundo y Colombia</i>	7
Erasable marker kit x 10 units of many colors	35
Paper ream box - letter size sheets	2

Illustration 47. Endowment for libraries in schools



Illustration 48. Delivery of endowment for libraries in 13 schools



Annex 4.5.1.1 (Contract No. 17, 2018) of Monitoring Report - VCS 2018 & 2019 and its related documents, and Annex 4.5.1.2 (Contract No. 24, 2019) of Monitoring Report - VCS 2018 & 2019 and its related documents, offer more information about the effective execution of this Task.

o Task T2.2.2.2 Student endowment (school kits)

The provision of school kits represents an investment to children have better tools to study and learn. What is desired is to increase the percentage of children and adolescents who access education and provide them elements to improve the quality of life of the population. 3,000 school kits were given in phase 1 and 2,866 in phase 2, for a total of 5,866 beneficiaries.

Illustration 49. School kits for basic education students



o Task T2.2.2.3 Sport endowment

Provision of sports equipment for the strengthening of the RIU-SM educational units. This provision was made with the objective of promoting sports practices within the Indigenous Reservation and to provide options for the use of free time for children and teenagers.

Following sport endowments were delivered:

Table 10. Sports equipment for RIU-SM schools

Description	Quantity
Sports uniforms	1,324
Soccer balls No. 5	88
Soccer balls No. 4	90
Volleyball balls	30
Soccer nets	10
Futsal nets	10
Volleyball nets	10
Whistle kits	40
Card kits for referees	30

This endowment benefited educational institutions in the RIU-SM.

Annex 4.5.2.1 (Contract No. 21, 2018), Annex 4.5.2.2 (Contract No. 5, 2019), and Annex 4.5.2.3 (Contract No. 13, 2019) of Monitoring Report - VCS 2018 & 2019 and its related documents, offer more information about the effective execution of this Task.

Illustration 50. Endowment of sports equipment delivered to RIU-SM schools



Task T2.2.3: Management to build / remodeling of schools

o Task T2.2.3.1 Classroom (to schools: Boponé, Raya Bakatsolova, Kadanapay, Sarrapia)

School classrooms were built in 4 educational centers of the RIU-SM: *Boponé school of Boponé community (Sector 2 Aiwa Cuna Tsepajivo), Raya Bakatsolova school of Raya community (Sector 3a Bajo Río Vichada*

1), Kadanapay school of *Progreso Integral* community (Sector 3b *Bajo Río Vichada 2*), and *Sarrapia* school of *Sarrapia* community (Sector 6 *Matavén Fruta*), as a response to an urgent request from the communities, expressed at the Zonal Meetings in November 2017.

Illustration 51. Classroom built in the *Boponé's* educational center



Illustration 52. Classroom built in the *Raya's* educational center



Illustration 53. Classroom built in *the Progreso Integral's* educational center



Illustration 54. Classroom built in the *Sarrapia's* educational center



Illustration 55. Children using one of the built classrooms



Annex 4.5.3.1a (Contract No. 8, 2018), Annex 4.5.3.1b (start minutes) Annex 4.5.3.1c (liquidation minutes), Annex 4.5.3.1d (supervision report with the certificate of compliance with the contract) and Annex 4.5.3.1e (photographs of the works carried out) of Monitoring Report - VCS 2018 & 2019, offer more information about the effective execution of this Task.

Other school rooms were built in 2019 for 4 educational centers of the RIU-SM: *Antonio Nariño* of *Santa Marta* community (Sector 1 *Caño Cavasi*), *San José de Kulaya* of *Kirey Loma* community (Sector 2 *Aiwa Cuna Tsepajivo*), *Soledad Acosta* of *Pirariame* (Sector 4 *Atana Pirariami*), and *José Antono Galán* of *Pueblo Escondido* community (Sector 7 *Berrocal Ajota*).

Community dining room

The constructions of the physical infrastructure of the community dining room for the community of *Manajure* and a classroom for the community of *Buenavista* (Sector 16 *Morocoto Buenavista Manajure*) were developed. These constructions are done with the aim of improving the facilities used by children in these communities.

Illustration 56. Physical infrastructure of the dining room in *Manajure* community



Task T2.2.4.1: Design and planning of the measures to develop training programs

In the 5 Zonal Meetings held in November 2017, the community representatives expressed, among other aspects, their needs in education and presented their proposals about improving the conditions and provision for students in basic education, and to plan who of the young boys graduates of secondary education from the RIU-SM are able to advance to higher education. (Annexes 1.2 to 1.8 of Monitoring Report - VCS 2018 & 2019). Thus, these needs and proposals were reflected in the budget for 2018 & 2019 (Annexes 1.9a and 1.9b of Monitoring Report - VCS 2018 & 2019), in order to satisfy and develop them.

Task T2.2.4.2: Execution of the established measures to develop training programs.

o Task T2.2.4.2.3 Training in pilot agroforestry project

A pilot agroforestry project with cocoa, *plátano*, corn and forest trees has been defined in the RIU-SM (see

Activity 2.3 for more details). During the preparation stage, a series of visits were made by the *Federación Nacional de Cacaoteros* – FEDECACAO (National Federation of Cocoa), an entity that is supporting the implementation of this initiative. During these visits the aspects of the REDD+ Project RIU-SM were socialized and the affair of cooperativism was discussed, as well as the technical details about the cultivation and technological package of cocoa, *plátano*, corn and forest trees, for the participation of indigenous people, so that they received the precise indications on how to execute it, such as selecting lots, drawing plots, understanding the planting model (scale model) and examining the soil.

The following are the minutes of these technical visits of FEDECACAO to implement the pilot agroforestry project with cocoa, *plátano*, corn and forest trees:

- Minutes of technical visit in *Morichal* community on October 24, 2018. 12 indigenous people from the community attended (Annex 4.5.4.1 of Monitoring Report - VCS 2018 & 2019).
- Minutes of technical visit in *Morocoto* community on October 24, 2018. 12 indigenous people from the community attended (Annex 4.5.4.2 of Monitoring Report - VCS 2018 & 2019).
- Minutes of technical visit in *Yuri* community on October 24, 2018. 7 indigenous people from the community attended (Annex 4.5.4.3 of Monitoring Report - VCS 2018 & 2019).
- Minutes of technical visit in *Cumara* community on October 25, 2018. 18 indigenous people from the community attended (Annex 4.5.4.4 of Monitoring Report - VCS 2018 & 2019).
- Minutes of technical visit in *Berlin 1* community on October 26, 2018. 24 indigenous people from the community attended (Annex 4.5.4.5 of Monitoring Report - VCS 2018 & 2019).

In this way, 73 indigenous people were trained in technical aspects of cocoa cultivation.

Illustration 57. Soil review during FEDECACAO visit to *Morichal* community



Illustration 58. Made holes to review the soil profile during the visit to *Morocoto* community



Illustration 59. Families in *Yuri* community responsible for implementing the pilot agroforestry project with cocoa, *plátano*, corn and forest trees



Illustration 60. Meeting with Captain and leaders of *Cumara* community



Illustration 61. Explanation about the planting model in *Berlin 1* community



o *Task T2.2.4.2.14 Training for the indigenous guard*

The indigenous guards were trained in 2018, as in other years, through workshops held between August 20 and 30, 2018 in which aspects about the REDD+ Project RIU-SM were addressed: climate change, legal regulations, historical review of the Project, logical framework, Products and Activities, specifically, Activity A1.1 regarding the surveillance and control of the territory of the RIU-SM. The minutes of each of these workshops are available, as following:

- Training workshop for 60 indigenous guards in Zones 3, 4 and 5 of the RIU-SM, in the *Laguna Negra* community, from August 20 to 22, 2018 (Annex 4.5.5.1 of Monitoring Report - VCS 2018 & 2019: minutes, assistance signatures, documents of group work).
- Training workshop for 55 indigenous guards in Zone 2, Sectors 3a and 3b of the RIU-SM, in the *Camoniana* community, from August 24 to 26, 2018 (Annex 4.5.5.2 of Monitoring Report - VCS 2018 & 2019: minutes, assistance signatures, documents of group work).
- Training workshop for 20 indigenous guards in Zone 1, Sectors 1 and 2 of the RIU-SM, in the *Cumariana* community, from August 28 to 29, 2018 (Annex 4.5.5.3 of Monitoring Report - VCS 2018 & 2019: minutes, assistance signatures, documents of group work).
- Training workshop for 23 indigenous guards in Zone 1, Sector 1 of the RIU-SM, in the *Mira Luz* community, from August 29 to 30, 2018 (Annex 4.5.5.4 of Monitoring Report - VCS 2018 & 2019: minutes, assistance signatures, documents of group work).
- Training workshop for 39 indigenous guards in Zone 1, Sector 1 of the RIU-SM, in the *Caracol* community, from March 18 to 20, 2019 (Annex 4.5.5.5 of Monitoring Report - VCS 2018 & 2019: minutes, assistance signatures, documents of group work).
- Training workshop for 60 indigenous guards in Zone 2, Sector 3a of the RIU-SM, in the *Camuniana* community, from March 22 to 24, 2019 (Annex 4.5.5.6 of Monitoring Report - VCS 2018 & 2019: minutes, assistance signatures, documents of group work).
- Training workshop for 55 indigenous guards in Zone 2, Sector 9 of the RIU-SM, in the *Sejalito* community, from March 27 to 29, 2019 (Annex 4.5.5.7 of Monitoring Report - VCS 2018 & 2019: minutes, assistance signatures, documents of group work).

So, in the several minutes, 312 indigenous individuals were trained, including the coordinators of the indigenous guard, who were elected in these same workshops.

A first aid workshop was also held for the members of the indigenous guard. With this training is expected to be of great importance for the community of the RIU-SM, since health services in this territory are scarce and of limited coverage. Indigenous guards have the ability to attend basic situations of accidents or illness, may perform primary care and refer the patient to an institution with greater capacity for medical attention (see Annexes 4.5.5.8 and 4.5.5.9 of Monitoring Report - VCS 2018 & 2019).

Illustration 62. Indigenous guard in training - Laguna Negra and Camonianae communities



Illustration 63. Indigenous guard in training - Cumariana and Mira Luz communities



Illustration 64. First aid workshop to indigenous guard



o *Task T2.2.4.2.15 Training for the Captains*

During 2019 the Captains of the RIU-SM communities participated in workshops of socialization about the Project results and training in governance and execution of some aspects of Project, between May and June 2019. Details about these workshops are:

- Training workshop for 31 Captains in Zone 1, Sector 1 of the RIU-SM, in the *Puerto Lucía* community, from May 19 to 21, 2019 (Annex 4.5.6.1 of Monitoring Report - VCS 2018 & 2019: minutes, assistance signatures, documents of group work).
- Training workshop for 38 Captains in Zone 1, Sector 2 of the RIU-SM, in the *Matsuldani* community, from May 22 to 24, 2019 (Annex 4.5.6.2 of Monitoring Report - VCS 2018 & 2019: minutes, assistance signatures, documents of group work).
- Training workshop for 57 Captains in Zone 1, Sector 2 of the RIU-SM, in the *Urba Morichal* community, from May 25 to 27, 2019 (Annex 4.5.6.3 of Monitoring Report - VCS 2018 & 2019: minutes, assistance signatures, documents of group work).
- Training workshop for 57 Captains in Zone 2, Sector 3a of the RIU-SM, in the *Wereto* community, from May 28 to 30, 2019 (Annex 4.5.6.4 of Monitoring Report - VCS 2018 & 2019: minutes, assistance signatures, documents of group work).
- Training workshop for 67 Captains in Zone 4, Sector 8 of the RIU-SM, in the *Laguna Negra* community, from June 07 to 09, 2019 (Annex 4.5.6.5 of Monitoring Report - VCS 2018 & 2019: minutes, assistance signatures, documents of group work).

So, in the several minutes, 250 Captains were trained.

Illustration 65. Training workshop in *Puerto Lucía* community



o *Educational programs: Task T2.2.4.2.20 Professional programs and Task T2.2.4.2.21 Educational bachelor programs*

o *Economic support to students: Task T2.2.4.2.22 Programs at the technical, technological, and professional level and Task T2.2.4.2.23 Educational bachelor programs (for teachers)*

During 2018 & 2019, financial support was provided to 121 students belonging to the communities of the RIU-SM, who were previously endorsed by the Captains and *Cabildos* to be beneficiaries. The support consists of the payment of tuition costs for higher education studies and support for maintenance during

the study period. These students are developed studies in several educational level and careers, such as technical, technological, professional, postgraduate, educational bachelor's degrees (pedagogy) and complementary training.

This support is essential in the Indigenous Reserve where, according to the census, only 0.59% of the population has a professional career level and 0.06% a technology. These incentives allow a substantial improvement in the quality of life levels of the families of the Indigenous Reserve and encourage the participation of young people in the social processes of the RIU-SM.

What is intended is that, in the same place, students acquire the skills to manage the natural resources of the RIU-SM. The design and implementation of the Project will be the practical basis for the design of university academic programs.

Illustration 66. Youth of the RIU-SM benefit of financial support to study provided by the Project



In Annex 4.5.7 of Monitoring Report - VCS 2018 & 2019 is the list of the 121 students who were supported during 2018 & 2019.

Task T2.2.4.3: Supervision of the execution of the established measures to develop training programs

- The Fiscal Observer of ACATISEMA, in accordance with its statutory responsibility, verifies if the Project Activities and Tasks are being fulfilled in the measures, times and scope that they are defined, and presents reports for 2018 and 2019 about the degree of development in which they are found (Annexes 3.4 and 3.5 of Monitoring Report - VCS 2018 & 2019).

Task T2.2.4.4: Systematization and divulgation of management to develop training programs.

- The members of the *Cabildos* Board, Coordinator Committee, the Captains, the indigenous leaders of the RIU-SM and the direct beneficiaries know the results of the training programs and about the financial support that is being provided to students of higher education.
- Periodically meetings and workshops are held to socialize the progress in the REDD+ Project RIU-SM Activities, in such a way that the indigenous authorities of the Coordinator Committee, Cabildos, Captains, leaders and other inhabitants of the communities know the events that have occurred, the state of development of the Tasks and benefits achieved (Annexes 1.22 to 1.26 of Monitoring Report - VCS 2018 & 2019: Zonal Meetings for socialization of the implementation of REDD+ Project RIU-SM Activities and

budget execution, and Annex 4.2.1: minutes of socialization meetings in 2018).

- By the end of 2019, copies of the bulletin were printed and delivered to leaders (for its distribution in RIU-SM communities), with which seeks to disseminate the results and benefits of the implementation of the Project Activities during 2018 & 2019 in the RIU-SM. This bulletin contains general elements of the Project, its objective, the problem to be solved, and the developments that have been achieved and that, precisely, are described in more detail in this Monitoring Report (on all its Section 3.1.1). In Annex 4.2.7 is this bulletin.

- **ACTIVITY A2.3:** Manage resources for project design and establishment of production chains.

This activity seeks to complement the FAPUS. A prioritization of the proposals that the indigenous communities have presented for an initial phase is being evaluated.

Task T2.3.1.1: Design and planning of the measures related to development of productive projects.

In the 5 Zonal Meetings held in November 2017, the community representatives expressed, among other aspects, their proposals to determine how to develop productive projects in their territory in a way that allows them to improve their local economic environment (Annexes 1.2 to 1.8 of Monitoring Report - VCS 2018 & 2019: minutes of Zonal Meetings of November 2017, lists of needs and proposals and budget). Thus, these needs and proposals were reflected in the budget for 2018 & 2019 (Annexes 1.9a and 1.9b of Monitoring Report - VCS 2018 & 2019), in order to satisfy and develop them.

Task T2.3.1.2: Execution of the established measures related to development of productive projects.

The leaders of the indigenous communities are preparing proposals, with the financial support of the REDD+ Project RIU-SM, to develop productive projects in their communities that allow them to improve the local economic environment. It is wanted that these projects can be developed in productive chains and within the figure of a cooperative. A MEDIAMOS professional is providing direct support in the RIU-SM for the definition of technical proposals in a first instance of evaluation of investment in pilot projects.

During 2018 & 2019, steps were taken to define the productive projects that can begin to be implemented as pilot initiatives in some communities of the RIU-SM, in order to evaluate their development and success. The proposals are as follows:

- Silvopastoral production project.
- Agroforestry project with cocoa, *plátano*, corn, and forest trees.
- Cassava cultivation project to obtain *mañoco*.
- Tourism project.
- *Panelera* cane production project.
- Minor species (hens) production project.
- Crop fish in floating cages (fish farming for food safety).
- Ornamental fish production project.
- Self-sufficient integral community farms (Agrosilvopastoral).
- Training and accompaniment in handcraft processes.

Illustration 67. Production of *mañoco* from cassava is a project that they want to technify



In Annex 4.6.1 of Monitoring Report - VCS 2018 & 2019 “*Informe de gestión realizada en las comunidades del RIU –SM para el apoyo a la implementación de proyectos piloto de cadenas productivas*” (Report of management carried out in the communities of the RIU -SM for the support to the implementation of pilot projects of productive chains) for 2018 & 2019, more details are presented about the definition of productive projects and the actions carried out, such as, for example, meetings with *Federación Nacional de Cacaoteros – FEDECACAO* (National Federation of Cocoa) and *Fondo Nacional de Turismo – FONTUR* (National Tourism Fund), request to the *Ministerio de Comercio, Industria y Turismo* (Ministry of Commerce, Industry and Tourism), technical files of the proposed projects and socialization meetings.

o *Task T2.3.1.2.1 Silvopastoral system*

- A meat and milk production line is being implemented to complement the FAPUS and improve food production, also in response to requests presented in the 5 Zonal Meetings held in November 2017, in order to provide beef for food for indigenous people. In a first phase, 839 heifers and 82 bulls were delivered (Annex 4.6.2.1 of Monitoring Report - VCS 2018 & 2019: Contract No. 7, 2018 - Phase 1), in a second phase 235 heifers and 58 bulls were delivered (Annex 4.6.2.2 of Monitoring Report - VCS 2018 & 2019: Contract No. 30, 2018 - Phase 2) and in a third phase 124 heifers and 102 bulls were delivered (Annex 4.6.2.3 of Monitoring Report - VCS 2018 & 2019: Contract No. 8, 2019 - Phase 3). The number of animals delivered to the communities for each Sector of RIU-SM is shown below.

Table 11. Distribution of heifers and bulls as part of the silvopastoral system - Phase 1

Sectors of the RIU-SM	Quantity of communities benefited	Quantity of heifers	Quantity of bulls	Total quantity of animals
1 <i>Caño Cavasi</i>	32	146	12	158
2 <i>Aiwa Cuna Tsepajivo</i>	33	196	20	216
3a <i>Bajo Río Vichada 1</i>	46	215	24	239
3b <i>Bajo Río Vichada 2</i>	57	282	26	308
Total	168	839	82	921

Table 12. Distribution of heifers and bulls as part of the silvopastoral system - Phase 2

Sectors of the RIU-SM	Quantity of communities benefited	Quantity of heifers	Quantity of bulls	Total quantity of animals
1 <i>Caño Cavasi</i>	12	41	12	53
2 <i>Aiwa Cuna Tsepajivo</i>	11	31	9	40
3a <i>Bajo Río Vichada 1</i>	8	25	8	33
3b <i>Bajo Río Vichada 2</i>	10	42	10	52
8 <i>Laguna Negra y Cacao</i>	4	18	4	22
9 <i>Sejalito - San Benito</i>	4	19	4	23
10 <i>Lag. Anguila - La Macarena</i>	5	20	3	23
11 <i>Barranquito - Lag. Colorada</i>	3	17	3	20
12 <i>Caño Bocón</i>	1	5	1	6
13 <i>Cumaral</i>	1	4	1	5
14 <i>Yuri</i>	1	4	1	5
15 <i>Giro</i>	2	9	2	11
Total	62	235	58	293

Table 13. Distribution of heifers and bulls as part of the silvopastoral system - Phase 3

Sectors of the RIU-SM	Quantity of communities benefited	Quantity of heifers	Quantity of bulls	Total quantity of animals
1 <i>Caño Cavasi</i>	25	15	25	40
2 <i>Aiwa Cuna Tsepajivo</i>	21	12	21	33
3a <i>Bajo Río Vichada 1</i>	39	32	39	71
3b <i>Bajo Río Vichada 2</i>	12	24	2	26
4 <i>Atana Pirariami</i>	15	41	15	56
Total	112	124	102	226

This silvopastoral system has become an alternative that replaces the consumption of bushmeat, helping to conserve the wildlife of the Selva de Matavén. It is expected that, in the medium term, indigenous communities will consolidate a sustainable silvopastoral system, taking advantage of the large areas of savannas that the Indigenous Reserve has, a condition that allows pasture rotation processes to avoid causing negative impacts on the forest ecosystem.

- Barbed wire to support the silvopastoral system of indigenous communities with an agricultural vocation was delivered in Sectors 1 *Caño Cavasi*, 2 *Aiwa Cuna Tsepajivo*, 3a *Bajo Río Vichada 1* and 3b *Bajo Río Vichada 2*. This input is useful for the construction of fences. The Annex 4.6.2.4 of Monitoring Report - VCS 2018 & 2019 (Contract No. 33, 2019) offer more information.

Illustration 68. Barbed wire delivered in RIU-SM



o Task T2.3.1.2.2 Pilot agroforestry project with cocoa, plátano, corn and forest trees

In “Task T2.2.4.2.3 Pilot agroforestry project with cocoa, plátano, corn and forest trees” a reference was made to the technical visits that were performed by FEDECACAO to the communities that are implementing it, in which technician aspects were discussed (Annex 4.5.4 of Monitoring Report - VCS 2018 & 2019). Also, the socialization of this project with these communities was made (Annex 4.6.1.1b1 of Monitoring Report - VCS 2018 & 2019).

This project is carrying out in 10 communities in Zones 4 and 5 of the RIU-SM, because they have the ideal climatic and environmental conditions for it. These communities have had cocoa crops in previous years and in the highlands of the Guaviare river basin and the *Amanavén* creek. In each community 10 families are in charge of the cultivation and production in 1 hectare of land (each one), in this way 100 families are cultivating 100 hectares. About this project the “*Convenio de Asociación No. 001 de 2019 entre ACATISEMA, MEDIAMOS F&M S.A.S. y FEDECACAO para el establecimiento de 100 has. de cacao bajo sistemas agroforestales en el RIU-SM*” (Association Agreement No. 001, 2019, between ACATISEMA, MEDIAMOS F&M S.A.S. and FEDECACAO for the establishment of 100 hectares. of cocoa under agroforestry systems in the RIU-SM) was signed (Annex 4.6.1.1k of Monitoring Report - VCS 2018 & 2019).

100,000 cocoa trees have been planted, with 100,000 trees of *plátano* and corn, and 4,000 forest trees for shadow. This is a concrete example of a productive project that is already running.

Illustration 69. Cocoa seedlings for planting



o *Task T2.3.1.2.7 Crafts*

Participation in artisanal fairs nationwide is sponsored by the REDD+ Project RIU-SM, to offer the products made by the people of the Indigenous Reservation.

Illustration 70. Participation of artisans of the RIU-SM in "Expoartesano". Medellin, 2018



o *Task T2.3.1.2.11 Tourism*

According Annex 4.6.1.1b2 of Monitoring Report - VCS 2018 & 2019, socialization meetings were carried out for community tourism proposal in:

- Meeting in *Miraluz* community, on December 6, 2018, with 11 participants.
- Meeting in *Palmarito* community, on December 6, 2018, with 7 participants.
- Meeting in *Cumaral* community, on December 7, 2018, with 11 participants.
- Meeting in *Morichal* community, on December 7, 2018, with 8 participants.
- Meeting in *Morocoto* community, on December 7, 2018, with 10 participants.
- Meeting in *Yuri* community, on December 7, 2018, with 10 participants.
- Meeting in *Berlin 1* community, on December 8, 2018, with 8 participants.
- Meeting in *Caño Bocón* community, on December 8, 2018, with 12 participants.
- Meeting in *San Luis de la Rompida* community, on December 8, 2018, with 1 participant.
- Meeting in *Sejalito 1* community, on December 8, 2018, with 6 participants.
- Meeting in *Barranco Colorado* community, on December 10, 2018, with 9 participants.
- Meeting in *La Urbana* community, on December 11, 2018, with 12 participants.

As mentioned in the minutes, meetings of socialization of the proposal to develop the community tourism project were attended by 101 participants.

Illustration 71. Meeting of socialization of the proposal for tourism project in *Miraluz* community



Illustration 72. Meeting of socialization of the proposal for tourism project in *Palmarito* community



o *Task T2.3.1.2.16 Dressmaking*

20 sewing machines and other dressmaking tools were provided for the economic and microenterprise strengthening of the indigenous women of the RIU-SM, responding to a need posed by the communities. The implements and materials were the following:

Table 14. List of delivered dressmaking tools

Item	Quantity
Sewing machines with pedal furniture	20
Acrylic rulers kit	20
Thread 120 gauge, black / white, 2,000 yards	80
Golden tip needle	20
Hand needle	80
Dressmaking meter	80
Sewing machine oil	20
Polishing scissors	20
Scissors 7.5	80
Family Reel Box	20
Pins	80

Item	Quantity
Unicolor Dacron	80
Stamped Dacron	80
Dacron pictures	80

Additionally, 40-hour training was provided in the handling of sewing machines and dressmaking and the daily logistics (training room, transportation and food) necessary for the participation of 80 RIU-SM people who benefited.

Illustration 73. Training for handling of sewing machines and dressmaking



Annex 4.6.3.1 (start minutes of Association Agreement No. 37), Annex 4.6.3.2 (supervision report with the certificate of compliance with the Association Agreement) and Annex 4.6.3.3 (execution report presented by the Associated, with photographs) of Monitoring Report - VCS 2018 & 2019, offer more information about the effective execution of this Task.

Task T2.3.1.3: Supervision of the execution of the established measures related to development of productive projects.

Indigenous people want productive projects to be executed through agreements with institutions that have the particular experience for each type of project (for example, FEDECACAO). As part of the execution of these agreements, a supervision component will be stipulated to ensure that these projects are effectively developed by the indigenous communities and the expected results are obtained. Also, a MEDIAMOS professional is directly supporting and supervising in the RIU-SM the indigenous people who are preparing their proposals.

Task T2.3.1.4: Systematization and divulgation of results about the management to develop productive projects.

- The members of the *Cabildos* Board, Coordinator Committee, the Captains, the indigenous leaders of the RIU-SM and the direct beneficiaries know the results of the management to develop productive projects.
- Periodically meetings and workshops are held to socialize the progress in the REDD+ Project RIU-SM Activities, in such a way that the indigenous authorities of the Coordinator Committee, *Cabildos*, Captains,

leaders and other inhabitants of the communities know the events that have occurred, the state of development of the Tasks and benefits achieved (Annexes 1.22 to 1.26 of Monitoring Report - VCS 2018 & 2019: Zonal Meetings for socialization of the implementation of REDD+ Project RIU-SM Activities and budget execution, and Annex 4.2.1 of Monitoring Report - VCS 2018 & 2019: minutes of socialization meetings in 2018).

- By the end of 2019, copies of the bulletin were printed and delivered to leaders (for its distribution in RIU-SM communities), with which seeks to disseminate the results and benefits of the implementation of the Project Activities during 2018 & 2019 in the RIU-SM. This bulletin contains general elements of the Project, its objective, the problem to be solved, and the developments that have been achieved and that, precisely, are described in more detail in this Monitoring Report (on all its Section 3.1.1). In Annex 4.2.7 is this bulletin.

Task T2.3.2.1: Design and planning of the measures related to development of commercialization and cooperativism projects.

A cooperativism training was carried out in the *El Coco* community (Km 2, El Coco village, along the Inírida river) from April 4 to 6, 2019, with the participation of 48 indigenous representatives of the communities that will develop the pilot agroforestry productive project with cocoa, plátano, corn and forest trees (Annex 4.6.4.1 of Monitoring Report - VCS 2018 & 2019: minutes of training workshop).

Illustration 74. Cooperativism training in RIU-SM



The 48 indigenous representatives of the communities that participated in the cooperativism training were established as the founding partners of the COOMATAVÉN Cooperative (Annex 4.6.4.2 of Monitoring Report - VCS 2018 & 2019: minutes of the creation of the cooperative and Annex 4.6.4.3 of Monitoring Report - VCS 2018 & 2019: legal identification document of the cooperative).

In accordance with the above, regarding the execution of the Activities and tasks of Product 2, the compliance assessment is now presented.

Compliance with Product 2: Through the execution of Activities A2.1, A2.2 and A2.3, and their respective Tasks, in accordance with the Matrix of Logical Structure (MLS), compliance with the indicators, means of verification and assumptions are as follows:

Product 2: Sustainable production system implemented.		
Indicators	Means of Verification	Assumptions
<p>1)A Family Agrifood Production Units System - FAPUS has been established to produce at least 4,000 tons of agricultural food / year.</p> <p><i>It has been achieved. Indigenous people of RIU-SM communities apply the Sustainable Management Plan for Land and Forest, whereby an average of 6,097 tons of food production was the estimated in RIU-SM in 2018 and 6,763 tons in 2019.</i></p> <p>2)800 graduated high school students have started their training and educational programs for the integral-sustainable management of the forests and lands of the RIU-SM.</p> <p><i>The purpose of linking progressively students to higher education, for example , to “Jóvenes en Acción” (Youth in Action) Program, has not been achieved due to that the Ministerio del Interior - MinInterior (Ministry of Interior) had not completed the process of registering data of indigenous people who have graduate education secondary to the “Sistema de Información Indígena de Colombia” - SIIC (Colombian System of indigenous Information) but until the end of 2019. With the data already registered, in 2020 the steps are being advanced to link the people of indigenous reservation to the government plans that can provide benefits. Meanwhile, the REDD+</i></p>	<p>1)Progress reports about the results of the establishment of the Family Agrifood Production Units System (FAPUS).</p> <p><i>Reports and information processed about the results of the implementation of FAPUS in all years of implementation of Activity A2.1 are in following Project documents:</i></p> <ul style="list-style-type: none"> - Annexes of PDD: 25.1.14 (2013), 25.2.06 (2014), 25.3.07 (2015). - Annex 8.3 of Monitoring Report 2016-2017. - Activity 2.1 of Monitoring Report - VCS 2018 & 2019. <p>2)List and number of indigenous food producers participating in the Family Agrifood Production Units System - FAPUS by Sector and Zone.</p> <p><i>The Captains of each community are in charge of implementing the Sustainable Management Plan for Land and Forest. The list of captains is presented in Annex 4.4.4 of Monitoring Report - VCS 2018 & 2019.</i></p> <p>3)List and quantity of lots/conucos and hectares established in the Family Agrifood Production Units System - FAPUS by Sector and Area.</p> <p><i>Over the years there have been different updated versions of the FAPUS, including kind of cultivated products and amount:</i></p> <ul style="list-style-type: none"> - Annex 5 of PDD (years 2013, 2014, 2015). - Annex 8.1 of Monitoring Report (years 2016 and 2017). - Annex 4.4.2 of Monitoring Report - VCS 2018 & 2019, where maps of FAPUS show the lots/conucos. <p>4)Total agricultural products harvested by Sector and Area.</p> <p><i>The details regarding agricultural products harvested and quantity, broken down by Zones and Sectors, in all the years of implementation of the Activity A2.1 is in the following Project documents, where tables with cultivated</i></p>	<ul style="list-style-type: none"> • The community leaders, through the statutory instances of their organization, resolve the internal conflicts that hinder the development of the Project and maintain a willingness to jointly and concerted work. <p><i>It was achieved (the experience has been achieved in this regard in RIU-SM).</i></p> <ul style="list-style-type: none"> • The unity of the local communities and their disposition to joint and concerted work is maintained. <p><i>It has been achieved The Directives of ACATISEMA, leaders and communities are integrated, as is evidenced with held meetings (Annex 1 and Annex 4.2.1 of Monitoring Report - VCS 2018 & 2019).</i></p>

Product 2: Sustainable production system implemented.

Indicators	Means of Verification	Assumptions
<p><i>Project RIU-SM is supporting and subsidizing 121 students in higher education, as it is explained in the Tasks T2.2.4.2.20 Professional programs, T2.2.4.2.21 Educational bachelor programs, T2.2.4.2.22 Programs at the technical, technological, and professional level and T2.2.4.2.23 Educational bachelor programs (for teachers)", adjusting to current conditions and needs, according to the programs defined in the training plan (Activity A2.2).</i></p> <p>3)Representatives of the 265 communities of the 16 Sectors and the 5 Zones apply environmental knowledge in the design of the Project for the participation of 2,500 families in the <i>Programa Red de Seguridad Alimentaria - RESA (Food Safety Network Program)</i>.</p> <p><i>It had not been achieved. Likewise, to link the communities and families to the national programs, like RESA, first the data of the self-census needed being registered in the "Sistema de Información Indígena de Colombia" - SIIC (Colombian System of indigenous Information). This indicator will also be revised and adjusted. In 2020 the steps are being advanced to link the people of indigenous reservation to the government plans that can provide benefits.</i></p>	<p><i>products and quantities are presented:</i></p> <ul style="list-style-type: none"> - Annexes 25.1.14 (2013), 25.2.06 (2014), 25.3.07 (2015) of PDD. - Annex 8.3 of Monitoring Report 2016-2017. - Annexs 4.4.3a and 4.4.3b of Monitoring Report - VCS 2018 & 2019. <p>5)List of graduated high school students in the training and educational programs.</p> <p><i>It has not been achieved yet, due to the reasons explained (in the column "Indicators" of this table). This program is in the process of formalities. In 2020 the steps are being advanced to link the people of indigenous reservation to the government plans in educational programs.</i></p> <p><i>However, there are 121 students who receive financial support in Higher Education (Annex 4.5.7 of Monitoring Report - VCS 2018 & 2019).</i></p> <p>6)List of the representatives of the 265 communities that participate in the design of the Project for the participation of 2,500 families in the <i>Programa Red de Seguridad Alimentaria - RESA (Food Safety Network Program)</i> of the <i>Departamento para la Prosperidad Social - DPS (Department for Social Prosperity)</i>.</p> <p><i>It has not been achieved yet, due to the reasons explained (in the column "Indicators" of this table).</i></p> <p>7)List and number of beneficiary families registered in the <i>Programa Red de Seguridad Alimentaria - RESA (Food Safety Network Program)</i>.</p> <p><i>It has not been achieved yet, due to the reasons explained (in the column "Indicators" of this table). In 2020 the steps are being advanced to link the people of indigenous reservation to the government plans in food safety.</i></p>	

Product 2: Sustainable production system implemented.		
Indicators	Means of Verification	Assumptions
NOTE: an indicator about the establishment of projects in productive chains will be studied and defined, once the formalized project documents are available. For now, a pilot agroforestry project with 100,000 cocoa trees, 100,000 plátano trees, corn and 4,000 forest trees for shadow is in implementation.	<p>8) Minutes of meetings and events.</p> <p><i>The minutes of meetings and workshops of socialization and training are presented in Annex 1 and in Annex 4.2.1 of Monitoring Report - VCS 2018 & 2019.</i></p> <p>9) Audiovisual records.</p> <p><i>It has been achieved. The database of audiovisual records is in the Project offices, duly documented, in digital format and, due their size, cannot be attached to this report.</i></p>	

Conclusion about compliance with Product 2: The main indicator of this Product is the implementation of a Family Agrifood Production Units System - FAPUS, which has been satisfactorily achieved, particularly in the estimated average production of 12,860 tons of food for 2018 & 2019 (6,430 per year), exceeding the goal of 4,000 tons per year that had been considered as an indicator for this Product.

About the other two indicators:

- Regarding the number of students who should have started their training and educational programs, that was conceived and defined on the basis that they could participate in the *Jóvenes en Acción* (Youth in Action) Program, which had not been achieved because the requirement to have the updated data of population of the entire Indigenous Reservation registered in the SIIC had not been completed, self-census that was carried out in accordance with the requirements and formats of the *Ministerio del Interior* (Ministry of Interior) and that was already presented in its offices. Upon completion of the self-census data registration process, the resumption of management has been carried out to include high school graduates who could not enter higher education (technical, technological and professional programs) and opt for *Jóvenes en Acción* (Youth in Action) Program (in coordination with the *Servicio Nacional de Aprendizaje - SENA* (Learning National Service), with national coverage. The Project has provided a budget item for this program (Annexes 1.9a and 1.9b of Monitoring Report - VCS 2018 & 2019: Budget 2018-2019), although the goal will be reviewed and adjusted according to the new conditions.
- The other indicator related to the design of the Project is the participation of 2,500 families in the *Programa Red de Seguridad Alimentaria - RESA* (Food Safety Network Program), which had not been achieved because the process to record self-census data in the SIIC still had not completed, as it was mentioned above. Now, since the registration process is completed, the corresponding formalities have been resumed. The objective will also be revised and adjusted according to the new conditions. Participation in this Program is to complement the FAPUS, despite the fact that the objective of food production for the RIU-SM population has been achieved, as explained with respect to indicator 1.
- On the other hand, satisfactory progress is being made in the development of productive projects, as can be seen with the evidences presented about the Project Activity A2.3 and its specific tasks.

The assumptions of Product 2 have been satisfactorily fulfilled. Therefore, it can be concluded that this Product 2 is being fulfilled in its essential aspects: family agri-food production is being applying (FAPUS), educational programs are in development and the productive projects are carrying out. The management for participation in the *Jóvenes en Acción* and RESA programs will continue, whose objectives will be

reviewed and adjusted, as complementary measures. Likewise, an indicator about the establishment of productive chains will be studied and defined.

Finally, as the aspects of Products 1 and 2 were presented, now the Product 3, its Activities and Tasks will be presented as following.

PRODUCT 3: A mechanism for valuation and compensation for environmental services generated in the RIU-SM, validated and verified.

- **ACTIVITY A3.1:** Validate a REDD+ Project with international standards.

Task T3.1.1: Review and adjustment of the REDD+ Project RIU-SM design complying with international standards.

Task T3.1.2: Implementation of required adjustments according to review of the design of the REDD+ Project RIU-SM (baseline, boundaries, stocks of aboveground and belowground carbon, GIS, calculations, quantity to reduced emissions, etc.).

Task T3.1.3: Execution of validation process according to review and adjustment of the design of the REDD+ Project RIU-SM.

These Tasks were accomplished when the Project validation was carried out with ICONTEC.

REDD+ Project RIU-SM Validation

The REDD+ Project RIU-SM achieved to complete its validation process in 2017. It is registered under ID VCSPD1566 (it can be consulted at <http://www.vcsprojectdatabase.org/#/home> with code 1566), and at APX- VCS Registry (available at <https://vcsregistry2.apx.com/myModule/rpt/myrpt.asp?r=111> with the code VCSR1235).

To carry out the validation process, the validating and verifying entity was the *Instituto Colombiano de Normas Técnicas y Certificación* - ICONTEC (Colombian Institute of Technical Standards and Certification), which, in its capacity as Validation/Verification Body – VVB accredited by the VCS Program, issued the Validation & Verification Report of the REDD+ Project RIU-SM on December 5, 2016, based on which it certified that the Project meets the requirements of the VCS-AFOLU standards and requested its registration as a VCS Project.

In the same affair, on December 6, 2016, ICONTEC issued the “VCS VALIDATION DEED OF REPRESENTATION” certificate by which it declares and certifies that it has validated the fulfillment, by the REDD+ Project RIU-SM, of the requirements of the VCS Program, as it is set in the VCS standards.

The documentation related to the validation of the REDD+ Project RIU-SM can be found in the following Annexes of Monitoring Report - VCS 2018 & 2019:

Annex 4.7.1.1: VCS Project Design Document of the REDD+ Project RIU-SM (PDD).

Annex 4.7.1.2: Validation & Verification Report (first) issued by ICONTEC.

Annex 4.7.1.3: VCS Validation Deed of Representation issued by ICONTEC.

Annex 4.7.1.5: VCS Project Accuracy Review Report issued by VCSA (now VERRA).

Annex 4.7.1.6: Registration Deed of Representation issued by Project proponents.

- **ACTIVITY A3.2:** Verify the Project and to registry the units of forest compensation for avoided deforestation.

Task T3.2.1.1: Planning of verification process of the REDD+ Project RIU-SM.

Task T3.2.1.2: Execution of verification process of the REDD+ Project RIU-SM.

REDD+ Project RIU-SM Verification, that involves the previous Tasks:

The Project has verified twice its reduced emissions

- On the **first** occasion, the verifying entity was the *Instituto Colombiano de Normas Técnicas y Certificación* - ICONTEC (Colombian Institute of Technical Standards and Certification), which, in its capacity as Validation/Verification Body accredited by the VCS Program, issued the Validation & Verification Report of the REDD+ Project RIU-SM (for 2013 & 2014-2015) on December 5, 2016, based on which it verified the reduction of 13,238,074 tons of CO₂e and 2,525,184 tons of CO₂e as buffer.

In the same affair, on December 6, 2016, ICONTEC issued the “VCS VERIFICATION DEED OF REPRESENTATION” certificate by which it declares and certifies that it has verified the Reductions generated by the Project in accordance with the VCS standards, in 2013 & 2014-2015.

The documentation related to the **first verification** of the REDD+ Project RIU-SM can be found in the following Annexes of Monitoring Report - VCS 2018 & 2019:

Annex 4.7.1.1: VCS Project Design Document of the REDD+ Project RIU-SM (PDD) (including Monitoring for 2013 & 2014-2015).

Annex 4.7.1.2: Validation & Verification Report issued by ICONTEC.

Annex 4.7.1.4: VCS Verification Deed of Representation issued by ICONTEC.

Annex 4.7.1.7: Issuance deed of Representation by Project proponents.

Illustration 75. ICONTEC team and REDD+ Project RIU-SM technician team in field verification



- On the **second** occasion, the verifying entity was the EPIC Sustainability Services Pvt. Ltd (Indian body), which also, in its capacity as Validation/Verification Body accredited by the VCS Program, issued the Verification Report of the REDD+ Project RIU-SM (for Monitoring Period 2016-2017) on November 19,

2018, based on which it verified the reduction of 7,584,460 tons of CO₂e and 1.179.685 tons of CO₂e as a buffer for the mentioned period. Likewise, on November 20, 2018, EPIC issued the “VCS VERIFICATION DEED OF REPRESENTATION” certificate by which it declares and certifies that it has verified the Reductions generated by the Project in accordance with the VCS standards, in Monitoring Period 2016-2017.

The documentation related to the second verification of the REDD+ Project RIU-SM can be found in the following Annexes of Monitoring Report - VCS 2018 & 2019:

Annex 4.7.2.1: Monitoring Report 2016-2017 of the REDD+ Project RIU-SM.

Annex 4.7.2.2: Verification Report 2016-2017 issued by EPIC.

Annex 4.7.2.3: VCS Verification Deed of Representation issued by EPIC.

Annex 4.7.2.4: VCS Project Accuracy Review Report issued by VERRA.

Annex 4.7.2.5: Communication via email informing that findings were closed, send by VERRA.

Annex 4.7.2.6: Issuance deed of Representation by Project proponents.

Illustration 76. EPIC team and REDD+ Project RIU-SM technician team in field verification



Task T3.2.1.3: Systematization and divulgation of results about the verification process of the REDD+ Project.

- Members of the *Cabildos* Board, Coordinator Committee, Captains and indigenous leaders of RIU-SM know the results of the several verification processes, through Project results socialization meetings (Annex 1 of Monitoring Report - VCS 2018 & 2019).

Task T3.2.2.1: Commercialization (planning, execution, supervision, systematization, divulgation) of carbon credits issued by REDD+ Project RIU-SM, according to opportunities and conditions of market and customer requirements.

Actions aimed at the commercialization of the VCUs are being fulfilled, which has allowed us to have the resources to execute the budget for 2018 and 2019. ACATISEMA directives have knowledge of the information about the marketing processes

Compliance with Product 3: Through the execution of Activities A3.1, A3.2 and A3.3 and their respective Tasks, in accordance with the Matrix of Logical Structure (MLS), compliance with the indicators, means of verification and assumptions are as follows:

Indicators	Means of Verification	Assumptions
<p>1) A mechanism for valuation and compensation for environmental services has been designed and validated, according with international standards.</p> <p><i>It has been achieved. REDD+ Project RIU-SM achieved its validation in 2016.</i></p> <p>2) Project has been verified and forest compensation units by contribute avoiding deforestation have been registered.</p> <p><i>It has been achieved. The REDD+ Project RIU-SM has completed two verification of results processes: the first for 2013 & 2014-2015; the second for 2016-2017. Now, the third verification of results for 2018 & 2019 is in process.</i></p> <p>3) The compensation for environmental services for avoided deforestation has been managed.</p> <p><i>The compensations received by the environmental</i></p>	<p>1) Project Design Document (PDD).</p> <p><i>Project Design Document (PDD) and its annexes is available in Project offices. PDD also can be accessed in the next web link: http://www.vcsprojectdatabase.org/services/publicViewServices/downloadDocumentById/28154.</i></p> <p>2) Report of established monitoring system.</p> <p><i>The monitoring system established is part of PDD, Section 4.3 "Monitoring Plan" (page 265). Based on this monitoring system, results have already been verified twice (Annexes 4.7.1.2 and 4.7.2.2 of Monitoring Report - VCS 2018 & 2019 -for 2013 & 2014-2015 and 2016-2017-).</i></p> <p>3) Reports about the results of the validation of REDD+ Project.</p> <p><i>There is the JOINT VALIDATION & VERIFICATION REPORT issued by ICONTEC (Annex 4.7.1.2 of Monitoring Report - VCS 2018 & 2019), whereby it certifies that the REDD+ Project RIU-SM has met all the requirements for this type of initiatives. It is also available in the following web link: https://www.vcsprojectdatabase.org/services/publicViewServices/downloadDocumentById/27786.</i></p> <p>4) Reporting of results of monitoring, verification and registration of forest compensation units.</p> <p><i>There is the JOINT VALIDATION & VERIFICATION REPORT for 2013 & 2014-2015, issued by ICONTEC (Annex 4.7.1.2 of Monitoring Report - VCS 2018 & 2019), whereby it verifies the results achieved by implementation of the REDD+ Project RIU-SM in 2013 & 2014-2015. It is also available in the following web link: https://www.vcsprojectdatabase.org/services/publicViewServices/downloadDocumentById/27786.</i></p> <p><i>There is the VERIFICATION REPORT for Monitoring Period 2016-2017, issued by EPIC Sustainability Services Pvt. Ltd (Annex 4.7.2.2 of Monitoring Report - VCS 2018 & 2019), whereby it verifies the results achieved by implementation of the REDD+ Project RIU-SM in 2016-2017. It is also available in the following</i></p>	<ul style="list-style-type: none"> The strategic partnership between ACATISEMA and MEDIAMOS F&M S.A.S. is maintained and strengthened. <p><i>It has been achieved. The execution of the Project Activities supports and strengthens the continuation with the Strategic Alliance between ACATISEMA and MEDIAMOS.</i></p>

Product 3: A mechanism for valuation and compensation for environmental services generated in the RIU-SM, validated and verified.

Indicators	Means of Verification	Assumptions
<p><i>services provided by preventing deforestation and contributing to the conservation of the RIU-SM forests are being invested in benefits to the indigenous peoples of the RIU-SM, through the budgetary execution of the REDD+ Project RIU-SM.</i></p>	<p><i>web link: https://www.vcsprojectdatabase.org/services/publicViewServices/downloadDocumentById/35182.</i></p> <p><i>Registration of the REDD+ Project RIU-SM has been achieved with APX VCS Registry. It can be consulted in the following web link: https://vcsregistry2.apx.com/myModule/rpt/myrpt.asp?r=111, with code VCSR1235.</i></p> <p>5) Minutes of meetings and events. <i>The minutes of meetings and workshops of socialization and training are presented in Annex 1 and in Annex 4.2.1 of Monitoring Report - VCS 2018 & 2019.</i></p> <p>6) Audiovisual records. <i>It has been achieved. The database of audiovisual records is in the Project offices, duly documented, in digital format and, due their size, cannot be attached to this report.</i></p>	

Conclusion about compliance with Product 3: All Activities and Tasks related to Product 3 have been successfully implemented. There is the REDD+ Project RIU-SM for compensation for environmental services, duly validated and certified with international standards, that generates resources for the RIU-SM.

COMPLIANCE WITH THE OBJECTIVES OF THE PROJECT

Based on the level of compliance with Products 1, 2 and 3, which has been examined above, the level of compliance or achievement of the Specific Objective and the Development Objective is now examined.

Specific Objective: Develop a participative process to achieve the establishment of an integrated management system of forests and lands of the RIU-SM, to ensure its sustainability and mitigate threats to their conservation.

Indicators	Means of Verification	Assumptions
<p>1) Sustainable Integrated Management System of Forest and Land of RIU-SM established through the direct involvement of 265 communities of the Reservation, based on its sectorial and zonal organization (1,465,786 hectares of primary forest, 11,329 hectares of secondary forest; 30,707 hectares of heterogeneous agricultural areas and pastures, 318,314 hectares of savannah). <i>Sustainable Management Plan for Land and</i></p>	<p>1) Progress reports about establishment of Sustainable Integrated Management System of Forest and Land of RIU-SM. <i>The Zonal Coordinators report that the communities are making good use of the land, reusing many spaces to avoid deforestation. In several reunions held in 2018 & 2019 attendees manifest how they develop the</i></p>	<ul style="list-style-type: none"> • Captains, members of <i>Cabildos</i> Board and Coordination Committee and Zonal Coordinators undertake and participate in the development of the Project.

Specific Objective: Develop a participative process to achieve the establishment of an integrated management system of forests and lands of the RIU-SM, to ensure its sustainability and mitigate threats to their conservation.

Indicators	Means of Verification	Assumptions
<p><i>Forest have been designed, established and it is in development in the RIU-SM by communities.</i></p>	<p><i>Project Activities (Annex 1 and Annex 4.2.1 of Monitoring Report - VCS 2018 & 2019).</i></p>	<p><i>It has been achieved. In several meeting minutes, the indigenous authorities express their support for the REDD+ Project RIU-SM.</i></p>
<p>2) At least 80% of the Captains, 20% of women and 25% of young of the Indigenous Reservation have participated to establish the Sustainable Management Plan for Land and Forest of the RIU-SM.</p> <p><i>This indicator has been met very satisfactorily. In the implementation of the different activities of the Project, the communities of the RIU-SM, its leaders, women, young people, the elderly and the directives of the Association are being involved.</i></p>	<p>2) List of communities and Captains that participate.</p> <p><i>There are lists of Captains by community (Annex 4.4.4 of Monitoring Report - VCS 2018 & 2019).</i></p> <p>3) Reports about the results of surveillance, control and monitoring.</p> <p><i>In the 7 training workshops for the indigenous guard, developed in 2018 & 2019, spaces were allocated for them to work in groups and comment, among other things, about how the surveillance task was being developed. (Annex 4.5.5 of Monitoring Report - VCS 2018 & 2019).</i></p>	<ul style="list-style-type: none"> National institutional support for the development of the Project is maintained. <p><i>It was achieved. National commitments and policies to promote actions and initiatives for climate change mitigation are maintained.</i></p>
<p>3) The Coordinator Committee, the Cabildos Board and Zonal Coordinators of ACATISEMA have increased their capacity for management and organization of governance and for management and conservation of forests and lands in the Indigenous Reservation.</p> <p><i>The Association has improved its administrative practices and achieved the benefits provided by REDD+ Project RIU-SM economic resources. The logistics have been reinforced so ACATISEMA implements the activities more autonomously.</i></p>	<p>4) Management Reports of Coordinator Committee, Cabildos Board and Zonal Coordinators.</p> <p><i>In several reunions held in 2018 & 2019 indigenous leaders presents information about their management in the development of the Project Activities and ACATISEMA affairs (Annex 1 of Monitoring Report - VCS 2018 & 2019).</i></p>	<ul style="list-style-type: none"> The autonomy of indigenous peoples is respected in accordance with the legal framework. <p><i>It has been achieved so far. ACATISEMA strengthens its governance and executes actions autonomously.</i></p>
<p>4) Sustainable food production for food security of the inhabitants of the RIU-SM has increased by at least 1,500 tons.</p> <p><i>The proposed goal of producing 4,000 tons of food has been achieved. 6,097 tons in 2018 and 6,763 tons in 2019 have been achieved.</i></p>	<p>5) Reports about food production by Sector and Zone.</p>	
<p>5) The 265 communities of the 17 sectors and 5 zones have improved their communication ways.</p> <p><i>The information system is implemented in 100% and the communication system in a</i></p>	<p><i>See results of implementation of tasks T2.1.2 and T2.1.3. There is information about results of implementation of FAPUS, amount of food produced,</i></p>	

Specific Objective: Develop a participative process to achieve the establishment of an integrated management system of forests and lands of the RIU-SM, to ensure its sustainability and mitigate threats to their conservation.

Indicators	Means of Verification	Assumptions
<p>60%. <i>The information system consists of the generation, collection, analysis, processing, storage and recovery of data related to the REDD+ Project RIU-SM Activities, and concerning the Indigenous Reservation. This information is in the offices of ACATISEMA and MEDIAMOS, digitally and physically. The communication system has been improved by implementing actions that increase the frequency of information exchange between communities, through the transportation of people, meetings and informative material.</i></p> <p>6) There shall be no intimidating events for the people of the Indigenous Reservation. <i>It has been achieved. Although some external sectors intend to intervene in the Project to weaken the Association, especially in the period of election of mayors, governors and municipal councils and departmental assemblies. However, ACATISEMA defense measures have been taken, especially denying the false rumors.</i></p> <p>7) At least 80% of users express satisfaction about participating in the project. <i>In several reunions (see Table 1) presentation, discussion and evaluation of results have been done during 2018 & 2019. Indigenous people continue willing to attend these meetings and to work to reach the Project Objectives due to benefits it is providing.</i> <i>At the Cabildos Board meetings held in January 2019, the participants, Indigenous authorities among others, had a space to give their opinion about the execution of the Activities and the benefits granted with the resources of the REDD+ Project RIU-SM, the same in the Zonal Meetings to socialization of budget execution held in February 2019.</i> <i>In general, the opinions were of acceptance and thanks, noting that there are elements to improve. At the XV General Assembly of</i></p>	<p><i>products (cassava, plátano, corn, sugar-cane). In Annex 4.4.3 of Monitoring Report - VCS 2018 & 2019 is the database with complete information about the food production.</i></p> <p>6) Reports about the results and evaluation of the communication system. <i>The corresponding reports about the results, among others, of the communication system have been presented at different meetings. See results of Activity A1.2, Annex 1, and Annex 4.2.1 of Monitoring Report - VCS 2018 & 2019.</i></p> <p>7) Reports about the management of REDD+ Project RIU-SM. <i>Minutes of meetings of Joint Commission, Coordinator Committee, Cabildos Board and Zonal Coordinators (Annex 1 of Monitoring Report - VCS 2018 & 2019).</i></p> <p>8) Records of meetings and events. <i>It has been accomplished in 100%. See minutes of meetings (Annex 1, and Annex 4.2.1 of Monitoring Report - VCS 2018 & 2019).</i> <i>The minutes of the XV General Assembly of ACATISEMA is in the Association's offices for any consultation.</i></p> <p>9) Audiovisual records. <i>It has been achieved. The database of audiovisual records is in the Project offices, duly documented, in digital format</i></p>	

Specific Objective: Develop a participative process to achieve the establishment of an integrated management system of forests and lands of the RIU-SM, to ensure its sustainability and mitigate threats to their conservation.

Indicators	Means of Verification	Assumptions
<i>ACATISEMA the indigenous authorities expressed their approval with the Project and ratified its continuation</i>	<i>and, due their size, cannot be attached to this report.</i>	

Conclusion about compliance of Specific Objective: As can be seen, the indicators and the corresponding assumptions have been satisfactorily accomplished. Therefore, during the course of the Project (up to this period), this Specific Objective has been satisfactorily achieved.

Development Objective: Contribute to sustainable environmental development of the Colombian Orinoco region through conservation and restoration of forest habitats and their eco-systemic services as a factor for the sustainability of the territory, local communities, climate and biodiversity.

Indicators	Means of Verification	Assumptions
<p>1) For 2018 forests and lands of the RIU-SM are managed sustainably with a plan that meets national and international standards, ensuring the conservation of forest biomass and soil carbon, at least 1.1 million hectares.</p> <p><i>It has been achieved. The Sustainable Integrated Management System of Forest and Land is implemented as part of the REDD+ Project RIU-SM actions, in an area of 1,636,423 hectares of natural forests.</i></p> <p>2) For 2018 deforestation and degradation in the RIU-SM has been stopped, at least 90% compared to the deforestation of the period from 2001 to 2011.</p> <p><i>According to deforested areas projected for 2018 for PA and LB vs. and the real deforestation, this was stopped for 2018 in 87.95% and for 2019 in 89.68%.</i></p> <p><i>It is expected to continue achieving the goal in the following years.</i></p> <p>3) For 2018 the 265 communities of the RIU-SM produce 7,000 tons of agricultural food needed for food</p>	<p>1) Annual reports about progress and partial results of the Sustainable Integrated Management System of Forest and Land of the RIU-SM.</p> <p><i>There are POA and Project Progress Report for 2018 & 2019 (Annex 2 of Monitoring Report - VCS 2018 & 2019).</i></p> <p>2) Annual monitoring reports of deforestation and degradation.</p> <p><i>There is analysis of deforestation by Monitoring Periods 2013 & 2014-2015, 2016-2017 (already verified) and 2018 & 2019 (current) in these Project documents:</i></p> <ul style="list-style-type: none"> - <i>PDD, Section 7.1.1 Monitoring results of deforested areas for 2013 & 2014-2015.</i> - <i>Monitoring Report 2016-2017, Section 4 "Quantification of GHG emission reductions and removals".</i> - <i>Monitoring Report of current 2018 & 2019, Section 5 "Quantification of GHG emission reductions and removals".</i> <p>3) Reports about annual amounts of agricultural food produced by Sector</p>	<ul style="list-style-type: none"> • Governmental changes do not affect the development of the Project. <i>It has been achieved so far.</i> • The key strategy of development of environmental sustainability projects in Colombia continues, as defined by the Consejo Nacional de Política Económica y Social (National Council of Economic and Social Policy) through the document CONPES 3700 (2011). <i>It has been achieved so far.</i> • The institutional and legal framework about indigenous communities is respected.

Development Objective: Contribute to sustainable environmental development of the Colombian Orinoco region through conservation and restoration of forest habitats and their eco-systemic services as a factor for the sustainability of the territory, local communities, climate and biodiversity.

Indicators	Means of Verification	Assumptions
<p>security.</p> <p><i>The proposed goal of producing 4,000 tons of food has been achieved. In this Monitoring Period have been achieved.</i></p> <p><i>For 2018 the food production was 6,097 tons and for 2019 it was 6,763 tons. It is expected to continue achieving this goal in the following years.</i></p> <p>4) For 2018 at least 1,200 RIU-SM young people (between 15 - 26 years old) have completed and have been certified in technical and technological programs related to the sustainable management plan.</p> <p><i>According to the results analyzed for Product 2 (indicator 2), this goal should be revised and adjusted according to the current conditions.</i></p> <p>5) For the year 2020 the sustainable management of land and forests in the Colombian Orinoco has spread to at least 2 million hectares.</p> <p><i>It is expected that this goal will be achieved based on the different programs that are being promoted for the Colombian Orinoco region (CONPES 3797 of 2014) (CNP, 2014).</i></p>	<p>and Zone.</p> <p><i>The reports and information processed about the results of the implementation of FAPUS are explained according the execution of Activity A2.1 and Annexes 4.4.3a and 4.4.3b of Monitoring Report - VCS 2018 & 2019.</i></p> <p>4) List and number of participants trained in the development of the Project, by sector and area.</p> <p><i>Lists of attendance at meetings and workshops in minutes (Annex 1, and Annex 4.2.1 of Monitoring Report - VCS 2018 & 2019).</i></p> <p>5) List and number of students enrolled and certified in technical and technological programs related to the Sustainable Integrated Management System of Forest and Land of the RIU-SM and reports of academic results.</p> <p><i>A list of young people who are being paid tuition for studies and who are receiving economic support from the REDD+ Project RIU-SM is presented (Annex 4.5.7 of Monitoring Report - VCS 2018 & 2019).</i></p> <p>6) Records of meetings, seminars and events in the development of the Project.</p> <p><i>It has been accomplished. See minutes of meetings (Annex 1, and Annex 4.2.1 of Monitoring Report - VCS 2018 & 2019).</i></p> <p>7) Audiovisual records media.</p> <p><i>It has been achieved. The database of audiovisual records is in the Project offices, duly documented, in digital format and, due their size, cannot be attached to this report.</i></p>	<p><i>It has been achieved so far.</i></p>

Conclusion about compliance of Development Objective: As can be seen, based on the compliance of the indicators to date (2018 & 2019), it can be concluded that the development objective is being satisfactorily met so far. Indicator 4 will be reviewed and adjusted according to current conditions.

Based on these analyses of compliance of Products and Objectives (according to Matrix of Logic Structure - PDD, page 45), supported on the execution of Activities and Tasks, it can be concluded that the implementation status of the REDD+ Project RIU-SM is highly satisfactory after 7 years of execution (2013 to 2019) and of great benefit for the communities of the RIU-SM.

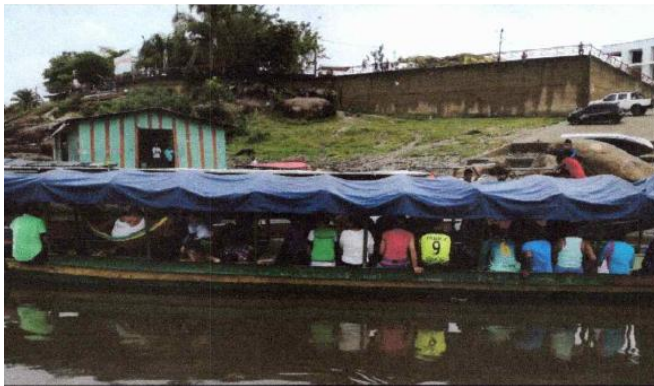
The budget contains additional activities to the previous ones referring to specific aspects of special needs in the Indigenous Reservation, that are not considered in the Matrix of Logical Structure. These activities refer to aspects such as health, drinking water, basic sanitation, construction and improvement of housing, attention to the special population and issues of domestic calamity. Following are the developments achieved in relation to the ACATISEMA Reserves.

EXECUTION OF ACATISEMA RESERVES

- **RA1: Program of health care**

- REDD+ Project RIU-SM provided logistic services in air and land transportation and food for the development of meetings of the traditional indigenous authorities of ACATISEMA for the creation of their own *Institución Prestadora de Servicios de Salud* - IPS (Institution Providing of Health Services) of the RIU-SM (Annex 4.8.1.1 of Monitoring Report - VCS 2018 & 2019: documents about Contract No. 4, 2018).

Illustration 77. Transport of participants to the meeting to create IPS in the RIU-SM



- This task included that REDD+ Project RIU-SM provided logistic services to carry out the socialization and feedback of the *Sistema Indígena de Salud Propio Intercultural* - SISPI (Intercultural Own Health Indigenous System, according to Decree 1953 of 2014) with the authorities and traditional doctors of sectors 1, 2, 3a and 3b of the RIU-SM (Annex 4.8.1.2 of Monitoring Report - VCS 2018 & 2019: documents about the Contract No. 36, 2018). This socialization of the Indigenous System of Intercultural Health responds to a struggle for the vindication of the rights of indigenous peoples and for the recognition

of their own health systems. The SISPI seeks that by their own health system the knowledge of indigenous peoples and the persons who have been traditionally part of these systems, such as traditional doctors, knowledgeable people, shamans and midwives, be recognized, and to articulate aspects of traditional medicine of native people with the western medicine.

Illustration 78. Logistics to hold the SISPI socialization meeting



- Construction of 6 health posts for indigenous communities *Santa Marta* (Sector 1 *Caño Cavasi*), *Raya - Raya Bakatsolowa* School (Sector 3a *Bajo Río Vichada 1*), *Progreso Integral - Cadanapay* School (Sector 3b *Bajo Río Vichada 2*), *Sarrapia* (Sector 6 *Matavén Fruta*), *Santa Isabel* (Sector 10 *Laguna Anguilla La Macarena*) and *Manajuaire* (Sector 16 *Morocoto – Buenavista- Manajuaire*) of the RIU-SM (Annex 4.8.1.3 of Monitoring Report - VCS 2018 & 2019: documents about Contract No. 23, 2018).

The construction of these points of attention in health has been an initiative that aims to provide better health care to the communities of RIU-SM. These points are part of the projection that ACATISEMA has for the creation of the own IPS, within a larger goal that is the implementation of the SISPI.

Illustration 79. Points of attention in health for communities in RIU-SM



- *Toldillos* and *chinchorros* kits were provided for the improvement of the quality of life and prevention of vector-borne diseases -VBD in all Sectors of the RIU-SM. It was developed in two phases: Annex 4.8.1.4 contains the documentation about Contract No. 2, 2019 (phase I) and Annex 4.8.1.5 corresponds to Contract No. 21, 2019 (phase II). The following table shows the data of the quantities of units delivered:

Table 15. Toldillos and chinchorros kits delivered in RIU-SM

Description	Quantity (phase I)	Quantity (phase II)	Quantity total
Toldillo 1,40 m x 1,90 m	2,500	1,500	4,000
Chinchorro - Hammocks	2,500	1,500	4,000
Semi-thermal blanket	2,500	1,500	4,000
Medium towel	2,500	1,500	4,000
Institutional <i>tula</i> (bag)	2,500	1,500	4,000

Illustration 80. Delivery of Toldillos and chinchorros kits



- Dental prostheses were provided to strengthen the rehabilitation, promotion, prevention and oral hygiene habits of indigenous women from Sectors 1 *Caño Cavasi*, 2 *Aiwa Cuna Tsepajivo* and 3a *Bajo Río Vichada 1* of the RIU-SM. Annex 4.8.1.6 contains the documentation related to Contract No. 15, 2019.

Illustration 81. Attention in oral health (dental prostheses)



• RA2: Program of drinking water and basic sanitation

- Construction of deep wells with photovoltaic pumping equipment and drinking water treatment plants.
In phase 1, 6 deep wells were built for the indigenous communities *Caño Fistol* and *Sejalito* Internship

(Sector 9 *Sejalito - San Benito*), *San Rafael* (Sector 10 *Laguna Anguila - La Macarena*), *Puerto Esperanza* (Sector 11 *Barranquito - Laguna Colorada*), *Cumaral* and *Manajuare* (Sector 16 *Morocoto - Buenavista - Manajuare*) of the RIU-SM (Annex 4.8.2.1 of Monitoring Report - VCS 2018 & 2019: documents about Contract No. 18, 2018).

In phase 2, 6 deep wells were built for the indigenous communities *Boponé* (Sector 2 *Aiwa Cuna Tsepajivo*), *Berlin Uno* and *La Macarena* (Sector 10 *Laguna Anguila La Macarena*), *Mapisiare* (Sector 11 *Barranquito Laguna Colorada*), *Caño Bocón* (Sector 12 *Caño Bocón*), *Yuri* (Sector 14 *Yuri*) and *Giro* (Sector 15 *Giro*) of the RIU-SM (Annex 4.8.2.2 of Monitoring Report - VCS 2018 & 2019: documents about Contract No. 28, 2018).

In phase 3, 10 deep wells were built for the indigenous communities *Corocito*, *Miralejo*, and *Morrocoy* (Sector 1 *Caño Cavasi*) *Kirey Rincón* and *El Regreso* (Sector 2 *Aiwa Cuna Tsepajivo*), *Chenebo*, *Ukunaesito*, and *Laguna Checa* (Sector 3a *Bajo Río Vichada 1*), *Santa Inés* and *San Juan* (Sector 3b *Bajo Río Vichada 2*) of the RIU-SM (Annex 4.8.2.3 of Monitoring Report - VCS 2018 & 2019: documents about Contract No. 12, 2019).

The construction of these deep wells has had a notable impact on the improvement of the quality of life of the Indigenous communities. These deep wells allow for better quality water when preparing food and, consequently, drastically reduce the community's chances of contracting diseases such as diarrhea.

Illustration 82. Deep well with photovoltaic pumping equipment and drinking water treatment plant



• RA3: Program of housing construction and improvement

- Material was provided to install adequate roofs in houses (4,200 sheets of zinc), in order to provide improvement of the quality of homes in the communities of Sectors 1 *Caño Cavasi*, 2 *Aiwa Cuna Tsepajivo*, 3a *Bajo Río Vichada 1* and 3b *Bajo Río Vichada 2*, of the RIU-SM. Transportation was provided and this investment was socialized (Annex 4.8.3.1 of Monitoring Report - VCS 2018 & 2019: documents about Contract No. 26, 2018).
- Other 4,000 sheets of zinc were provided for the improvement of organizational conditions and support for community rooms in Sectors of Zones 3, 4 and 5 of the RIU-SM (Annex 4.8.3.2 of Monitoring Report - VCS 2018 & 2019: documents about the Contract No. 34, 2018).
- Other 1,360 sheets of zinc were provided for the improvement of organizational conditions and support for community rooms in Sector 15 *Giro* of Zone 5 of the RIU-SM (Annex 4.8.3.3 of Monitoring Report - VCS 2018 & 2019: documents about the Contract No. 39, 2019).

Illustration 83. Sheets of zinc to improve the quality of roofs in homes in RIU-SM



Illustration 84. Logistics for the socialization meeting



• **RA4: Program of attention to special population**

- Food and victuals were provided to support the population of 792 older adults in Sectors of the RIU-SM.

The Annex 4.8.4.1 of Monitoring Report - VCS 2018 & 2019 presents documents about the Contract No. 29, 2018 (contract, start minutes, liquidation minutes, supervision report, certificate of compliance, the report with the delivery lists and list of the number of indigenous people who received supplies, by community).

Each package of food and victuals consisted of:

Table 16. Contents of each package of food and victuals delivered to older adults

Description	Quantity per package	Total quantity
Roasted and ground coffee x 250 g	3	6,600
Square <i>panela</i> x 375 g	10	22,000
White Piled Rice; presentation: bag x 450 g	10	22,000
Soda cracker x 3 blocks	2	4,400
Salt x 1,000 g	4	8,800

Description	Quantity per package	Total quantity
Edible vegetable oil x 1,000 mL	2	4,400
Precooked cornmeal, bag presentation x 500 g	2	4,400
Pasta noodle x 250 g	2	4,400
Sardine in tomato sauce, canned presentation of 425 g	2	4,400
Sausage type Vienna x 150 g	2	4,400
Big sausage x 450 g	2	4,400
Soap paste for washing	2	4,400
Toothpaste paste x 60 g 45 mL	2	4,400
Bath soap	2	4,400

Table 17. Number of older adults who received food and victuals, by Sector

Sector	Number of adults supported
1 <i>Caño Cavasi</i>	102
2 <i>Aiwa Cuna Tsepajivo</i>	14
3a <i>Bajo Río Vichada 1</i>	134
3b <i>Bajo Río Vichada 2</i>	212
4 <i>Atana Pirariami</i>	18
5 <i>Caño Zama</i>	12
6 <i>Matavén Fruta</i>	34
7 <i>Berrocal - Ajota</i>	47
8 <i>Laguna Negra y Cacao</i>	31
9 <i>Sejalito - San Benito</i>	39
10 <i>Lag. Anguila - La Macarena</i>	39
11 <i>Barranquito - Lag. Colorada</i>	27
12 <i>Caño Bocón</i>	10
13 <i>Cumaral</i>	11
14 <i>Yuri</i>	6
15 <i>Giro</i>	7
16 <i>Morocoto - Buenavista - Manajuare</i>	49
Total	792

- Provision of sports uniforms, food packages and personal hygiene kits for strengthening actions aimed at the elderly and disabled population were delivered in the RIU-SM (Annex 4.8.4.2 of Monitoring Report - VCS 2018 & 2019: documents about the Contract No. 23, 2019). The items delivered are described below:

Table 18. Sports uniforms, food packages and personal hygiene kits delivered

Description	Quantity per package	Total quantity
Coffe x 250 g	5	1,600
Panela x 350 g	40	12,800
Edible vegetable oil x 3,000 cm ³	3	960
White rice x 400 g	24	7,680
Salt x 1,000 g	5	1,600
Powdered milk x 380 g	5	1,600
Pasta for soup x 250 g noodel	24	7,680
Yellow precooked cornmeal x 500 g	24	7,680
Wheat flour x 500 g	24	7,680

Description	Quantity per package	Total quantity
Sugar chocolate x 500 g	5	1,600
Bar soap paste x 300 g	5	1,600
Toothpaste paste x 75 mL	5	1,600
Bar soap paste x 120 g - bath soap	5	1,600
Toilet paper	12	3,840
Unisex polo shirt, long sleeve in cotton, with embroidered ACATISEMA institutional logo	1	320
Long pants - cotton unisex sweatshirt, with embroidered ACATISEMA institutional logo	1	320
Shorts with embroidered ACATISEMA institutional logo	1	320
Sneaker - athletic	1	320

Illustration 85. Delivery of supplies to elderly population of the RIU-SM



- **RA5: Center of Indigenous Environmental Thought of the Selva Matavén**
- The physical infrastructure of the ACATISEMA Center of Indigenous Environmental Thought of the *Selva Matavén* was built in the municipality of Cumaribo, also providing equipment (Annex 4.8.5 of Monitoring Report - VCS 2018 & 2019: documents about Contract No: 11, 2018). It seeks to facilitate the socialization of partners and, in general, the governance of ACATISEMA.

Illustration 86. Physical infrastructure built for the ACATISEMA Center of Indigenous Environmental Thought of the *Selva Matavén* in the municipality of Cumaribo



- In the months of April and August, 2018, January, February and June, 2019, a series of meetings on the socialization (with *Cabildos* Board, Coordinator Committee, Zonal Coordinators, Captains and other leaders) about the budget execution were held according to the REDD+ Project RIU-SM Activities. In these meetings, representatives of the ACATISEMA administrative staff gave a report on the actions carried out in the framework of the achievement of the products, activities and tasks, presenting the advances and benefits achieved, as well as the monetary investment made as a result of the compensations obtained by the commercialization of the emissions avoided by the Project.

- **RA6: Aspects of domestic calamity**

- The damages to the territory of RIU-SM caused by the floods were due to the winter wave that, according to the indigenous tradition, occurs more or less every 10 years, what has happened precisely in the years 2017 and 2018. This phenomenon has been decreed as an emergency, affected the indigenous people who inhabit Zones 3, 4 and 5 of the RIU-SM, mainly indigenous people who are seated on river banks and were affected by the loss of their crops and homes, particularly on the Sectors 1 *Caño Cavasi*, 2 *Aiwa Cuna* and 3b *Bajo Río Vichada 2* on the Vichada river, 6 *Matavén Fruta* on the Orinoco river, 10 *Laguna Anguilla - La Macarena*, 11 *Barranquito - Laguna Colorada*, 13 *Cumaral* and 15 *Giro* on the Guaviare river.

So, 1,052 kits of food and victuals were delivered. This is why the Contract No: 32, 2018, was signed in order to provide food and victuals to support the population affected by the winter wave. In total 1,052 supports were provided.

Illustration 87. Affection to housing in Sector 6 Matavén Fruta



Illustration 88. Affection to crops in the Sarrapia community



Table 19. Number of victims of the winter wave that received aid, by Sector

Sectors	Amount supports
3a <i>Bajo Río Vichada 1</i>	1
4 <i>Atana Pirariami</i>	46
5 <i>Caño Zama</i>	36
6 <i>Matavén Fruta</i>	139
7 <i>Berrocal - Ajota</i>	146
8 <i>Laguna Negra y Cacao</i>	75
9 <i>Sejalito - San Benito</i>	96
10 <i>Lag. Anguila - La Macarena</i>	131
11 <i>Barranquito - Lag. Colorada</i>	60
12 <i>Caño Bocón</i>	14
13 <i>Cumaral</i>	50
14 <i>Yuri</i>	28
15 <i>Giro</i>	22
16 <i>Morocoto - Buenavista - Manajuare</i>	208
Total	1.052

Those affected by these events have been helped with exclusive economic resources of the REDD+ Project RIU-SM, since none of these needs or calamities has had government support or public resources of any kind.

Annex 4.8.6 of Monitoring Report - VCS 2018 & 2019 contains the documents about the Contract No: 32, 2018, among which is a file with the list of the number of indigenous people who received aid, by community.

Illustration 89. Logistics to provide aid for the indigenous people affected



Illustration 90. Delivery of aid to affected



- Materials and supplies were provided to support to people affected by the disaster suffered by the *Puerto Lucía* community of Sector 1 *Caño Cavasi* of the RIU-SM (Annex 4.8.6.2 of this Monitorin Report).

Illustration 91. Materials and supplies delivered to *Puerto Lucía* community



2.1.1 Implementation Schedule (G1.9)

Table 20. Main milestones in the project’s development and implementation in 2018 & 2019

Date (dd/mm/yyyy) and place	Event	Affairs
08/11/2017-	Meeting of	• Information and evaluation of the development, current status and

Date (dd/mm/yyyy) and place	Event	Affairs
09/11/2017 Villavicencio - Meta ¹²	Cabildos Board, Coordinator Committee and Zonal Coordinators	<p>perspectives of the REDD+ Project RIU-SM.</p> <ul style="list-style-type: none"> • Cabildos, members of the Coordinator Committee and Zonal Coordinators express their support for the REDD+ Project RIU-SM and authorize the Directive Board of ACATISEMA to design and implement the necessary measures for the continuity and strengthening of the Project, taking into account the Strategic Alliance Agreement ACATISEMA-MEDIAMOS.
16/11/2017- 17/11/2017 Cumaral community	Zonal meeting with Captains and leaders: Zone 5	<ul style="list-style-type: none"> • Inform and evaluate the development, current status and perspectives of the REDD+ Project RIU-SM. - Several of the elements and themes presented and discussed at the meeting carried out between November 8 and 9, 2017 were also presented at the Zonal Meetings, as well as the minutes of that meeting.
19/11/2017- 20/11/2017 Laguna Colorada community	Zonal meeting with Captains and leaders: Zone 4	<ul style="list-style-type: none"> • The participants to each Zonal meeting are presented prior to the start. They show willingness to participate as a team in the consolidation and unity of ACATISEMA and in the development of the Project. • The working groups and the person in charge of each group are defined and are responsible for the task of gathering the needs that require be satisfy, the proposals to generate benefits in the communities and the projects that can be implemented to generate development in the indigenous reservation:
22/11/2017- 23/11/2017 Barranco Colorado community	Zonal meeting with Captains and leaders: Zone 3	<ul style="list-style-type: none"> - Zone 5: the groups are formed according to the sectors and one more of the indigenous guard.
25/11/2017- 26/11/2017 Camuniana community	Zonal meeting with Captains and leaders: Zone 2	<ul style="list-style-type: none"> - Zone 4: the groups are formed according to the sectors and others of women, pastors and teachers. - Zone 3: the groups are formed according to the sectors and one more of the indigenous guard.
28/11/2017- 29/11/2017 Matsuldani community ¹³	Zonal meeting with Captains and leaders: Zone 1	<ul style="list-style-type: none"> - Zone 2: the groups are formed according to the delegations and their sector: indigenous guard, women, social work, youth and pastors. - Zone 1: the groups are formed according to the delegations and their sector: women, teachers, social work, indigenous guard, youth, health and pastors. <p>The list of needs, proposals and projects presented by the working groups in the Zonal Meetings, as well as a synthesis of this information, is presented in the Annexes 1.7 and 1.8 of the verified Monitoring Report – VCS 2018 & 2019.</p>

¹² Although this meeting is dated in year 2017, it is important for this Monitoring Period as it determines the continuity of the Project for another 30-year cycle.

¹³ Although these meetings are dated in year 2017, they are important for this Monitoring Period, since they determined the budget for 2018 & 2019.

Date (dd/mm/yyyy) and place	Event	Affairs
07/02/2018- 09/02/2018 Cali - Valle	Meeting of Joint Commission	<ul style="list-style-type: none"> • Evaluation of the results of the meeting of the <i>Cabildos</i> Board, the Coordinator Committee and the Zonal Coordinators of the Project and of the Zonal Meetings held on November 07-09 of 2017. • Report about the situation of the REDD+ Project RIU-SM related to alleged overlap with REM and <i>Visión Amazonía</i> Program and presentation of a legal concept. • Definition of the Investment Plan and its budget structure of REDD+ Project RIU-SM for 2018 & 2019.
20/02/2018- 21/02/2018 Villavicencio - Meta	Meeting of Joint Commission	<ul style="list-style-type: none"> • Adjust draft budget prepared in Cali. • Prepare the meeting of the <i>Cabildos</i> Board, Coordinator Committee and Zonal Coordinators of the Project to inform and evaluate the results of the Zonal Meetings and to define the budget for 2018 & 2019. • Define the public statement of ACATISEMA about the alleged overlap of the REM Program with the REDD+ Project RIU-SM. • Information about: <ul style="list-style-type: none"> - Inventory of applications submitted by communities. - Description of request proposals. - Proposal for budget of execution of the Activities of the Project and of the ACATISEMA Reserves (2018-2019). - Activities and tasks of the REDD+ Project RIU-SM. Responsible and participants. - Review of the programming proposal and documents for the meeting of the <i>Cabildos</i> Board, Coordinator Committee and Project Zonal Coordinators - Review of the programming and schedule of work for the first semester in 2018.
22/02/2018- 23/02/2018 Villavicencio - Meta	Meeting of <i>Cabildos</i> Board, Coordinator Committee and Zonal Coordinators	<ul style="list-style-type: none"> • Information and evaluation of the results of the Zonal Meetings (November 2017; see minutes): <ul style="list-style-type: none"> - Inventory of applications submitted by communities. - Description of request proposals. - Proposal for budget of execution of the Activities of the Project and of the ACATISEMA Reserves (2018-2019). - Activities and tasks of the REDD+ Project RIU-SM. Responsible and participants. - Programming and schedule of work for the first semester in 2018. • Present and define the Investment Plan / Implementation Budget of

Date (dd/mm/yyyy) and place	Event	Affairs
		REDD+ Project RIU-SM for 2018 & 2019.
10/04/2018- 12/04/2018 Villavicencio - Meta	Meeting of Joint Commission	<ul style="list-style-type: none"> • Topic 1: Report and analyze the current accounting, financial and auditing situation of the Project. • Topic 2: Analyze the status of deforestation in the Reservation in the years 2016 and 2017 and its implications in terms of the external audit for the accreditation of the new VCUs, as well as taking the measures that are considered pertinent. • Topic 3: Report and analyze the situation regarding the publication and application of the MADS's Resolution project about: "SMRV Regulation (Monitoring, Reporting and Verification System) of mitigation actions at the national level (Article 175, Law 1753 of 2015)" and its implications in the Project. • Topic 4: Analyze the execution of the 2018 budget and define the activities and tasks to achieve its prompt and agile execution. • Topic 5: Identify and resolve the gaps and missing in the accounting and financial execution and in the pending aspects of audit, jointly with the professional group of MEDIAMOS and ACATISEMA. • Topic 6: Carry out the accounting and auditing closures corresponding to the year 2017. • Topic 7: Define guidelines and responsibilities for the swift and prompt budget execution for 2018, specifying the schedule of the corresponding tasks.
01/06/2018- 03/06/2018 Inírida - Guainía	Workshop of training to zonal coordinators for second verification of the REDD+ Project RIU- SM	<p>Workshop of training to zonal coordinators for second verification of results of REDD+ Project RIU-SM.</p> <ul style="list-style-type: none"> • Objective: Train the ACATISEMA indigenous group conceptually and methodologically in the field work to contribute to the execution of the process of the second verification of results of the REDD+ Project RIU-SM. • Themes: <ul style="list-style-type: none"> - Theme 1 (T1): Objective, background and context of the second verification of results of the REDD+ Project RIU-SM. State of progress of budgetary execution for 2018. - Theme 2 (T2): Resolution Proposal of MADS "<i>By which the monitoring, reporting and verification system of mitigation actions at the national level referred to article 175 of Law 1753 of 2015 is regulated</i>", and its possible impacts on the development of the Project. - Theme 3 (T3): Analysis of the results of the monitoring of deforestation in the indigenous reservation in the years 2016 and 2017 and comparison with the results of the years 2013, 2014 and 2015.

Date (dd/mm/yyyy) and place	Event	Affairs
		<ul style="list-style-type: none"> - Theme 4 (T4): Concepts and methods of the second verification of the results of the Project and preparation of the visit of the auditors. <p>Subthemes:</p> <ul style="list-style-type: none"> ST4.1 Verification of deforestation points. ST4.2 Surveillance and control routes. ST4.3 Monitoring of FAPUS. ST4.4 Preparation of measurement plots for the audit. ST4.5 Testing the use of drones in monitoring land use change.
12-25/7/18 Several communities of RIU-SM	Socialization meetings	Between June 12-25, 2018, a series of meetings was held with the indigenous people of different RIU-SM communities, in order to socialize the progress in the execution of the REDD+ Project RIU-SM Activities and to specify the needs and proposals of people, especially everything related to productive projects.
27/07/2018 Cali - Valle	Meeting of Joint Commission	<ul style="list-style-type: none"> • Analyze the results of the audit visit carried out in the offices of ACATISEMA in the Villavicencio city, in which the accounting supports of the budget execution of the resources from the REDD+ Project RIU-SM were verified. • Make the respective corrections for a better budget execution. • Protect the image and seriousness of REDD+ Project RIU-SM and the entities involved, such as ACATISEMA and MEDIAMOS. • Have the documentation in the event of a national or international audit visit.
17/08/2018-19/08/2018 Inírida - Guainía	Meeting of Cabildos Board and Coordinator Committee	<ul style="list-style-type: none"> • Presentation about the status of the health in the indigenous reservation, and the need to create a <i>Institución Promotora de Salud – IPS</i> (Health Promoting Institution). For that was created a technical group. - Results of self-census that is being developed by ACATISEMA is important to know the required coverage to health needs. - Malnutrition of women and children was mentioned. - A boat-hospital, health posts and health promoters are required. • In zones 4 and 5 there are victims due to winter-wave. They require food and medicines. • Budget report of the REDD+ Project RIU-SM: <ul style="list-style-type: none"> - In the eighth month of 2018, 36% of the planned budget has been executed. It is necessary to intensify the investment. - The audit for the verification 2016-2017 is already running, which will provide the resources for the budget execution 2020-2021.

Date (dd/mm/yyyy) and place	Event	Affairs
		<ul style="list-style-type: none"> - A report about the executed actions is presented. - Ways must be defined to make the Project visible in the territory of the RIU-SM. - Workshops will be held to train the indigenous guard soon. • Resolution 1447/2018 of MADS is an aspect that requires attention because it can affect the REDD+ Project RIU-SM. A document with a pronouncement from the indigenous peoples of the RIU-SM regarding the points of the Resolution that affect them was agreed. • Different committees work to prioritize new proposals. • The Fiscal Observer of ACATISEMA is appointed. • Management is authorized with the National Registry for the identification of the people.
20/08/2018- 22/08/2018 <i>Laguna Negra</i> community	Workshop of training to indigenous guard: Zones 3, 4 and 5.	<p>Second workshop of training to new indigenous guards.</p> <ul style="list-style-type: none"> • Objective: Train the Indigenous Guard of the indigenous reservation to develop the control and surveillance of the REDD+ Project RIU-SM Activities. • Expected results:
24/08/2018- 26/08/2018 <i>Camuniana</i> community	Workshop of training to indigenous guard: Zone 2	<ol style="list-style-type: none"> 1. Indigenous guards have understood the causes of climate change and its consequences. 2. Indigenous guards have understood the actions that can mitigate climate change.
28/08/2018- 29/08/2018 <i>Cumariana</i> community	Workshop of training to indigenous guard: Zone 1, Sector 2	<ol style="list-style-type: none"> 3. Indigenous guards know the surveillance and control routes and how to report the events. 4. Indigenous guards receive their endowment. <ul style="list-style-type: none"> • Themes:
29/08/2018- 30/08/2018 <i>Miraluz</i> community	Workshop of training to indigenous guard: Zone 1, Sector 1	<ul style="list-style-type: none"> - Theme 1 (T1): Problems of climate change, causes, consequences, actions, carbon cycle, water cycle, REDD+ projects, protocols and agreements, International and national regulatory framework. - Theme 2 (T2): REDD+ Project RIU-SM, history, products and activities, current affairs, investment plan. - Theme 3 (T3): What is the indigenous guard, responsibilities, activities, materials, control stations, surveillance routes, development of field templates. - Theme 4 (T4): Internal Regulation.
22/09/2018- 23/09/2018	Assemblies Zones 3, 4	<ul style="list-style-type: none"> • Reform to the Statutes of ACATISEMA is proposed. • Agreement and alliances between zones 3, 4 and 5.

Date (dd/mm/yyyy) and place	Event	Affairs
Caño Fistol community	and 5	<ul style="list-style-type: none"> • Meetings to build internal regulations for own justice processes. • Strengthen the participative and organizational guarantee of ACATISEMA (6 ethnic groups).
10/10/2018	Monitoring Report	The second Monitoring Report VCS for 2016-2017 period of the REDD+ Project RIU-SM is issued
11/10/2018- 12/10/2018 Granada - Meta	Meeting of <i>Cabildos</i> Board and Health Committee	<p>Extraordinary meeting, in which the following aspects were discussed:</p> <ul style="list-style-type: none"> • Report about the Health Committee and the technical commission: Models for the creation of indigenous IPS are being analyzed. • Socialization and feedback about SISPI (indigenous health system). • Curricular presentation. • Remodeling of the headquarters of ACATISEMA in Inírida. • Socialization of the ruling of the tutela action and response of entities to pronounce about the health problem. • A work path of Health Committee is defined. • A proposal related to Special Indigenous Jurisdiction is presented. • A session is proposed to socialize the results of the self-census. • A proposal related to the indigenous educational system requires that State supports, not only the REDD+ Project RIU-SM.
19/11/2018	Verification Report	VVB EPIC issued the second Verification Report VCS for 2016-2017 period.
24/01/2019 Bogotá	Meeting of Joint Commission	<ul style="list-style-type: none"> • Analysis and evaluation of the budget execution for 2018 of the REDD+ Project RIU SM. • Present, analyze and define the proposal for the budget adjustment for 2019 of the REDD+ Project RIU SM, to be presented to the <i>Cabildos</i> Board and Coordinator Committee of ACATISEMA. • Organize the meeting of the <i>Cabildos</i> Board, Coordinator Committee and Zonal Coordinators of the REDD+ Project RIU SM.
25/01/2019- 27/01/2019 Bogotá	Meeting of <i>Cabildos</i> Board, Coordinator Committee and Zonal Coordinators	<ul style="list-style-type: none"> • Report and analyze the budget execution for 2018 of the REDD+ Project RIU-SM. • Adjust the budget allocation for 2019 of the REDD+ Project RIU-SM. • Evaluate the performance of the participants in the REDD+ Project RIU-SM. • Define guidelines for the execution of activities in relation to the objectives of the REDD+ Project RIU-SM. • Analyze and resolve organizational points of ACATISEMA.

Date (dd/mm/yyyy) and place	Event	Affairs
06/02/2019 Cali - Valle	Meeting of Joint Commission	<ul style="list-style-type: none"> • Presentation of the work of systematization of the requests for modification to the 2019 budget, by the <i>Cabildos</i> Board, Coordinator Committee, and Zonal Coordinators of the REDD+ Project RIU SM. • Analysis and evaluation of the modification of the 2019 budget, according to the requests presented by the <i>Cabildos</i> Board, Coordinator Committee, and Zonal Coordinators of the REDD+ Project RIU SM. • Definition of the adjusted budget for 2019. • Preparation of the socialization meetings of the results of the meeting of the <i>Cabildos</i> Board, Coordinator Committee, and Zonal Coordinators of the REDD+ Project RIU SM held in Bogotá from January 25 to 27, 2019. This meeting was for the communities of all the Zones of the RIU SM by the members of ACATISEMA.
10/02/2019 <i>Boponé</i> community	Zonal Meetings to socialization of budget execution according to the Activities of the REDD+ Project RIU-SM	<ul style="list-style-type: none"> • Report about the budget execution for 2018 of the REDD+ Project RIU-SM to indigenous leaders. <ul style="list-style-type: none"> - Budget execution in the implementation of Project Activities. - Budget execution in the implementation of ACATISEMA Reserves. • Present the budget of the REDD+ Project RIU SM defined for 2019.
10/02/2019 <i>Jaraba</i> community		
12/02/2019 <i>Macocoba</i> community		
12/02/2019 <i>Wereto</i> community		
12/02/2019 <i>Barranco Colorado</i> community		
18/03/2019-20/03/2019 <i>Caracol</i> community	Workshop of training to indigenous guard: Zone 1	<p>Workshop of training to indigenous guards.</p> <ul style="list-style-type: none"> • Objective: Train the Indigenous Guard of the indigenous reservation to develop the control and surveillance of the REDD+ Project RIU-SM Activities.
22/03/2019-24/03/2019 <i>Camuniana</i> community	Workshop of training to indigenous guard: Zones 3, 4 and 5	<ul style="list-style-type: none"> • Expected results: <ol style="list-style-type: none"> 1. Indigenous guards have understood the causes of climate change and its consequences. 2. Indigenous guards have understood the actions that can mitigate

Date (dd/mm/yyyy) and place	Event	Affairs
27/03/2019- 29/03/2019 <i>Sejalito</i> community	Workshop of training to indigenous guard: Zone 2	<p>climate change.</p> <p>3. Indigenous guards know the surveillance and control routes and how to report the events.</p> <p>4. Indigenous guards receive their endowment.</p> <ul style="list-style-type: none"> • Themes: <ul style="list-style-type: none"> - Theme 1 (T1): Problems of climate change, causes, consequences, actions, carbon cycle, water cycle, REDD+ projects, protocols and agreements, International and national regulatory framework. - Theme 2 (T2): REDD+ Project RIU-SM, history, products and activities, current affairs, investment plan. - Theme 3 (T3): What is the indigenous guard, responsibilities, activities, materials, control stations, surveillance routes, development of field templates. - Theme 4 (T4): Internal Regulation of indigenous guard.
19/05/2019- 21/05/2019 <i>Puerto Lucía</i> community	Workshop of training to Captains: Zone 1 – Sector 1	<p>Workshop of training to community Captains.</p> <ul style="list-style-type: none"> • Objective: Train the Captains of the indigenous reservation in governance themes and REDD+ Project RIU-SM. • Expected results:
22/05/2019- 24/05/2019 <i>Matsuldani</i> community	Workshop of training to Captains: Zone 1 – Sector 2	<ol style="list-style-type: none"> 1. Captains have understood the causes of climate change and its consequences. 2. Captains have understood the actions that can mitigate climate change. 3. Captains know the progress of the REDD+ Project RIU-SM.
25/05/2019- 27/05/2019 <i>Urba Morichal</i> community	Workshop of training to Captains: Zone 1 – Sector 2	<ol style="list-style-type: none"> 4. Captains understand the Products and Activities of the REDD+ Project RIU-SM. 5. Captains handle the reports and formats of FAPUS. 6. Captains update the information of the new communities.
28/05/2019- 30/05/2019 <i>Wereto</i> community	Workshop of training to Captains: Zone 2	<ul style="list-style-type: none"> • Themes: <ul style="list-style-type: none"> - Theme 1 (T1): Problems of climate change, causes, consequences, actions, carbon cycle, water cycle, REDD+ projects, protocols and agreements, International and national regulatory framework. - Theme 2 (T2): REDD+ Project RIU-SM, history, products and activities, current affairs, investment plan.
07/06/2019- 09/06/2019 <i>Laguna Negra</i> community	Workshop of training to Captains: Zones 3, 4 and 5	<ul style="list-style-type: none"> - Theme 3 (T3): Productive projects, FAPUS format fill out. - Theme 4 (T4): ACATISEMA organizational structure. New communities and self-census.

Date (dd/mm/yyyy) and place	Event	Affairs
3-5/09/2019 <i>Cumariana</i> community	XV General Assembly of ACATISEMA	Indigenous authorities of RIU-SM held their XV General Assembly of ACATISEMA, in which the new Coordinator Committee was elected for 2020 - 2022 and, among others aspects, the following was decided “ <i>The indigenous authorities of the Reservation ratify their decision to continue carry out the REDD+ Project RIU-SM</i> ”.
30/01/2020- 01/02/2020 Bogotá	Meeting of <i>Cabildos</i> Board and Joint Commission Workshop of training to Zonal Coordinators	Meeting of <i>Cabildos</i> Board and Joint Commission to present result of the execution of budget 2018 & 2019 of Project Activities, and to agree on the budget 2020. Training workshop with Zonal Coordinators to carry out the fieldwork in RIU-SM territory, to prepare the on-site visit by auditor in the verification process 2018 & 2019 of the REDD+ Project RIU-SM.

Source: verified Monitoring Report – VCS 2018 & 2019

Start and End Dates for each Project Activity in 2018 & 2019

The Project Activities are developed permanently in each year, by executing sub-actions called "Tasks". Sometimes, some Activities have more intensity than others. This schedule is established in each Yearly Plan of Operation – YPO. Next the schedules for 2018 & 2019 are presented.

Table 21. Implementation Schedule of Project Activities in 2018

Prod	Act	Tasks developed	Months of 2018														
			1	2	3	4	5	6	7	8	9	10	11	12			
1	A1.1	T1.1.1: Review and adjustment of the design and planning of the surveillance and control of the forests and lands of the RIU-SM to avoid deforestation and degradation.															
		T1.1.2: Execution of the measures established to implement the surveillance and control routes of the RIU-SM territory.															
		T1.1.3: Permanently review of the early warnings issued by the IDEAM about areas that are susceptible to forest fires.															
		T1.1.4: Supervision of the execution of the measures established to implement the surveillance and control routes of the territory and definition of contingency measures, if necessary, and reports.															
		T1.1.5: Systematization and divulgation of results about routes of surveillance and control of RIU-SM's forests.															
	A1.2	T1.2.1: Review and adjustment of the design and planning of communication, information and transport systems.															
		T1.2.2: Execution of the measures established to implement the communication system.															
		T1.2.3: Execution of the measures established to implement the information system.															
		T1.2.4: Execution of the measures established to implement the transportation system.															
		T1.2.5: Supervision of the execution of the measures established to implement the communication, information and transportation systems, definition of contingency measures, if necessary, and reporting of reports.															
		T1.2.6: Systematization and dissemination of the results of the implementation of communication, information and transport systems.															
	A1.3	T1.3.1: Management and supervision of special matters (military situation, graduates service, Project socialization, alliances, census, woman in coordinating board, system of government, indigenous jurisdiction, oversight, exchange with CRIC, native culture, shepherds).															
		T1.3.2: Management of the normative and regulatory aspects of ACATISEMA															
		T1.3.4: Management and supervision of boundaries.															
		T1.3.5.1: Design, planning and execution of the measures related to the ACATISEMA's headquarters.															
		T1.3.5.2: Supervision of the execution of the established measures related to the ACATISEMA's headquarters.															
		T1.3.6.1: Design and planning of measures related to the remuneration of authorities, indigenous guard and FAPUS activities.															
		T1.3.6.2: Execution of the established measures related to the remuneration of authorities, indigenous guard and FAPUS activities.															
		T1.3.6.3: Supervision of the execution of the established measures related to the remuneration of authorities, indigenous guard and FAPUS activities.															
		T1.3.7.1: Design and planning of measures to provide economic support to students.															
T1.3.7.2: Supervision of the implementation of the measures established to provide economic support to students.																	
T1.3.8.1: Design and planning of the measures to offer transport services in the RIU-SM.																	
T1.3.8.2: Supervision of the execution of the measures established to offer transport services in the RIU-SM.																	
T1.3.9: Perform a financial audit.																	
2		A2.1	T2.1.1: Review and adjustment of the design and planning of the family agricultural-food production units system (FAPUS) (endowment, crops, minor species, livestock, orchards, fish farming, plantain, cassava).														
	T2.1.2: Execution of the measures established to develop the FAPUS.																
	T2.1.3: Supervision of the execution of the measures established for the FAPUS.																

Prod	Act	Tasks developed	Months of 2018											
			1	2	3	4	5	6	7	8	9	10	11	12
	A2.2	T2.1.4: Systematization and dissemination of the results of the application of FAPUS.												
		T2.1.5: Design and implement a survey and the indigenous Census (according to MinInterior's requirements) to update the social and economic characterization of the RIU-SM population.												
		T2.2.1: Management of special educational aspects.												
		T2.2.2: Management to provide libraries and educational endowments.												
		T2.2.3: Management for the construction / remodeling of schools												
		T2.2.4.1: Design and planning of measures for the development of training programs.												
		T2.2.4.2: Execution of the measures established for the development of training programs.												
		T2.2.4.3: Supervision of the implementation of the measures established for the development of training programs.												
		T2.2.4.4: Systematization and dissemination of management for the development of training programs.												
		A2.3	T2.3.1.1: Design and planning of measures related to the development of productive projects.											
	T2.3.1.2: Execution of the established measures related to the development of productive projects.													
	T2.3.1.3: Supervision of the execution of the established measures related to the development of productive projects.													
	T2.3.1.4: Systematization and dissemination of management results for the development of productive projects.													
	3	A3.2	T3.2.1.1: Planning of the verification process of the REDD+ Project RIU-SM.											
T3.2.1.2: Execution of the verification process of the REDD+ Project RIU-SM.														
T3.2.1.3: Systematization and dissemination of the results of the verification of the REDD+ Project RIU-SM.														
T3.2.2.1: Marketing (planning, execution, supervision, systematization and dissemination) of the carbon credits issued by the REDD+ Project RIU-SM in the 2016-2017 period, according to the opportunities and conditions of market and the requirements of the clients.														

Source: REDD+ Project RIU-SM. YPO 2018 (Annex 2.2 of verified Monitoring Report – VCS 2018 & 2019)

Table 22. Implementation Schedule of Project Activities in 2019

Prod	Act	Tasks to develop	Months of 2019											
			1	2	3	4	5	6	7	8	9	10	11	12
1	A1.1	T1.1.2: Execution of the measures established to implement the surveillance and control routes of the RIU-SM territory.												
		T1.1.3: Permanently review of the early warnings issued by the IDEAM about areas that are susceptible to forest fires.												
		T1.1.4: Supervision of the execution of the measures established to implement the surveillance and control routes of the territory and definition of contingency measures, if necessary, and reports.												
		T1.1.5: Systematization and divulgation of results about routes of surveillance and control of RIU-SM's forests.												
	A1.2	T1.2.2: Execution of the measures established to implement the communication system.												
		T1.2.3: Execution of the measures established to implement the information system.												
		T1.2.4: Execution of the measures established to implement the transportation system.												

Prod	Act	Tasks to develop	Months of 2019												
			1	2	3	4	5	6	7	8	9	10	11	12	
1		T1.2.5: Supervision of the execution of the measures established to implement the communication, information and transportation systems, definition of contingency measures, if necessary, and reporting of reports.													
		T1.2.6: Systematization and dissemination of the results of the implementation of communication, information and transport systems.													
	A1.3	T1.3.1: Management and supervision of special matters (military situation, graduates service, Project socialization, alliances, census, woman in coordinating board, system of government, indigenous jurisdiction, oversight, exchange with CRIC, native culture, shepherds).													
		T1.3.2: Management of the normative and regulatory aspects of ACATISEMA													
		T1.3.3: Support for the revision of the Life Plans in relation to the characteristics of the REDD+ Project RIU-SM.													
		T1.3.4: Management and supervision of boundaries.													
		T1.3.5.1: Design, planning and execution of the measures related to the ACATISEMA's headquarters.													
		T1.3.5.2: Supervision of the execution of the established measures related to the ACATISEMA's headquarters.													
		T1.3.6.1: Design and planning of measures related to the remuneration of authorities, indigenous guard and FAPUS activities.													
		T1.3.6.2: Execution of the established measures related to the remuneration of authorities, indigenous guard and FAPUS activities.													
		T1.3.6.3: Supervision of the execution of the established measures related to the remuneration of authorities, indigenous guard and FAPUS activities.													
		T1.3.7.1: Design and planning of measures to provide economic support to students.													
		T1.3.7.2: Supervision of the implementation of the measures established to provide economic support to students.													
		T1.3.8.1: Design and planning of the measures to offer transport services in the RIU-SM.													
		T1.3.8.2: Supervision of the execution of the measures established to offer transport services in the RIU-SM.													
	T1.3.9: Perform a financial audit.														
2	A2.1	T2.1.2: Execution of the measures established to develop the FAPUS.													
		T2.1.3: Supervision of the execution of the measures established for the FAPUS.													
		T2.1.4: Systematization and dissemination of the results of the application of FAPUS.													
	A2.2	T2.2.1: Management of special educational aspects.													
		T2.2.2: Management to provide libraries and educational endowments.													
		T2.2.3: Management for the construction / remodeling of schools													
		T2.2.4.1: Design and planning of measures for the development of training programs.													
		T2.2.4.2: Execution of the measures established for the development of training programs.													
		T2.2.4.3: Supervision of the implementation of the measures established for the development of training programs.													
		T2.2.4.4: Systematization and dissemination of management for the development of training programs.													
	A2.3	T2.3.1.2: Execution of the established measures related to the development of productive projects.													
		T2.3.1.3: Supervision of the execution of the established measures related to the development of productive projects.													
		T2.3.1.4: Systematization and dissemination of management results for the development of productive projects.													
		T2.3.2.2: Execution of the established measures related to the development of marketing and cooperative projects.													

Prod	Act	Tasks to develop	Months of 2019											
			1	2	3	4	5	6	7	8	9	10	11	12
		T2.3.2.3: Supervision of the execution of the established measures related to the development of marketing and cooperative projects.												
		T2.3.2.4: Systematization and dissemination of management results for the development of marketing and cooperative projects.												
3	A3.2	T3.2.1.3: Systematization and dissemination of the results of the verification of the REDD+ Project RIU-SM.												
		T3.2.2.1: Marketing (planning, execution, supervision, systematization and dissemination) of the carbon credits issued by the REDD+ Project RIU-SM in the 2016-2017 period, according to the opportunities and conditions of market and the requirements of the clients.												

Source: REDD+ Project RIU-SM. YPO 2019 (Annex 2.4 of verified Monitoring Report – VCS 2018 & 2019)

2.1.2 Minor Changes to Project Design (Rules 3.5.6)

There have been no changes in the Project design for this verification period (2018 & 2019).

2.1.3 Project Description Deviations (Rules 3.5.7 – 3.5.10)

There have been no Project description deviations for this verification period (2018 & 2019).

2.1.4 Risks to the Project (G1.10)

As described in the PDD-CCB, the Adaptive Management Plan -AMP- (validated PDD – VCS, Section “4.3.3 Mitigation Measures and Monitoring actions”, page 280) have specifically monitored, documenting learned lessons or corrections necessary and incorporating them in Project decisions on each monitoring periods already verified. This AMP is based on Assumptions (risk factor) which are evaluated about the level of probability of their occurrence, the mitigation measures / comments / documentary evidences, the monitoring actions and the relationship with the Project Activities are determined. The results of implement this AMP are in verified Monitoring Report – VCS 2018 & 2019, Adaptive Management Plan (page 163) and Table 26 (page 165).

About the risks on climate benefits, the methodology applied by the REDD+ Project RIU-SM, the “VCS VM0007 REDD Methodology Framework (REDD-MF)”, establishes the “VCS AFOLU Non-Permanence Risk Tool”, which allows make an “analysis of the risk of a potential loss in the carbon inventory ”(VCS Definitions), in the event that the Project presents negative results in the net benefit of reducing GHG emissions (taking into account the emissions, removals and leaks of the project), if reduced carbon emissions were reversed due to loss of biomass. All aspects of this tool seek to determine the degree of risk if the Project, maybe, does not achieve its goals. The results of applying this VCS AFOLU Non-Permanence Risk Tool are in Annex 5 of verified Monitoring Report – VCS 2018 & 2019.

Now, in this instance of application of the CCB Standard, below are the *Identified Risks*, the “*Potential impact of risk on community and biodiversity benefits*”, and the “*Actions needed and implemented to mitigate the risks*” (Table 23).

Table 23. Project risks about Climate, Community and Biodiversity

Identify of Possible Risk	Potential impact of risk on climate, community and/or biodiversity benefits	Actions needed and implemented to mitigate the risk
<p>Risk 1. Loss of forest areas in deforestation processes due to unplanned burning and illegal extractive activities.</p>	<p>When, for example, unplanned burning or illegal logging occurs, it increases the possibility of deteriorating survival conditions related to climate, community and biodiversity, as it hinders the maintenance of the quality of the forest's environmental services in the territory.</p>	<p>Carry out the control and surveillance routes of the indigenous guards and Captains, accompanied by previous training sessions, including materials designed for the indigenous guards and captains to share arguments, analysis and elements of judgment on the problem, in order to increase and gain more followers and more people to commit to the Project's Activities.</p> <p>See details about results of this actions in verified Monitoring Report – VCS 2018 & 2019, Section “3.1.1 Operation of the Project Activities during this Monitoring Period / ACTIVITY 1.1”, page 70.</p>
<p>Risk 2. Families that have doubts about the Project and do not adopt enough friendly practices to improve the conditions of their <i>conucos</i>.</p>	<p>If understanding and awareness is not achieved among families and indigenous communities to improve their agricultural practices in their <i>conucos</i> (as part of the FAPUS), the negative impact on the forest continues and the purpose of the REDD+ Project RIU-SM would not be fully achieved, causing emissions from burning and deforestation.</p>	<p>Implement best practices in the agricultural activity of the indigenous communities, to demonstrate the yields by applying the FAPUS strategy, improving the production conditions of the <i>conucos</i>, providing sustainability and food guarantee, leaving installed capacities in the beneficiary families and greater motivation given the retribution for the efforts of conservation of the natural forest.</p> <p>See details about results of this actions in verified Monitoring Report – VCS 2018 & 2019, Section “3.1.1 Operation of the Project Activities during this Monitoring Period / ACTIVITY 2.1”, page 103.</p>
<p>Risk 3. Failure to sufficiently protect and conserve the natural resources of the RIU-SM territory (including the forest).</p>	<p>Failure to sufficiently address the protection and conservation of the RIU-SM forests results in the loss of the quality and quantity of ecosystem services for humans, animals, plants and all the ecological units found in the <i>Selva de Matavén</i>.</p>	<p>The protection and conservation achieved through participatory forest monitoring and surveillance contributes to the generation of occupational options that provide socioeconomic resilience through the compensation derived from the environmental services provided.</p>

Identify of Possible Risk	Potential impact of risk on climate, community and/or biodiversity benefits	Actions needed and implemented to mitigate the risk
		See details about results of this actions in verified Monitoring Report – VCS 2018 & 2019, Section “3.1.1 Operation of the Project Activities during this Monitoring Period / ACTIVITY 1.1”, page 70 and “ACTIVITY 3.2”, page 140.
Risk 4. Doubts about the application of friendly and sustainable practices to implement projects in production chains.	The hesitation of local producers to adopt friendly and sustainable practices for productive projects has a negative impact on the resources of the RIU-SM territory, because they continue with habits that do not protect resources such as soil and do not generate productivity, which would require more consumption of natural resources.	Carry out talks, technical visits and leave installed capacities on friendly techniques and informative material for the promotion of sustainable productive initiatives and food guarantee, seeking transformation, self-consumption and marketing of surpluses. See details about results of this actions in verified Monitoring Report – VCS 2018 & 2019, Section “3.1.1 Operation of the Project Activities during this Monitoring Period / ACTIVITY 2.3”, page 126.
Risk 5. The beneficiary families do not make visible improvements in their economic conditions since the implementation of the productive projects.	If better socioeconomic conditions are not visible with the implementation of productive projects, there will be demotivation and desertion, increasing the possibility of returning to the initial scenarios without the presence of the Project, where the sustenance and food of the indigenous communities comes from the extraction and consumption of products of nature, and the agri-food activities that traditionally involve the burning and cutting of the forest to form the <i>conucos</i> , generating, once again, impacts on the climate, the community and biodiversity.	Carry out an adequate diagnosis of the most suitable productive projects. Develop training workshops to train producers in the best practices and techniques for the respective projects. Implement and leave installed capacities in managerial and administrative skills. Assist and participate permanently in the monitoring and evaluation of economic conditions for productive projects. See details about results of this actions in verified Monitoring Report – VCS 2018 & 2019, Section “3.1.1 Operation of the Project Activities during this Monitoring Period / ACTIVITY 1.2”, page 79, “ACTIVITY 2.2”, page 113 and “ACTIVITY 2.3”, page 126.
Risk 6. Doubts about participating in production	The hesitation to participate in production and food guarantee chains creates barriers and social gaps that	Encourage and invite programmed technical visits with specialists who will conduct workshops on productive and

Identify of Possible Risk	Potential impact of risk on climate, community and/or biodiversity benefits	Actions needed and implemented to mitigate the risk
chains and food guarantee.	weaken the evolution of the solidarity economy.	<p>commercial improvement, seeking alternatives and support strategies and solidarity-cooperative strengthening, motivating the generation of economic circuits and the distribution of benefits in an equitable manner.</p> <p>See details about results of this actions in verified Monitoring Report – VCS 2018 & 2019, Section “3.1.1 Operation of the Project Activities during this Monitoring Period / ACTIVITY 1.3”, page 90 and “ACTIVITY 2.3”, page 126.</p>
<p>Risk 7. Doubts in the face of adaptive change to reduce the direct consumptive use of some species important to the functionality and sustainability of the RIU-SM ecological units.</p>	<p>Doubts about the adaptive change of reducing the use of direct consumption of some species important for the functionality and sustainability of the ecological units of the <i>Selva de Matavén</i>, would generate negative impacts on ecosystem services for plants, animals and human well-being.</p>	<p>Conduct workshops on environmental education and conservation biology, involving the indigenous community as co-researchers and socializing the results of monitoring established on the threats to the RIU-SM prioritized HCVs (species and/or ecological units).</p> <p>See details about results of this actions in verified Monitoring Report – VCS 2018 & 2019, Section “3.1.1 Operation of the Project Activities during this Monitoring Period / ACTIVITY 1.1”, page 70, “ACTIVITY 2.1”, page 103, “ACTIVITY 2.2”, page 113, and “ACTIVITY 2.3”, page 126.</p>

2.1.5 Benefit Permanence (G1.11)

The legal contractual agreement to maintain the management practice beyond the project lifetime is in force and it has been ratified by indigenous authorities.

According to the Strategic Alliance Agreement ACATISEMA-MEDIAMOS (Annex 2.1.11 of validated PDD – VCS), Clause 12, Paragraph 2 “...*For a second cycle of the PROJECT ... , ACATISEMA being completely free to design and execute it*”, ACATISEMA decides to continue with the implementation of REDD+ Project RIU-SM activities for another cycle (30 additional years), after the end of the first project accreditation cycle (according to meeting of Board of Councils, Coordinator Committee and Zonal Coordinators on November 8-9, 2017 - Annex 1.1 of verified Monitoring Report – VCS 2018 & 2019), to keep with the protection and maintenance of carbon deposits, based on which credits for reduction of GHG emissions are issued. So, Project longevity is 60 years and this decision will be applied from the year 2018.

This decision to continue the project another cycle (30 years) is taken backed by:

- ✓ Advances and results of the REDD+ Project RIU-SM on the 7 years (2013-2019).
- ✓ ACATISEMA was constituted by the people of the 6 ethnic groups of the RIU-SM based on the integral development, the cultural and social preservation of the communities living in the *Selva de Matavén*, as well as on the consolidation of the territory, own government of the associates, the defense, preservation and conservation of the environment and the diversity of the *Selva de Matavén*. (Annex 2.1.1 of validated PDD – VCS: Resolution of ACATISEMA registration, considering 1).
- ✓ ACATISEMA’s mission: “promote the integral development, the cultural and social preservation of the indigenous communities settled in the *Selva de Matavén*, as well as the consolidation of the territory, the own government of the associates, the defense, conservation, preservation of the environment and the biodiversity of the *Selva de Matavén*” (Annex 2.1.2 of validated PDD – VCS: ACATISEMA’s Statutes, Article 5).
- ✓ Plan of Action 2018 of the Vichada Department, in its "Strategic Axis 2", its Objective 9 refers to "Implementing technical actions that reduce vulnerability to the risks of climate change and that guarantee the conservation of Vichada's natural heritage" (Gobernación del Vichada, 2018).
- ✓ Regional Environmental Management Plan (PGAR in spanish) 2013-2025 of *Corporinoquía* (the Regional Environmental Authority of the Orinoquía Region) in its Program "Promotion of clean environmental services (climate change-CO₂ capture)" of the Programmatic Line "PROMOTION OF ENVIRONMENTAL SERVICES", mentions its knowledge about the REDD+ Project RIU-SM and says that "During the year 2012, a REDD project ... for the *Resguardo Unificado de la Selva de Matavén* (Vichada Department) was formulated, ... " (Corporinoquía, 2013).
- ✓ The National Constitution (1991), that in its Article 63 states that “The public goods, the natural parks, the communal lands of ethnic groups, the lands of indigenous reservations, the archaeological patrimony of the Nation and the other goods that determine the law, are inalienable, imprescriptible and non-seizable”.
- ✓ The Decree 2164 of 1995, in its Article 21 states that indigenous reservation is “a legal and socio - political institution of a special nature, consisting of one or more indigenous communities, with a deed of collective property enjoying the guarantees of private property, own their territory and governed to the management of this and their internal life by an autonomous organization protected by the indigenous jurisdiction and its own normative system” (Minagricultura, 1995).
- ✓ The Resolution 037 of 2003 issued by the INCORA (Annex 2.2.1 of validated PDD – VCS), which unifies the old reservations (now sectors) and the central region in a single Unified Indigenous Reservation,

creates the RIU-SM and grants, to these indigenous people, ownership and the right to use and protect their territory (land and its resources). This right of use is indefinite as a Reservation, exceeding even the Project longevity (60 years), and includes an insured control of the management practice that sequesters carbon or avoids emissions indefinitely.

- ✓ The Joint Declaration of Intent (JDI)¹⁴ between the Government of the Republic of Colombia, the Government of the Kingdom of Norway, the Government of the Federal Republic of Germany and the Government of the United Kingdom of Great Britain and Northern Ireland on Cooperation on reducing greenhouse gas emissions from deforestation and forest degradation (REDD+) and promoting sustainable development in Colombia, in its section II. PURPOSE AND FOCUS OF THE PARTNERSHIP (page 3) proposed the achieving zero net deforestation in the Colombian Amazon by 2020.

This JDI also says in section III. General Approach and Principles, “in their cooperation, the partners intend to: ... c) Respect the rights and proposals of indigenous, forest dependent and local communities in accordance with Colombian legislation and international law, noting that Colombia has ratified ILO Convention 169 on the Rights of Indigenous Peoples” (JDI, 2015).

- ✓ Paris Agreement, in which Colombia acquired a commitment to reduce its GHG emissions (Law 1844, 2017 by which the "Paris Agreement" adopted on December 12, 2015 is approved by Colombian Congress (Congreso de Colombia, 2017)).

Therefore, the benefits in Climate, Community and Biodiversity extend for another 30-year cycle. The execution of the Project Activities allows to leave an installed capacity: in infrastructure, with trained professionals (engineers, administrators, accountants, etc.) and technically trained (for productive projects), supporting the promotion and strengthening of community groups, counting on financing for the operation.

On the other hand, the Financial and Management Plan established in the PDD is maintained, which has been made public on the Project website and has been communicated among the Indigenous Reservation communities. The Project ensures its sustainability through the sales of VCUs, having already reached the breakeven point, according to its design and implementation. This information is available in the Project offices for the audit.

2.1.6 Grouped Projects

Not applicable. The REDD+ Project RIU-SM is not a grouped project.

2.2 Stakeholder Engagement

2.2.1 Stakeholder Access to Project Documents (G3.1)

As described in PDD-CCB, the complete documentation about REDD+ Project RIU-SM (related to design of project, its implementation, validation and verification processes) is still available in the offices of ACATISEMA in *Cumaribo* and *Inirída*, and in the offices of MEDIAMOS in *Calí*, in digital format and (if required) in printed format, which is available for consultation by any indigenous authority or members of

¹⁴ <https://www.regjeringen.no/contentassets/c8ce0675a70744a2a96314adbea0a971/joint-ceclaration-of-intent-colombia-gnu-2019.pdf>

the communities. The indigenous authorities may share, at their discretion, the documentation with persons or entities outside the RIU-SM and with the national authorities that request it.

On the one hand, the technical documentation of the Project is still available in Verra Registry, under ID 1566 (<https://registry.verra.org/app/projectDetail/VCS/1566>), where it is completely accessible to the general public and to any stakeholder.

2.2.2 Dissemination of Summary Project Documents (G3.1)

As described in PDD-CCB, the Project Activity A1.2 is about improving the means of information, communication and transportation, which includes tasks of disseminating data and results of the Project achieved by the execution of all Activities, year after year, between the members of the indigenous reservation and the ACATISEMA Association (See details about results of this Activity in verified Monitoring Report – VCS 2018 & 2019, Section “3.1.1 Operation of the Project Activities during this Monitoring Period”, page 79).

Through socialization workshops, the details about the REDD+ Project RIU-SM are explained to the communities. This includes design aspects, benefits, and implementation of every Project Activity, as well as the results of the validation and verification processes.

Through communication means (2,000 booklets / brochures, 2,000 posters, and 1,200 bulletins in the implementation period of Project), written and graphic information with the different aspects and results of the Project have been provided, what the Zonal Coordinators, Sectorial authorities - *Cabildos*, Captains, leaders, and community members disseminate to the indigenous population of the RIU-SM, and orally in each language, in a way that is more understandable to the general indigenous population. In Annexes ## the some primers translated into the different languages are presented.

Through webpage <https://www.selvamatavenredd.org> and in the social media (<https://www.facebook.com/selvamatavenredd/>, <https://www.facebook.com/mataven.redd.mas>, <https://www.linkedin.com/company/mataven-redd-project/>, <https://www.instagram.com/matavenredd/>), the general public is being permanently informed about the evolution of the Project Activities.

2.2.3 Informational Meetings with Stakeholders (G3.1)

As described in PDD-CCB, the Annex 1 of validated PDD – VCS contains information about the process of socialization and training on aspects of the implementation of REDD+ strategy and consultation process, that support to this initiative, that has occurred in the stages of REDD+ Project RIU-SM. This Annex consists in evidences of participatory process and concerted actions that have been placed in several workshops, during the design, in the Project start, in the signed of Strategic Alliance Agreement ACATISEMA - MEDIAMOS F&M S.A.S. (Annex 2.1.11 of validated PDD – VCS), in the implementation of Activities and all subsequent meetings where indigenous communities have received information about the progress of the Project.

Also, in the Annex 2 of verified Monitoring Report – VCS 2016 – 2017 and in the Annex 1 of verified Monitoring Report – VCS 2018 & 2019, there are evidences about the informational meetings with stakeholders.

In these events for the socialization of information and training on Project issues, there are materials to guide the topics covered, such as climate change, REDD+ scheme, threats to the forest, strategies to

control deforestation, pertinent legislation, rights and duties of indigenous peoples on the issue of protection of natural resources and governance, among others.

These workshops have provided spaces to members of the indigenous communities to know and understand all aspects related to the implementation of the REDD+ Project RIU-SM, and to resolve all the concerns that arise. Likewise, some leaders are in charge of being aware of the queries and needs that arise after carrying out the information and training meetings.

Finally, it is sought to have an installed capacity for the same indigenous authorities to hold informational meetings within the framework of the execution of the Project Activities.

Regarding the other stakeholders, approaches have been established with local, regional and national authorities, who know the Project and have their position according to their functions. The Cumaribo Mayor's Office and the Vichada Government serve the indigenous leaders, who present the results of the Project and the requirements they have for the State to comply with its duty to support the indigenous peoples of the RIU-SM. Other entities such as the *Ministerio del Interior* (Ministry of the Interior), the *Ministerio de Ambiente y Desarrollo Sostenible* (Ministry of Environment and Sustainable Development), and *Corporinoquia* also receive indigenous leaders to proceed with the fulfillment of their functions. In the same purport, meetings are held to which different entities of the State and other ONGs are invited.

2.2.4 Community Costs, Risks, and Benefits (G3.2)

As described in PDD-CCB, in the multiple socialization and training workshops (Annex 1 of validated PDD – VCS, Annex 2 of verified Monitoring Report – VCS 2016 – 2017, and Annex 1 of verified Monitoring Report – VCS 2018 & 2019), in the consultation process, and in other informational meetings about the progress of the REDD+ Project RIU-SM, the leaders and members of the indigenous communities (in the first instance with the members of the Coordinator Committee of ACATISEMA and the members of the *Cabildos* Board of the RIU-SM, then community Captains and, finally, the community members) are informed about the characteristics of the Project, the benefits that are obtained by implementing this initiative, as well as the commitments that are acquired with the implementation of the Activities designed to achieve the objective. and indigenous leaders also raise these issues on benefits and responsibilities at the ACATISEMA General Assembly, which is held every three years.

In these meetings and workshops, that have been carried out periodically, the leaders and members of the indigenous communities are informed how the effects on the population and biodiversity are positive with the implementation of the Project, and that it is they themselves who will carry out the Activities, so they must allocate time and efforts to participate in this execution, also considering the cost in economic resources incurred with the budget execution to Project development.

Regarding the risks, it is explained what the Adaptive Management Plan (validated PDD – VCS, Section "4.3.3 Mitigation Measures and Monitoring actions", page 280) and the that described in the Section "2.1.4 Risks to the Project" of this document, include the risk analysis about community aspects.

In particular, the following items can be considered as community costs, which have been socialized with RIU-SM population:

- Investment of time for training.
- Investment of time to support the execution of the Project Activities, that are closely related to their uses and needs.
- Change in some habits, with which it is sought to improve traditional practices, such as agricultural activity.

About the socio-economic impacts, REDD+ Project RIU-SM is achieving to improve the living conditions of indigenous communities, especially women, children and youth in the region, who did not have the opportunities in the areas of education, health, employment and protection. Life plans, developed by communities, go hand in hand with the concepts that the REDD+ Project RIU-SM manage (consult more details in the validated PDD – VCS, Section “5.2 Socio-economic impacts”, page 316 and Annex 22 of validated PDD – VCS: “Potential socioeconomic impacts”).

Through webpage (<https://www.selvamatavenredd.org>) and in the social media (<https://www.facebook.com/selvamatavenredd/>, <https://www.facebook.com/mataven.redd.mas>, <https://www.linkedin.com/company/mataven-redd-project/>, <https://www.instagram.com/matavenredd/>), many of the community members are being permanently informed about the results of the Project Activities and the benefits that are being achieved.

In general, it is considered that the main expected risk would be related to the non-participation and commitment of the communities in the REDD+ Project RIU-SM and failures in the communication system, for which, precisely, measures have been implemented to promote participation. in meetings and workshops for socialization and the strengthening of information, communication and transport systems with Activities A1.2 and A1.3.

About monitoring of community costs, risks, and benefits, the Annexes 3.4 and 3.5 of verified Monitoring Report – VCS 2018 & 2019 presents the reports of the Fiscal Observer, where he personally collected information on the evolution in the execution of the Project Activities, their results, evidence and the perception of indigenous people about the benefits they are achieving with them.

In the YPOs and their respective Progress Reports (Annex 2 of verified Monitoring Report 2018 & 2019) information can be found about “Outputs achievement / Evidences / Indicators / Assumptions / Monitoring and reporting” in relation to each Project Activity.

2.2.5 Information to Stakeholder on Verification Process (G3.3)

As described in PDD-CCB, as part of the process of the REDD+ strategy and the certification of the Project to achieve compensation due environmental services, indigenous authorities and leaders of RIU-SM had known that a Validation process is required and that several Verification processes must to be carried out to demonstrate the reduction of GHG emissions.

In several training and socialization workshops (Annex 1 of validated PDD – VCS, Annex 2 of verified Monitoring Report – VCS 2016 – 2017, and Annex 1 of verified Monitoring Report – VCS 2018 & 2019), the details of this Agreement are informed to communities, expanding explanations about the meaning of Validation and Verification processes and the responsibilities that were being generated with the Certification Program before the auditors.

Also, the information about Validation and Verification processes is diffused in particular meetings and workshops, and indigenous leaders, Zonal Coordinators and members of communities collaborate with the preparation and logistics to develop these processes.

The results of the Validation and Verifications processes are accessible in the public documents in the Verra Registry (<https://registry.verra.org/app/projectDetail/VCS/1566>). So, other stakeholders can access to that information.

In the same vein, indigenous leaders have also been informed about the validation and verification processes under the CCB Program and are contributing to the preparations to participate in them.

About the databases of national entities such as, for example, the *Ventanilla Integral de Trámites Ambientales en Línea* - VITAL (Comprehensive Window of Online Environmental Procedures) and the recent *Registro Nacional de Reducción de Emisiones de Gases Efecto Invernadero* - RENARE (National Registry of Reduction of Greenhouse Gas Emissions), the provisions of the national environmental authority are being met, recording the requested information from the Project (see Illustrations 1 and 2).

Illustration 92. VITAL registration confirmation

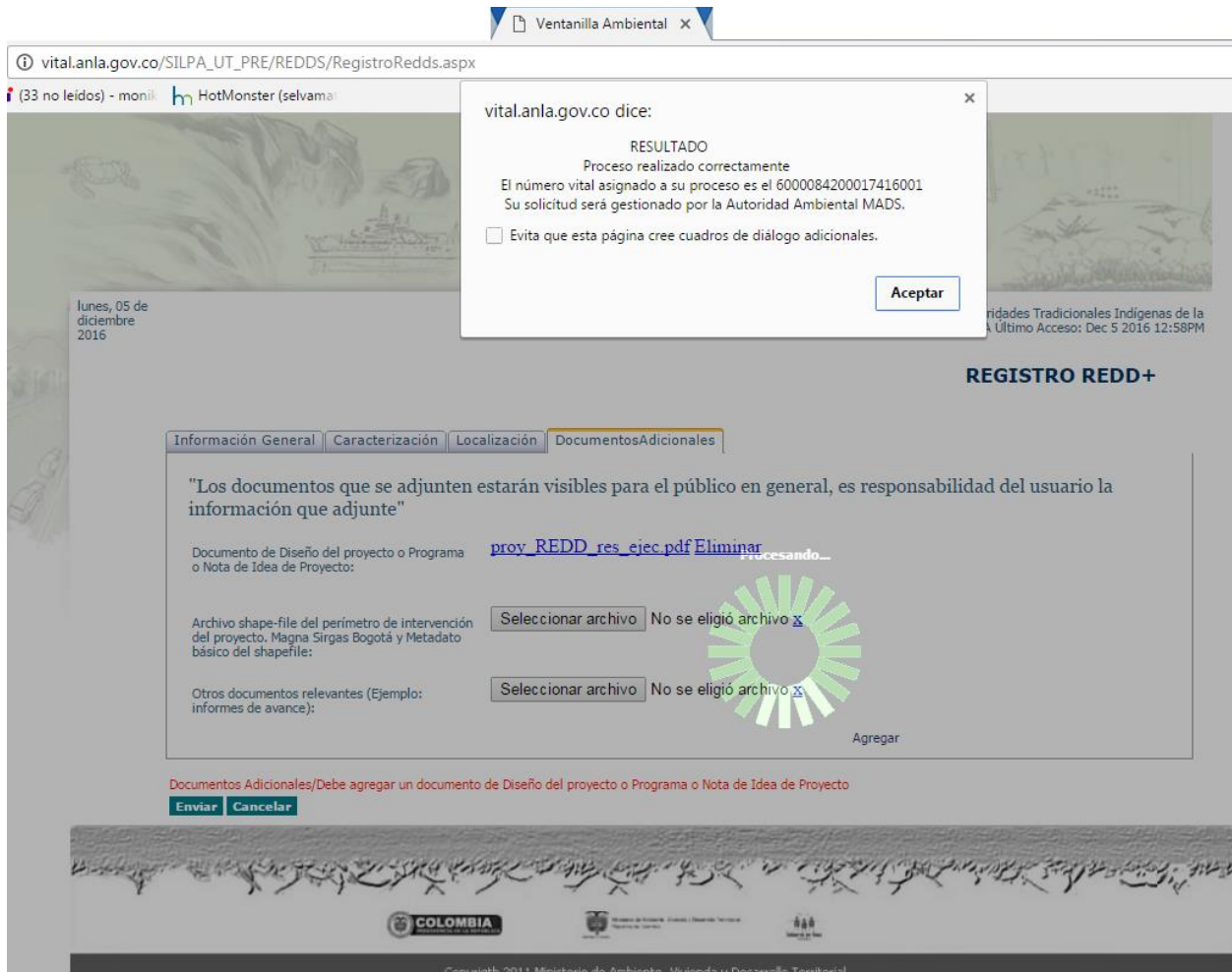


Illustration 93. RENARE registration process



2.2.6 Site Visit Information and Opportunities to Communicate with Auditor (G3.3)

As described in PDD-CCB, in each verification event, including the current validation/verification 2018 & 2019 event under CCB Standard, the indigenous authorities are informed about the requirement that the Certification Program makes for a team of auditors to visit the area where the REDD+ Project RIU-SM is being implemented.

The Zonal Coordinators and members of communities are in charge of organizing all the logistics for the site visit and determining the communities that are offered to receive the auditors.

A schedule is always prepared from the stage of agreement with the VVB, and this, in turn, is shared with the indigenous authorities, the Zonal Coordinators and the communities.

As on previous occasions, the auditors have on their agenda to conduct personal interviews with members of the indigenous communities, for which they have all the spaces they require and the freedom to communicate with the inhabitants of the indigenous reservation. In cases where the auditors are foreigners and do not speak the Spanish language (which is spoken by the majority of indigenous people), persons are always provided to help in the translation from one language to another and from Spanish to the native languages.

In the Validation and Verification Reports, in their respective Sections “2.3 Interviews” and “2.4 Site Inspections”, the auditors present the details about the direct communication that they can establish with the indigenous communities.

2.2.7 Stakeholder Consultation (G3.4)

As described in PDD-CCB, meetings and training and socialization workshops have been held with the indigenous authorities, leaders and communities of the RIU-SM (Annex 1 of validated PDD – VCS, Annex 2 of verified Monitoring Report – VCS 2016 – 2017, and Annex 1 of verified Monitoring Report – VCS 2018 & 2019), where spaces have been also opened to answer all the concerns that arise and to exchange information, since the indigenous people are the ones who know their territory, the dynamics of the jungle, the behavior of the rivers, the seasons of occurrence of events of interest, etc. Without their consent and company, traveling through the territory would not be possible.

As it was mentioned, indigenous communities are the primary source of fundamental information for the design of the Project, to make an accurate diagnosis of the problems, identify threats, determine the potential for sustainable development, and plan the Activities correctly, in such a way that the greatest possible effectiveness.

In addition, the indigenous authorities also provided secondary information in documents that they had already developed in activities that they had previously carried out with the support of state entities and other NGOs.

On the other hand, the same indigenous communities of the RIU-SM are those that carry out the Activities that are implemented in the territory of the Indigenous Reservation, according to a general framework to achieve the objective of the Project and according to the proposals and needs of the inhabitants of the RIU-SM, which are consistent with the purposes of this initiative to generate development and meet with the protection, conservation and recuperation of the natural resources.

In relation to the consultation processes with other stakeholders:

- Primary and secondary education teachers in the RIU-SM have attended the invitations and participated in various meetings and socialization and training workshops held with the communities of the indigenous reservation, some belonging to the ethnic groups that are in the RIU-SM and others are external persons designated by the teaching staff. In this way, they have spaces to receive information and understand the various aspects of the REDD+ Project RIU-SM and to raise issues that are of interest to them, like any member of the communities of the Indigenous Reservation.
- The indigenous authorities of RIU-SM have established dialogues with the settlers to resolve boundary conflicts, with the accompaniment of officials from the *Agencia Nacional de Tierras – ANT*.
- With government institutions:
 - The Colombian *Ministerio de Ambiente y Desarrollo Sostenible - MADS* (Ministry of Environment and Sustainable Development) has been informed, since November 2012, about the implementation of the REDD+ Project RIU-SM (Annexes 1.4.4.1 and 1.5.5 of the validated PDD - VCS), even going so far as to develop an Inter-administrative Agreement between ACATISEMA and MADS to strengthen REDD+ capacities and governance of the indigenous authorities of RIU-SM (Annexes 1.2.4, 1.3.11-1.3.15 and 1.9.4 of the validated PDD - VCS). An inter-institutional alliance was also proposed between MADS, ACATISEMA, MEDIAMOS F&M and other entities to strengthen the REDD+ Project RIU-SM (Annexes 1.9.5.3, 1.10 and 1.12 of the validated PDD - VCS).
 - With the *Dirección de Cambio Climático y Gestión del Riesgo – DCCGR* (Climate Change and Risk Management Directorate, attached to the MADS) communications have been sharing regarding the new provisions that the MADS has established for REDD+ projects, particularly for compliance with Resolution 1447/2018, even much earlier, when the DCCGR had already detected the overlap between

- the REDD+ Project RIU-SM and the Amazon Vision Program (Annexes 1.1 and 1.2 of this document, which contain the communications with the DCCGR).
- With the *Instituto de Hidrología, Meteorología y Estudios Ambientales* – IDEAM (Institute of Hydrology, Meteorology and Environmental Studies) approaches were made and arrangements were made to obtain a license to use their information in 2013 (Annex 2 of this document). Information is constantly being obtained from this entity on early warnings of forest fires and deforestation.
 - Meetings have been held with the *Dirección de Asuntos Indígenas, ROM y Minorías* (Directorate of Indigenous Issues, ROM and Minorities, attached to the Ministry of the Interior) where the REDD+ Project RIU-SM has been socialized (Annexes 1.4.4.1, of the validated PDD - VCS). Certification of the presence of ethnic groups in the area of the Project was obtained from the Prior Consultation Directorate (Annex 2.2.6 of the validated PDD-VCS).
 - Approaches have been made with the *Departamento Administrativo para la Prosperidad Social* - DPS (Administrative Department for Social Prosperity) to incorporate the indigenous population of the RIU-SM in programs such as RESA, Families in Action and Youth in Action. For this purpose, the indigenous self-census was conducted in 2018. Currently, efforts continue to achieve this purpose.
 - The indigenous authorities of the RIU-SM have made approaches with *Corporinoquía* and the CDA in order to socialize the REDD+ Project RIU-SM and to join efforts that lead to the protection of the Selva-Matavén (Annex 1.5.4 of the validated PDD - VCS). Currently the approach with these entities has been resumed.
 - With the Government of Vichada, Comptroller del Vichada and other departmental and local entities (in the municipality of Cumaribo), approaches have been made to socialize the REDD+ Project RIU-SM and to present the support that the indigenous communities require from the Departmental Government to meet their needs in various areas: (Annexes 1. 2.4 and 1.5.4 of the validated PDD - VCS; and Annex 3 of this document: meeting of the *Cabildos* Board and Coordinating Committee of ACATISEMA with local and regional entities, in February 2021).
 - Contacts have been established with SENA to socialize the REDD+ Project RIU-SM and agree on training programs for the indigenous population of the Indigenous Reservation (Annexes 1.5.4 and 1.9.6 of the validated PDD - VCS). Several students receiving support from the Project to develop their higher education are in SENA (Annex 9.1 of the Monitoring Report VCS 2016-2017 and Annex 4.5.7 of the Monitoring Report VCS 2018 & 2019).
- Some approaches were made with non-governmental institutions, seeking support to obtain relevant information for the development of the REDD+ Project RIU-SM (consult documents presented in sub-folders “docs_references” of the PDD folders and the different Monitoring Reports) and, possibly, to enter into agreements to support the execution of some Project Activities. With *Fundación Natura*, several actions were carried out in order to strengthen technical aspects of the Project (Annexes 1.9.5, 1.9.5.3, 1.9.5.4, 1.10 y 1.12 of validated PDD – VCS). With *Fondo Acción* training workshops were held (Annexes 1.9.3, 1.9.5.3, 1.10 y 1.12 of validated PDD – VCS). Meetings have also been held with the RAMSAR table, socialized the REDD+ Project and presented a proposal to develop a tourism project (Annex 4 of this document).
 - There has been contact with other indigenous reserves neighboring RIU-SM, at the initiative of their own indigenous authorities, who have shown interest in replicating the model being implemented in the REDD+ Project RIU-SM and developing their own initiatives, some of which are believed to be in gestation.

2.2.8 Continued Consultation and Adaptive Management (G3.4)

As described in PDD-CCB, holding meetings with indigenous authorities, leaders, and community members is an ongoing practice that is part of Project Activity A1.2, through which constant communication is maintained. As the Project Activities are the axis of its implementation, this rapprochement with the communities have been permanent, considering that the indigenous peoples themselves are proponents of the REDD+ Project RIU-SM represented by their Association ACATISEMA and they carry out the Project Activities.

In fact, the entire execution of the Project depends on the work of the indigenous communities, therefore to continue with the coordination of the actions carried out in the RIU-SM has been continued.

All management made within the framework of the Project have had the approval of the indigenous peoples, and it is adapted if it is necessary, according to needs and decisions of communities, since they themselves do not carry out perform that are to their own detriment.

On the other hand, as already mentioned, REDD+ Project RIU-SM implements an Adaptive Management Plan (see results in verified Monitoring Report – VCS 2018 & 2019, Section “Adaptive Management Plan”, page 163 and Table 26, page 165), which includes a constant participation of the indigenous communities and authorities, since they are who finally executing the Project Activities throughout their life cycle. Meetings within the indigenous reservation have continued as one of the main strategies for making concerted decisions.

2.2.9 Stakeholder Consultation Channels (G3.5)

The contact with several stakeholders and the indigenous authorities has continued in 2018 & 2019, through established consultation channels, mainly meetings in the territory of RIU-SM and, some, in municipal seats, as is in the Annex 1 of verified Monitoring Report – VCS 2018 & 2019. The consultation channels are applied in several levels, through the organizational structure of the ACATISEMA, such as the members of the Coordinator Committee (by development areas), the members of the *Cabildos* Board, and through the organizational structure of the Indigenous Reservation, such as the *Cabildos* by Sectors, Captains of the communities and, finally, with the members of the communities.

In the training and socialization meetings and workshops (Annex 1 of validated PDD – VCS, Annex 2 of verified Monitoring Report – VCS 2016 – 2017, and Annex 1 of verified Monitoring Report – VCS 2018 & 2019) it is sought those various members of the community could attend and participate, without any exclusion. However, there are also other spaces, such as the Joint Commission, where the main indigenous representatives meet to define strategies and procedures, which are then taken to the *Cabildos*, Captains, leaders and the community in general, to reach a consensus about the actions to be carried out.

In this way, the regular channel is served through the organizational levels of the REDD+ Project RIU-SM, of the ACATISEMA Association, and of the RIU-SM (validated PDD – VCS, Section “1.3 Project proponent”, page 23), through which information and decision-making flow.

Direct contact has been maintained with other stakeholders through the same meetings held with the communities in the RIU-SM, and through online channels. Different state entities, such as Cumaribo Mayor's Office, Vichada Government, CAR, Ministries, etc., and NGOs have channels available to establish contact, such as some meetings that indigenous leaders have held with them, their web pages and email addresses.

2.2.10 Stakeholder Participation in Decision-Making and Implementation (G3.6)

As described in PDD-CCB, all indigenous communities of RIU-SM have had the space to participate in the REDD+ Project RIU-SM, in meetings and workshops for socialization and training, in decision-making bodies within RIU-SM and ACATISEMA through their leaders, in the implementation of Project Activities, and in the profit sharing.

An important decision point is that the general budget for the implementation of the Project Activities is approved by the *Cabildos* of the Sectors (representing the community Captains), by the members of the ACATISEMA Coordinator Committee and by the Board of Directors of their Association, in meetings that they are held at the beginning of each year (Annexes 1.12 and 1.20 of verified Monitoring Report – VCS 2018 & 2019). Another component of the budget, the sectorial, is decided in meetings that each *Cabildo* holds with the Captains, where they agree on the best way to invest it and bring the benefits that each community requires.

As also described in PDD-CCB, the organizational structures of RIU-SM (community Captains and *Cabildos* of Sectors) and of ACATISEMA (*Cabildos* Board, Coordinator Committee, Board of Directors and General Coordinator) have been elements of a regular channel through which decisions and needs are communicated from the base.

On the other hand, in relations with MEDIAMOS F&M S.A.S, new bodies were created for the design and execution of the REDD+ Project RIU-SM: Joint Commission (made up of representatives of ACATISEMA and MEDIAMOS F&M S.A.S.), indigenous Project Co-director, and 6 indigenous Zonal Coordinators.

The Project have been developed with a gender perspective, which is why women, who play an important role in the structure and support of the family, they are the first line in the care of the house, health, attend deliveries, care of the herds, harvest, transport, processing with tools such as cassava grating machines. They have spaces for their participation, empowerment and decision-making. It has already been seen how some women lead communities (as Captains) and are active in the development of initiatives for the development of their peers. They are also having the opportunity to develop productive projects that they themselves are leading: sewing, small species, vegetable garden, cooperative, and they are also participating in the cocoa-banana-corn agroforestry project at the forefront of the families responsible for this development (see verified Monitoring Report – VCS 2018 & 2019, Section “3.1.1 Operation of the Project Activities during this Monitoring Period / Activity 2.3”, page 126). They also participate in the formulation of the Life Plan (Captains, Coordinators, leaders in a group special formed by women of each ethnicity -Annex 4.3.5 of verified Monitoring Report – VCS 2018 & 2019-, where 7 women participated). Women are recognized and empowered considering that they have space in the Coordinator Committee (with 7 women) and as *Cabildos* of Sector (2 women) and Captains (5 women). They are participating a lot in administrative aspects of the Association.

Also, through the implementation of Activity A1.3, cultural aspects are strengthened, with the support that the indigenous authorities of the RIU-SM receive from the project to carry out autochthonous indigenous events.

In the social safeguards defined in the Strategic Alliance Agreement between ACATISEMA and MEDIAMOS F&M S.A.S. for the Protection, Conservation and Recovery of Natural Forest of the *Resguardo Indígena Unificado – Selva de Matavén* (Annex 2.1.11 of validated PDD – VCS) for the implementation of the REDD+ Project RIU-SM, in the Clause 5, determines the spirit of protecting aspects such as culture and gender sensitivity, unity and “*minga*” and participation, as follows:

“... 6. *Participation: a fundamental relationship to achieve the integration of all needs, with assertive responses adjusted to the reality that will consolidate the permanence of the Indigenous Reservation in the future, is the participation of each of its ethnic groups, its authorities and organizations: elderly, men,*

women, youth and children...”.

2.2.11 Anti-Discrimination Assurance (G3.7)

As described in PDD-CCB, in the framework of the REDD+ Project RIU-SM no form of discrimination has been identified in and between the participating entities. ACATISEMA watches over the well-being of the indigenous communities of the indigenous reservation. This association is made up of authorities from all the communities of each Sector and of all ethnicities, in this way there is a full participation of representatives from all corners of the RIU-SM, so that all inhabitants are represented.

The greatest participation in the Project is always called for, so that no type of discrimination occurs, by gender, age, ethnicity, or location.

Further, the Strategic Alliance Agreement for the Protection, Conservation and Recovery of the natural forests of the *Resguardo Indígena Unificado - Selva de Matavén* (Annex 2.1.11 of validated PDD – VCS), in its Clause 5, determines the spirit of equity aspects such as unity and "*minga*", gender sensitivity, and participation, as follows:

4. *Unity and "Minga": Unity is the set of territory, culture and autonomy. The "minga" is an expression of the strength and unity of the Indigenous Reservation.*
5. *Gender Equity: it is necessary that each and every one of the activities and actions to be developed in the Plan are based on gender equity, that is, on the possibility of applying measures that are not necessarily equal, but conducive to equality in terms of rights, benefits, obligations and opportunities between men and women.*
6. *Participation: a fundamental relationship to achieve the integration of all needs, with assertive responses adjusted to the reality that will consolidate the permanence of the Indigenous Reservation in the future, is the participation of each of its ethnic groups, its authorities and organizations: elderly, men, women, youth and children...”.*

MEDIAMOS has always held a position of respect for the uses, customs and decisions of indigenous communities. In this way, all leaders of the Indigenous Reservation y those jointed in the ACATISEMA Association have all the elements to guarantee that discrimination has not occurred and will not occur in the territory of the RIU-SM, since, naturally, they are those who tend to maintain and improve the conditions of the territory, including the human aspects.

All ethnic groups have a voice and vote in the decisions made within the RIU-SM, as well as the possibility of receiving the benefits they consider, according to their proposals and needs, and representation in the Indigenous Reservation. The Project also supports the development of Ethnic and Territorial Life Plans, with which the integration of indigenous peoples, their identity and organization is enhanced.

2.2.12 Grievances (G3.8)

Any grievance that has arisen has been resolved, according to the different instances that were presented in the PDD-CCB, Section "2.3.12 Feedback and Grievance Redress Procedure". So, internally, through indigenous authorities of RIU-SM (Captains, *Cabildos*) and ACATISEMA officials (Coordinating Committee, Zonal Assemblies, General Assembly, Fiscal Observer) the different issues that arrive have been attended.

The different meetings that have been held with the indigenous authorities and the members of the

communities have also served as spaces to address the observations and suggestions that have been presented by the beneficiaries of the Project, to clarify issues, determine corrective actions to be implemented and resolve, in those same meetings and as far as possible, the grievances that arise.

2.2.13 Worker Training (G3.9)

As it has mentioned, in the implementation process of REDD+ Project RIU-SM employees have been generated to execute the Project Activities.

On one side, the work team (officials in the ACATISEMA and MEDIAMOS F&M S.A.S. headquarters and professionals who support the technic activities and those in the field) have received adequate instruction in relation to the development aspects of the REDD+ Project RIU-SM. The socialization and training meetings and workshops held with the indigenous authorities and community members, have also been spaces for the work team generates knowledge and understanding for the correct execution of the actions with which the Project Activities are developed. In fact, many community members are part of this work team.

Both ACATISEMA and the MEDIAMOS F&M S.A.S. have done induction to the technical and administrative staff, the Zonal Coordinators and the auxiliaries for field work in their respective headquarters, through various events that have taken place under the implementation of Activities 1.3 and A2.2 (verified Monitoring Report – VCS 2018 & 2019, Section “3.1.1 Operation of the Project Activities during this Monitoring Period / Activity A1.3”, page 90, “Activity A2.2”, page 113), thereby generating additional and specific skills related to this type of initiatives, and that contribute to doing a better job.

In the same way, training sessions were also organized periodically for new officials who are part of the bodies of organizational structures of the RIU-SM and the Association, such as Captains (Annex 4.5.6 of verified Monitoring Report – VCS 2018 & 2019) and *Cabildos* (Annexes 1.1, 1.12, 1.16, 1.17, 1.20, 1.27a verified Monitoring Report – VCS 2018 & 2019) and when the members of the Coordinator Committee meet (every three years, in General Assembly).

Also, some MEDIAMOS F&M S.A.S. experts collaborate with training for ACATISEMA employees, such as, for example, in accounting matters with the tax auditor and accountant of the Association, and in environment issues with the with the biologists who are in the territory and the environmental engineers of ACATISEMA.

On the other hand, as mentioned, socialization and training workshops have been developed, about issues of governance, climate change, carbon cycle, REDD+ projects, monitoring and control of deforestation, first aid (to indigenous guard), self-sustainable food production, productive projects, and cooperativism (to farmers), among others, oriented to the different RIU-SM representatives and members of the community in general (Coordinator Committee members, *Cabildos*, Captains, farmers, Indigenous Guard, leaders, Zonal Coordinators, youth, women, pastors, etc.), which is part of the Education Program (Activity A2.2). The purpose is that the inhabitants of the RIU-SM understand the different aspects of the Project and that they achieve capacities to contribute in the execution of the Activities.

These new knowledge let to communities and indigenous authorities of the RIU-SM, under the direction and coordination of their own Association, to be the ones who execute most of the Project Activities (surveillance and control of territory and its natural resources, implementation of information-communication-transportation systems, strengthening of the governance, implementation of FAPUS to guarantee food guarantee, implementation of educational programs, and implementation of productive projects, with the except for activities related to validation and verification).

Although economic resources and logistic are provided to support the indigenous leaders of the RIU-SM in the execution of the Project Activities (due to the fact that they stop performing their traditional tasks, such as cultivating in order to obtain food, to dedicate their time to the Project), this is not considered in any way as salary, since the inhabitants who collaborate with the tasks cannot be considered as workers, since their commitment goes far beyond seeking a simple remuneration for a job, their actions contribute to their own well-being, to their families and to all the people of the RIU-SM.

Another aspect of the implementation of Activity A2.2 is the support for higher education to indigenous students, who are being trained in different technical, technological and professional areas (in in universities, technical / technological institutions and SENA) to contribute to the future development of RIU-SM, becoming the next ACATISEMA workers.

Even some indigenous people and professionals in MEDIAMOS F&M S.A.S. develop postgraduate studies and specialized training with support from the Project.

2.2.14 Community Employment Opportunities (G3.10)

As described in PDD-CCB, ACATISEMA is in charge of the budget execution to implement the Project Activities and at its discretion is the determination of the people who participate in that execution. Given that this Association is made up of indigenous, several leaders elected by local inhabitants and who represent them, have decided to provide occupations for different members of the population (considering, also, the community groups) to take part in the actions of the Project and be beneficiaries, and in the RIU-SM and ACATISEMA bodies (Captains, Indigenous Guard, *Cabildos*, members of Coordinator Committee), where can there be representatives of indigenous leaders, women, youths, teachers, elderlies, students, among others. So, these representatives are elected from within the indigenous communities according to their leadership and to the knowledge that people have of them, who, once they join the work teams, receive training from the REDD+ Project RIU-SM proponents.

Many members of the indigenous communities also have found occupation spaces in the development of the Project Activities, being part of the indigenous guard, generating infrastructure and participating in the implementation of communication and transportation systems, increasing the production of food for self-consumption. and commercialization in productive chains, building infrastructure to provide logistics in health matters, to supply water to the communities, to improve housing and the infrastructure of the Association's headquarters.

2.2.15 Relevant Laws and Regulations Related to Worker's Rights (G3.11)

As described in PDD-CCB, both ACATISEMA, MEDIAMOS F&M S.A.S. and the companies outside the RIU-SM that are providing goods and services as part of the execution of contracts, meet the formal requirements, supporting the proper handling of labor issues with their workers. In this way, these entities comply with the regulations on rights and duties with workers under their charge¹⁵ and with the provisions of the Substantive Labor Code¹⁶.

In the work contracts that are signed with the people who are part of the work teams, is stipulated both the

¹⁵ <https://www.mintrabajo.gov.co/web/empleosinfronteras/derechos-y-deberes-empleadores>

¹⁶ http://www.secretariosenado.gov.co/senado/basedoc/codigo_sustantivo_trabajo.html

duties, obligations, forms and elements to carry out their tasks, as the rights and the remuneration to the workers.

2.2.16 Occupational Safety Assessment (G3.12)

As described in PDD-CCB, the implementation of some Project Activities entails the intensification of actions traditionally carried out by the inhabitants of the RIU-SM, such as transporting themselves through the rivers in motor boats, the use of tools to improve their infrastructure, and, above all, the agricultural activities for food guarantee and in the implementation of productive projects.

In the implementation of Activity A1.1, related to the surveillance and control of the territory, the Indigenous Guard has used only its instruments and insignia representative of authority and its traditional "weapons" (bows and arrows, but not firearms) and has fulfilled the instruction to take preventive measures to avoid confrontations and damages in the presence of strangers who are caught carrying out illegal activities, through the support they request from the armed authorities (verified Monitoring Report – VCS 2018 & 2019, Section “3.1.1 Operation of the Project Activities during this Monitoring Period”, page 70). On the other hand, training is given in first aid and the respective endowment is provided, including a suitable clothing for protection from inclement weather and first aid kits (Annex 4.5.5.9 of verified Monitoring Report – VCS 2018 & 2019).

In the case of Activity 1.2, related to the management of information and establishment of communication, the risks are considered to be minimal. In the case of the implementation of means of transport, given the case that it has become overcrowded with the acquisition of boats and motors and this service is being provided to the community in general, the motorists have experience and know the variants in the rivers and the correct way to navigate, also the use security means, such as life jackets, and not travel at night (verified Monitoring Report – VCS 2018 & 2019, Section “3.1.1 Operation of the Project Activities during this Monitoring Period”, page 79).

In the case of Activity 1.3, the indigenous guard provided protection and care services for the people who are gathered in the different socialization and training workshops.

In the case of Activities A2.1 and A2.3, related to the implementation of actions to guarantee food guarantee and productive projects, which correspond, mainly, to an intensification of agricultural activities and the management of minor species. In this regard, the main identified risks (associated to use of machine or tractor and cassava graters, use of agrochemicals in a small scale, and physical load or ergonomics), the measures and conditions determined in PDD – CC, Section “2.3.17 Occupational Safety Assessment” are being fulfilled.

As part of the strengthening of the health system within the RIU-SM, steps are being taken to have its own health provider institution (IPS for its acronym in Spanish), health posts were built and it is being equipped to attend to situations of injuries and events typical of the jungle, such as wounds caused by wild animals. In the case of gravity, there are boats and motors for the exclusive use of transporting the injured to the largest hospitals in the municipal capitals (verified Monitoring Report – VCS 2018 & 2019, Section “3.1.1 Operation of the Project Activities during this Monitoring Period / ACATISEMA Reserves”, page 149).

On the other hand, the companies outside the RIU-SM that are providing goods and services as part of the execution of contracts are, as part of the formal requirements, supported the proper handling of labor issues with their workers.

Regarding medical care, there are hospitals in *Cumaribo* and *Inírida*.

2.3 Management Capacity

2.3.1 Required Technical Skills (G4.2)

The work team of REDD+ Project RIU-SM is preserved with the skills (described in PDD-CCB, Section “2.4.2 Required Technical Skills”) in the different work areas, and other professionals have been incorporated to intensify some of the Activities that have required greater deployment, as can be corroborated with the meeting minutes and in the fieldwork review.

The organizational structure of the Project is preserved (as presented in in validated PDD – VCS, Section “1.3 Project proponent / Illustration 3” page 26, and for the implementation and monitoring of Project Activities in validated PDD – VCS, Section “4.3.5 Organizational structure / Illustration 39”, page 312) through the personnel who support the correct execution of the Project Activities. In fact, some professionals have developed studies to improve their knowledge and skills.

As described in PDD-CCB, the document “The Knowledge and Skills Needed to Engage in REDD+: A Competencies Framework” (Barquín, et al., 2014), manages key concepts, policy benchmarks, technical elements, skills, tools and resources for REDD+, which are fulfilled by the staff, in terms of climate change; forest management; REDD+ Policies issued by the UNFCCC; REDD+ scopes, scales and nested approaches; communication and roles of stakeholders; concerted approval processes; safeguards; monitoring, reporting and verification processes; FRELS; and Project sustainability.

On the other hand, community leaders and members have been trained in knowledge related to the REDD+ scheme, such as climate change, the carbon cycle, its contribution to the protection of forests and related natural resources, indigenous governance, rights and commitments to the Project, implementation of the particular Activities of this initiative.

The technical staff of the Project have applied its skills required to develop the Activities properly and make this initiative sustainable and the Monitoring Plans (verified Monitoring Report – VCS 2018 & 2019, Sections “3 Implementation status” pages 64 to 174, and “4 Data and parameters” pages 175 to 226), and the evaluation and quantification of results and benefits in relation to Climate, Community and Biodiversity components, a task to which indigenous leaders and members of the communities also contribute, since it is they who acquire the skills to carry out field work, under the indications of the corresponding member of professional staff.

2.3.2 Management Team Experience (G4.2)

As described in PDD-CCB, the technical staff of the Project have the necessary and adequate experience to implement the REDD+ Project RIU-SM, the Sustainable Management Plan for Land and Forest of the RIU-SM and the Project Activities. It has forestry engineers, agronomists, biologists, administrators, professionals in marketing and advertising, professional in finance, technician in indigenous development, professionals in GIS and information systems, lawyer, accountant, among others.

Below is a summary of the professional profiles of the REDD+ Project RIU-SM staff members:

Table 24. Details about management team experience

Name	Profession / credentials	Profile
Disciplinary areas: Climate, forests, waters, biodiversity, management		

Name	Profession / credentials	Profile
Francisco A. Quiroga Zea	<ul style="list-style-type: none"> • Forest engineer. • Master in Mathematical Statistics • Emeritus Professor - Universidad del Valle, Colombia. • Associate Professor, Universidad del Valle, Colombia. • Professional card: 7116 Ministry of Agriculture - Colombia • Forest Technical Assistance Card: N° 031-7116, CVC – Colombia. 	<p>According to his resume, he has the training, skills and experiences necessary to direct and collaborate technically and scientifically in the design, implementation and development of projects related to carbon, greenhouse gas emissions (GHG) and climate change that are currently required at national and international level, such as projects REDD, AFOLU, MDL.</p> <p>The following aspects of his professional experience are highlighted:</p> <ul style="list-style-type: none"> ✓ Director of the REDD+ Project RIU-SM, within the framework of the Strategic Alliance Agreement for the Protection, Conservation and Recovery of Natural Forests of the Unified Indigenous Reserve - Selva De Matavén. In development, since June 2012. ✓ Member of the Expert Panel of the International Tropical Timber Organization (ITTO). Period 2010-2011. ✓ Professor - researcher of the Postgraduate Program of the University of Tolima in the area of Management and Strategic Planning of Forestry Projects, Mathematical Modeling and Dynamic Simulation. 2004 - 2009. ✓ Current international advisor and consultant to ITTO (International Tropical Timber Organization) for the ex-post evaluation, design and implementation of projects related to forest statistical information systems in different Latin American countries (Bolivia, Peru, Panama, Honduras, Venezuela and Colombia). 1994 -2007. ✓ Researcher in projects on "Systematization and modeling of economic and technical information related to the production, transformation and commercialization of timber products". 2003 - 2008. ✓ Researcher in projects on Territorial Planning, Environmental Management, Forest Zoning and Characterization of Natural Forests in hydrographic basins". 1982 - 2008. ✓ Director of the Interinstitutional Research Program in an Agreement between the Universidad del Valle and the National Center for Coffee Research, CENICAFÉ, entitled: "Mathematical Modeling of Coffee Cultivation in Colombia". 1989 - 1994.
Hugo Martínez Higuera	<ul style="list-style-type: none"> • Forest engineer. • M.Sc., Doctor of Science Biology 	<p>With more than 34 years of professional experience preferentially dedicated to Forestry Research and Extension, specialist in planning, execution, monitoring and evaluation of development projects (including institutional and community development, environmental and social impact assessments), with a human development approach. sustainable (including equity and community development in communities of collective black and indigenous and Andean territories) for policy-making purposes; management of renewable natural resources, with emphasis on watershed management, natural forest management (both primary and secondary), specialist in ecology and forest succession, experimental design and elements of forest sampling and inventory, as well as nursery and plantation management commercial; He has been an auditor in voluntary forest certification processes in Colombia and Ecuador, also served as an Environmental Advisor for Black Communities in prior consultation processes.</p> <p>Skills specifically in the diagnosis of natural resources, with emphasis on</p>

Name	Profession / credentials	Profile
		flora, of the area under study, implementation and monitoring of permanent sampling plots for the determination of biomass (aerial and underground) with emphasis on carbon capture, reduction of carbon emissions into the atmosphere, formulation of community projects that aim to stop the risks of deforestation in the region.
Juan Carlos Silva Montoya	<ul style="list-style-type: none"> • Biologist 	Biologist specializing in Environmental Management with experience in the formulation and implementation of social and environmental projects, with an emphasis on participatory planning and community environmental management, comprehensive management of hydrographic basins and restoration of wetlands. He has carried out community projects for the management of domestic and municipal solid waste based on the recycling and production of organic compost bins. Development of landscaping and gardening in homes and open spaces (Parks, avenues, avenues), I carry out food guarantee projects with clean and organic technologies aimed at low-income families. I dictate Environmental Education workshops emphasizing the situation of climate change, adaptation and mitigation.
Luis Alonso Merizalde	<ul style="list-style-type: none"> • Biologist, with an emphasis in Marine Sciences • Master in Conservation and Management of the Natural Environment: Global change and Socio-ecological Sustainability 	Biologist with a master's degree in conservation and management of the natural environment: global change and socio-ecological sustainability; with experience in the management and coordination of productive projects; community tourism and participatory conservation with rural and ethnic communities, administration of projects for the management, conservation, rescue and rehabilitation of wildlife. With extensive experience in the implementation of environmental education projects with a focus on climate change and in the implementation of socio-economic and biodiversity monitoring plans to evaluate conservation status.
Mónica Barragán Salas	<ul style="list-style-type: none"> • Business administrator 	Training, skills and experiences necessary to collaborate technically and scientifically in the design, implementation and development of projects related to aspects of community participation and demographic development and analysis.
Alejandro Camacho Ortíz	<ul style="list-style-type: none"> • Bachelor • Technician in environmental sanitation • Technician in indigenous promoting for sustainable development 	Indigenous leader of the <i>Piaroa</i> ethnic group who has work as a Technician in environmental sanitation in the Vichada Secretariat of Health - <i>El Sejal</i> Health Center, as a teacher in health issues with the Vichada Secretariat of Education - <i>Cadanapay</i> school, and as Coordinator of integral health in the Coordinator Committee of ACATISEMA.
Disciplinary areas: Finance, sociology, community, anthropology, communication, web platform		
Juan Pablo	<ul style="list-style-type: none"> • Business 	Business administrator, with extensive experience in the commercial,

Name	Profession / credentials	Profile
Muriel Rojas	administrator <ul style="list-style-type: none"> • Master of Administration with an emphasis in Finance 	financial and administrative part of multinational and national companies, with a high level of commitment to set and achieve challenging goals and objectives, great leadership capacity, to work in interdisciplinary teams and to generate and promote the implementation of ideas and strategies for growth and profitability.
Daniela Quiroga Casella	<ul style="list-style-type: none"> • Business Administrator • International Marketing Professional • Bachelor in Science of Management 	Professional in Business Administration with double degree (France - Colombia) and in International Marketing and Advertising; trilingual (Spanish, English, French); with experience in marketing, research, academic learning processes and trade marketing. Proactive, responsible and achievement-oriented person, with the ability to learn, a high sense of belonging and social responsibility. Also, with experience in working in interdisciplinary teams in changing contexts.
Gustavo Adolfo Muriel Rojas	<ul style="list-style-type: none"> • Professional in graphic design and visual communication 	With training, skills and experiences necessary to collaborate technically and scientifically in the implementation and development of projects related to carbon, greenhouse gas emissions (GHG) and climate change that are currently required at a national and international level, such as projects REDD, AFOLU, MDL.
Sandra Lucía Bravo Reyes	<ul style="list-style-type: none"> • Social communicator and bilingual educator 	Social Communicator - Universidad del Valle 1992, Organizational Communication - Universidad Javeriana 1999 <ul style="list-style-type: none"> – Organizational Communication at the service of education and the development of human groups, coordination, design and direction of Cooperative Education and social development programs. – Instructor in Cooperativism. – University teaching. Subject "Business Communication". – Teaching with young people, "Jóvenes en Acción" program. Subject Humanities and Spanish Language. – Experience in Spanish Language curriculum designs, Primary, Secondary and Middle levels. Constructivist methodology. – Teacher in the United States. – Editing and writing business media.
Disciplinary areas: Food guarantee and soils		
Freddy Adalberto Martínez Astudillo	<ul style="list-style-type: none"> • Agricultural engineer 	With the necessary training, skills and expertise that allow the technical and scientific consolidation of the requirements for the implementation of projects related to carbon emissions and the greenhouse effect and climate change.
Jennifer Montenegro Parra	<ul style="list-style-type: none"> • Agricultural engineer 	Knowledge in analysis and chemistry of soils, high frequency irrigation, drainage and precision agriculture, organic fertilizers and soils in general. With interest to work in the field with projects related to land management, agriculture related to fruit trees, vegetables, as well as projects for environmental conservation. I have the facility and disposition to learn, good interpersonal relationships, responsible, with capacity for integration and leadership, ability to formulate and develop projects.
Andrés Mauricio Rodríguez Loaiza	<ul style="list-style-type: none"> • Agricultural engineer 	Knowledge in analysis and chemistry of soils, high frequency irrigation, drainage and precision agriculture, organic fertilizers and soils in general. With interest to work in the field with projects related to land management, agriculture related to fruit trees, vegetables, as well as projects for environmental conservation. I have the facility and disposition to learn, good interpersonal relationships, responsible, with capacity for integration and leadership, ability to formulate and develop projects.
Disciplinary area: Geomatics, digital image processing, GIS, information system, technology		

Name	Profession / credentials	Profile
Miguel Andrés Idrobo Sánchez	<ul style="list-style-type: none"> • Topographic Engineer 	<p>Training as a Topographic Engineer. I have the necessary skills to generate cartography of land uses and changes in land uses through multitemporal study through the digital process of satellite images and in spatial modeling to generate prospective deforestation data. With 3 years of experience in research and generation of products derived from remote sensing and their application to the climate and the environment and thus collaborate technically and scientifically in the design, implementation and development of REDD, AFOLU, CDM projects.</p>
Eider Hernán Pérez Rojas	<ul style="list-style-type: none"> • Systems Engineer 	<p>With training, skills and experiences necessary to collaborate technically in the implementation and development of forestry projects, related to the operation and logistics in the compilation and systematization of information; design, development and implementation of software for Dynamic Simulation Models - MSD (Java programming language and databases) and generation of official documentation in the design, validation and verification phases.</p>
Disciplinary areas: Legal, Accounting, Tax auditor		
Jorge H. Gómez V.	<ul style="list-style-type: none"> • Lawyer 	<p>With training, skills and experience necessary to carry out a general legal analysis of the different perspectives in which the REDD+ Project RIU-SM is carried out.</p> <p>The following aspects of his professional experience stand out:</p> <ol style="list-style-type: none"> 1. Administrative Law: analysis of the Strategic Alliance Agreement signed between ACATISEMA and MEDIAMOS F&M S.A.S., for its proper practical development. 2. Commercial and Civil Law: preparation of documents that allow a positive impact on the communities belonging to ACATISEMA. 3. Tax Law: analysis of possible tax impacts of the REDD+ Project RIU-SM in the society MEDIAMOS F&M S.A.S. 4. Constitutional Law: attention to constitutional actions where MEDIAMOS F&M S.A.S is linked in relation to the execution of the REDD+ Project RIU-SM.
Sandra Valdivia	<ul style="list-style-type: none"> • Counter, tax auditor 	<p>Professional with the ability to apply, analyze and interpret the accounting and financial information of an organization, in order to design and implement instruments and mechanisms to support the organization's directives in the decision-making process.</p> <p>Expert with university training with special emphasis on accounting-financial-tax-administrative matters and practices, auditing and business advisory services.</p> <p>With powers, by law, to give public faith regarding the known facts of the field of my profession, as well as to rule on economic and financial information, carry out activities related to accounting and tax science, the information systems of the company, finances, costs, etc.</p>
María Gaby Boshell Villamarín	<ul style="list-style-type: none"> • Bachelor of Education. Mathematics and Physics Areas 	<p>Pedagogue with extensive experience in higher education. Master's degree in systems and doctoral student in educational sciences, with a thesis on the university-productive sector relationship in which historical-contextual factors at a global and local level, politics, management and training processes are studied. In management, coordination and accompaniment</p>

Name	Profession / credentials	Profile
	<ul style="list-style-type: none"> • Master in Systems Auditing • PhD candidate in Educational Sciences 	of institutional and inter-institutional projects; in projects with the external sector based on calls, alliances and agreements. In academic, research and entrepreneurship projects. ICT and network management.

2.3.3 Project Management Partnerships/Team Development (G4.2)

In order to develop productive projects in the RIU-SM, as part of the implementation of Project Activity A2.3, the need to establish agreements with expert entities in the different types of initiatives in which indigenous communities wish to work. Thus, an agreement was already signed and is in execution with the *Federación Nacional de Cacaoteros - FEDECACAO* (National Federation of Cocoa Farmers), with which is being implemented the “Pilot agroforestry project with cocoa, plantain, corn and forest trees” in 10 communities in Zones 4 and 5 of the RIU-SM, and in each community 10 families are in charge of the cultivation and production in 1 hectare of land (each one), in this way 100 families are cultivating 100 hectares.

Also, there are already approaches with entities such as the *Fondo Nacional de Turismo - FONTUR* (National Tourism Fund) (to develop natural tourism projects).

See details about results of Activity A2.3 in verified Monitoring Report – VCS 2018 & 2019, Section “3.1.1 Operation of the Project Activities during this Monitoring Period”, page 113.

On the other hand, the companies that have been hired to support the implementation of some Activities have also contributed to support the execution of the Project.

2.3.4 Financial Health of Implementing Organization(s) (G4.3)

As described in PDD-CCB, in the first stage of the Project, financing was achieved through the efforts of the proponents, especially *MEDIAMOS F&M S.A.S.* that contributed with its own resources, loans and investors to guarantee the execution of the Activities in the design and the first years of implementation. In the same purport, both proponents contributed with working capital to achieve the Project Objective. Once the breakeven point is reached, the proponents recovered their investment and the financial support for Project is guaranteed, for each year, with the economic resources (derived from the commercialization of certified VCUs) and human resources for the correct and complete execution of the Project Activities.

For over the project lifetime, financial support is considered in the compensation for the environmental services rendered until the year 2042, based on every verification period to generate the VCUs that are certified and commercialized. Thus, the financial health of implementation of Project (more than the proponents), depends on the results achieved by reducing GHG emissions, which has been being achieved during the monitoring periods already verified.

The Verified Carbon Units – VCUs certified in 2013, 2014 - 2015, 2016 – 2017, and 2018 & 2019 have been the basis of the budget execution of the Project Activities in the current implementation phase.

2.3.5 Avoidance of Corruption and Other Unethical Behavior (G4.3)

As described in PDD-CCB, in the validated PDD - VCS, Section “2.5.1 Step 2 Investment analysis (VT0001)”, the origin of the funds with which the REDD+ Project RIU-SM began its execution was explained since 2013 (own funds of the Project Proponents, loans in the name of natural participants in the Project, support from other entities, private investor), with which is clear and transparent initial financing.

The Project Proponents signed the Strategic Alliance Agreement for the Protection, Conservation and Recovery of Natural Forest of the *Resguardo Indígena Unificado – Selva de Matavén* (Annex 2.1.11 of validated PDD – VCS), which, in its Clause 2, Scope of the Object, numeral 4, undertakes to “Develop the obligations and exercise their rights with absolute fidelity to the principles of good faith, transparency (truthfulness), loyalty, ethics and equity, during the development of this AGREEMENT”.

Both ACATISEMA and MEDIAMOS have ensured the correct and transparent execution of the REDD+ Project RIU-SM. Both entities have periodic Fiscal Reviews. Also, ACATISEMA, that is the entity that execute the economic budget, realize its own process of assessment through its Fiscal Observer.

It is also important to highlight that in each verification event, the VVBs that have intervened as auditors also have evaluated all the results, benefits and actions derived from the implementation of the Project Activities, which they have found correct and adequate.

The Project Proponents have the adequate legal support and can document that they are not embedded in any event of corruption. In addition, the companies with contracts signed to implement some tasks to meet the Project Activities have submitted legal documentation where transparency is evidenced in their actions, agreements and businesses in their trajectory.

The details of the execution of the Project Activities, including the monitoring and verification processes, as well as the final results of these, are shared with the communities and indigenous leaders in periodic meetings. In this way, the aim is to ensure that the main stakeholders are constantly informed of progress and investments made.

Likewise, the REDD+ Corruption Risk Assessment (ERC REDD+, by its acronym in Spanish) processes are considered as tools to “... ensure that all relevant stakeholders understand the risks of corruption in REDD+ and are well informed about their roles and responsibilities to mitigate them; that corruption risks are represented when developing national approaches to safeguards and information systems on safeguards for REDD+; that a mechanism for monitoring the risks of corruption in REDD+ is initiated; that the national REDD+ strategy incorporates effective measures to address corruption risks that fully reflect national and international requirements...” (ONU-REDD, 2012). Although it is oriented at the national level, its precepts can be applied at the local level, as is the case of the REDD+ Project RIU-SM. For this purpose, the following aspects are taken into account:

- Surveillance of Safeguards (decision 1 / COP.16 – COP Cancún, 2010): See Annex 5 of this document.
- Distribution of benefits: See Annex 2.1.11 of validated PDD - VCS Strategic Alliance Agreement between ACATISEMA and MEDIAMOS F&M S.A.S., clause 11.
- Forest Monitoring, Reporting and Verification (MRV System): REDD+ Project RIU-SM has applied these processes, and has complied with the reporting of the information in the Verra Registry, *Ventanilla VITAL* and RENARE.
- Observation of the FREL issued by Colombian Government to UNFCCC (according to what the national legislation determines): See verified Monitoring Report – VCS 2018 & 2019, Section “1.9.1 Impacts of Articles 40 and 41 of Resolution 1447/2018 of MADS on the Project”, page 44 - Article 41 is applicable to the REDD+ Project RIU-SM about the requirement that the holder of the same “*will must establish*

its baseline based on the most updated FREL that has been formally submitted by Colombia and evaluated by the UNFCCC...".

2.3.6 Commercially Sensitive Information (Rules 3.5.13 – 3.5.14)

As described in PDD-CCB, all the information about "operational and capital inversions and expenditures" in the implementation of Project Activities has been provided in the documentation that the REDD+ Project RIU-SM, which is available to the VVBs and the VCS Program, as is evident in the attached files of annual budgets that are delivered with the PDD and the different Monitoring Reports in each verification event. Generally, this type of information is provided in Annexes, which are not required by the Verra Registry information system, but are available for consultation with interested parties, considering the legal reservations to which the Project Proponents are entitled.

2.4 Legal Status and Property Rights

2.4.1 Recognition of Property Rights (G5.1)

As described in PDD-CCB, the property rights are completely clear, by Resolution 037 of 2003, which is a legal document issued by the national authority in charge, in 2003, of promoting access to land and legally adjudicating rural property and its social, environmental and cultural order to promote development. sustainable production of the peasant, indigenous and black economy (INCORA). The provisions of this entity are recognized by the *Dirección de Asuntos Indígenas, ROM y Minorías* (Directorate of Indigenous Affairs, ROM and Minorities) of the *Ministerio del Interior* (Ministry of the Interior).

The REDD Project RIU-SM respects the right that indigenous peoples have over their territory, which are enshrined in different Colombian legislation, since the Indigenous Reservations are inalienable and unenforceable. In fact, in the principles of the Strategic Alliance Agreement (Annex 2.1.11 of validated PDD - VCS), that in its Clause 5 stipulated that "*Ethnic and Environmental Safeguards: The parties of the ALLIANCE agree during the development of the PROJECT to comply with all ethnic and environmental safeguards for the Resguardo Indígena Unificado - Selva de Matavén, within the constitutional and legal framework of Colombia, in particular those referring to 1. Territory: as the raison d'être of the physical and cultural existence of the Reservation, since it is the fundamental guarantee to continue surviving as an indigenous people. In particular, the Comprehensive Management Plan for the forests and lands of the Reservation guarantees compliance with this aspect. In this purport, MEDIAMOS, nor any other entity that could intervene in the PROJECT, acquire rights over the territory of the Unified Indigenous Reservation, other than those specified in this AGREEMENT, making it absolutely clear that neither the PROJECT nor the AGREEMENT imply commitments or sale or rental of any part of the territory of the Reservation, thus committing to guarantee its integrity*", and in its Clause 20 stipulated that "*Each of the parties undertakes to respect, comply with and enforce the set of values and ethical principles such as Equity, Respect, Dignity, Solidarity, Integrity, Honesty, Transparency, Justice, Responsibility, Teamwork, which strengthen an ethical and service culture, generating motivation and internalization of each one of those values in daily activities leads them to reflect on a transparent behavior in the validity of this AGREEMENT*".

On the other hand, Activity A1.3 seeks to strengthen governance in the territory of the RIU-SM, improving the management capacities of indigenous leaders and the governing bodies of ACATISEMA. Therefore, a solid governance system in the Indigenous Reservation is a mechanism that contributes to help to secure statutory rights, not only in relation to this Project, but to enforce your general rights.

And in relation to the use of the territory, within the framework of the Project's implementation, the Proponents (ACATISEMA and MEDIAMOS F&M S.A.S.) have the rights to the results derived from the implementation of this initiative, in particular the VCU that are generated and verified.

2.4.2 Free, Prior and Informed Consent (G5.2)

How the Project have not encroached uninvited on indigenous community property

The REDD+ Project RIU-SM is an initiative of the *Asociación de Cabildos y Autoridades Tradicionales Indígenas de la Selva de Matavén* – ACATISEMA. On July 06 of 2012 (see Sections “2.1.1 Project Proponent” of PDD-CCB), the Board of Directors of ACATISEMA summoned to MEDIAMOS company to develop any action to protect and conserve the Selva de Matavén. From this rapprochement by members of ACATISEMA, the idea of the Project was born. So, REDD+ Project RIU-SM does not encroach the indigenous community property, since this project is their property.

In any case, when any entity enters the territory to contribute to the implementation of any Activity (such as MEDIAMOS, the entities with which agreements are signed and the auditors) they always have consulted with the authorities, received their endorsement and be permanently accompanied.

Free, prior, and informed consent

Since the REDD+ Project RIU-SM is an initiative of indigenous communities that inhabit the territory, the process of free, prior, and informed consent, which is called “*Previous Consultation*” in the national context, is not applicable, because they have decided autonomously to develop this initiative and they are aware that it does not threaten their lives, beliefs, culture, institutions, spiritual well-being, social and economic integrity and the lands they occupy or use in any way, and they can guarantee the right to their own participation in the formulation, design, implementation, and assessment of their Project, as ratified by the Decision and resolution of the Superior Court of the Villavicencio Judicial District, Labor Decision Chamber for the Guardianship Action on November 14, 2014 (Annexes 1.11.5 and 1.11.8 of validated PDD – VCS) and the Decision of the Supreme Court of Justice, Labor Cassation Chamber of the Protection Action on March 04, 2015 (Annexes 1.11.7 and 1.11.10 of validated PDD – VCS), where the Decision and resolution of the Superior Court of the Villavicencio Judicial District is ratified.

Annex 1 of validated PDD – VCS, Annex 2 of verified Monitoring Report – VCS 2016 – 2017, and Annex 1 of verified Monitoring Report – VCS 2018 & 2019, contains information about the process of socialization and training on aspects of the implementation of REDD+ strategy and about the consultation process that support to this initiative, that has occurred in the several stages of REDD+ Project RIU-SM. This Annexes consists in evidences of participatory process and concerted actions that have been placed in several workshops and meetings in the RIU-SM.

Appropriate restitution or compensation

In the validated PDD – VCS. Section " 2.5.1 Step 2 Investment analysis (VT0001) / Table 45. Distribution of income for the project implementation and utilities and reservations", page 180, (that corresponds to Strategic Alliance Agreement, Annex 2.1.11 of validated PDD VCS, page 6) is explained the way how the restitution or compensation of the Project for parties is carried out, by achieve the commercialization of carbon credits, which gives to indigenous reservation an investment of between 70% and 80% for the execution of the Project Activities in the territory of the RIU-SM, and between 10% and 22.5% of the

resources for reserves of ACATISEMA, to be used as the indigenous authorities and the communities decide.

2.4.3 Property Right Protection (G5.3)

As described in PDD-CCB, the REDD+ Project RIU-SM have not led to involuntary removal or relocation of property rights holders from their lands or territories, and has not forced rights holders to relocate activities important to their culture or livelihood, on the contrary, the Project respects the territory, human settlements, their uses and customs and enhances their culture, according to each Activity, as follows.

- The Project Activity A1.1 “Surveillance and control of territory” has allowed watch over that there is no interference by people outside the RIU-SM in the territory, that natural resources are not exploited beyond the customary use by indigenous communities, that there is no deforestation and that indigenous guard is present in the territory as native authorities. Although this task is depriving to strangers and/or to indigenous people of the inappropriate use of some resources, it is precisely because this use is not part of the land property rights.
- The Project Activity A1.2 “Information, communication and transport systems” has allowed to provide necessary services to enhance the performance of the other Project Activities and give benefits to the communities in their needs to be in contact with their peers and move around the territory. This Activity in no way affects the property rights and freedoms of indigenous people, but rather contributes to the development of their own important activities to their culture or livelihood.
- The Project Activity A1.3 “Governance” has allowed to improve the management capacity of indigenous peoples over their territory and resources and the strengthening of their ACATISEMA Association. The development of this Activity does not entail any threat to the rights of indigenous communities, nor is it contrary to their customs and traditional uses of resources for their livelihood, on the contrary, it tends for their development.
- The Project Activity A2.1 “Family Agri-food Production Units System - FAPUS” has allowed to contribute to ensuring food sustainability in the RIU-SM. Although the strategy entails gradually changing the way in which land is used for crops (improving agricultural practices) and how fauna is used to provide food, alternatives are included that allow reducing the pressure on forests and biodiversity, without affecting the provision of food, on the contrary, seeks to improve the yield of crops and opt for the breeding of smaller species to complement the quantity and quality of nutrients. FAPUS has been sufficiently socialized with indigenous communities (Annexes 1 and 4 of validated PDD – VCS), which are aware of the benefits of improving their production, affecting the forests less and less. This Activity does not imply that they have to relocate or restrict their customary activities, but rather it promotes better management of the lands that are already being used.
- The Project Activity A2.2 “Education” has allowed to improve the knowledge and capacities of indigenous people in order to train professionals to administer the territory of the RIU-SM and its natural resources. This Activity does not entail any threat to the property rights of the inhabitants of the indigenous reservation, nor does constitute a reason for the displacement of the fundamental activities for the inhabitants, as students receive support, which is a great collaboration for their families.
- The Project Activity A2.2 “Productive Projects” has allowed to provide development alternatives that improve the economy of the interested and benefited communities. This Activity seeks to better manage the lands and resources, without altering them, but through a sustainable use that provides well-being and occupation among indigenous people.

- The Project Activities A3.1 “Project Validation” and A3.2 “Project Verification” has allowed to manage and provide compensation for the environmental services rendered. As is the principle of the REDD+ strategy, the Project does not contemplate restricting any rights of indigenous peoples, without prohibiting the customary use that they give to the lands and resources, but by offering alternatives that generate benefits.

2.4.4 Identification of Illegal Activity (G5.4)

As described in PDD-CCB, illegal activities are related with the threats against the conservation and protection of the forests of the *Selva de Matavén* and the other natural resources of the indigenous reservation (deforestation, expansion of the agricultural frontier, deterioration of water sources, mining, and oil interest).

To reduce these threats, the Project Activity A1.1 is implemented in the territory of RIU-SM through the indigenous guard, who in its task of surveillance and control of the territory, find that prohibited activities are carried out, above all, by strangers who enter the RIU-SM irregularly and make timber extraction, mining in rivers, hunting, fishing, and capturing animal species.

Some actions have been carried out to counter the events that are detected by indigenous guard in conjunction with indigenous authorities, community members, and national authorities (police and army). The people who enter into the Indigenous Reservation were intervened, materials found with intruders are seized, and these persons are handed over to the civil and / or military authorities of the region (see Annex 4.1.9 of verified Monitoring Report – VCS 2018 & 2019).

Direct communication is also maintained with the police and the army to receive support in the event of more serious events (such as armed persons conducting illegal mining).

Finally, the Project has not promoted to carry out any illegal activity, nor could the results and benefits achieved come from this type of action, since the main purpose is to protect the forests of the *Selva de Matavén*.

2.4.5 Ongoing Disputes (G5.5)

As it has been mentioned, the REDD+ Project tends to respect the autonomy, self-determination and self-government of the indigenous communities of the RIU-SM. In this sense, it does not interfere in the decision-making of the indigenous authorities in every way, including the way in which they resolve conflicts and the resolutions they adopt. On the contrary, the Project aims to strengthen the governance and administration of ACATISEMA in the RIU-SM (Activity A1.3).

In different meetings that have been held, the indigenous peoples have had the spaces to express themselves in relation to the implementation of the Project, they have expressed their satisfaction with what has been carried out and the observations to improve some aspects, as well as they have participated in decision-making and in the joint resolution of conflicts that may have been generated. It should be noted that none of the conflicts have affected the general execution of the Project.

On the other hand, there were conflicts or disputes over rights to lands, against which the indigenous authorities of the RIU-SM are working to resolve invasions by settlers, who have established farms within the territory of the indigenous reservation without authorization, carrying out actions against the protection and conservation of resources and forests through agricultural activities, in such a way that they look for

those areas to be restored. During the approaches with the indigenous people of the RIU-SM, some of these disputes over land invasions were known, and that the indigenous communities were relying on the national authorities (as the *Agencia Nacional de Tierras* – ANT [National Land Agency]) to resolve them, since they can receive support based on the national legislation to enforce their rights.

2.4.6 National and Local Laws (G5.6)

As described in PDD-CCB, the National Government considers as a key strategy to develop REDD projects in Colombia, as defined by the National Council for Economic and Social Policy approved by CONPES Document 3700 (DNP, 2011), four routes for critical work or actions achieve sustainable national development by reducing the negative impacts generated by climate change.

These work routes are:

- *Plan Nacional de Adaptación al Cambio Climático – PNACC* (National Plan for Adaptation to Climate Change, as mandated by the Law 1450, 2011 in its Article 217 - *PND 2010-2014*) (DNP, 2011).
- *Estrategia Colombiana de Desarrollo Bajo en Carbono – ECDBC* (Colombian Strategy Low Carbon Development) (MADS, 2011).
- *Estrategia Integral de Control a la Deforestación y Gestión de los Bosques – EICDGB* (MADS-IDEAM, 2017) (Comprehensive Strategy of Deforestation Control and Forest Management), before called *Estrategia Nacional de Reducción de Emisiones por Deforestación y Degradación Forestal – ENREDD+* (MADS, 2011).
- *Estrategia de Protección Financiera ante Desastres* (Strategy for Disaster Financial Protection).

The last of the four routes is reflected in the PND 2010-2014, while in the PND 2014-2018 is considered as *Fondo de Adaptación* (Adaptation Fund) - Decree-Law 4819, 2010 (Minhacienda, 2010) as part of *Sistema Nacional de Gestión del Riesgo de Desastres* (National System of Disaster Risk Management)".

The REDD+ Project RIU-SM, with 7 years of implementation (2013-2019) has contributed to the first three work routes indicated above, and especially in the third route, which at the beginning was called ENREDD+ and is now defined as EICDGB. The REDD+ Project RIU-SM contributes specifically to achieving the goals of reducing deforestation and forest degradation in the transition zone of the Colombian Orinoquía-Amazonía, as defined in the Project Objectives.

Consult more details in the validated PDD – VCS, Section “1.11 Compliance with laws, statutes and other regulatory frameworks”, page 117.

In relation to Resolution 1447/2018 specifically, in the verified Monitoring Report – VCS 2018 & 2019, Section “1.9.1 Impacts of Articles 40 and 41 of Resolution 1447/2018 of MADS on the Project”, page 44, the REDD+ Project RIU-SM is complying with the determinations of the *Ministerio de Ambiente y Desarrollo Sostenible* (Ministry of Environment and Sustainable Development) through this regulation, to the extent that the RENARE platform becomes operational, as it is explained in verified Monitoring Report – VCS 2018 & 2019, Section “1.9.1 Impacts of Articles 40 and 41 of Resolution 1447/2018 of MADS on the Project”, page 44.

In relation to the Sustainable Development Goals – SDGs, these were proposed by Colombia through the *Ministerio de Relaciones Exteriores* (Ministry of Foreign Relations) to expand the scope of the Millennium

Development Goals - MDGs. The SDGs are:

1. No Poverty: Economic growth must be inclusive to provide sustainable jobs and promote equality.
2. Zero Hunger: The food and agriculture sector offer key solutions for development, and is central for hunger and poverty eradication.
3. Good Health and Well-Being: Ensuring healthy lives and promoting the well-being for all at all ages is essential to sustainable development.
4. Quality Education: Obtaining a quality education is the foundation to improving people's lives and sustainable development.
5. Gender Equality: Gender equality is not only a fundamental human right, but a necessary foundation for a peaceful, prosperous and sustainable world.
6. Clean Water and Sanitation: Clean, accessible water for all is an essential part of the world we want to live in.
7. Affordable and Clean Energy: Energy is central to nearly every major challenge and opportunity.
8. Decent Work and Economic Growth: Sustainable economic growth will require societies to create the conditions that allow people to have quality jobs.
9. Industry, Innovation, and Infrastructure: Investments in infrastructure are crucial to achieving sustainable development.
10. Reduced Inequalities: To reduce inequalities, policies should be universal in principle, paying attention to the needs of disadvantaged and marginalized populations.
11. Sustainable Cities and Communities: There needs to be a future in which cities provide opportunities for all, with access to basic services, energy, housing, transportation and more.
12. Responsible consumption and production.
13. Climate Action: Climate change is a global challenge that affects everyone, everywhere.
14. Life Below Water: Careful management of this essential global resource is a key feature of a sustainable future.
15. Life On Land: Sustainably manage forests, combat desertification, halt and reverse land degradation, halt biodiversity loss.
16. Peace, Justice and Strong Institutions: Access to justice for all, and building effective, accountable institutions at all levels.
17. Partnerships: Revitalize the global partnership for sustainable development.

An exercise of prioritization of these goals led to that in Colombia more than half of the votes being oriented towards: good education (4), better health service (3), better job opportunities (8), an honest and efficient government, protection of forests, rivers (15), and oceans (14), protection against crime and violence (16) and affordable and nutritive food (2).




Colombia is actively participating in meetings and follow-up to the implementation of the SDGs. According to the voluntary review sent by Colombia to the United Nations High-level Political Forum, the country has incorporated the SDGs framework into several of its most important public policy plans (Colciencias, 2017).



In the implementation of REDD+ Project RIU-SM several actions are being developed, which are contributing directly to the achievement of the SDGs. In this sense, the Sustainable Management Plan for Land and Forest (Annex 4 of validated PDD - VCS) includes strategies that let to get compensation for





communities for helping to stop deforestation with the protection of primary forest, management of secondary forest implementation of alternatives land uses and productive projects.





From this plan are derived the Development Objective (conservation and restoration of forest habitats and their eco-systemic services as a factor for the sustainability of the territory, local communities, climate and biodiversity), the Specific Objective (participative process to achieve the establishment of an integrated management system of forests and lands of the RIU-SM), Products (see Matrix of Logic Structure – MLS in validated PDD- VCS), and the Project Activities, whose execution is consistent with most SDGs, because they seek to develop benefits that address the goals, as described in the following Table 25.

Table 25. Benefits in relation to SDGs achieved by implementation of REDD+ Project RIU-SM

Sustainable Development Goals	Benefits in relation to SDGs achieved by implementation of REDD+ Project RIU-SM
 <p>1 NO POVERTY</p>	<p>Reduce the state of poverty and abandonment that afflict the indigenous communities of the RIU-SM by providing resources that improve their life quality and ensure adequate food and implementation results of Project Activities, as the A1.3 about the strengthening indigenous governance, A2.1 about food sustainability, A2.2 about educational programs, A2.3 about develop of projects in productive chains to improve the economic situation of the communities, and with actions denominated “ACATISEMA Reserves - AR”, through which benefits are provided in health care, supply of treated water, housing improvement, attention to special population (such as children, the elderly and the disabled), and attention to calamities.</p>
 <p>2 ZERO HUNGER</p>	<p>Guarantee food guarantee by implementing actions within the framework of some Project Activities, such as A2.1 about the implementation of Family Agri-food Production Units System - FAPUS, through which actions are carried out to promote the cultivation of traditional food products, and A2.3 about develop of productive projects that provide food for self-consumption and for their trade and obtaining economic resources, with which they can obtain the nourishment that they cannot produce, and thus be able to improve the diet in quality and quantity.</p>
 <p>3 GOOD HEALTH AND WELL-BEING</p>	<p>Contribute to the improvement of health care through the implementation of actions called "ACATISEMA Reserves", in particular AR-1 "health care program", which is seeking to provide elements in this regard, such as construction of health posts, provision of medical and protection / prevention elements, health days and the establishment of the Health Provider Institution (IPS for its acronym in Spanish) called "<i>Matavén Salud</i>". In addition, there are the AR-4 “provision of treated water” to prevent diseases, the AR-6 "attention to calamities" to give support in the event of unforeseen problems that affect health, and Activity A2.2 "educational programs" with which professionals are being trained in health issues, who are committed to working for the improvement of conditions in this regard in the RIU-SM. Also, with the protection of natural and environmental resources, health conditions are improved and socio-ecosystem services such as those provided by air and water provide human well-being</p>

<p>4 QUALITY EDUCATION</p> 	<p>Development of the educational programs (Activity A2.2), through which indigenous guards, captains, leaders, and members of the communities are trained to manage natural resources, through training and socialization workshops. Also, support is being given to higher education students, who will be the future professionals of RIU-SM for the subsequent administration of the territory and its resources. The educational facilities inside the Indigenous Reservation are also improved, with the construction of classrooms and feeding troughs, and school kits are provided for children in basic education.</p>
<p>5 GENDER EQUALITY</p> 	<p>The REDD+ Project RIU-SM provides spaces and facilities for women to participate more in training and socialization workshops, to they have a greater presence in the indigenous guard -A1.1, participate and benefit from the services provided by the information, communication and transportation systems – A1.2, and can be part of directive entities to participate in the Council of Cabildos, so that they are elected as Captains of communities and become part of the administrative body of ACATISEMA - A1.3. It also supports women to carry out their traditional tasks, such as support in food production - A2.1 (with tools that help process them: cassava graters, kitchen utensils, tools), education - A2.2 (where several young women are studying professional, technological and technical careers), initiatives of productive projects - A2.3 (where they participate and, even, where women are in charge: agroforestry, handicrafts, production of surpluses for commercialization, tourism, sewing, cooperative).</p> <p>Additionally, they participate and receive benefits from the implementation of the actions that are part of the ACATISEMA Reserves: health care, supply of treated water, housing improvement, attention to special population, and attention to calamities.</p> <p>Consistent with this SDG, the community group "Women" has been identified as a community group.</p> <p>In this way, the provisions of the Strategic Alliance Agreement between ACATISEMA and MEDIAMOS (Annex 2.1.11 of validated PDD – VCS), Clause 5 - ethnic and environmental safeguards, numeral "5. <i>Gender Equity: it is necessary that each and every one of the activities and steps to develop this AGREEMENT be based on gender equity, that is, in the possibility of apply measures not necessarily equal, but conducive to equality in terms of rights, benefits, obligations and opportunities between men and women</i>" is complied.</p>
<p>6 CLEAN WATER AND SANITATION</p> 	<p>ACATISEMA Reserve AR-2 about a program to supply of treated water to indigenous communities with greater difficulties to have water suitable for consumption is being implemented within the framework of the REDD+ Project RIU-SM, with the installation of deep well with photovoltaic pumping equipment and drinking water treatment plant and agreement with the French embassy in Colombia to provide manual water filtering devices.</p> <p>Regarding the use of toilets, few communities already make use of these elements, as it is not a traditional custom. However, it is gradually promoted that the construction and use of latrines would improve their sanitary practices.</p>

<p>7 AFFORDABLE AND CLEAN ENERGY</p> 	<p>The Project aims to implement sustainable and alternative systems for obtaining clean energy in the Indigenous Reservation. The installation of equipment such as solar stoves and solar panels is being analyzed and studied.</p> <p>In some communities, photovoltaic systems have been installed to supply energy, and the plants for pumping water from deep wells are powered by solar panels.</p>
<p>8 DECENT WORK AND ECONOMIC GROWTH</p> 	<p>Some activities of the Project seek to provide occupation to the inhabitants of the RIU-SM in tasks that improve, potentiate and increase their habitual and ancestral practices, such as the surveillance and control of the territory - A1.1 made by indigenous guards; communication, transportation and related infrastructure - A1.2 provided by some indigenous people to benefit their own communities; support to leaders of the Indigenous Reservation for the strengthening of governance - A1.3 (Community Captains, members of the Council of Cabildos, members of the Coordinating Committee of ACATISEMA) and jobs for administrative personnel in the different Project headquarters; cultivation of food for self-consumption and food guarantee - A2.1; training and higher education - A2.2 for leaders and future professionals of the RIU-SM; productive projects - A2.3 in charge of families to increase other food products and their economic capacities with the sale of surplus, including management in an Indigenous Cooperative, with which it seeks to establish a "circulating economy" within the RIU-SM.</p> <p>In addition, occupation has also been provided to indigenous people in the provision of elements to implement the ACATISEMA Reserves (for the construction of health posts, for indigenous microscopists, for the construction of deep wells, for the improvement of houses, etc.).</p>
<p>9 INDUSTRY, INNOVATION AND INFRASTRUCTURE</p> 	<p>In the framework of the REDD+ Project RIU-SM, the implementation of projects in production chains is being promoted, so that appropriate facilities for each need are being built to increase the sustainable capacity to develop them, for example, agroforestry cultivation of cocoa - plantain - corn. – <i>abarco</i>.</p> <p>Other infrastructure built is related to some needs of the communities, such as checkpoints for the indigenous guard; the provision of boats, engines and navigation equipment and construction of bridges on community roads; construction of educational infrastructure and care for the child population; construction of health posts, deep wells for the supply of treated water and headquarters for the ACATISEMA offices in <i>Cumaribo</i> and <i>Inírida</i>.</p>
<p>10 REDUCED INEQUALITIES</p> 	<p>The REDD+ Project RIU-SM aims to include all the inhabitants of the Indigenous Reservation in an equitable way and that the benefits reach them in the same way. It is clear that the presence of individuals from the 6 ethnic groups is not the same (depending on the number of people by Sectors, there are ethnic groups with more presence than others within the RIU-SM), however, as the indigenous leaders themselves have stated, each ethnic group is a majority in their respective Sectors (for example, the <i>Sikuani</i> ethnic group has preponderance in Zones 1 and 2 and in Sector 4 of Zone 3; the <i>Piaroa</i> ethnic group has a majority in Sectors 5 and 6 - Zone 3-; in Sector 7 -Zone 3- there are individuals from the <i>Piapoco</i>, <i>Curripaco</i>, <i>Piaroa</i>, <i>Puinave</i> and <i>Cubeo</i> ethnic groups; in Zone 4 there is a presence of the majority of ethnic groups -except <i>Piaroa</i>- and in Zone 5 there is a majority of the <i>Piapoco</i> ethnic group and some of the <i>Piaroa</i> ethnic group, according to data from</p>

	<p>the 2018 indigenous self-census). So, each ethnic group has the possibility to participate in the Sectors where they have a greater presence and, therefore, they have all the capacity to make their own decisions at the Sector level. Also, each Sector has its representative on the Board of Cabildos, which is the highest authority in the Indigenous Reservation.</p> <p>On the part of the general population, the REDD+ Project RIU-SM generally promotes an inclusive environment, where the role played by women, the elderly -saber-savvy-, youth, children and men in the social structure is valued and enhanced.</p>
<p>11 SUSTAINABLE CITIES AND COMMUNITIES</p> 	<p>Traditionally, the indigenous communities of the RIU-SM have been sustainable, although with unsatisfied basic needs. Now, with the REDD+ Project RIU-SM, the development of these population centers has been strengthened by promoting the production system in their crops, improving communication - transportation systems between them, strengthening the leadership of their representatives, providing options for education of its members, implementing economic alternatives that bring development to these populated centers, installing basic health services, treated water, housing improvement and attending to unforeseen needs of the inhabitants.</p>
<p>12 RESPONSIBLE CONSUMPTION AND PRODUCTION</p> 	<p>The Project promotes food production in a way for, above all, self-consumption, so as to guarantee food sustainability. Neither in the production nor consumption processes are pollutants generated for the environment, nor the use of large amounts of water (in fact there are no invasive irrigation systems since they are not large-scale crops) the use of pesticides or inclusion of foreign species, as well as the use of plastic-based wrapping or similar, or exclusive transportation to move products, which greatly reduces the carbon footprint in these processes.</p> <p>On the other hand, production projects are developed with the best technical guidance from expert entities that participate in all processes, in such a way that the best practices are applied in production, including sustainable and environmentally friendly systems.</p>
<p>13 CLIMATE ACTION</p> 	<p>It is clear that the final purpose of the REDD+ Project RIU-SM is to contribute to the mitigation of climate change by reducing GHG emissions (CO₂ in this case) by avoiding the deforestation of the forests of the Indigenous Reservation through the implementation of the Sustainable Management Plan for Land and Forest and the surveillance and control of the territory of the RIU-SM (see “Specific Objective” according to Matrix of Logic Structure – MLS in validated PDD – VCS).</p>
<p>14 LIFE BELOW WATER</p> 	<p>The protection of forests and associated natural resources, achieved by the implementation of the Project Activities, includes actions that contribute to the conservation of the water wealth of the RIU-SM, promoting better practices for the use of products extracted from rivers and pipes, without affecting the aquatic flora and fauna, but rather tending for their maintenance and improvement.</p>

 <p>15 LIFE ON LAND</p>	<p>The <i>Resguardo Indígena Unificado - Selva de Matavén</i> (RIU-SM) is an area described with a great richness of biodiversity, with varied species in flora and fauna, many of which are endemic (see Section "5 Biodiversity" and the High Conservation Values). In the execution of the REDD+ Project RIU-SM Activities, the benefits on these living elements are expected to be moderately positive to very positive, given the protection actions that benefit ecosystem services, water quality, biological corridors, climate regulation and, in general, actions for the conservation and recovery of natural resources that, of course, benefit the quality of life of the human population.</p>
 <p>16 PEACE, JUSTICE AND STRONG INSTITUTIONS</p>	<p>The REDD+ Project RIU-SM seeks to respect the indigenous autonomy, rights and culture of the peoples that inhabit the Indigenous Reservation, without negatively interfering with their uses and customs. The Project supports all the manifestations that, independently, the leaders of the RIU-SM decide to carry out, as well as the decisions they make within their internal control bodies, channeled through their Association. The Project aims for the development of indigenous communities in an equitable manner and does not seek to generate conflicts beyond those that arise in their own population dynamics, before which it respects and even promotes the application of its own regular channels and forms of justice so that, in a way autonomous, solve their problems. This favors the improvement of their organization and the strengthening of their ACATISEMA association, which translates into more and better indigenous governance.</p> <p>Regarding the armed conflict, it is clear that the national government has established strategies so that armed groups that affect the civilian population demobilize and that, through institutions such as the police, the army and the naval force, protection is provided for the population that inhabits the RIU-SM.</p>
 <p>17 PARTNERSHIPS FOR THE GOALS</p>	<p>Naturally, the REDD+ Project RIU-SM aims to achieve a common and global objective, such as the mitigation of climate change and the development of peoples that require financial resources to implement actions to improve the protection of natural and human resources, in particular, in the Indigenous reservation. This initiative is providing opportunities to be part of this increasingly interconnected world, with better means, technologies, knowledge and trade. Also, in this sense, agreements are being established with institutions to support the plans, programs and projects that are being promoted and implemented, such as the agroforestry Project. Many actions of the REDD+ Project RIU-SM aim to meet the sustainable development goals.</p>

Source: Based on: <https://www.undp.org/content/undp/en/home/sustainable-development-goals.html>

2.4.7 Project Benefit Crediting (G5.9)

The Project does not reduce GHG emissions from activities that are included in any other emissions trading program or any other mechanism that includes GHG allowance trading different to VCS Program, nor has sought generate or receive any form of environmental or social credit, nor has participated under other GHG Program, only seeks to be certificated, additionally, in CCB Program.

3 CLIMATE

3.1 Net Positive Climate Impacts

3.1.1 Net Impact (CL2.2, CL3.1, CL3.3)

Below are the results of the net positive climate impacts of the REDD+ Project RIU-SM in 2018 & 2019.

Table 26. Net GHG emissions under the baseline scenario (2018 & 2019)

t	Year	$\Delta C_{BSL,unplanned}$ (t CO ₂ -e)
6	2018	4,422,586
7	2019	6,500,811

Source: verified Monitoring Report – VCS 2018 & 2019, Table 35

Table 27. Net greenhouse gas emissions under the project scenario (PA) (ΔC_p) (2018 & 2019)

t	Year	ΔC_p (t CO ₂ -e)
6	2018	398,649
7	2019	331,573

Source: verified Monitoring Report – VCS 2018 & 2019, Tables 43 and 44

Table 28. Net CO₂ emissions due to unplanned deforestation displaced outside the Leakage Belt ($\Delta C_{LK-ASU,OLB}$) (2018 & 2019)

Years	C_{OLB}	$A_{LK-OLB,t}$	$\Delta C_{LK-ASU-OLB}$
2018	484.4	920.0	445,602.3
2019	484.4	1,301.6	630,440.7

Source: verified Monitoring Report – VCS 2018 & 2019, Table 48

Any non-CO₂ emission does not account for more than 20% of the total leakage emissions.

3.2 Offsite Climate Impacts (Leakage)

3.2.1 Leakage Mitigation (CL3.2)

To mitigate leakage from the beginning of the implementation of this initiative, the Project Activities have been applied, for the most part, in the area of the Leakage Belt, since the human populations of the RIU are located in this spatial boundary. The Activity A1.1 is implemented throughout the RIU-SM, promoting surveillance and control of the territory, including the Leakage Belt. Activities A1.2, A1.3, A2.1, A2.2 and A2.3 are implemented into indigenous communities and in areas close to them. See results of implementation of Project Activities in verified Monitoring Report – VCS 2018 & 2019, Section "3.1.1 Operation of the Project Activities during this Monitoring Period".

3.3 Climate Impact Monitoring

3.3.1 Climate Impact Monitoring Results (CL4.1)

The results of the climate impact monitoring are focused on two main components:

1. Monitoring of the Project Objectives, Products and Activities (according to Matrix of Logical Structure - PDD, page 45) that is carried out through the evaluation and compliance of the same components (see Section 3.1 of verified Monitoring Report – VCS 2018 & 2019).

This monitoring involves tracing actions for mitigation measures, monitoring actions and control of leakage factors and monitoring actions and control of Non-Permanence risk factors (Section 3.1.3 of verified Monitoring Report – VCS 2018 & 2019).

The development of this information is in verified Monitoring Report – VCS 2018 & 2019, Sections “3 IMPLEMENTATION STATUS” page 64 and “5 QUANTIFICATION OF GHG EMISSION REDUCTIONS AND REMOVALS” page 227.

2. Monitoring of the Data and Parameters described in Section 4.2.2 of verified Monitoring Report – VCS 2018 & 2019.

Data and Parameters Available at Validation

VM0007: METHODOLOGY FRAMEWORK (REDD-MF)

Data / Parameter	$\Delta C_{BSL,unplanned}$
Data unit	t CO ₂ e
Description	Net greenhouse gas emissions in the baseline from unplanned deforestation
Equations	3
Source of data	Module BL-UP
Value applied	Values applied: See Annex 9 of PDD-VCS – VM0007 Table 10. Net GHG emissions under the REDD baseline scenario up to year t*
Justification of choice of data or description of measurement methods and procedures applied	See module BL-UP
Purpose of Data	Calculation of baseline emissions
Comments	Without comment

VMD0001: Estimation of carbon stocks in the above- and below ground biomass in live tree and non-tree pools (CP-AB)

Data / Parameter	CF
Data unit	t C t d.m. ⁻¹
Description	Carbon fraction of dry matter
Equations	1, 3, 10, 11

Source of data	Values from the literature: <i>IPCC 2006, Volume 4 - AFOLU, Chapter 4 – Forest Land, Table 4.3 Carbon Fraction for aboveground forest biomass (p. 4.48)</i>
Value applied	0.47
Justification of choice of data or description of measurement methods and procedures applied	The default value is 0.47 tonne of C per tonne of biomass (dry weight). This default value is more realistic for herbaceous biomass (<i>IPCC 2006, Volume 4 - AFOLU, page 6.9</i>).
Purpose of Data	Transform biomass to carbon
Comments	Without comment

Data / Parameter	R
Data unit	t root d.m. t ⁻¹ shoot d.m.
Description	Root to shoot ratio appropriate to species or forest type / biome; note that as defined here, root to shoot ratio is applied as belowground biomass per unit area: aboveground biomass per unit area (not on a per stem basis)
Equations	5, Equation to calculate
Source of data	<ul style="list-style-type: none"> • Yepes A.P., Navarrete D.A., Duque A.J., Phillips J.F., Cabrera K.R., Álvarez, E., García, M.C., Ordoñez, M.F. 2011. <i>Protocolo para la estimación nacional y subnacional de biomasa - carbono en Colombia - IDEAM. Bogotá D.C., Colombia. 162 p. tabla 14, p. 86</i> • IPCC 2006, Chapter 4, page 4.49, Table 4.4 “Tropical moist deciduous forest / above-ground biomass >125 tons ha⁻¹”
Value applied	R = 0.24
Justification of choice of data or description of measurement methods and procedures applied	This is a recommended indirect method for estimating carbon in roots biomass, it is the result of review of more than 160 researches in native tropical, temperate and boreal forests (<i>Cairns et al, 1997</i>) in Yepes et al, 2011.
Purpose of Data	Estimating carbon in roots biomass according to aboveground biomass
Comments	Guidelines for Conservative Choice of Default Values: 2. Global value is selected from Table 4.4 of the AFOLU Guidelines (IPCC 2006), by choosing a climatic zone and forest type that most closely matches the project circumstances.

VMD0004: Estimation of stocks in the soil organic carbon pool (CP-S)

Data / Parameter	Dep_{sample}
Data unit	cm
Used in equations	1
Description	Depth in cm to which soil sample is collected
Source of data	Yepes, et al., 2011. <i>Protocolo para la estimación nacional y subnacional de biomasa - carbono en Colombia - IDEAM</i> , page 93.
Measurement procedures (if any)	Yepes, et al., 2011. <i>Protocolo para la estimación nacional y subnacional de biomasa - carbono en Colombia - IDEAM</i> , Section “1.1.1 Muestreo en campo”, page 92.
Any comment	Without comment

Data / Parameter	F_{LU}
Data unit	Dimensionless
Used in equations	3
Description	Land use factor before or after conversion
Source of data	Stock Change Factors are provided in Tables 5.5, 5.10, and 6.2 of the IPCC 2006 GL Volume 4
Measurement procedures (if any)	It was used according to source of data.
Any comment	Stock Change Factors as defined in IPCC 2006 GL are equal to the carbon stock in the altered condition as a proportion of the reference carbon stock. Stock Change Factors must be selected to reflect the circumstances most closely matching those of the project area and baseline scenario, especially regarding climate and post-conversion land-use, taking into account management practices and carbon inputs.

Data / Parameter	F_{MG}
Data unit	Dimensionless
Used in equations	3
Description	Management factor before or after conversion
Source of data	Stock Change Factors are provided in Tables 5.5, 5.10, and 6.2 of the IPCC 2006 GL Volume 4
Measurement procedures (if any)	It was used according to source of data.
Any comment	Stock Change Factors as defined in IPCC 2006 GL are equal to the carbon stock in the altered condition as a proportion of the reference carbon stock. Stock Change Factors must be selected to reflect the circumstances most closely matching those of the project area and baseline scenario, especially regarding climate and post-conversion land-use, taking into account management practices and carbon inputs.

Data / Parameter	F_I
Data unit	Dimensionless
Used in equations	3
Description	Input factor before or after conversion
Source of data	Stock Change Factors are provided in Tables 5.5, 5.10, and 6.2 of the IPCC 2006 GL Volume 4
Measurement procedures (if any)	It was used according to source of data.
Any comment	Stock Change Factors as defined in IPCC 2006 GL are equal to the carbon stock in the altered condition as a proportion of the reference carbon stock. Stock Change Factors must be selected to reflect the circumstances most closely matching those of the project area and baseline scenario, especially regarding climate and post-conversion land-use, taking into account management practices and carbon inputs.

VMD0007: Estimation of baseline carbon stock changes and greenhouse gas emissions from unplanned deforestation (BL-UP)

Data / Parameter	$A_{RRD, \text{unplanned}, hrp}$
Data unit	ha
Used in equations	3
Description	Total deforested area during the historical reference period (2001 a 2011) in the RRD
Module parameter originals in	Value taken from the satellite images
Any comments	The Landsat images have the adequate resolution and they are a free and available tool to all public.

Data / Parameter	$C_{AB_tree,i}$
Data unit	t CO ₂ -e ha ⁻¹
Used in equations	12, 13
Description	Carbon stock in aboveground biomass in trees in stratum i
Module parameter originals in	CP-AB
Any comments	Without comment

Data / Parameter	$C_{BB_tree,i}$
Data unit	t CO ₂ -e ha ⁻¹
Used in equations	12, 13
Description	Carbon stock in belowground biomass in trees in stratum i
Module parameter originals in	CP-AB
Any comments	Without comment

Data / Parameter	$C_{SOC,i}$
Data unit	t CO ₂ -e ha ⁻¹
Used in equations	12
Description	Carbon stock in soil organic carbon in the baseline in stratum i
Module parameter originals in	CP-S
Any comments	Without comment

Data / Parameter	$C_{SOC,PD-BSL,i}$
Data unit	t CO ₂ -e ha ⁻¹
Used in equations	13
Description	Mean post-deforestation stock in soil organic carbon in the post deforestation stratum i
Module parameter originals in	CP-S
Any comments	Without comment

VMD0010: Estimation of emissions from activity shifting for avoided unplanned deforestation (LK-ASU)

Data / Parameter	$\Delta C_{BSL,LK,unplanned}$
Data unit	t CO ₂ e
Description	Net CO ₂ emissions in the baseline from unplanned deforestation in the leakage belt
Equations	1, 6
Source of data	Module BL-UP
Value applied	Module BL-UP Annex 10 of PDD-VCS – VMD0007, Table 47
Justification of choice of data or description of measurement methods and procedures applied	See module BL-UP
Purpose of Data	Calculation of leakage emissions
Comments	Without Comment

Data / Parameter	C_{LB}
Data unit	t CO ₂ -e ha ⁻¹
Description	Area weighted average aboveground tree carbon stock for forests available for unplanned deforestation inside the Leakage Belt
Equations	4
Source of data	field calculated: file: "plot_study_fustales.xlsm", sheet "calculo Yst var Lk"
Value applied	443.8 t CO ₂ -e/ha
Justification of choice of data or description of measurement methods and procedures applied	Calculate from field measurements using Module CP-AB. As forests in the leakage belt are deforested, the area weighted average will be recalculated at each Monitoring Period.
Purpose of Data	Calculation of leakage emissions
Comments	Without Comment

Data / Parameter	C_{OLB}
Data unit	t CO ₂ -e ha ⁻¹
Description	Area-weighted average aboveground tree carbon stock for forests available for unplanned deforestation outside the Leakage Belt
Equations	4
Source of data	Literature: Average carbon dioxide –e- (tCO ₂ -e/ha) Philips J.F (2011) <i>IDEAM estimaciones de carbono en Colombia Tabla 3.1 C B-ht:132.1 tC/ha</i>
Value applied	484.37
Justification of choice of data or description of measurement methods and procedures applied	2. Use numbers derived from peer-reviewed literature that are nationally or at least regionally appropriate The available national forest area and <i>MANFOR</i> and <i>PROTFOR</i> will change over time. The area-weighted average will be recalculated at least every 5 years.
Purpose of Data	Calculation of leakage emissions

Comments	Without Comment
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Data / Parameter	$A_{BSL,PA-unplanned,t}$
Data unit	ha
Description	Projected area of unplanned baseline deforestation in the project area at time t
Equations	7
Source of data	Module BL-UP
Value applied	Calculated value. Annex 10 of PDD-VCS Module VMD0007, Table 25
Justification of choice of data or description of measurement methods and procedures applied	See Module BL-UP
Purpose of Data	Calculation of leakage emissions
Comments	Without Comment

VMD0015: Methods for monitoring of GHG emissions and removals (M-MON)

Data / Parameter	<i>Regional Forest / Non-forest Cover Benchmark Map</i>
Data unit	ha
Description	Map showing the stratification and location of forest and non-forest areas in the Reference Region RRD at the beginning of the accreditation (<i>Map of spatial limits RRD 2011 – REDD+ Project RIU-SM</i>)
Source of data	Landsat satellite images.
Justification of choice of data or description of measurement methods and procedures applied	Landsat images have adequate spatial resolution corresponding to 30 meters and an approximate scale of 1:70000, is a tool available to the public.
Any comments	Without Comment
Used in equations	3

Data / Parameter	<i>Project Forest Cover Benchmark Map</i>
Data unit	ha
Description	Map showing the stratification and location of forest areas in the Project area at the beginning of the accreditation (100% forested). (<i>Map of spatial limit PA 2011 – REDD+ project RIU-SM</i>)
Source of data	Landsat satellite images
Justification of choice of data or description of measurement methods and procedures applied	Landsat images have adequate spatial resolution corresponding to 30 meters and an approximate scale of 1:70000, is a tool available to the public.
Any comments	Without Comment
Used in equations	3, 8

Data / Parameter	<i>Leakage Belt Forest Cover Benchmark Map</i>
Data unit	ha

Description	Map that shows the stratification and location of forest in the Leakage belt at the beginning of the accreditation (100% forested). (<i>Map of spatial limit CF 2011 – REDD+ project RIU-SM</i>)
Source of data	Landsat satellite images.
Justification of choice of data or description of measurement methods and procedures applied	Landsat images have adequate spatial resolution corresponding to 30 meters and an approximate scale of 1:70000, is a tool available to the public.
Any comments	Without Comment
Used in equations	3

Data / Parameter	A_i
Data unit	ha
Description	Total area of each stratum i . (<i>Table spatial boundaries, similarity VMD0016.xlsx</i>)
Source of data	Landsat satellite images.
Justification of choice of data or description of measurement methods and procedures applied	Every time prior to baseline renewal (at a minimum every ten years)
Any comments	Ex-ante because it is assumed that strata area will remain constant.
Used in equations	19

Data / Parameter	$\dot{A}_{RRD, unplanned, hrp}$
Data unit	ha
Description	Total deforested area during the term of reference (until 2011) in the RRD. (<i>deforestation for HRP -2001 to 2011- in RRD</i>)
Source of data	Value taken from the Landsat satellite images, used by the Deforestation Model
Justification of choice of data or description of measurement methods and procedures applied	Landsat images have adequate spatial resolution corresponding to 30 meters and an approximate scale of 1:70000, is a tool available to the public.
Any comments	Monitored for purpose of baseline revisions.
Used in equations	This parameter is not associated with any VCS equation; see Annex 10 of PDD – VCS Module VMD0007 Section 2.1.3

Data / Parameter	CF
Data unit	t C t d.m. ⁻¹
Description	Carbon fraction of dry matter
Source of data	Values from the literature: <i>IPCC 2006, Volume 4 - AFOLU, Chapter 4 – Forest Land, Table 4.3 Carbon Fraction for aboveground forest biomass (p. 4.48)</i>
Value applied	0.47

Justification of choice of data or description of measurement methods and procedures applied	The default value is 0.47 tonne of C per tonne of biomass (dry weight). This default value is more realistic for herbaceous biomass (<i>IPCC 2006, Volume 4 - AFOLU, page 6.9</i>).
Purpose of Data	Transform biomass to carbon
Comments	Without comment
Equations	19

Data / Parameter	$f_j(X,Y)$
Data unit	t.d.m. tree ⁻¹
Description	Allometric equation for species j linking measured tree variable(s) to aboveground biomass of living trees, expressed as t.d.m. tree ⁻¹
Source of data	<i>Protocolo para la estimación nacional y subnacional de biomasa - carbono en Colombia - IDEAM</i> (Yepes, et al., 2011), Equation 12.
Justification of choice of data or description of measurement methods and procedures applied	Equation with sufficient validation, $R^2 = 0.932$, with national coverage data for the type of tropical rainforest.
Any Comments	<p>It will be valued by the method "Limited Measurements".</p> <p>Are selected trees at least 30 species of flora composition in the Project Area, with a minimum of 20 cm in diameter and a maximum diameter that represents the greatest present or potentially present trees in the future in the Project Area in the Leakage belt.</p> <ul style="list-style-type: none"> • Measure DBH, and height to a 10 cm diameter top or to the first branch. • Calculate stem volume from measurements and multiplying by species-specific density to gain biomass of bole. • Apply a biomass expansion factor to estimate total aboveground biomass from stem biomass. For broadleaf tropical trees this factor shall be: <ul style="list-style-type: none"> – 1.38 for trees 20-40 cm – 1.33 for trees 40-80 cm – 1.25 for trees ≥ 80 cm • Plot all the estimated biomass of all the measured trees along with the curve of biomass against diameter as predicted by the allometric equation. If the estimated biomass of the measured trees is distributed both above and below the curve (as predicted by the allometric equation) the equation may be used. The equation may also be used if the measured individuals have a biomass consistently higher than predicted by the equation. If plotting the biomass of the measured trees indicates a systematic bias to overestimation of biomass (>75% of the trees above the predicted curve) then destructive sampling must be undertaken, or another equation selected.
Used in equations	This parameter is associated with equation 35, but that equation does not apply.

Data / Parameter	<i>Change in the land use</i>
Data unit	%

Description	Percentages of the project area that will change the land use after deforestation.
Source of data	Landsat satellite images.
Justification of choice of data or description of measurement methods and procedures applied	To calculate the rate of deforestation
Comments	Without Comment
Used in equations	This does not apply

VMD0016: Module: Methods for stratification of the project area (X-STR)

Data / Parameter	$A_{BSL,i}$ or A_i
Data unit	ha
Description	Area of baseline stratum i
Equations	1, 6, 8, 12 or 7
Source of data	Own assessment
Value applied	Annex 15 and Annex 10 of PDD-VCS, Table 2
Justification of choice of data or description of measurement methods and procedures applied	GIS coverages, ground survey data and/or remote imagery (satellite photographs) as outlined in Chapter 5.
Purpose of Data	Calculation of baseline emissions
Comments	Without Comment

VMD0017: Estimation of uncertainty for REDD+ project activities (X-UNC)

Data / Parameter	$A_{BSL,RRD,unplanned,t}$
Data unit	ha
Description	Projected area of unplanned baseline deforestation in the RRD in year t
Equations	1
Source of data	Module BL-UP
Value applied	13,857 ha/year
Justification of choice of data or description of measurement methods and procedures applied procedures (if any)	See module BL-UP
Purpose of Data	Calculation of uncertainty
Comments	Without Comment

Data / Parameter	$E_{REDD_BSL\ SS,i, pool\#}$
Data unit	t CO ₂ e
Description	Carbon stock or GHG sources (eg, trees, dead wood, soil organic carbon, emission from fertilizer addition, emission from biomass burning etc.) in the REDD baseline case

Equations	4
Source of data	The terms denoting significant carbon stocks, GHG sources or leakage emissions from baseline modules (<i>BL-DFW</i> , <i>BL-PL</i> , <i>BLUP</i>) used to calculate net emission reductions.
Value applied	Annex 10 of PDD – VCS Module VMD0007, part 4 step 4.2.1
Justification of choice of data or description of measurement methods and procedures applied procedures (if any)	See relevant modules
Purpose of Data	Calculation of uncertainty
Comments	Baseline stocks and sources are estimated <i>ex ante</i> for each baseline period

Data / Parameter	$U_{REDD_BSL,SS,i,pool\#}$
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 REDD baseline case (1, 2, <i>n</i> represent different carbon pools and/or GHG sources)
Equations	4
Source of data	Calculations arising from field measurement data
Value applied	Annex 16 of PDD-VCS Module VMD0017 Table 7
Justification of choice of data or description of measurement methods and procedures applied procedures (if any)	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 <i>t</i> value for the 95% confidence level For emission sources conservative parameters should be used sufficient to allow the uncertainty to be set as zero.
Purpose of Data	Calculation of uncertainty
Comments	Baseline stocks and sources are estimated <i>ex-ante</i> for each baseline period

Data / Parameter	$E_{REDD,WPS,SS,i, Pool\#}$
Data unit	t CO ₂ e
Description	Carbon stock or GHG sources (eg, trees, soil organic carbon) in the project case
Equations	10
Source of data	The terms denoting significant carbon stocks, GHG sources or leakage emissions used in calculating net emission reductions, are from the following relevant modules: CP-AB, CP-S, BL-UP, LK-ASU.
Value applied	See Annex 13 of PDD – VCS Module VMD0001 Carbon Stock in each stratum; file “VMD0017.xlsx” sheet “RIU-SM soils”
Justification of choice of data or description of measurement methods and procedures applied procedures (if any)	See relevant modules
Purpose of Data	Calculation of uncertainty

Comments	The <i>ex-ante</i> estimation was derived directly from the estimations originating in the relevant modules: CP-AB, CP-S.
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Data / Parameter	$U_{REDD, WPS, SS, i, pool\#}$
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 project case (1, 2, <i>n</i> represent different carbon pools and/or GHG sources)
Equations	10
Source of data	Calculations arising from field measurement data
Value applied	File "VMD0017.xlsx" sheet "RIU-SM soils"
Justification of choice of data or description of measurement methods and procedures applied procedures (if any)	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. For emission sources conservative parameters should be used sufficient to allow the uncertainty to be set as zero.
Purpose of Data	Calculation of uncertainty
Comments	<i>Ex-ante</i> the uncertainty in the project carbon stocks and sources shall be equal to the calculated baseline uncertainty

Data and Parameters Monitored

Data and Parameters Monitored every ten years for baseline renewal

VMD0001: Estimation of carbon stocks in the above- and below ground biomass in live tree and non-tree pools (CP-AB)

Data / Parameter	A_{sp}
Data unit	Ha
Used in equations	2, 6, 14
Description	Area of sample plots in ha
Source of data	(Yepes, et al., 2011)
Measurement procedures (if any)	50 x 50 meters (0.25 ha) (Yepes et al. IDEAM, 2011. <i>Protocolo para la estimación nacional y subnacional de biomasa - carbono en Colombia - IDEAM</i> , Table 9 page 52)
Monitoring frequency	Monitoring must occur at least every ten years for baseline renewal
QA/QC procedures	Permanent consultation and supervision
Purpose of data	Determination of size of plots to realize field work and then calculate aboveground and below biomass
Calculation method	Literature (Yepes et al. IDEAM, 2011)
Any comment	This parameter was known <i>ex-ante</i> .

Data / Parameter	<i>N</i>
Data unit	Dimensionless
Used in equations	4, 8
Description	Number of sample points
Source of data	(Yepes, et al., 2011)
Measurement procedures (if any)	According to Yepes, 2011. (<i>Protocolo para la estimación nacional y subnacional de biomasa - carbono en Colombia - IDEAM</i> , page 24)
Monitoring frequency	Monitoring must occur at least every ten years for baseline renewal.
QA/QC procedures	Permanent consultation and supervision
Purpose of data	Determination of number of plots to realize field work and then calculate aboveground and below biomass
Any comment	This parameter was known ex-ante

Data / Parameter	<i>DBH</i>
Data unit	cm
Used in equations	1, 3
Description	Diameter at breast height of a tree in cm
Source of data	Field measurements in sample plots
Measurement procedures (if any)	Typically measured 1.3 m aboveground. Measure all trees above some minimum DBH in the sample plots. The minimum DBH is 10 cm (for humid tropical forests 10 cm is commonly used). Minimum DBH employed in inventories is held constant for the duration of the project
Monitoring frequency	Monitoring will occur every ten years for baseline renewal
QA/QC procedures	Standard quality control / quality assurance (QA/QC) procedures for forest inventory including field data collection and data management will be applied. Use or adaptation of QA/QCs already applied in national forest monitoring, or available from published handbooks, or from the IPCC GPG LULUCF 2003
Purpose of data	To calculate the biomass of the tree
Calculation method	The circumference of the tree at the height of 1.30 cm is measured and then becomes the DBH. Minimum circumference is approx. 31 cm
Any comment	This parameter was known ex-ante.

Data / Parameter	<i>H</i>
Data unit	m
Used in equations	1, 3
Description	Total height of tree
Source of data	Field measurements in sample plots
Measurement procedures (if any)	The heights of the trees were taken, but this variable was not taken into account in the allometric equation
Monitoring frequency	Monitoring may occur at least every ten years for baseline renewal
QA/QC procedures	This does not apply
Purpose of data	This does not apply
Calculation method	This does not apply
Any comment	This parameter was known ex-ante.

VMD0004: Estimation of stocks in the soil organic carbon pool (CP-S)

Data / Parameter	$C_{SOC_{sample}}$
Data unit	g C/100 g soil (fine fraction <2 mm)
Used in equations	1
Description	Soil organic carbon of the sample in g C/100 g soil
Source of data	Field sampling and laboratory determination
Measurement procedures (if any)	For soil carbon determination, an aggregate sample is collected from within a sample plot in the field, thoroughly mixed and sieved through a 2 mm sieve. The prepared sample is analyzed for percent organic carbon using Walkley-Black method. (Annex 14-2 of PDD)
Monitoring frequency	Soil organic carbon is an included pool, monitoring will occur every ten years for baseline renewal
QA/QC procedures	Standard quality control / quality assurance (QA/QC) is determined by following procedures: field data collection is realized according Protocol of IDEAM (Yepes, et al., 2011) and the analysis is made according Walkley-Black method
Any comments	This parameter was known ex-ante.

Data / Parameter	BD_{sample}
Data unit	$g\ cm^{-3}$
Used in equations	1
Description	Bulk density of fine (< 2 mm) fraction of mineral soil per unit volume of sample in $g\ cm^{-3}$; bulk density equals the oven dry weight of the fine fraction (< 2 mm) of the soil core divided by the core volume
Source of data	Field sampling and laboratory determination
Measurement procedures (if any)	Procedure applied VMD0004
Monitoring frequency	Soil organic carbon is an included pool, monitoring will occur every ten years for baseline renewal
QA/QC procedures:	Standard quality control / quality assurance (QA/QC) procedures for forest inventory including field data collection and data management will be applied. Use or adaptation of QA/QCs already applied in national forest monitoring, or available from published handbooks, or from the IPCC GPG LULUCF 2003
Any comments	This parameter was known ex-ante.

VMD0007: Estimation of baseline carbon stock changes and greenhouse gas emissions from unplanned deforestation (BL-UP)

Data / Parameter	<i>Any spatial feature included in the spatial model that is subject to changes over time (Factor Maps)</i>
Data unit	Depending on the spatial features selected
Used in equations	This does not apply
Description	Factor Maps
Source of data	According to field verification and geographic information systems (SIG)

Measurement procedures (if any)	Update of digital maps
Monitoring frequency	It will be updated each time the baseline renewal (every 10 years)
QA/QC procedures	If secondary information, revision of reliable sources will be made; if primary information will be obtained according to IDEAM protocols.
Any comment	Without comment

Data / Parameter	<i>Risk Maps</i>
Data unit	ha
Used in equations	This does not apply
Description	This map shows, for each pixel, the risk for deforestation as a numerical scale (eg: 0 = 1 = minimal risk and the maximum risk)
Source of data	Maps derived factors.
Measurement procedures (if any)	By FOM confirmation process, testing various options (as specified in Section 3.2 of Annex 10 of PDD VCS-Module BL-UP VMD0007) to reach the best FOM.
Monitoring frequency	It will be adjusted every 10 years at baseline renewal
QA/QC procedures:	By FOM model validation.
Any Comments	Without comment

Data / Parameter	<i>Baseline Deforestation Maps</i>
Data unit	Depending on the spatial features selected
Used in equations	This does not apply
Description	Maps showing the location of deforested hectares in each year of the baseline period
Source of data	Landsat satellite image.
Measurement procedures (if any)	Update of digital maps
Monitoring frequency	It will be updated each time the baseline renewal (at least every 10 years)
QA/QC procedures	Quality assessment using field GPS points taken in and confronted by the confusion matrix described in the PDD.
Any comment	Without comment

Data / Parameter	<i>AA_U</i>
Data unit	%
Used in equations	Part 2, Section 2.1.4 of Annex 10 of PDD
Description	Evaluation of the accuracy of unplanned deforestation rate (greater than or equal to 90%)
Source of data	<i>Protocolo de Procesamiento Digital de Imágenes para la Cuantificación de la Deforestación en Colombia, Nivel Nacional Escala Gruesa y Fina - IDEAM</i> (Cabrera, Galindo, & Vargas, 2011), chapter "Quality assessment Theme, p. 29".
Measurement procedures (if any)	Meidinger model (2003) for the sampling design and model Bernal (2004) for assigning weights per stratum is used.
Monitoring frequency	It will be adjusted every 10 years at baseline renewal

QA/QC procedures	The deforestation rate is calculated by the geographic information system therefore quality control is defined by the image processing control, following the rules of Protocol of IDEAM (Cabrera et al. 2011) and field verification.
Any Comment	Without comment

Data / Parameter	<i>Correct</i>
Data unit	ha
Used in equations	15
Description	Area correct due to observed change predicted as change
Source of data	Spatial model of deforestation location
Measurement procedures (if any)	Area estimation through spatial intersection of the observed area and projected to start HRP area.
Monitoring frequency	It will be adjusted every 10 years at baseline renewal
QA/QC procedures	By FOM model validation.
Any Comments	This is generated from the intersection of two facts: The first is the deforestation observed through the satellite in the 2005-2011 period. The second is the projected deforestation (modeled) from 2005 to 2011 in the IDRISI software.

Data / Parameter	<i>ErrA</i>
Data unit	ha
Used in equations	15
Description	Area of error due to observed change predicted as persistence.
Source of data	Spatial model of deforestation location
Measurement procedures (If any)	Estimating spatial intersection area by area as observed with the predicted change as persistent area.
Monitoring frequency	It will be adjusted every 10 years at baseline renewal
QA/QC procedures	By FOM model validation.
Any comment	Without comment

Data / Parameter	<i>ErrB</i>
Data unit	ha
Used in equations	15
Description	Area of error due to observed persistence predicted as change.
Source of data	Spatial model of deforestation location
Measurement procedures (If any)	Area estimation through spatial intersection observed as persistent as the predicted change area.
Monitoring frequency	It will be adjusted every 10 years at baseline renewal
QA/QC procedures	By FOM model validation.
Any comment	Without comment

Data / Parameter	<i>FOM</i>
Data unit	Ha
Used in equations	10

Description	Figure of Merit
Source of data	Remote sensing
Measurement procedures (If any)	Testing various options (as specified in Section 3.2 of Annex 10 of PDD VCS-Module BL-UP VMD0007) to reach the best FOM.
Monitoring frequency	It will be adjusted every 10 years at baseline renewal
QA/QC procedures	By FOM model validation.
Any comment	Without comment

Data / Parameter	LB
Data unit	ha
Used in equations	6, to calculate P_{LK}
Description	Leakage Belt area. Map showing the location and stratification of forests within the leakage belt. (100% forest at the beginning of the project).
Source of data	Landsat satellite images.
Measurement procedures (If any)	Methodology described in the PD. Following the instructions in the <i>Protocolo de Procesamiento Digital de Imágenes para la Cuantificación de la Deforestación en Colombia, Nivel Nacional Escala Gruesa y Fina - IDEAM</i> (Cabrera, Galindo, & Vargas, 2011) and supported by (GOFC-GOLD, 2016).
Quality Assurance / Quality Control	Where leakage belt boundaries have not been derived using GPS on-the-ground measurements quality control shall be carried out. A minimum of 30 locations on the leakage belt boundary, each separated by at least 1 km, shall be visited. If a systematic bias is detected in the original boundaries and/or if >10% of locations differ by >50 m then the entire boundary shall be re-surveyed. According to quality control employed by the <i>Protocolo de Procesamiento Digital de Imágenes para la Cuantificación de la Deforestación en Colombia, Nivel Nacional Escala Gruesa y Fina - IDEAM</i> (Cabrera, Galindo, & Vargas, 2011).
Monitoring frequency	It will be updated each time the baseline renewal (at least every 10 years).
QA/QC procedures	Quality assessment using field points GPS taken in and confronted by the confusion matrix described in the PDD.
Any comment	The stratification is based on the official map of Biomes IGAC (2008), available at the national SIGOT.

Data / Parameter	PA
Data unit	Ha
Used in equations	1, 2
Description	Unplanned deforestation project area. Map showing the location and stratification of forests within the project area (100% forest at the beginning of the project).
Source of data	Landsat satellite images
Measurement procedures (If any)	Methodology described in the PD. Follow the guidelines of the " <i>Protocolo de Procesamiento Digital de Imágenes para la Cuantificación de la Deforestación en Colombia, Nivel Nacional Escala Gruesa y Fina - IDEAM</i> (Cabrera, Galindo, & Vargas, 2011) and supported by (GOFC-GOLD, 2016).
Monitoring frequency	It will be updated each time the baseline renewal (at least every 10 years)

Quality Assurance / Quality Control	Quality assessment using GPS field points taken in and confronted by the confusion matrix described in the PDD.
Any comment	The stratification is based on the official map of Biomes IGAC (2008), available at the national SDI SIG-OT.

Data / Parameter	P_{LK}
Data unit	Dimensionless
Used in equations	6
Description	Ratio of the area of the leakage belt to the total area of RRD
Source of data	Landsat Satellite images.
Measurement procedures (if any)	Calculated from the result of remotely sensed data analysis
Monitoring frequency	It will be updated each time the baseline renewal (at least every 10 years)
Quality Assurance / Quality Control	Through the accuracy assessment.
Any Comments	Monitored at least once every 10 years (when the baseline renewal). It was estimated at time zero, this estimate was used for ex-ante purposes.

Data / Parameter	P_{PA}
Data unit	Dimensionless
Used in equations	5
Description	Ratio of the Project Area to the total area of RRD
Source of data	Landsat Satellite images.
Measurement procedures (if any)	Calculated from the result of remotely sensed data analysis
Monitoring frequency	It will be updated each time the baseline renewal (at least every 10 years)
Quality Assurance / Quality Control	Through the accuracy assessment.
Any Comments	Monitored at least once every 10 years (when the baseline renewal). It was estimated at time zero, this estimate was used for ex-ante purposes

Data / Parameter	RRD
Data unit	ha
Used in equations	4 (to calculate P_{RRL}), 5 (to calculate P_{PA}), 6 (to calculate P_{LK})
Description	Geographical limit of the reference region to project the rate of deforestation.
Source of data	Landsat satellite images.
Measurement procedures (if any)	Methodology described in the PC. Follow the guidelines of the <i>Protocolo de Procesamiento Digital de Imágenes para la Cuantificación de la Deforestación en Colombia, Nivel Nacional Escala Gruesa y Fina</i> - IDEAM (Cabrera, Galindo, & Vargas, 2011) and supported by (GOFC-GOLD, 2016).
Monitoring frequency	It will be adjusted every 10 years at baseline renewal
Quality Assurance / Quality Control	Quality assessment using field GPS points taken in and confronted by the confusion matrix described in the PDD.
Any Comments	100% forest at the beginning of the historical reference period.

Data / Parameter	<i>RRL</i>
Data unit	ha
Used in equations	This does not apply
Description	Geographical boundaries of the reference region to locate deforestation.
Source of data	Landsat satellite Images and existing digital maps
Measurement procedures (if any)	Limits generated from geoprocessing methods.
Monitoring frequency	It will be updated each time the baseline renewal (at least every 10 years)
Quality Assurance / Quality Control	Quality assessment using field GPS points taken in and confronted by the confusion matrix described in the PDD.
Any Comments	Without comment

Data / Parameter	<i>Factor Maps</i>
Data unit	ha
Used in equations	This does not apply
Description	13 maps used to calibrate the risk model
Source of data	Landsat satellite images, SIGOT and mapping updates during the project
Measurement procedures (if any)	Limits generated from geoprocessing methods
Monitoring frequency	It will be adjusted every 10 years at baseline renewal
QA/QC procedures	IDEAM standards are used for primary information and data from reliable sources such as government and research institutes are used for secondary information
Any comment	Procedure described in Section 3 of Annex 10 of PDD

VMD0015: Methods for monitoring of GHG emissions and removals (M-MON)

Data / Parameter	<i>FLU</i>
Data unit	Dimensionless
Description	Land use factor before or after conversion
Source of data	Stock Change Factors are provided in Tables 5.5, 5.10, and 6.2 of the IPCC 2006 GL Volume 4
Justification of choice of data or description of measurement methods and procedures applied	<p><i>FLU</i> values for Tropical temperature and Moist/wet regime:</p> <p>A. For different activities to cropland</p> <ul style="list-style-type: none"> Long term cultivated - 0.48 Paddy rice - 1.10 Perennial/ Tree crop - 1.00 Set aside (<20 yrs.) - 0.82 <p>B. For Land-use conversions to cropland Native forest (non-degraded) - 1</p> <ul style="list-style-type: none"> Shifting cultivation (Shortened fallow) - 0.64 Shifting cultivation (Mature fallow) - 0.8 <p>C. For grassland management Default value - 1</p>
Monitoring frequency	It will be adjusted every 10 years at baseline renewal
Any comments	Without comment
Used in equations	16

Data / Parameter	F_{MG}
Data unit	Dimensionless
Description	Management factor before or after conversion.
Source of data	Stock Change Factors are provided in Table 5.5, 5.10, and 6.2 of the IPCC 2006 GL Volume 4.
Justification of choice of data or description of measurement methods and procedures applied	<p>F_{MG} values for Tropical temperature and Moist/wet regime:</p> <p>A. For different activities to cropland</p> <ul style="list-style-type: none"> Full tillage - 1.00 Reduced - 1.15 No-till - 1.22 <p>B. For Land-use conversions to cropland Managed forest - 1.00</p> <p>C. For grassland management</p> <ul style="list-style-type: none"> Nominally manage (non-degraded) - 1 Moderately degraded grassland - 0.97 Severely degraded - 0.7 Improved grassland - 1.17
Monitoring frequency	It will be adjusted every 10 years at baseline renewal
Any comments	Without comment
Used in equations	16

Data / Parameter	F_i
Data unit	Dimensionless
Description	Input factor before or after conversion
Source of data	Stock Change Factors are provided in Table 5.5, 5.10, and 6.2 of the IPCC 2006 GL Volume 4
Justification of choice of data or description of measurement methods and procedures applied	<p>F_i values for Tropical temperature and Moist/wet regime:</p> <p>A. For different activities to cropland</p> <ul style="list-style-type: none"> Low - 0.92 Medium - 1.00 High without manure - 1.11 High with manure - 1.44 <p>B. For Land-use conversions to cropland Managed forest - 1.00</p> <p>C. For grassland management</p> <ul style="list-style-type: none"> Medium (only to improved grassland) - 1 High (only to improved grassland) - 1.11
Monitoring frequency	It will be adjusted every 10 years at baseline renewal
Any comments	Without comment
Used in equations	16

Data and Parameters Monitored annual or biennial, when verification occurs

VM0007: METHODOLOGY FRAMEWORK (REDD-MF)

Data / Parameter	$\Delta C_{WPS-REDD}$
Data unit	t CO ₂ e
Description	Net GHG emissions in the REDD project scenario up to year t*

Equations	2
Source of data	See Module M-REDD
Description of measurement methods and procedures to be applied	See Module M-REDD
Frequency of monitoring/recording	See Module M-REDD / It will be monitored when verification occurs (annual or biennial)
QA/QC procedures to be applied	See Module M-REDD
Purpose of data	Calculation of project emissions
Calculation method	See Module M-REDD
Comments	Without comment

Data / Parameter	ΔC_{LK-AS} , <i>unplanned</i>
Data unit	t CO _{2e}
Description	Net greenhouse gas emissions due to activity shifting for projects preventing unplanned deforestation
Equations	4
Source of data	See Module LK-ASU
Frequency of monitoring	It will be monitored when verification occurs (annual or biennial)
Value applied	Folder " <i>calculation_tables</i> ", file " <i>VMD0010.xlsx</i> ", Sheet " <i>S7 Eq16 CLK-AS,unp Exante</i> "
Justification of choice of data or description of measurement methods and procedures applied	See Module LK-ASU
Purpose of Data	Calculation of leakage
Comments	Without comment

VMD0007: Estimation of baseline carbon stock changes and greenhouse gas emissions from unplanned deforestation (BL-UP)

Data / Parameter	<i>Project Forest Cover Monitoring Map</i>
Data unit	ha
Used in equations	3
Description	Map evidence stratification and location of the forest in the Project Area at the beginning of each verification period. It shows if there deforested areas within the project area
Source of data:	Obtained from satellite images and field verification of deforested areas if any (GPS)
Measurement procedures (If any):	By using satellite images covering the Project Area it would be determined if there are any variations in the forest stratum identified in the Project Area. In case there are deforested areas it would be verified in field and confirmed by using GPS
Monitoring frequency:	It will be monitored when verification occurs (annual or biennial)

Quality Assurance / Quality Control	Biennial verification of the project surfaces. Also, through the accuracy assessment with field work.
Any comments	Stratification is the same as the one used at the beginning of the term.

Data / Parameter	<i>Leakage Belt Forest Cover Monitoring Map</i>
Data unit	ha
Used in equations	3, 8
Description	Map evidencing the stratification and location of the forest in the Leakage Belt at the beginning of each verification period. It has to be evidenced if there are deforested areas.
Source of data	Satellite images and field verification of deforested areas if any (GPS).
Measurement procedures (If any):	By using satellite images covering the Leakage Belt it would be determined if there are any variations in the forest stratum identified in the Leakage Belt. In case there are deforested areas it would be verified in field and confirmed by using GPS.
Monitoring frequency:	It will be monitored when verification occurs (annual or biennial)
Quality Assurance / Quality Control	Biennial verification of the project surfaces. Also, through the accuracy assessment with field work.
Any comments	Stratification is the same as the one used at the beginning of the term.

VMD0010: Estimation of emissions from activity shifting for avoided unplanned deforestation (LK-ASU)

Data / Parameter	<i>MANFOR</i>
Data unit	ha
Description	Total area of forests under active management nationally
Equations	2
Source of data	Official data, peer reviewed publications and other verifiable sources
Description of measurement methods and procedures to be applied	According to procedures applied by “Registro Único de Áreas Protegidas – RUNAP (http://runap.parquesnacionales.gov.co/reportes) - Parques Nacionales Naturales de Colombia - Ministerio de Ambiente y Desarrollo Sostenible”
Frequency of Monitoring/ recording	It will be monitored when verification occurs (annual or biennial); examination must occur prior to any verification event
QA/QC procedures to be applied	See Section 9.3 of REDD-MF (VM0007)
Purpose of data	Calculation of leakage emissions
Calculation method	It does not apply
Comments	Without comment

Data / Parameter	<i>PROTFOR</i>
Data unit	ha
Description	Total area of fully protected forests nationally
Equations	2
Source of data	Official data, peer reviewed publications and other verifiable sources

Description of measurement methods and procedures to be applied	A demonstration is required that areas will be protected against deforestation. Such a demonstration shall include either: 3. Evidence that the government has immediately acted to evict any and all illegal squatters Colombian laws to establish protected forest areas and surveillance <i>ex-ante</i> , because it can be assumed that PROTFOR shall remain constant.
Frequency of Monitoring/ recording	It will be monitored when verification occurs (annual or biennial); examination must occur prior to any verification event
QA/QC procedures to be applied	See Section 9.3 of REDD-MF (VM0007)
Purpose of data	Calculation of leakage emissions
Calculation method	According to national data, consulted in the corresponding monitoring period
Comments	Without comment

Data / Parameter	TOTFOR
Data unit	ha
Description	Total available national forest area
Equations	2
Source of data	Official data, peer reviewed publications and other verifiable sources
Description of measurement methods and procedures to be applied	Limited to forest areas within 5 km of roads and rivers suitable for conversion to agriculture / livestock According to procedures applied by <i>Ministerio de Ambiente y Desarrollo Sostenible - IDEAM</i> to define total forests in Colombia.
Frequency of Monitoring/ recording	It will be monitored when verification occurs (annual or biennial); examination must occur prior to any verification event
QA/QC procedures to be applied	See Section 9.3 of REDD-MF (VM0007)
Purpose of data	Calculation of leakage emissions
Calculation method	According to national data, consulted in the corresponding monitoring period
Comments	Without comment

Data / Parameter	$\Delta C_{P, LB}$
Data unit	t CO ₂ -e
Description	Net greenhouse gas emissions within the leakage belt in the project case
Equations	1,6
Source of data	Module M-REDD *(Folder " <i>calculation_tables</i> ", file " <i>VMD0015.xlsx</i> ", Sheet " <i>Eq2 Cp LK Expost</i> ")
Description of measurement methods and procedures to be applied	It was calculated according to the method of the equation 2, Module M-MON (Ex-post)
Frequency of Monitoring/ recording	It will be monitored when verification occurs (annual or biennial)
QA/QC procedures to be applied	See chapter 9.3 of REDD-MF (VM0007)
Purpose of data	Calculation of leakage emissions

Calculation method	VCS Module VMD0015, equation 2
Comments	Without comment

Data / Parameter	<i>PROP_{IMM}</i>
Data unit	Proportion
Description	Estimated proportion of baseline deforestation caused by immigrating population
Equations	5, 7, 8
Source of data	The source of data was chosen with priority from higher to lower preference as follows: <ol style="list-style-type: none"> 1. Official data (government) (DANE 2005) 2. Peer-reviewed published sources 3. Other verifiable sources 4. PRA
Description of measurement methods and procedures to be applied	Estimated as proportion of the area deforested according to the past census (2005) by population that migrated into the Leakage Belt and Project Area according to the past census (2005) (all areas within 2 Km of the boundaries of the project area and the leakage belt shall be considered here).
Frequency of Monitoring/ recording	It will be monitored when verification occurs (annual or biennial); examination must occur prior to any verification event
QA/QC procedures to be applied	See Section 9.3 of REDD-MF (VM0007)
Purpose of data	Calculation of leakage emissions
Calculation method	According to national data (DANE), consulted in the corresponding monitoring period
Any comments	Without comment

Data / Parameter	<i>PROP_{RES}</i>
Data unit	Proportion
Description	Estimated proportion of baseline deforestation caused by population that has been resident for ≥5 years
Equations	It does not apply
Source of data	The source of data was chosen with priority from higher to lower preference as follows: <ol style="list-style-type: none"> 1. Official data (government) (DANE 2005) 2. Peer-reviewed published sources 3. Other verifiable sources 4. PRA
Description of measurement methods and procedures to be applied	Estimated as proportion of the area deforested in the past census (2005) by population resident in the Leakage Belt and Project Area for ≥5 years (all areas within 2 Km of the boundaries of the project area and the leakage belt shall be considered here).
Frequency of Monitoring/ recording	It will be monitored when verification occurs (annual or biennial); examination must occur prior to any verification event
QA/QC procedures to be applied	See Section 9.3 of REDD-MF (VM0007)

Purpose of data	Calculation of leakage emissions.
Calculation method	According to national data (DANE), consulted in the corresponding monitoring period
Any comments	Without comment

Data / Parameter	$A_{DefLB,i,t}$
Data unit	ha
Description	Area of recorded deforestation in the leakage belt in the project case in stratum i in year t
Equations	8
Source of data	Module M-REDD *(Folder “ <i>calculation_tables</i> ”, file “ <i>VMD0015.xlsx</i> ”, Sheet “ <i>Eq4 CPDefLB,i,t Expost</i> ”)
Description of measurement methods and procedures to be applied	See Module M-REDD (VCS M-MON – VMD0015)
Frequency of Monitoring/ recording	See Module M-REDD (VCS M-MON – VMD0015) / Each monitoring executed (annual or biennial)
QA/QC procedures to be applied	See Section 9.3 of REDD-MF (VM0007)
Purpose of data	Calculation of leakage emissions
Calculation method	This data is given by GIS analysis.
Comments	Without comment

Data / Parameter	$A_{DefPA,i,t}$
Data unit	ha
Description	Area of recorded deforestation in the project area in the project case in stratum i in year t
Equations	8
Source of data	Module M-REDD *(Folder “ <i>calculation_tables</i> ”, file “ <i>VMD0015.xlsx</i> ”, Sheet “ <i>Eq3 CPDefPA,i,t Expost</i> ”)
Description of measurement methods and procedures to be applied	See Module M-REDD (VCS M-MON – VMD0015)
Frequency of Monitoring/ recording	See Module M-REDD (VCS M-MON – VMD0015) / Each monitoring executed (annual or biennial)
QA/QC procedures to be applied	See Section 9.3 of REDD-MF (VM0007)
Purpose of data	Calculation of leakage emissions
Calculation method	This data is given by GIS analysis.
Comments	Without comment

Data / Parameter	<i>Leakage Belt Forest Cover Benchmark Map</i>
Data unit	This does not apply

Description	Map showing the location of forest land within the leakage belt area at the beginning of each Monitoring Period. Only applicable where leakage is to be monitored in a leakage belt.
Equations	3
Source of data	Module M-REDD (M-MON –VMD0015)
Description of measurement methods and procedures to be applied	See Module M-REDD (M-MON –VMD0015)
Frequency of Monitoring/ recording	See Module M-REDD (M-MON –VMD0015) / Each monitoring executed (annual or biennial)
QA/QC procedures to be applied	See Section 9.3 of REDD-MF (VM0007)
Purpose of data	Calculation of leakage emissions
Calculation method	This does not apply
Comments	Without comment

VMD0015: Methods for monitoring of GHG emissions and removals (M-MON)

Data / Parameter	<i>Project Forest Cover Monitoring Map</i>
Data unit	ha
Description	Map evidencing the stratification and location of the forest in the Project area at the beginning of each verification period. It has to be evidenced if within the Project area there are deforested areas.
Source of data	Satellite images and field verification of deforested areas if any (GPS).
Justification of choice of data or description of measurement methods and procedures applied	By using satellite images covering the Project Area it would be determined if there are any variations in the forest stratum identified in the Project Area. In case there are deforested areas it would be verified in field and confirmed by using GPS
Frequency of Monitoring/ recording	It will be monitored when verification occurs (annual or biennial); examination must occur prior to any verification event
Any comments	Without comment
Used in equations	3

Data / Parameter	<i>Leakage Belt Forest Cover Monitoring Map</i>
Data unit	ha
Description	Map evidencing the stratification and location of the forest in the Leakage Belt at the beginning of each verification period. It has to be evidenced if there are deforested areas.
Source of data	Satellite images and field verification of deforested areas if any (GPS).
Justification of choice of data or description of measurement methods and procedures applied	By using satellite images covering the Leakage Belt it would be determined if there are any variations in the forest stratum identified in the Leakage Belt. In case there are deforested areas it would be verified in field and confirmed by using GPS
Frequency of Monitoring/ recording	It will be monitored when verification occurs (annual or biennial); examination must occur prior to any verification event

Any comments	Without comment
Used in equations	3, 8

Data / Parameter	$A_{DefPA, i, u, t}$
Data unit	ha
Description	Area of recorded deforestation in the project area in stratum i converted to land use u at time t
Source of data	Remote sensing imagery
Justification of choice of data or description of measurement methods and procedures applied	Preprocessing of satellite images, satellite processing image digital and segmentation to determine the coverage change. According to the standards set by the IDEAM
Frequency of Monitoring/ recording	It will be monitored when verification occurs (annual or biennial); examination must occur prior to any verification event
Any comments	Ex-ante, estimation was made of deforestation in the with-project case.
Used in equations	3

Data / Parameter	$A_{DefLB, i, u, t}$
Data unit	ha
Description	Area of recorded deforestation in the leakage belt in stratum i converted to land use u at time t
Source of data	Remote sensing imagery
Justification of choice of data or description of measurement methods and procedures applied	Preprocessing of satellite images, satellite processing image digital and segmentation to determine the coverage change. According to the standards set by the IDEAM
Frequency of Monitoring/ recording	It will be monitored when verification occurs (annual or biennial); examination must occur prior to any verification event

Comments	<p>Ex-ante, estimation shall be made of deforestation in the leakage belt in the with-project case. The area of deforestation shall be made conservatively equal to:</p> $\left(\sum_{t=1}^t (1 - PROP_{IMM}) * A_{BSL,LK,unplanned,t} \right) * (1 - PROP_{LPA})$ <p>Where:</p> <p>$PROP_{IMM}$ Estimated proportion of baseline deforestation caused by immigrating population; proportion (Calculated in LK-ASU)</p> <p>$A_{BSL,LK,unplanned,t}$ Project rate of unplanned baseline deforestation in the Leakage Belt Area at year t; ha. yr⁻¹ (Output parameter from BL-UP)</p> <p>$PROP_{LPA}$ Estimated proportion of baseline deforestation agents given the opportunity to participate in leakage prevention activities; proportion (proportion shall be conservatively estimated and justifiable. Leakage prevention activities must be planned to fully replace income, product generation and livelihood. Projects have the option ex-ante to conservatively set $PROP_{LPA}$ as equal to 1).</p> <p>t 1, 2, 3 ...t years elapsed since the start of the project activity</p>
Used in equations:	4

Data / Parameter	$A_{RRL, forest, t}$
Data unit	ha
Description	Remaining area of forest in RRL at time t
Source of data	Satellite images.
Justification of choice of data or description of measurement methods and procedures applied	The images used will be compatible with the ones already used in the estimations ex-ante in order to be compared
Frequency of Monitoring/ recording	It will be monitored when verification occurs (annual or biennial); examination must occur prior to any verification event
Any comments	There is no evidence of degraded areas or plots ex-ante within the project area.
Used in equations	This does not apply

VMD0016: Module: Methods for stratification of the project area (X-STR)

Data / Parameter	$A_{WPS,i}$ or A_i
Data unit	ha
Description	Area of project stratum i
Equations	1, 6, 8, 12 or 7
Source of data	Own assessment
Description of measurement methods and procedures to be applied	GIS coverages and/or remote imagery (satellite photographs) as outlined in Chapter 5.

Frequency of monitoring/recording	At each monitoring event (annual or biennial)
QA/QC procedures to be applied	See Section 9.3 of <i>REDD-MF</i> (-VM0007)
Purpose of data	Calculation of project emissions
Calculation method	This data is given by GIS analysis.
Comments	Without comment

3.3.2 Dissemination of Monitoring Plan and Results (CL4.2)

As it was explained in the Sections “2.2.1 Stakeholder Access to Project Documents” and “2.2.2 Dissemination of Summary Project Documents” of this document, the mechanisms to disseminate and publish all the Project documents (including the description, implementation, and results of monitoring plan) and the means are based on:

- Documentation available in the offices of ACATISEMA in *Cumaribo* and *Inírida*, and in the offices of MEDIAMOS in *Cali*, in digital format and (if required) in printed format.
- Verra Registry, under ID 1566 (<https://registry.verra.org/app/projectDetail/VCS/1566>), where it is completely accessible to the general public and to any stakeholder.
- Means of information, communication and transportation, which includes tasks of disseminating data and results of the Project achieved by the execution of all Activities, year after year, between the members of the Indigenous Reservation and the ACATISEMA Association.
- Through socialization workshops, the details about the REDD+ Project RIU-SM are explained to the communities. This includes design aspects, benefits, and implementation of every Project Activity, as well as the results of the validation and verification processes.
- Through newsletters and brochures, written and graphic information with the different aspects and results of the Project are provided, what the Zonal Coordinators, Sectorial authorities - *Cabildos*, Captains, leaders, and community members disseminate to the indigenous population of the RIU-SM, and orally in each language, in a way that is more understandable to the general indigenous population.
- Through webpage <https://www.selvamatavenredd.org> and in the social media (<https://www.facebook.com/selvamatavenredd/>, <https://www.facebook.com/mataven.redd.mas>, <https://www.linkedin.com/company/mataven-redd-project/>, <https://www.instagram.com/matavenredd/>), the general public is being permanently informed about the evolution of the Project Activities.

In general, the Project Activity A1.2 contributes to develop communication mechanisms for all purposes, including the dissemination of monitoring plan and results.

3.4 Optional Criterion: Climate Change Adaptation Benefits

3.4.1 Activities and/or Processes Implemented for Adaptation (GL1.3)

The implementation of the Sustainable Management Plan for Land and Forest and the Project Activities to achieve the expected Products/Results, such as measures to control deforestation (A1.1), food guarantee (A2.1), productive projects (A2.3), and other actions that generate benefits (in improving the provision of health services, improvement of water supply, improvement of housing, attention to special population and

attention to calamities) as it is described in Section “2.1.8 Project Activities and Theory of Change” of PDD-CCB, contribute to mitigate climate change and generate capacities for the indigenous population and natural resources to cope with the probable impacts of climate change.

The Table 41 of PDD-CCB described the most important aspects of the benefits achieved with the implementation of the Project Activities for the adaptation of communities and biodiversity to the impacts of climate change, whose results were presented in the verified Monitoring Report – VCS 2018 & 2019, Section “3.1.1 Operation of the Project Activities during this Monitoring Period”, page 64.

Measures were designed and implemented (among other) to improve, also, the capabilities to mitigate and adapt, the communities and the biodiversity, to the likely impacts of climate change (PDD- CCB, Section 3.5.3).

- ✓ The Adaptive Management Plan continued its implementation (according to verified Monitoring Report – VCS 2018 & 2019, Table 26, page 165). Through this plan, the evolution of the Project's risk factors is evaluated and measures are taken to adjust actions.
- ✓ 37 surveillance and control routes were implemented through the forest patrols made by Indigenous Guard, financed by the REDD+ Project RIU-SM, and that were maintained to avoid deforestation (thereby protecting natural resources and strengthening their resilience against the adverse effects of climate change) and prevent and manage intrusions by outside actors into the Project Area and violation of rights (Project Activity A1.1).
- ✓ 315 Indigenous Guardians was maintained and strengthened across all sectors and zones (Project Activity A1.1). They have achieved a better organization and consolidate themselves as RIU-SM authorities for their protection.
- ✓ The monitoring of fires and burns, according early warnings issued by the IDEAM and *Corporinoquia* on areas that are susceptible to forest fires, have been implemented (Project Activity A1.1).
- ✓ The burnings to prepare the soil to crops are managed and controlled, as well as the implementation of awareness and environmental training about the cultivation process (Project Activity A2.1). The actions to strengthen these aspects is supported by organization at community level, which is essential to prevent the impacts of these burnings.

In general, to protect de natural resources let avoid, or at least manage, catastrophic events such as droughts or floods that cause, and have caused in the territory of the RIU-SM, emergencies that affect the human population and biodiversity.

- ✓ The communication and consultation with indigenous communities through the Zonal Coordinators is maintained through different workshops (Annex 1 of verified Monitoring Report – VCS 2018 & 2019), that allows interaction between the various indigenous communities.
- ✓ ACATISEMA governance has been strengthened through unity and compliance with its Statutes and developed of Project Activity A1.3, which lets to consolidate the rights and duties of indigenous population, and strengthen community unity, which favors reactions in case of suffering unfavorable impacts of climate change, take correct decisions and define strategies.
- ✓ The administrative and technical offices of the ACATISEMA (in *Cumaribo* and *Inírida*) have been strengthened (Project Activity A1.3), which also strengthen the indigenous governance.
- ✓ The ACATISEMA commitment to keep Project Activities for another cycle of 30 years, as part of their strategies, has been declared (Annex 1.1 of verified Monitoring Report – VCS 2018 & 2019, page 8), allows to hope that the protection measures for natural resources will continue in the future.
- ✓ The participation and support of other external actors have been managed and coordinated (Project

Activities A1.3 and A2.3). This develops the administrative capacity of indigenous peoples and improves their skills.

- ✓ Work of Co-director team and the six Zonal Coordinators continues, seeking for the same indigenous people to improve their skills and be in charge of greater responsibilities.
- ✓ The production activities through FAPUS are maintained (Project Activity A2.1), which has strengthened the capacity to produce food and face situations of probable scarcity.
- ✓ The training of indigenous Zonal Coordinators and Co-director has continued (Annexes 1.12, 1.20, and 1.27a of verified Monitoring Report – VCS 2018 & 2019).
- ✓ 22 training workshops on governance, rights and duties on Indigenous Reservation in the constitutional and legal framework of the country, at the level of all communities, have been developed in 2018 & 2019 (Annexes 1, 4.5.5, and 4.5.6 of verified Monitoring Report – VCS 2018 & 2019).
- ✓ 12 training workshops to Captains, *Cabildos* Board, Coordinator Committee and Zonal Coordinators on good governance practices and relationships have been developed in 2018 & 2019 (Annexes 1, and 4.5.6 of verified Monitoring Report – VCS 2018 & 2019).
- ✓ The management with universities at regional and national level so that some indigenous people can study has been carried out in areas that make it possible to reinforce the capacity of the RIU-SM to manage its territory (Project Activity A2.2).

In general, develop training and educational programs is a essential element to the promotion of action in favor of the care and administration of natural resources and the climate

- ✓ The management for the establishment of 4 productive projects in chains has continued, considering that the agroforestry project is already in execution (with the support of FEDECACAO) and arrangements are being made to start others (silvopastoral, ornamental fishing, and natural tourism) (Project Activity A2.3). These projects provide employment, subsistence products and economic income, which the indigenous communities can count on with resources to face probable crises derived from climate change.
- ✓ 5 training workshops to Captains and women on the management of production projects have been developed (Annexes 4.5.4 and 4.6.1 of verified Monitoring Report – VCS 2018 & 2019).
- ✓ The alliances and agreements with institutions that defined their support for the Project and maintain the management to form new strategic alliances with national and regional institutions are being carried out (Project Activities A1.3 and A2.3).
- ✓ The improving of social and economic conditions of indigenous peoples of the Indigenous Reservation has been consulted with communities in several meetings, where satisfaction has been expressed with the implementation of the Project Activities, with suggestions for improvement.
- ✓ Through Project Activities and other actions (ACATISEMA Reserves), REDD+ Project RIU-SM is providing to indigenous peoples benefits in education, food, communication, production, health, housing, attention to special population and in case of calamities.
- ✓ The REDD+ Project RIU-SM continues its development with an interdisciplinary team of professionals in MEDIAMOS with relevant experience in the development and implementation of forestry projects and with indigenous personal of ACATISEMA with great knowledge of the forest and their communities.

The alliance between ACATISEMA and MEDIAMOS is in force and it has been consolidated as the main element in managing the project because they are groups that complement the technical and scientific part and knowledge of the territory.

- ✓ The project resources, mainly financial, have been secured by satisfactorily complying with the processes of verifying results and reducing emissions, which is giving sustainability to the Project, maintaining and respecting all mechanisms and measures necessary internal and external control (Project Activity A3.2).
- ✓ The business strategy for sales of VCUs continues to be realized, directly and through of specialized agents.

3.4.2 Adaptation Monitoring (GL1.4)

The Project Activities have generated positive impacts for the communities and biodiversity, including the improvement in capacities to face the probable impacts of climate change, developing aspects such as:

- ✓ The surveillance and control of the RIU-SM territory allows the protection of forests and other natural resources (soils, water sources, habitats), which strengthens the availability of subsistence elements, both for the communities and for the existence of species of fauna and flora, resources that are necessary to face any negative impact derived from climate change (Project Activity A1.1).
- ✓ The improvement in agricultural practices and the development of productive projects make it possible to strengthen the availability of food to meet the needs of indigenous communities and even have surpluses to market or to attend to possible contingencies in the event of losses of crops and products due to effect of climate change (Project Activities A2.1 and A2.3).
- ✓ Strengthening the governance of ACATISEMA (Project Activity 1.3) also allows indigenous authorities to manage resources to serve the population that could be affected as a result of climate change, providing the elements that are necessary to overcome possible crises, such as the occurred due to the strong winter in 2018 that caused floods, and in response to which the Association made efforts to serve the communities.
- ✓ Other Activities, such as the consolidation of information, communication and transportation systems (Project Activity A1.2) and the development of training programs and support for higher education students (Project Activity A2.2) contribute to improving the capacities in terms of knowledge and connectivity within the Indigenous Reservation, which strengthens human capital in the purpose of managing the territory and protecting its resources, which results in benefits to face the challenges of climate change.
- ✓ Other actions bring benefits in matters of health, water, housing, attention to the special population and attention to calamities (such as the support received by families affected by the floods that occurred in 2018), which allow the development of aspects of great importance for the well-being of the communities, which also become a support to face the probable impacts of climate change.

In multiple meetings held with indigenous authorities and members of the communities, there have been spaces to assess the impacts suffered by climate change, as well as the measures that have been taken to mitigate these effects, as recorded in the minutes of meetings in Annex 1 and, in particular, the Annexes 1.23 to 1.27 of verified Monitoring Report – VCS 2018 & 2019.

4 COMMUNITY

4.1 Net Positive Community Impacts

4.1.1 Community Impacts (CM2.1)

The actions applied in the scenario with Project, which encompasses the implementation of the Sustainable Management Plan for Land and Forest (Annex 4 of validated PDD - VCS) from which the expected Outputs/Results and Project Activities are derived and which are scaled in the Theory of Change (Section "2.1.8 Project Activities and Theory of Change" of PDD-CCB), generate the positive impacts that are demonstrated below.

The impacts described below (in Table 29) are for all the community groups described in Section "4.1.1 Description of the Communities at Project Start / Table 45" of PDD-CCB, where it is established that there are relationships and overlaps between them, so the benefits are oriented towards all of them, as a whole.

Table 29. Community impacts, according to community groups

Community Groups	Women / Men Youth Traditional authorities: Shamans, traditional doctors, healers and shepherds. Ethnic groups: <i>Cubeo</i> , <i>Curripaco</i> , <i>Piapoco</i> , <i>Piaroa</i> , <i>Puinave</i> and <i>Sikuani</i> .
Impact	Impact 1: Improved capacity to develop ecosystem service quality monitoring and participatory surveillance, in particular, specific measures in the recovery and enhancement of community HCVs, described in Section "4.2.2 Mitigation of Negative Community Impact / Measures for the maintenance or enhancement of HCV attributes related to community well-being" of PDD-CCB.
Type of Benefit / Cost / Risk	Expected impact, direct, benefit
Change in Well-being	The magnitude of the change in this impact is demonstrated through the following indicators: <ul style="list-style-type: none"> • Number of people trained in monitoring the quality of ecosystem services in the Monitoring period 2018-2019: <ul style="list-style-type: none"> - 730 attendees to workshops to train indigenous guards about participatory monitoring, distributed as follows: <ul style="list-style-type: none"> 7 indigenous persons of <i>Cubeo</i> ethnic group. 15 indigenous persons of <i>Curripaco</i> ethnic group, of which 2 are women. 60 indigenous persons of <i>Piapoco</i> ethnic group. 57 indigenous persons of <i>Piaroa</i> ethnic group, of which 7 are women. 18 indigenous persons of <i>Puniave</i> ethnic group, of which 1 is women. 573 indigenous persons of <i>Sikuani</i> ethnic group, of which 6 are women.

	<p>(according to Annex 4.5.5 of verified Monitoring Report – VCS 2018 & 2019: minutes of training workshops to indigenous guards).</p> <ul style="list-style-type: none"> - 244 Captains (indigenous authorities) trained in participatory monitoring, distributed as follows: <ul style="list-style-type: none"> 1 Captain of <i>Cubeo</i> ethnic group. 5 Captains of <i>Curripaco</i> ethnic group. 19 Captains of <i>Piapoco</i> ethnic group. 7 Captains of <i>Piaroa</i> ethnic group. 7 Captains of <i>Puniave</i> ethnic group. 208 Captains of <i>Sikuani</i> ethnic group, of which 6 are women. <p>(according to Annex 4.5.6 of verified Monitoring Report – VCS 2018 & 2019: minutes of training workshops to Captains of communities).</p> <p>The people who participate in these training events are of different ages, from young people who have reached the age of majority to elderly people who have knowledge and are respected among the communities.</p> <ul style="list-style-type: none"> • 12 workshops (with indigenous guards and Captains) related to improving the capacity to develop monitoring of the quality of ecosystem services and participatory surveillance, have been developed.
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Community Groups	<p>Women / Men</p> <p>Youth</p> <p>Traditional authorities: Shamans, traditional doctors, healers and shepherds.</p> <p>Ethnic groups: <i>Cubeo</i>, <i>Curripaco</i>, <i>Piapoco</i>, <i>Piaroa</i>, <i>Puinave</i> and <i>Sikuani</i>.</p>												
Impact	<p>Impact 2: Recovery and improvement of the conditions of community HCVs, as described in Section "4.1.3" of PDD-CCB.</p>												
Type of Benefit / Cost / Risk	<p>Expected impact, indirect, benefit</p>												
Change in Well-being	<p>The magnitude of the change in this impact is estimated through the following indicators:</p> <ul style="list-style-type: none"> • Natural forest that provides the service of riverbank and community protection, specified by Sector (HCV 4.1). <p>The following table presents a comparison between the expected deforestation in relation to HCV 4.1 and the deforestation that has occurred, with which the degree of protection that this valuable resource has had for the community can be determined.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="background-color: #d9ead3;">Zone</th> <th style="background-color: #d9ead3;">Sector</th> <th style="background-color: #d9ead3;">Expected deforestation 2013 to 2019 (has)</th> <th style="background-color: #d9ead3;">Deforestation occurred 2013 to 2019 (has)</th> <th style="background-color: #d9ead3;">% deforested vs. expected / Sector</th> <th style="background-color: #d9ead3;">Protected HCV 4.1 area (has)</th> </tr> </thead> <tbody> <tr> <td style="height: 40px;"></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Zone	Sector	Expected deforestation 2013 to 2019 (has)	Deforestation occurred 2013 to 2019 (has)	% deforested vs. expected / Sector	Protected HCV 4.1 area (has)						
Zone	Sector	Expected deforestation 2013 to 2019 (has)	Deforestation occurred 2013 to 2019 (has)	% deforested vs. expected / Sector	Protected HCV 4.1 area (has)								

1	<i>Caño Cavasi</i>	5,240	524	1.43%	4,715
	<i>Aiwa - Cuna, Tsepajivo</i>	6,753	1,060	2.24%	5,692
2	<i>Bajo Río Vichada 1</i>	12,279	1,067	1.24%	11,213
	<i>Bajo Río Vichada 2</i>	13,153	858	0.93%	12,295
3	<i>Atana - Pirariami</i>	8,291	571	0.99%	7,720
	<i>Caño Zama</i>	1,823	129	1.01%	1,694
	<i>Matavén Fruta</i>	2,494	245	1.40%	2,249
	<i>Berrocal - Ajota</i>	2,690	322	1.71%	2,368
4	<i>Lagunas Negra y Cacao</i>	425	155	5.21%	270
	<i>Sejalito - San Benito</i>	48	51	15.09%	-3
	<i>Lag. Anguilla - La Macarena</i>	2,365	146	0.89%	2,219
	<i>Barranquito - Lag. Colorada</i>	4,381	97	0.31%	4,284
5	<i>Caño Bocón</i>	2,457	38	0.23%	2,418
	<i>Cumaral</i>	6,206	253	0.59%	5,953
	<i>Yuri</i>	3,187	46	0.20%	3,140
	<i>Giro</i>	2,293	141	0.89%	2,151
	<i>Morocoto-Buenav.-Manajuare</i>	15,480	307	0.29%	15,173
Total		89,564	6,010	0.96% annual	83,554

Source: REDD+ Project RIU-SM, GIS

It is observed that, in general, from 2013 to 2019, 93.3% of forests that provides the service of riverbank and community protection have been conserved, in some Sectors more than in others, with an atypical behavior in the Sector *Sejalito – San Benito*, where deforestation cannot be avoided.

- Natural forest that provides the service of soil regulation and control or bio-geophysical conditions, such as soil and aquifer formation, indicating those corresponding to high and flood zones (HCV 4.2).

The following table presents a comparison between the expected deforestation in relation to HCV 4.2 and the deforestation that has occurred, with which the degree of protection that this valuable resource has had for the community can be determined.

HCV 4.2 forests	Expected deforestation 2013 to 2019 (has)	Deforestation occurred 2013 to 2019 (has)	% deforested vs. expected	Protected HCV 4.2 area (has)
Primary forest	6,477	4,591	10.1%	1,886
Primary flooded forest	64,918	2,486	0.5%	62,432

Secondary forest	8,066	752	1.3%	7,314
Total	79,461	7,830	1.4% annual	71,631

Source: REDD+ Project RIU-SM, GIS

It is observed that, in general, from 2013 to 2019, 90.1% of forests that provides the service of soil regulation and control or bio-geophysical conditions, such as soil and aquifer formation, have been protected.

- Number of hectares of natural forest that provide food resources, fruits, medicinal plants and animals for hunting, specifying those corresponding to floodable forest, and to supply energy sources (firewood) near the communities (HCV 5.1).

The following table presents a comparison between the expected deforestation in relation to HCV 5.1 and the deforestation that has occurred, with which the degree of protection that this valuable resource has had for the community can be determined.

HCV 5.1 forests	Expected deforestation 2013 to 2019 (has)	Deforestation occurred 2013 to 2019 (has)	% deforested vs. expected	Protected HCV 5.1 area (has)
Primary forest	7,147	4,600	9.2%	2,547
Primary flooded forest	75,158	2,645	0.5%	72,513
Total	82,304	7,245	1.3% annual	75,059

Source: REDD+ Project RIU-SM, GIS

It is observed that, in general, from 2013 to 2019, 91.2% of forests that provide food resources, fruits, medicinal plants and animals for hunting, specifying those corresponding to floodable forest, and to supply energy sources (firewood) near the communities, have been protected.

- Number of hectares of Heterogeneous Agricultural Areas - HAA (HCV 5.1).

The following table presents a comparison between the extent of Heterogeneous Agricultural Areas - HAA in relation to HCV 5.1 for the years of REDD+ Project RIU-SM execution.

Coverage	Project start	2013	2015	2017	2018	2019
HAA	26,768 has.	20,728 has.	18,036 has.	16,379 has.	16,382 has.	13,046 has.

Source: REDD+ Project RIU-SM, GIS

Although the protection of the forests against their conversion to non-forest is being achieved, the heterogeneous agricultural areas are conserved enough to provide food resource supply, as observed in the verified Monitoring Report – VCS 2018 & 2019, Section "3.1.1 Operation of the Project Activities during this Monitoring Period / ACTIVITY A2.1: Establish and develop a Family Agri-food Production Units System - FAPUS / Task T2.1.2: Execution of the established measures to develop the FAPUS" (page 103), where the food production data are presented under the implementation of FAPUS in the *conucos* area.

- Number of hectares of forest conversion to pastures, according to the customary use of indigenous peoples, that provide food for livestock, which in turn is a food source for the communities, in the Leakage Belt (HCV 5.1).

The following table presents a comparison between the extent of Pastures in relation to HCV 5.1 for the years of REDD+ Project RIU-SM execution.

Coverage	2013	2015	2017	2018	2019
Pastures	73.5 has.	150.1 has.	754.2 has.	751.0 has.	1,426.3 has.

Source: REDD+ Project RIU-SM, GIS

Although conversion to pastureland is increasing, this is not due to extensive cattle ranching, as it is not a common practice among indigenous peoples. While elements have been provided to supply meat and milk to improve the provision of nutrients, as observed in the verified Monitoring Report – VCS 2018 & 2019, Section "3.1.1 Operation of the Project Activities during this Monitoring Period / ACTIVITY A2.3: Manage resources for project design and establishment of production chains. / Task T2.3.1.2.1 Silvopastoral system" (page 128), this is not for livestock breeding. It has been observed that the pastures are increased by the action of settlers.

- Number of hectares of secondary forest of the main rivers that supply materials for the construction of houses and canoes, as well as for the manufacture of traditional utensils, handicrafts and other materials and tools for agroforestry systems in the conucos (HCV 5.2).

The following table presents a comparison between the expected deforestation in relation to HCV 5.2 and the deforestation that has occurred, with which the degree of protection that this valuable resource has had for the community can be determined.

HCV 5.2 forests	Expected deforestation 2013 to 2019 (has)	Deforestation occurred 2013 to 2019 (has)	% deforested vs. expected	Protected HCV 5.2 area (has)
Secondary forest	8,689	765	1.26% annual	7,924

Source: REDD+ Project RIU-SM, GIS

It is observed that, from 2013 to 2019, 91.2% of secondary forest of the main rivers that supply materials for the construction of houses and canoes, as well as for the manufacture of traditional utensils, handicrafts and other materials and tools for agroforestry systems in the conucos, have been protected.

- Number of sacred sites and their location that are critical for the traditional cultural identity of the communities (HCV 6.1).

The sacred sites identified (in 18 points located according to map 17 of the PDD-CCB) maintain to be recognized by indigenous communities and continue to gain importance in the cultural context of native peoples (according to their worldview), who ensure their protection thanks to support the REDD+ Project RIU-SM, mainly by implementation of Activity A1.3 (consult verified Monitoring Report – VCS 2018 & 2019, Section "3.1.1 Operation of the Project Activities during this Monitoring Period / ACTIVITY A1.3", page 90) which promotes the cultural enrichment of

	the communities through the development of important events for the population. During the implementation of the project, it will be possible to identify more sacred points.
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Community Groups	<p>Women / Men</p> <p>Youth</p> <p>Traditional authorities: Shamans, traditional doctors, healers and shepherds.</p> <p>Ethnic groups: <i>Cubeo, Curripaco, Piapoco, Piaroa, Puinave</i> and <i>Sikuani</i>.</p>
Impact	<p>Impact 3: Improved and strengthened governance of ACATISEMA in the <i>Resguardo Indígena Unificado - Selva de Matavén</i>, for decision making.</p> <p>There is a direct impact on strengthening the social capital of the ACATISEMA Association, particularly in areas including local economic development and protection of natural resources (validated PDD - VCS, page 318). Development is foreseen in the ACATISEMA headquarters, which did not exist at the beginning of the Project. A review of ACATISEMA's Statutes is also foreseen for improvement them.</p>
Type of Benefit / Cost / Risk	Expected, direct impact, benefit.
Change in Well-being	<p>The magnitude of the change in this impact is estimated through the following indicators:</p> <ul style="list-style-type: none"> Number of members of the Coordinator Committee, number of <i>Cabildos</i>, number of Captains, number of Zonal Coordinators improve and apply knowledge in the statutory and organizational aspects in the surveillance, control and monitoring of the indigenous reservation. <p>Since the beginning of the Project, even from the feasibility stage (2012), training sessions have been carried out for members of the Coordinator Committee, <i>Cabildos</i> Board, community Captains, and Zonal Coordinators of REDD+ Project RIU-SM.</p> <p>Members of Coordinator Committee are 16 indigenous persons, as follows: 1 General Coordinator, 1 General Secretary, 1 Finance Coordinator, 2 Programs and Projects Coordinators, 1 Women Coordinator, 2 Territory and Environment Coordinators, 2 Integral Health Coordinators, 1 Human Rights Coordinator, 2 Life Plans Coordinators, 2 Ethno-education Coordinators, and 1 Youth Coordinator (Annex 2.1.2 of validated PDD - VCS: ACATISEMA Statutes, Article 34). These members are elected every 3 years in the General Assembly of ACATISEMA (where 1 Fiscal Observer and 1 Indigenous Advisor are also elected), in this way, this election process was carried out in 2013, 2016 and 2019 (according to the time the Project has been running). In the training-socialization workshops in which they participate, topics are addressed, among others, those related to governance aspects (autonomy, rights, duties, statutes, legislation), and in the meetings that they develop autonomously they are exercising their governance, in 2012 as it is in Annex 1.1 and in 2013/2014 as it is in Annex 1.2, both of validated PDD – VCS; in 2017 as it is in Annex 2.9 of verified Monitoring Report – VCS 2016-2017; in 2018 as it is in Annexes 1.12, 1.16, 1.17, and in 2019 as it is in Annexes 1.20 and 1.27a, both of verified Monitoring Report – VCS 2018 & 2019. The following table shows the distribution of these members according to their ethnicity and gender, for the periods mentioned.</p>

Members of Coordinator Committee	Member's ethnicity / gender in 2012	Member's ethnicity / gender in 2013	Member's ethnicity / gender in 2016	Member's ethnicity / gender in 2019
General Coordinator	<i>Sikuani</i>	<i>Sikuani</i>	<i>Sikuani</i>	<i>Sikuani</i>
General Secretary	<i>Sikuani</i>	<i>Cubeo</i>	<i>Sikuani</i>	<i>Sikuani</i>
Finance Coordinator	<i>Piaroa</i>	<i>Sikuani</i>	<i>Piapoco</i>	<i>Curripaco</i>
Programs and Projects Coordinator 1	<i>Sikuani</i>	<i>Puinave</i> Women	<i>Sikuani</i>	<i>Sikuani</i> Women
Programs and Projects Coordinator 2	<i>Piapoco</i>	<i>Sikuani</i>	-	<i>Puinave</i> Women
Women Coordinator	<i>Piaroa</i> Women	<i>Piaroa</i> Women	<i>Sikuani</i> Women	<i>Sikuani</i> Women
Territory and Environment Coordinator 1	<i>Piaroa</i>	<i>Piaroa</i>	<i>Sikuani</i> Women	<i>Sikuani</i> Women
Territory and Environment Coordinator 2	<i>Puinave</i>	<i>Piapoco</i> Women	-	<i>Cubeo</i>
Integral Health Coordinator 1	<i>Sikuani</i> Women	<i>Sikuani</i>	<i>Piaroa</i>	<i>Puinave</i>
Integral Health Coordinator 2	<i>Curripaco</i>	<i>Sikuani</i> Women	<i>Sikuani</i>	<i>Sikuani</i>
Human Rights Coordinator	<i>Sikuani</i>	<i>Piapoco</i>	<i>Sikuani</i>	<i>Puinave</i>
Life Plans Coordinator 1	<i>Piapoco</i> Women	<i>Sikuani</i>	<i>Sikuani</i>	<i>Piaroa</i> Women
Life Plans Coordinator 2	<i>Sikuani</i> Women	<i>Sikuani</i> Women	-	<i>Sikuani</i> Women
Ethno-education Coordinator 1	<i>Sikuani</i>	<i>Piapoco</i>	<i>Sikuani</i>	<i>Piapoco</i>
Ethno-education Coordinator 2	<i>Sikuani</i>	<i>Sikuani</i> Women	-	<i>Puinave</i>
Youth Coordinator	<i>Sikuani</i>	<i>Sikuani</i>	<i>Sikuani</i>	<i>Piapoco</i> Women
Fiscal Observer	<i>Piapoco</i>	<i>Piapoco</i>	<i>Sikuani</i>	<i>Piaroa</i>
Indigenous Adviser	<i>Cubeo</i>	<i>Sikuani</i>		<i>Piapoco</i>

Source: According to minutes of meetings with Coordinator Committee in 2012 and General Assemblies of ACATISEMA in 2013, 2016, and 2019

Members of *Cabildos* Board are 17 (one by each Sector of RIU-SM). They are elected by the community Captains at their discretion, for the period they determine. Likewise, they participate in training-socialization workshops (many of which are held in conjunction with the Coordinating Committee) where topics are addressed, among others, those related to governance aspects, and in the meetings that they develop autonomously they are exercising their governance, in 2012 as it is in Annex 1.1.5 and in 2013/2014 as it is in Annexes 1.2, 1.3, both of validated PDD – VCS; in 2017 as it is in Annex 2.9 of verified Monitoring Report – VCS 2016-2017; in 2018 as it is in Annexes 1.12, 1.16, 1.17, and in 2019 as it is in Annexes 1.20 and 1.27a, both of verified Monitoring Report – VCS 2018 & 2019. Regarding the distribution of the members of the Cabildos Board according to ethnicity, the preponderance of this characteristic in the Sectors of the RIU-SM is retaken, as follows.

Z	Sectors	Ethnicity
ZONE 1: Vichada River Middle Zone		
1	<i>Caño Cavasi</i>	<i>Sikuani</i>
2	<i>Aiwa-Cuna, Tsepajivo</i>	<i>Sikuani</i>
ZONE 2: Vichada River Low Zone		
3a	<i>Bajo Río Vichada 1</i>	<i>Sikuani</i>
3b	<i>Bajo Río Vichada 2</i>	<i>Sikuani</i>
ZONE 3: Orinoco River Zone		
4	<i>Atana-Pirariami</i>	<i>Sikuani, Piaroa</i>
5	<i>Caño Zama</i>	<i>Piaroa</i>
6	<i>Matavén Fruta</i>	<i>Piaroa</i>
7	<i>Berrocal-Ajota</i>	<i>Piaroa, Puinave</i>
ZONE 4: Guaviare River Zone – Brazo Amanavén I		
8	<i>Lagunas Negra y Cacao</i>	<i>Curripaco, Cubeo, Puinave</i>
9	<i>Sejalito –San Benito</i>	<i>Sikuani, Piapoco</i>
10	<i>Laguna Anguilla- La Macarena</i>	<i>Sikuani</i>
11	<i>Barranquito-Laguna Colorada</i>	<i>Sikuani</i>
ZONE 5: Guaviare River Zone – Brazo Amanavén II		
12	<i>Caño Bocón</i>	<i>Puinave</i>
13	<i>Cumaral</i>	<i>Piaroa</i>
14	<i>Yuri</i>	<i>Piapoco</i>
15	<i>Giro</i>	<i>Piapoco</i>

	16 <i>Morocoto-Buenavista-Manajure</i>	<i>Puinave</i>	<p><i>Source: Table 2 of PDD-CCB</i></p> <p>In 2012, 1 woman was reported among the <i>Cabildos</i>; in 2019, 2 women were reported.</p> <p>Community Captains are, today, 315 indigenous persons. They are elected by the community members at their discretion, for the period they determine. Likewise, they participate in training-socialization workshops where topics are addressed, among others, those related to governance aspects, and in the meetings that they develop autonomously they are exercising their governance, in 2013 as it is in Annex 1.3 of validated PDD – VCS; in 2017 as it is in Annexes 2.10-2.14 of verified Monitoring Report – VCS 2016-2017; in 2019 as it is in Annex 4.5.6 of verified Monitoring Report – VCS 2018 & 2019. In 2016, 5 women were reported as Captains, 6 in 2018 and in 2019.</p> <p>Zonal Coordinators of the REDD+ Project RIU-SM are 6 indigenous leaders in each Zone of the RIU-SM. Sometimes they participate in the meetings of the <i>Cabildos</i> Board and Coordinator Committee, and they have also participated in private meetings and workshops, as described in the Annexes 1.2.4, 1.4.12, 1.4.13 of validated PDD – VCS, 1.14 of verified Monitoring Report – VCS 2018 & 2019.</p> <ul style="list-style-type: none"> • Number of teachers, students, women, youth people and other members of the Indigenous Reservation (not less than 150) who reach a good level in the application of environmental knowledge. <p>There are around 1,043 participants from indigenous communities in the meetings and training workshops (2018 - 2019) (around 125 were women), of the 16 Sectors and 5 Zones, who have been trained, among other aspects, in in the application of environmental knowledge concerning the condition of forests, soils and the fauna that inhabits them (Annexes 1, 4.5.5 and 4.5.6 of verified Monitoring Report – VCS 2018 & 2019: minutes of meetings and training workshops).</p> <p>Annex 1 of validated PDD- VCS and Annex 2 of verified Monitoring Report – VCS 2016 – 2017 also presented information about this matter between 2013 – 2017, where it is estimated that 2,122 persons participated in meetings and training workshops, of which 234 were women.</p> <ul style="list-style-type: none"> • Number of indigenous guards to carry out the surveillance, control and monitoring of the RIU-SM, who receive training, endowment, fluvial equipment, food and control stations. The number of control stations, billboards and equipment used will be determined. <p>730 persons that conform the Indigenous Guard that carry out the surveillance, control and monitoring of the RIU-SM territory have participated in workshops to train them about participatory monitoring, and have received endowment, fluvial equipment, food and control stations (see verified Monitoring Report – VCS 2018 & 2019, Section “3.1.1 Operation of the Project Activities during this Monitoring Period / ACTIVITY A1.1”, page 70). The distribution of indigenous guards by ethnicity and gender was presented in Impact 1.</p>
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Community Groups	<p>Women / Men</p> <p>Youth</p> <p>Traditional authorities: Shamans, traditional doctors, healers and shepherds.</p> <p>Ethnic groups: <i>Cubeo, Curripaco, Piapoco, Piaroa, Puinave</i> and <i>Sikuani</i>.</p>
Impact	<p>Impact 4: Establishment and strengthening of the level of participation of people from community groups in activities related to the REDD+ Project RIU-SM</p> <p>There is an establishment and improvement of communication, information and transportation channels between communities, which reveal the progress of the Project and the various initiatives in community work, education, productive projects, etc.; there is also the development of a system that allows responses to requests and proposals from community members and participation in various community activities, in order to listen to their arguments and respond to their concerns.</p> <p>An expansion of this impact is developed in Section "4.2.2 Mitigation of Negative Community Impact / Measures for the maintenance or improvement of HCV attributes related to community well-being" of PDD-CCB.</p>
Type of Benefit / Cost / Risk	<p>Real, direct impact, benefit.</p>
Change in Well-being	<p>The magnitude of change in this impact is estimated through the following indicators:</p> <ul style="list-style-type: none"> • Number of people participating in the REDD+ Project RIU-SM. <p>The different indigenous authorities of the RIU-SM (members of the <i>Cabildos</i> Board, Coordinator Committee, Community Captains and other leaders) ensure that all communities participate in the implementation of the Project Activities and receive the benefits that are being generated. This includes the use of the information, communication and transportation systems that have been implemented to achieve this impact, as described in the verified Monitoring Report – VCS 2018 & 2019, Section “3.1.1 Operation of the Project Activities during this Monitoring Period / ACTIVITY A1.2”, page 79. Thus, it is estimated that the entire population of the Indigenous Reservation is participating in the REDD+ Project RIU-SM.</p> <ul style="list-style-type: none"> • Number of people trained in climate change and in the nature and characteristics of the REDD+ Project RIU-SM. <p>In general, members of the <i>Cabildos</i> Board (17 persons in each period, at the discretion of the Captains), Coordinator Committee (16 indigenous persons in in each triennium), Community Captains (approx. 315 persons in each period, at the discretion of the community members), indigenous guards (approx. 315 in each year 2018 and 2019), Zonal Coordinators (6 indigenous persons), and persons of other community groups (women/men, youths, shamans, traditional doctors, healers and pastors), in general, approx. 1,043 indigenous persons have attended the training meetings in 2018 & 2019 about, among others affairs, climate change and the nature and characteristics of the REDD+ Project RIU-SM.</p> <ul style="list-style-type: none"> • Number of meetings and workshops to improve skills on climate change and REDD+ projects.

	In the meetings and workshops that are held, advances in the implementation of the Project are presented and it is also used to update the knowledge and emphasize the actions of protection of the forests and natural resources of the RIU-SM. There are several events (about 38), as described in the Annexes 1.1.2, 1.1.3, 1.1.4, 1.1.5, 1.2.1, 1.2.4, 1.3.1, 1.3.11, 1.4.12, 1.4.13 of validated PDD – VCS; Annexes 2.1, 2.9, 2.10-2.14, 2.16 of the verified Monitoring Report – VCS 2016-2017; Annexes 1.12, 1.14, 1.16, 1.17, 1.20, 1.27a, 4.5.5, and 4.5.6 of verified Monitoring Report – VCS 2018 & 2019.
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Community Groups	<p>Women / Men</p> <p>Youth</p> <p>Traditional authorities: Shamans, traditional doctors, healers and shepherds.</p> <p>Ethnic groups: <i>Cubeo, Curripaco, Piapoco, Piaroa, Puinave</i> and <i>Sikuani</i>.</p>																																																														
Impact	<p>Impact 5: Improved food supply at the family level (FAPUS) through the implementation of food guarantee projects and support to the Captains and other people involved in this system (women, men and youth).</p> <p>The populations closest to the Project Area are benefit from the extension and investment in basic services included in the REDD+ Project RIU-SM. The Project's actions can be complemented with other public or private investments, as this is a sector that requires a lot of investment and unity of effort and resources for the provision of basic services in areas of high geographic dispersion (validated PDD - VCS, p. 318).</p> <p>Environmental management and the generation of productive alternatives in the communities are strengthened (validated PDD - VCS, p. 318).</p>																																																														
Type of Benefit / Cost / Risk	Expected, direct impact, benefit.																																																														
Change in Well-being	<p>The estimation of the magnitude of change in this impact is done through the following indicators:</p> <ul style="list-style-type: none"> • Number of Family Agrifood Production Units (FAPUS) established and area per Sector. <p>The following table presents data about FAPUS units and the respective area.</p> <table border="1"> <thead> <tr> <th rowspan="2">#</th> <th rowspan="2">Sectors</th> <th colspan="2">2013-2015</th> <th colspan="2">2016-2017</th> <th colspan="2">2018-2019</th> </tr> <tr> <th>FAPUS Units</th> <th>Area (has)</th> <th>FAPUS Units</th> <th>Area (has)</th> <th>FAPUS Units</th> <th>Area (has)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td><i>Caño Cavasi</i></td> <td>350</td> <td>3,604</td> <td>1,087</td> <td>780</td> <td>958</td> <td>1,242</td> </tr> <tr> <td>2</td> <td><i>Aiwa-Cuna, Tsepajivo</i></td> <td>396</td> <td>3,504</td> <td>1,322</td> <td>2,265</td> <td>1,820</td> <td>1,974</td> </tr> <tr> <td>3a</td> <td><i>Bajo Río Vichada 1</i></td> <td>404</td> <td>5,039</td> <td>933</td> <td>2,634</td> <td>2,017</td> <td>1,714</td> </tr> <tr> <td>3b</td> <td><i>Bajo Río Vichada 2</i></td> <td>429</td> <td>6,166</td> <td>513</td> <td>3,005</td> <td>1,396</td> <td>1,287</td> </tr> <tr> <td>4</td> <td><i>Atana-Pirariami</i></td> <td>232</td> <td>2,022</td> <td>383</td> <td>1,192</td> <td>164</td> <td>125</td> </tr> <tr> <td>5</td> <td><i>Caño Zama</i></td> <td>46</td> <td>346</td> <td>104</td> <td>370</td> <td>76</td> <td>55</td> </tr> </tbody> </table>	#	Sectors	2013-2015		2016-2017		2018-2019		FAPUS Units	Area (has)	FAPUS Units	Area (has)	FAPUS Units	Area (has)	1	<i>Caño Cavasi</i>	350	3,604	1,087	780	958	1,242	2	<i>Aiwa-Cuna, Tsepajivo</i>	396	3,504	1,322	2,265	1,820	1,974	3a	<i>Bajo Río Vichada 1</i>	404	5,039	933	2,634	2,017	1,714	3b	<i>Bajo Río Vichada 2</i>	429	6,166	513	3,005	1,396	1,287	4	<i>Atana-Pirariami</i>	232	2,022	383	1,192	164	125	5	<i>Caño Zama</i>	46	346	104	370	76	55
#	Sectors			2013-2015		2016-2017		2018-2019																																																							
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6	<i>Matavén Fruta</i>	51	1,728	407	2,547	33	22
7	<i>Berrocal-Ajota</i>	94	2,160	195	949	136	169
8	<i>Lagunas Negra y Cacao</i>	61	945	46	403	156	183
9	<i>Sejalito –San Benito</i>	47	730	114	316	339	329
10	<i>Laguna Anguilla- La Macarena</i>	92	1,962	32	64	805	854
11	<i>Barranquito-Laguna Colorada</i>	72	1,030	25	21	854	909
12	<i>Caño Bocón</i>	34	632	33	697	43	109
13	<i>Cumaral</i>	80	1,015	28	54	102	184
14	<i>Yuri</i>	38	489	61	129	81	92
15	<i>Giro</i>	45	574	283	1,511	119	124
16	<i>Morocoto-Buenavista-Manajuaire</i>	161	2,174	1,087	780	593	641
Total		2,632	34,119	5,566	16,936	9,694	10,013

Source: According to data about the HAAs (GIS) and FAPUS survey 2018-2019

- Number of people from the communities per Sector who are trained in the application of environmental knowledge and agri-food production.

In the first instance, the community Captains are the people trained in the implementation of FAPUS and environmental sustainability, who are in charge of executing the aspects of Activity A2.1 to involve families in this strategy and guarantee food guarantee in the RIU-SM communities. The following table presents the quantity of Community Captains by Sectors of RIU-SM and the persons who are engaged in agriculture.

#	Sectors	Trained Captains	Farmers
1	<i>Caño Cavasi</i>	40	344
2	<i>Aiwa-Cuna, Tsepajivo</i>	40	539
3a	<i>Bajo Río Vichada 1</i>	44	444
3b	<i>Bajo Río Vichada 2</i>	60	631
4	<i>Atana-Pirariami</i>	14	67
5	<i>Caño Zama</i>	4	32
6	<i>Matavén Fruta</i>	6	135
7	<i>Berrocal-Ajota</i>	10	207
8	<i>Lagunas Negra y Cacao</i>	4	65
9	<i>Sejalito –San Benito</i>	5	76
10	<i>Laguna Anguilla- La Macarena</i>	13	210
11	<i>Barranquito-Laguna Colorada</i>	5	115
12	<i>Caño Bocón</i>	1	16
13	<i>Cumaral</i>	2	32
14	<i>Yuri</i>	2	17
15	<i>Giro</i>	3	19
16	<i>Morocoto-Buenavista-Manajuaire</i>	12	168
Total		265	3,117

Source: Table 2 of PDD-CCB

In addition, according to the 2018 census, there are 3,117 indigenous persons that are considered agricultural and are applying the FAPUS.

- Number of food guarantee projects established by Sector.

According to Project Activity A.2.1, the following is being developed:

- Family Agri-food Production Units System – FAPUS, that which is constituted as a strategy to improve land use and food production.
- Cassava graters and other elements have been delivered to all indigenous communities in every Sector, to improve the production processes that are carried out to obtain derivative-products from this tuber.
- Agricultural machinery was acquired (as a pilot process) to strengthen the food sustainability of the indigenous reservation.
- Cookware (“menaje” in local language) was provided, with which the aim is to support indigenous women, as heads of household, in their food preparation task, with elements that can contribute to the improvement of health and life quality of the family members.

According to Project Activity A.2.3, steps were taken to define the productive projects that can begin to be implemented as pilot initiatives in some communities of the RIU-SM, in order to evaluate their development and success. The proposals are as follows:

- Cassava cultivation project to obtain *mañoco*.
- *Panelera* cane production project.
- Minor species (hens) production project.
- Crop fish in floating cages (fish farming for food guarantee).
- Self-sufficient integral community farms (Agrosilvopastoral).
- *Lapa* zoo-breeder for consumption.

Of the proposals about food guarantee, the Silvopastoral production project is in execution: A meat and milk production line is being implemented to complement the FAPUS and improve food production.

(According to verified Monitoring Report – VCS 2018 & 2019, Section “3.1.1 Operation of the Project Activities during this Monitoring Period / ACTIVITY A2.1”, page 103; / “ACTIVITY A2.3”, page 126).

- Value of support to Captains and other persons participating in the FAPUS System.

To develop the Project Activity A2.1, USD 895,378 in 2018 and USD 369,343 in 2019 were executed (Annex 2.2 of verified Monitoring Report – VCS 2018 & 2019).

To develop the Project Activity A2.3 USD 503,551 in 2018 and USD 822,857 in 2019 were executed (Annex 2.4 of verified Monitoring Report – VCS 2018 & 2019).

Community Groups	<p>Women / Men</p> <p>Youth</p> <p>Traditional authorities: Shamans, traditional doctors, healers and shepherds.</p> <p>Ethnic groups: <i>Cubeo, Curripaco, Piapoco, Piaroa, Puinave</i> and <i>Sikuani</i>.</p>
Impact	<p>Impact 6: Improved environmental knowledge of the communities about the state of the forests, soils and fauna that inhabit them, for timely decision making.</p> <p>Indigenous communities have the opportunity to access information and means of communication for the construction of a forest conservation policy.</p> <p>Information and environmental education strategies are implemented to sensitize local communities on the importance of protecting the environment; disseminate the REDD+ Project RIU-SM so that all communities understand in depth the benefits of environmental protection, supporting local environmental education initiatives (PDD - VCS validated, p. 316).</p> <p>Support is provided for basic education (for children and young people) and for access to higher education for young people and adults. There are also other types of training for young people and adults in different areas, particularly education for work, enabling access to technical and productive training courses and, above all, generating options for future work and employment for them.</p>
Type of Benefit / Cost / Risk	<p>Expected, direct impact, benefit.</p>
Change in Well-being	<p>The magnitude of the change in this impact is estimated through the following indicators:</p> <ul style="list-style-type: none"> • Number of graduated high school students who have started their training and educational programs for the integral-sustainable management of forests and lands of the RIU-SM. <p>According to development of the Tasks T2.2.4.2.20 Professional programs, T2.2.4.2.21 Educational bachelor programs, T2.2.4.2.22 Programs at the technical, technological, and professional level, and T2.2.4.2.23 Educational bachelor programs (for teachers), in 2018 & 2019 there were 121 students who are receiving support to develop their higher education in areas such as Administration (public and business), Architecture, Archives, Nursing, Accounting, Commerce, Social Communication, Law, Sports, Health, Environmental Management, Industrial Engineering, Civil Engineering, Degree, Dentistry, Agricultural, Social Promotion, Psychology, Zootechnics, areas in which indigenous professionals are required for, precisely, achieve the integral-sustainable management of forests and lands of the RIU-SM and the management of the REDD+ Project RIU-SM, of which 52 are women (see the verified Monitoring Report – VCS 2018 & 2019, Section “3.1.1 Operation of the Project Activities during this Monitoring Period / ACTIVITY A2.2”, page 124.</p> <ul style="list-style-type: none"> • Number of persons of the communities of the 16 Sectors and 5 Zones who are trained in the application of environmental knowledge concerning the condition of forests, soils and the fauna that inhabits them. <p>There were around 1,043 participants from indigenous communities in the meetings and</p>

	<p>training workshops (2018 - 2019), of the 16 Sectors and 5 Zones, who have been trained, among other aspects, in in the application of environmental knowledge concerning the condition of forests, soils and the fauna that inhabits them, as described in the minutes of meetings and training workshops in Annex 1 of validated PDD- VCS, Annex 2 of verified Monitoring Report – VCS 2016 – 2017 and Annexes 1, 4.5.5, and 4.5.6 of verified Monitoring Report – VCS 2018 & 2019.</p> <ul style="list-style-type: none"> • Number of people supported to develop basic education (children and youth) and higher education, with emphasis on the environmental aspect, particularly in relation to the state of forests, soils and the fauna that inhabits them. <p>The REDD+ Project RIU-SM is supporting around 3,310 indigenous persons (children and youth, of which about 1,600 are women) that are developing basic education, through the improvement and construction of classrooms in RIU-SM schools and delivery of school kits to children; also, Project is supporting 121 students in higher education (of which 52 are women), through the payment of tuition fees at universities and educational institutes, and financial support in some circumstances, as described in the verified Monitoring Report – VCS 2018 & 2019, Section “3.1.1 Operation of the Project Activities during this Monitoring Period / ACTIVITY A2.2”, page 113.</p> <ul style="list-style-type: none"> • Number of courses, workshops, meetings on the status of forests, soils and the fauna that inhabit them for timely decision making. <p>There have been about 20 meetings and training workshops, in which, among other topics, have been treated the status of forests, soils and the fauna that inhabit the RIU-SM for timely decision making, as described in the; Annexes 1.12, 1.14, 1.16, 1.17, 1.20, 1.27a, 4.5.5, and 4.5.6 of verified Monitoring Report – VCS 2018 & 2019.</p> <p>Annexes 1.1.2, 1.1.3, 1.1.4, 1.1.5, 1.2.1, 1.2.4, 1.3.1, 1.3.11, 1.4.12, 1.4.13 of validated PDD – VCS and Annexes 2.1, 2.9, 2.10 – 2.14, 2.16 of the verified Monitoring Report – VCS 2016-2017 also presented information about this matter between 2013 – 2017.</p>
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Community Groups	<p>Women / Men</p> <p>Youth</p> <p>Traditional authorities: Shamans, traditional doctors, healers and shepherds.</p> <p>Ethnic groups: <i>Cubeo, Curripaco, Piapoco, Piaroa, Puinave and Sikuani.</i></p>
Impact	<p>Impact 7: Improvement of the economic income conditions of the families of each community group, through the commercialization of surpluses and the strengthening of productive chains.</p> <p>With the development of sustainable production projects promoted by the REDD+ Project RIU-SM, the viability of sustainable economic activities reduce pressure on the forests, providing economic opportunities for local residents and native families (validated PDD - VCS, p. 318).</p> <p>Commercial interaction: Indigenous communities that due to the negotiation of the REDD+ Project RIU-SM, energize the commercial relations necessary for the advancement of goods and services within the project’s region (Annex 4 of validated PDD – VCS).</p>

<p>Type of Benefit / Cost / Risk</p>	<p>Expected, direct impact, benefit.</p>
<p>Change in Well-being</p>	<p>The magnitude of the change in this impact is estimated using the following indicators:</p> <ul style="list-style-type: none"> • Number of productive chain projects to be established, indicating their characteristics (agroforestry, silvopastoral), type of project, area and number of beneficiary communities and families. <p>According to Project Activity A.2.3, steps were taken to define the productive projects that can begin to be implemented as pilot initiatives in some communities of the RIU-SM, in order to evaluate their development and success. The proposals are as follows:</p> <ul style="list-style-type: none"> - Cassava cultivation project to obtain <i>mañoco</i>. - Tourism project. - <i>Panelera</i> cane production project. - Minor species (hens) production project. - Crop fish in floating cages (fish farming for food guarantee). - Ornamental fish production project. - Self-sufficient integral community farms (Agrosilvopastoral). - Training and accompaniment in handcraft processes. - <i>Lapa</i> zoo-breeder for consumption. <p>Of the proposals, the following are in execution:</p> <ul style="list-style-type: none"> - Silvopastoral production project: A meat and milk production line is being implemented to complement the FAPUS and improve food production. - Agroforestry project with cocoa, plantain, corn, and forest trees: This project is carrying out in 10 communities in Zones 4 and 5 of the RIU-SM. In each community 10 families are in charge of the cultivation and production in 1 hectare of land (each one), in this way 100 families are cultivating 100 hectares. An agreement was signed with FEDECACAO to develop this project. <p>(verified Monitoring Report – VCS 2018 & 2019, Section “3.1.1 Operation of the Project Activities during this Monitoring Period / ACTIVITY A2.1”, page 103; / “ACTIVITY A2.3”, page 126).</p> <ul style="list-style-type: none"> • Number of people associated with a multipurpose cooperative that includes the production, processing and marketing of the products of the chain projects. <p>There is 47 indigenous persons of the RIU-SM that are associated in the multipurpose cooperative called <i>COOMATAVÉN</i>, and that have received training in this regard (Annex 4.6.4 of the verified Monitoring Report – VCS 2018 & 2019).</p> <ul style="list-style-type: none"> • Number of families benefiting from improved marketing of surpluses.

	<p>Of the families surveyed about the implementation and results of FAPUS, all presented surpluses in at least one of the foods produced, which they usually commercialize or exchange. In this way, it can be considered that the 3,117 farmers in the RIU-SM have products for trade.</p> <ul style="list-style-type: none"> Value of the economic income of the families from the establishment and development of the chain production projects. <p>The productive projects implemented are helping to ensure food sustainability. However, it is expected that they will soon give results for their commercialization and generation of income for the families that participate in them.</p>
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Community Groups	<p>Women / Men</p> <p>Youth</p> <p>Traditional authorities: Shamans, traditional doctors, healers and shepherds.</p> <p>Ethnic groups: <i>Cubeo, Curripaco, Piapoco, Piaroa, Puinave</i> and <i>Sikuani</i>.</p>												
Impact	<p>Impact 8: Availability of financial resources that will contribute to the sustainability and improvement of the living conditions of the indigenous communities of the RIU-SM.</p> <p>Through the planned development of Activities A3.1 and A3.2, these financial resources are being available.</p> <p><i>Expected Product / Result 3: A mechanism for valuation and compensation for environmental services generated in the RIU-SM, validated and verified.</i></p> <ul style="list-style-type: none"> <i>Activity A3.1: Validate a REDD+ Project with international standards.</i> <i>Activity A3.2: Verify Project and to register units of forest compensation for avoided deforestation.</i> <p>The possible financing of the Project Activities is made through entry due to the commercialization of the carbon credits derived from a REDD+ Project.</p>												
Type of Benefit / Cost / Risk	<p>Real, direct impact, benefit.</p>												
Change in Well-being	<p>The estimation of the magnitude of change in this impact is done through the following indicators:</p> <ul style="list-style-type: none"> Number of VCUs that are certified at validation and at each of the Project verifications. <table border="1" style="width: 100%; text-align: center;"> <thead> <tr style="background-color: #d9ead3;"> <th>Periods</th> <th>2013</th> <th>2014-2015</th> <th>2016-2017</th> <th>2018</th> <th>2019</th> </tr> </thead> <tbody> <tr> <td>Verified VCUs</td> <td>3,615,316</td> <td>7,097,573</td> <td>6,404,775</td> <td>3,175,941</td> <td>4,921,874</td> </tr> </tbody> </table> <ul style="list-style-type: none"> Estimated monetary values of sales of these VCUs. <p>The carbon tax non-causation mechanism has established that, for the year 2021, the rate corresponds to COP 17,660. This rate represents a reference price to establish the</p>	Periods	2013	2014-2015	2016-2017	2018	2019	Verified VCUs	3,615,316	7,097,573	6,404,775	3,175,941	4,921,874
Periods	2013	2014-2015	2016-2017	2018	2019								
Verified VCUs	3,615,316	7,097,573	6,404,775	3,175,941	4,921,874								

monetary value of the VCUs that, however, would not reach that price, oscillating between USD 2.5 - 3.			
<ul style="list-style-type: none"> Estimated monetary values distributed by Project Activities. 			
Activities		Executed value USD 2018	Executed value USD 2019
A1.1	Monitor and control the conservation and recovery of forests and lands of the RIU-SM	304,959	457,096
A1.2	Develop and to implement a system of communication and information at the RIU-SM	130,126	704,888
A1.3	Develop and to implement a governance system for development and sustainability of ACATISEMA Association	562,913	960,770
A2.1	Establish and to develop a Family Agrifood Production Units System (FAPUS)	895,378	438,241
A2.2	Design and to develop a training programs plan to administration and management of natural resources of the RIU-SM	371,359	402,656
A2.3	Manage resources for project design and establishment of production chains.	503,551	617,222
A3.2	Verify Project and to register units of forest compensation for avoided deforestation	316,310	195,751
TOTAL		3,084,597	3,776,624
Note: The information is presented in dollars, at an exchange rate of COP\$3,500 per dollar			
Source: Annexes 2.2 and 2.4 (Project Progress Reports 2018 and 2019) of verified Monitoring Report – VCS 2018 & 2019			

Key assumptions and rationale

The key assumptions and their rationale are identified based on the Project Logical Framework, which is presented in the validated PDD - VCS, Section “1.8 Description of the Project activity”, page 45. It is done according to the objectives and expected outputs, as it is explained in the PDD-CCB, Section “4.2.1 Expected Community Impacts”.

Methodological choices

Methodologies used:

Common Guidance for the HIGH CONSERVATION VALUES – A good practice guide for identifying HCVs across different ecosystems and production systems (Brown et al -EDS-, 2013)

Social and Biodiversity Impact Assessment (SBIA) Manual for REDD+ projects; and the conservation agreements of the conservation for development programs, according to the methodology of the Conservation Steward Program (CSP) issued by Conservation International.

Sustainable Management Plan for Land and Forest that conducts to Matrix of Logic Structure (MLS) with Products/Results and Activities (validated PDD – VCS, Section “1.8 Description of the Project activity”, page 42).

Theory of change, according to Social and Biodiversity Impact Assessment (SBIA) - Manual for REDD+ projects, Part 1 (Richards & Panfil, 2011).

Participation of affected groups in impact assessment

According to Social and Biodiversity Impact Assessment (SBIA) - Manual for REDD+ projects, Part 1 (Richards & Panfil, 2011), Section “7. SBIA Stage 5: Identification of Indicators” ensures that this approach is based on the recognition that the local population is capable of identifying and measuring their own indicators of change.

In the design of the Project and its development, the participation of all the groups of the reservation, already characterized above, has been considered essential to design the Activities and measures that allow evaluating the impacts previously presented.

With respect to the process of participation and consultation in the inside of the communities in relation to the themes that required their analysis and that have to do with the participation of government and private agencies and proposals, agreements, contracts, etc. Forums and meetings have been developed, where the following is observed:

The gradual building of government, in such a great region and with so few resources, it is a significant challenge to establish an infrastructure with representation and participation of the communities.

A permanent interest on behalf of the organization ACATISEMA for better living conditions for the associates and the search for backing from public and private organizations to accomplished such feat.

More participation from the women in the community process, they are more involved starting with the committee coordinator. There is a special place for the development and respect of the women within the reservation.

More involvement from the youth in the different process as part of the strengthening of the organization and an united criteria.

A massive assistance and participation in the different meetings, forums, talks and visits, this demonstrates an interest in the future activities and a desire to participate.

The process to establish a Life Plan, where the cornerstone is a fundamental community participation.

In the Annex 1 of validated PDD - VCS, all the references of the different meetings and Assemblies in which the analysis of the Project and its impacts have been made have been identified, and in the Section 2.11.2 of Annex 22 of the validated PDD - VCS illustrates the process of participation and consultation with the communities. In the Annex 2 of verified Monitoring Report – VCS 2016 – 2017 and in the Annexes 1, 4.5.5 and 4.5.6 of verified Monitoring Report – VCS 2018 & 2019 are the evidences of the participation of different community groups in the socialization and training processes. In each of these events, spaces are opened for participants to present their questions and comments regarding the benefits that are being given at the RIU-SM, and, above all, in the meetings of Cabildos Board and Coordinator Committee.

4.1.2 Negative Community Impact Mitigation (CM2.2)

Mitigation of impacts on indigenous community, social and economic components in the “Without project” scenario

In the REDD+ Project RIU-SM implementation scenario, the Sustainable Management Plan for Land and

Forest of RIU-SM is being executed. Within the framework of this plan, all Project Activities are executed that bring benefits to the communities and also, of course, contribute to mitigating the negative impacts that would occur in the scenario of land use without a project, as explained in the PDD-CCB, Section “4.2.2 Negative Community Impact Mitigation”, as follows:

The lack of resources to implement the Project Activities has been mitigated with the compensation for environmental services provided through the commercialization of VCUs that have already been verified, as described in verified Monitoring Report – VCS 2018 & 2019, Section “3.1.1 Operation of the Project Activities during this Monitoring Period / ACTIVITY A3.1: Validate a REDD+ Project with international standards” page 139 and “ACTIVITY A3.2: Verify the Project and to registry the units of forest compensation for avoided deforestation” page 140.

Technological and educational barriers are being addressed by the REDD+ Project RIU-SM, through the implementation of actions that seek to establish information, communication and transportation systems with which means are developed to establish connections between indigenous communities among themselves and with the authorities that represent them, as described in verified Monitoring Report – VCS 2018 & 2019, Section “3.1.1 Operation of the Project Activities during this Monitoring Period / ACTIVITY A1.2: Develop and implement a communication and information system in the RIU-SM”, page 79.

This Project Activity provides better opportunities to inform a population of over 13,000 people, including children and adults, who live in a situation with unsatisfied basic needs and with very limited support of State entities.

REDD+ Project RIU-SM also carry out actions that seek to improve the conditions in which educational processes are developed within the RIU-SM, with the improvement of schools and colleges, the construction of new classrooms and the provision of school kits, in addition the payment of tuition fees at universities and educational institutes, and financial support in some circumstances, as described in verified Monitoring Report – VCS 2018 & 2019, Section “3.1.1 Operation of the Project Activities during this Monitoring Period / ACTIVITY A2.2”, page 113.

The lack of a strategy to promote and provide financial support to communities for the protection and care of their territory is being mitigates by actions that are execute in the framework of the Project, as measures to reduce the perpetuation of the informal management of production practices, such as mining, ranching and land invasion (colonization). This set of actions correspond to the implementation of the Project Activities A1.3, A2.1, A2.3, A3.1, and A3.2 (verified Monitoring Report – VCS 2018 & 2019, Section “3.1.1 Operation of the Project Activities during this Monitoring Period / ACTIVITY A1.3” page 90, “ACTIVITY A2.1” page 103, “ACTIVITY A2.3” page 126, “ACTIVITY A3.1” page 139 and “ACTIVITY A3.2” page 140.

Threats to forest conservation are being mitigated by the implementation of the Sustainable Management Plan for Land and Forest of RIU-SM, and the results are based on the deforestation projected for the periods 2018 & 2019 in the Project Area - PA (10,568 and 13,909 has respectively, according to validated PDD - VCS, Section “3.1.2.6 Projected deforested areas / Table 61” page 209) and on monitoring the deforestation that occurred in the indicated periods, a process that resulted in a deforestation of 766.9 hectares in 2018 and 1,108 hectares in 2019, which indicates that 9,801 hectares in 2018 were protected (that is, the 92.7% of the forest in PA was protected in relation to the expected deforestation in that year) and 13,267 hectares in 2019 were protected (that is, the 95.4% of the forest in PA was protected in relation to the expected deforestation in that year), as described in verified Monitoring Report – VCS 2018 & 2019, Section "5 Quantification of GHG emission reductions and removals / Table 29", page 231.

The lack of job opportunities and productive projects is being mitigated through the execution of the Project Activities, which generate occupation among the indigenous population of the RIU-SM, in relation to the number of indigenous guards that has been increased (Activity A1.1), to people who contribute to the

implementation of the systems of information, communication and transportation (Activity A1.2), to the indigenous people who are participating in the governance processes in the RIU-SM through ACATISEMA (Activity A1.3), to the farming families that develop the FAPUS to guarantee the food guarantee (Activity A2.1), and the leaders who are developing productive projects in the RIU-SM (Activity A2.3). These Project Activities seek to improve livelihood mechanisms so that pressure on forests and related resources is reduced.

In the same way, ACATISEMA has created formal jobs for several people who work in the offices that are now better organized.

Also, with the complementary actions (in terms of water supply, housing improvement, health care, attention to the special population - verified Monitoring Report – VCS 2018 & 2019, Section “3.1.1 Operation of the Project Activities during this Monitoring Period / EXECUTION OF ACATISEMA RESERVES”, page 149) living conditions are being improved. These actions are generating occupation and productive projects in which all communities participate. These measures also contribute to the protection of forests by avoiding their deforestation by generating alternative economic activities that will arise within communities as a strategy for improving farming practices, livestock and trade.

Mitigation of negative impact arising from internal conflicts within the communities

The indigenous peoples of the RIU-SM have improved their mechanisms for self-government and resolution of their own conflicts, by strengthening their indigenous governance and their ACATISEMA Association, specifically through the implementation of Activity A1.3 (see results in verified Monitoring Report – VCS 2018 & 2019, Section “3.1.1 Operation of the Project Activities during this Monitoring Period / ACTIVITY A1.3”, page 90) and the multiple meetings that they hold autonomously (see meeting minutes in Annex 1 of the verified Monitoring Report – VCS 2018 & 2019) where they resolve their issues and make decisions.

Consistency of these mitigation measures with the precautionary principle

In the results obtained by the execution of the Project Activities, no damage caused to public health or the environment has been observed, on the contrary, the impacts are positive in terms of preserving and even improving health conditions. and attention in this matter (RA1), as well as in the protection of the natural resources of the RIU-SM, especially its forests. In the meetings of the *Cabildos* Board and Coordinator Committee (Annex 1 of the verified Monitoring Report – VCS 2018 & 2019), which have also been spaces to collect the impressions of the beneficiaries of the REDD+ Project, RIU-SM these positive impacts are highlighted, without mentioning any negative effect, but rather observations improvement in some aspects.

Measures for the maintenance or improvement of HCV attributes related to community well-being

The measures for the maintenance or improvement of the HCV attributes related to the well-being of the RIU-SM communities are focused on the protection, conservation and recovery of the forests and lands of the Indigenous Reservation, based on the implementation of the Sustainable Management Plan for Land and Forest (Annex 4 of the validated PDD - VCS), through its Strategic Elements and Project Activities. Following Table 30 shows these measures.

Table 30. Measures for the maintenance or improvement of HCV attributes related to community well-being

HCVs	Qualifying Attributes of HCVs related to the well-being of communities	Measures taken to maintain or improve HCV attributes related to community welfare and evidences according to Project Activities
<p>HCV 4.1: Regulating and supporting areas: forest areas at the edge of large rivers and around communities</p>	<p>They provide ecosystem services in critical situations important for the protection of primary forest and communities from landslides and erosion in the ravines of the four main rivers (Vichada, Orinoco, <i>Brazo Amanavén</i> and Orinoco).</p>	<p>With the integral protection of the forests in the different biomes and landscapes, by Project Activities implementation, especially those located near the RIU-SM communities, the following has been achieved:</p> <ul style="list-style-type: none"> • Banks of the four main rivers are protected and erosion and landslides on the edges are prevented (Activity A1.1). • River surveillance routes are implemented by indigenous guard to protect the natural resources of territory of RIU-SM (A1.1). • Fires and impacts of strong winds are monitored to prevent and control them, according to IDEAM early warnings (A1.1). • Indigenous guard, authorities and communities are trained in the implementation of these specific measures to monitor the RIU-SM (A2.2).
<p>HCV 4.2: Regulating and supporting areas: upland and floodplain forest areas</p>	<p>They provide ecosystem services in the maintenance and protection of vulnerable soils (Heterogeneous Agricultural Areas -HAA- or conucos) and aquifers. They also protect soil fertility, preventing erosion and nutrient loss. This is an indispensable element for the food sustainability of the communities.</p>	<p>The following specific measures have been complementary to the general measures described above:</p> <ul style="list-style-type: none"> • Forest areas in high and flood zones are protected (A1.1). • Indigenous guard and the communities surrounding the forest areas in high and floodable zones monitor them through the implementation of land surveillance routes (A1.1). • Fires and impacts of strong winds are monitored to prevent and control them, according to IDEAM early warnings (A1.1). • Indigenous guard, authorities and communities are trained in the implementation of these specific measures to monitor the RIU-SM (A2.2).
<p>HCV 5.1: Food resource supply areas</p>	<p>These are fundamental areas for the food sustenance of the indigenous communities of the RIU Selva Matavén. For example, in the areas of flooded forest called by the</p>	<p>The following specific measures have been complementary to the general measures described above:</p> <ul style="list-style-type: none"> • Heterogeneous Agricultural Areas (HAA), pastures and floodable forests near the communities are

HCVs	Qualifying Attributes of HCVs related to the well-being of communities	Measures taken to maintain or improve HCV attributes related to community welfare and evidences according to Project Activities
	<p>indigenous people as fishing ponds, in addition to collecting fruits and medicinal plants.</p> <p>The Heterogeneous Agricultural Areas -HAA- are areas where the inhabitants of the RIU-SM develop their traditional agricultural activity, cultivating diverse products to provide food for their families, mainly cassava, from which they obtain derivatives such as <i>mañoco</i> and <i>casave</i>, and others such as corn, plantain and some fruit trees.</p> <p>Cattle pastures are areas converted from forest to pasture; savanna grasslands are not used for this feeding purpose.</p> <p>Also included are primary and secondary forests near the communities, which provide food through fauna and fruits of the forest.</p>	<p>strengthened to contribute to food guarantee (A2.1).</p> <ul style="list-style-type: none"> • Monitoring and control by the indigenous guard and the communities surrounding the Heterogeneous Agricultural Areas (HAA), pastures and floodable forests near the communities have been carried out through the implementation of river and land surveillance routes (A1.1). • Fires and impacts of strong winds are monitored to prevent and control them, according to IDEAM early warnings (A1.1). • Indigenous guard, authorities and communities are trained in the implementation of these specific measures to monitor the RIU-SM (A2.2). • Farming families are trained in the implementation of collection plans and sustainable use of products generated in Heterogeneous Agricultural Areas -HAA-, pastures and floodable forests (A2.3). • Farming families are trained in the implementation of productive projects (nurseries, seeds of species of traditional use for nutrition; technical assistance) in the Heterogeneous Agricultural Areas -HAA- and floodable forests (A2.3). • Farming families are trained for the implementation of productive projects and zoo-breeding of minor species, with the purpose of occupying the population dedicated to the hunting of wild species; and to encourage the sustainable management of hunting (A2.3). • Farming families are trained for water management in the communities, a necessary element for the Heterogeneous Agricultural Areas -HAA-, pastures and floodable forests (A2.3).
<p>HCV 5.2: Material supply areas</p>	<p>Areas of forest that provide materials for the construction of houses and canoes, as well as for the manufacture of traditional utensils, handicrafts and other materials and tools for agroforestry systems in the conucos.</p>	<p>The following specific measures have been complementary to the general measures described above:</p> <ul style="list-style-type: none"> • Material supply areas are protected (A1.1). • Indigenous guard and the communities protect the material supply areas close to the communities, through the implementation of river and land

HCVs	Qualifying Attributes of HCVs related to the well-being of communities	Measures taken to maintain or improve HCV attributes related to community welfare and evidences according to Project Activities
		<p>surveillance routes (A1.1).</p> <ul style="list-style-type: none"> • Fires and impacts of strong winds are monitored to prevent and control them, according to IDEAM early warnings (A1.1). • Indigenous guard, authorities and communities are trained in the implementation of these specific measures to monitor the RIU-SM (A2.2). • Community members are trained in the design and development of sustainable forest harvesting and utilization plans for the construction of houses and canoes, as well as for the manufacture of traditional utensils, handicrafts and other materials and tools for agroforestry systems in the conucos (A2.3).
<p>HCV 6.1: Sacred sites</p>	<p>They are respected and protected places, since they are inhabited by the spirits of animals and non-human beings who care for and protect the resources of the jungle. These places are not visited so as not to anger these beings and prevent people or their communities from being punished with diseases, loss of crops, scarcity of animals for fishing and hunting and even death.</p>	<p>The following specific measures have been complementary to the general measures described above:</p> <ul style="list-style-type: none"> • Areas where there are sacred sites are protected (A1.1). • Indigenous guard and the communities protect and conserve the surrounding sacred sites (A1.1). • Indigenous guard, authorities and communities have been participating in the implementation of these specific measures (A1.1). • Community members are trained in the monitoring of places of spiritual and cultural value (A1.1). • Community members are trained about the guidelines for a pilot project for responsible and sustainable nature tourism in areas of cultural importance for recreation and relaxation (A2.2). • Community members are trained in the cultural and environmental management of the tourism projects (A2.2).

4.1.3 Net Positive Community Well-Being (CM2.3, GL1.4)

The Sustainable Management Plan for Land and Forest proposes special management of the different areas of primary, secondary and stubble forest (which is in a recovered and conserved process) and, in particular, the areas of family agri-food production, which are being maintained and improved over time, to

provide productive capacity by increasing soil fertility and facilitating crop rotation, thus avoiding deforestation and complying with Project Products. Following Table 31 shows these aspects.

Table 31. Demonstration that the net impacts of the Project on the well-being of communities are positive compared to the no-project land use scenario

Positive impacts on the wellbeing of all community groups	Welfare conditions foreseen in the <u>without Project scenario</u>	Demonstration of the expected net positive impacts of the Project on the welfare of all community groups, compared to the welfare conditions expected in the without-Project scenario.
Impact 1: Improvement and strengthening of ACATISEMA's governance in the Unified Indigenous Resguardo - Selva de Matavén, for decision making.	Without the project, there are not sufficient and adequate spaces for consultation among the communities to improve participation in ACATISEMA's decision-making and governance.	Implementation of Project Activity A1.3 have generated spaces for exchange between the communities for decision making through the strengthening of the organizational structure of the Indigenous Reservation and ACATISEMA.
Impact 2: Improved environmental knowledge of the communities about the state of the forests, soils and fauna that inhabit them, for timely decision making.	Without the project, information relevant to the sustainability of the forest ecosystems and the well-being of the RIU-SM communities is not disseminated, which prevents the improvement of environmental knowledge. If the ecological importance of the natural capital that sustains the quality of life is unknown, there is no awareness of the impact generated by inappropriate behavior.	Implementation of Project Activity A2.2 have improved the environmental knowledge, and its dissemination are being sufficiently carried out through the material shared with the communities (A1.2), which is relevant to the needs of the inhabitants of the territory of RIU-SM, that are being financed by the Project.
Impact 3: Recovery and improvement of the conditions of community HCVs, as described in Section "4.1.3" of PDD-CCB.	Without the project there is no identification of HCVs and, therefore, no improvement or recovery of HCV conditions.	Implementation of Project Activity A1.1 have improved the conditions of the different areas that make up each of the HCVs identified in Section 4.1.3 of PDD-CCB, particularly the care, protection and recovery of forests through the improvement of their bio-physical factors (such as soils) and their consequences in the improvement of their productive conditions and, therefore, the improvement of the food

Positive impacts on the wellbeing of all community groups	Welfare conditions foreseen in the <u>without Project scenario</u>	Demonstration of the expected net positive impacts of the Project on the welfare of all community groups, compared to the welfare conditions expected in the without-Project scenario.
		conditions of the communities.
Impact 4: Improved capacity to develop monitoring of the quality of ecosystem services and participatory surveillance, in particular, of specific measures in the recovery and improvement of community HCVs.	Without the project, there are no monitoring programs in the territory to determine and verify the conservation status of ecosystem services for regulating water flows and levels and their impacts.	Implementation of Project Activity A1.1 lets to monitor the quality of ecosystem services. These strengthens participatory monitoring and, in particular, the improvement of community HCVs.
Impact 5: Improved food supply at the family level (FAPUS) through the implementation of food guarantee projects and support to the Captains and other people who participate in this system (women, men and youth).	Without advice, economic support and accompaniment, alternative food production systems are neither sustainable nor attractive to indigenous people.	Implementation of Project Activities A2.1 and A2.3 promotes and strengthens the organization and practices of alternative sustainable production systems for food production and trade of surpluses.
Impact 6: Improvement of the economic income conditions of the families of each community group, through the commercialization of surpluses and the strengthening of productive chains.	The socioeconomic conditions described in Section 4.1.1 of PDD-CCB indicate no or low level of income for families in each community group under the current production schemes.	Implementation of Project Activity A2.3 lets to identify alternative forms of production that generate better economic income conditions for the families of each community group and improves marketing mechanisms through the establishment and strengthening of productive chain projects.
Impact 7: Establishment and strengthening of the level of participation of people from community groups in activities related to the REDD+ Project RIU-SM.	In the absence of the Project, there is no participation of community groups in activities.	Implementation of Project Activities, in general, generates impacts of great benefit for the territory and the communities, which stimulates the participation of the community groups in the Project.
Impact 8: Availability of financial resources that will contribute to the sustainability and improvement of the living conditions of the indigenous communities of the	In the absence of the Project, there are no sufficient and adequate financial resources available to contribute to the establishment of measures for the	Implementation of Project Activities A3.1 and A3.2 generates the availability of financial resources that contributes to the sustainability and improvement of

Positive impacts on the wellbeing of all community groups	Welfare conditions foreseen in the <u>without Project scenario</u>	Demonstration of the expected net positive impacts of the Project on the welfare of all community groups, compared to the welfare conditions expected in the without-Project scenario.
RIU-SM.	sustainability and improvement of the living conditions of the indigenous communities.	the living conditions of the indigenous communities.

The impacts achieved with the implementation of the Project Activities are described in the verified Monitoring Report – VCS 2018 & 2019, Section “3.1.1 Operation of the Project Activities during this Monitoring Period”, page 64 onwards. According to what has been presented in the previous sections, the impacts derived from the implementation of the Project have been positive for all identified community groups, naturally, with elements to improve in the management and execution processes, according to the participatory process of indigenous communities, for which they have put forward their points of view and suggestions.

Participation and benefit distribution among the ethnic groups of RIU-SM

The ethnic groups of the *Resguardo Indígena Unificado - Selva de Matavén* participate in decision-making on the distribution of resources that the REDD+ Project RIU-SM invests in the territory, and their needs, requests and proposals are taken into account in the implementation of the Activities and other actions that generate benefits for them.

Such is the case of the definition of the budget for 2018 and 2019, for which workshops were developed in each of the 5 Zones of the RIU-SM, in which more than 600 people participated between Captains and different leaders and members of the indigenous communities (Annexes 1.2 - 1.6 of verified Monitoring Report VCS 2018 & 2019). These workshops resulted in a set of requirements presented by the participants, which were systematized, classified according to their relationship with the Project Activities and ACATISEMA Reserves (RA), prioritized and socialized at the meeting of the Junta de Cabildos and Coordinating Committee, held on February 7-9, 2018 (Annexes 1. 10 of verified Monitoring Report VCS 2018 & 2019), based on which a general scheme was obtained to define investment plans (which has been replicated for all years) and guidelines were determined for the execution of the 2018-2019 budget (Annexes 1.7 - 1.9 and 1.22 of verified Monitoring Report VCS 2018 & 2019).

At the meeting of the Board of Cabildos and Coordinating Committee, held on January 30 - 31, 2020 (Annexes 1.27a of verified Monitoring Report VCS 2018 & 2019), a budget distribution was also defined based on the budget executed in 2018 and 2019 and the experience learned in those years. In this distribution, in addition to the budget for the items corresponding to the Project Activities and ACATISEMA Reserves, it was defined to set aside a specific value for a "Sectoral Social Welfare Fund" or, as it is usually called, for Sectoral Requests, where the allocation for each Sector was defined according to the population distribution in each of them (Annex 6.1 of this document -folder “Annex6_budget_decis_meetings”-, where the figures in the "population" column correspond to adjustments that the Cabildos themselves proposed, but which are not official and differ from the data obtained by the RIU-SM 2018 self-census).

Subsequently, the allocation of resources for Sectoral Requests was decided by agreement between

Captains, leaders and members of the indigenous communities in meetings organized by the Cabildos in the different Sectors, who socialized what was presented and discussed at the aforementioned meeting of the Board of Cabildos and Coordinating Committee of January 2020 and presented the amount of resources that were allocated to each Sector, so that participants could size how much they had and thus decided how they preferred to invest (Annexes 6.2 - 6.18 of this document, which contain the minutes and budgetary decisions in each Sector). For the operation of this "Sector Social Welfare Fund", the Cabildos receive the requests from the indigenous communities, organize them in formats with supporting documents and take them to ACATISEMA so that the Association can review the relevance with the initially approved decisions, manage the actions to comply with the requirements and control the balances.

In this sense, the budget distribution for the Sectorial Requests implicitly contains a distribution for each of the ethnic groups that are in the RIU-SM, as presented in the following tables:

Table 32. Percentage distribution of inhabitants of the RIU-SM by Sectors, according to ethnicity

Sectors	Ethnic groups							Total
	Cubeo	Curripaco	Piapoco	Piaroa	Puinave	Sikuani	Other	
1 Caño Cavasi			0.15%			9.99%		10.14%
2 Aiwa-Cuna, Tsepajivo						18.04%		18.04%
Subtotal Zone 1			0.15%			28.02%		28.18%
3a Bajo Río Vichada 1						14.11%		14.11%
3b Bajo Río Vichada 2				0.01%		19.38%		19.38%
Subtotal Zone 2				0.01%		33.48%		33.49%
4 Atana-Pirariami						3.96%		3.96%
5 Caño Zama		0.01%		1.57%	0.15%		0.02%	1.76%
6 Matavén Fruta				3.56%	0.02%	0.07%	0.04%	3.68%
7 Berrocal-Ajota	0.19%	1.26%	1.93%	1.01%	0.30%	0.01%	0.06%	4.76%
Subtotal Zone 3	0.19%	1.27%	1.93%	6.14%	0.47%	4.03%	0.12%	14.16%
8 Lagunas Negra y Cacao	0.31%	0.73%		0.01%	0.87%	0.02%	0.04%	1.98%
9 Sejalito –San Benito	0.01%	0.02%	1.32%		0.04%	2.16%	0.01%	3.57%
10 Laguna Anguilla- Macarena		0.25%	0.01%		0.04%	4.77%	0.01%	5.09%
11 Barranquito-Lag. Colorada	0.01%		0.20%			3.02%		3.23%
Subtotal Zone 4	0.33%	1.00%	1.54%	0.01%	0.95%	9.97%	0.07%	13.87%
12 Caño Bocón				0.02%	0.51%	0.04%		0.57%
13 Cumaral	0.01%	0.01%	0.13%	0.87%		0.04%	0.01%	1.05%
14 Yuri			0.66%					0.66%
15 Giro			0.73%		0.15%			0.88%
16 Morocoto-Buenav.-Manaj.			6.99%			0.14%	0.01%	7.15%
Subtotal Zone 5	0.01%	0.01%	8.51%	0.88%	0.66%	0.22%	0.02%	10.31%
Total	0.53%	2.28%	12.13%	7.04%	2.09%	75.73%	0.21%	100%

Source: Self-census ACATISEMA 2018

Illustration 94. Distribution of RIU-SM inhabitants by Zones, according to ethnicity

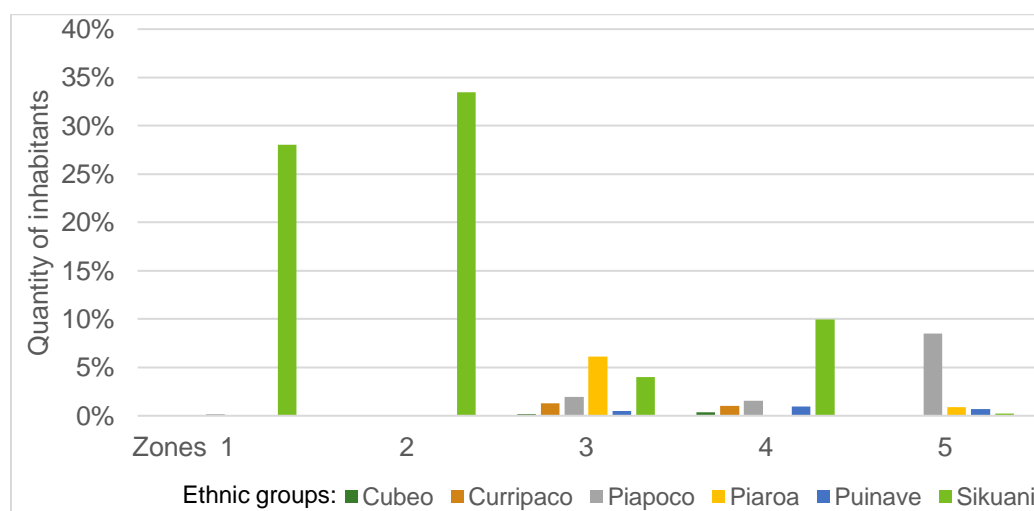
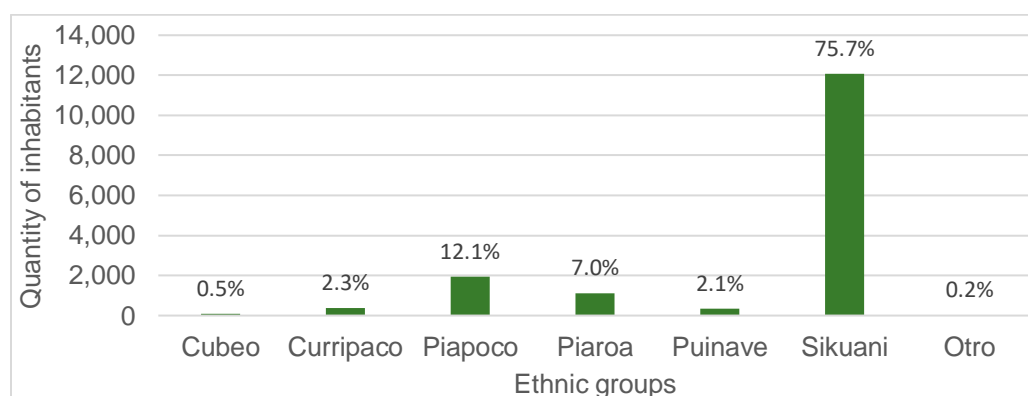


Illustration 95. Distribution of RIU-SM inhabitants by ethnicity



Source: Self-census ACATISEMA 2018

Table 33. Distribution of the resources of the Fondo de Bienestar Social Sectorial 2020 (according to % of population by ethnicity, from the table above. Values presented in millions of pesos)

Sectors	Ethnics groups							Total
	Cubeo	Curripaco	Piapoco	Piaraa	Puinave	Sikuani	Other	
1 Caño Cavasi			19.1			1,269.1		1,288
2 Aiwa-Cuna, Tsepajivo						1,464.1		1,464
Subtotal Zona 1			19.1			2,733.2		2,752
3a Bajo Río Vichada 1						1,620.0		1,620
3b Bajo Río Vichada 2				0.5		1,410.8		1,411
Subtotal Zona 2				0.5		3,030.8		3,031
4 Atana-Pirariami						330.9		331
5 Caño Zama		0.9		111.5	10.7	0.0	1.3	124
6 Matavén Fruta				313.2	1.7	6.1	3.3	324
7 Berrocal-Ajota	14.0	94.1	144.2	75.4	22.5	0.5	4.7	355
Subtotal Zona 3	14.0	95.0	144.2	500.1	34.8	337.5	9.3	1,135
8 Lagunas Negra y Cacao	23.0	54.5		0.5	65.3	1.4	3.3	148

Sectors	Ethnic groups							Total
	Cubeo	Curripaco	Piapoco	Piaroa	Puinave	Sikuani	Other	
9 Sejalito –San Benito	1.2	1.7	122.6		3.5	200.4	1.2	330
10 Laguna Anguilla- Macarena		17.8	0.9		3.1	338.0	0.9	361
11 Barranquito-Lag. Colorada	1.5		24.6			370.5		397
Subtotal Zona 4	25.7	74.0	148.1	0.5	71.9	910.3	5.3	1,236
12 Caño Bocón				1.6	44.0	3.2		49
13 Cumaral	0.4	0.4	8.9	61.3		2.7	0.4	74
14 Yuri			64.9					65
15 Giro			66.7		13.7			80
16 Morocoto-Buenav.-Manaj.			564.8			11.7	1.0	577
Subtotal Zona 5	0.4	0.4	705.3	62.9	57.7	17.5	1.5	846
Total	40.2	169.4	1,016.7	563.9	164.4	7,029.3	16.1	9,000

Source: Self-census ACATISEMA 2018 and Distribution of "Fondo de Bienestar Social Sectorial 2020"

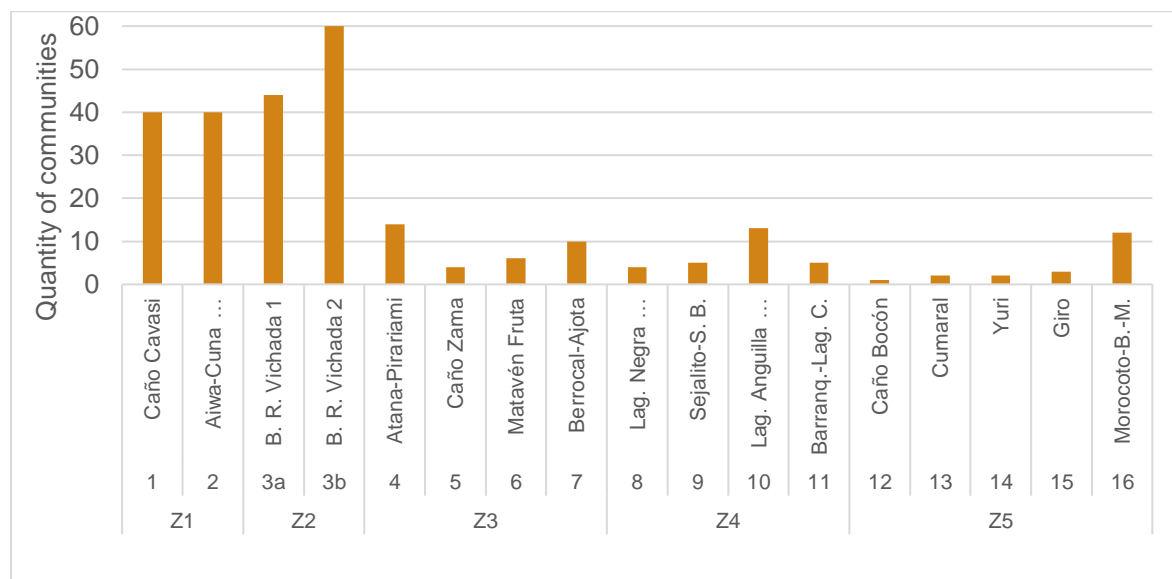
On the other hand, the distribution of the number of communities by Sectors is shown in the following table:

Table 34. Distribution of the number of RIU-SM communities, by Sector (2018)

Sectors	# Communities	%
1 Caño Cavasi	40	15.1%
2 Aiwa-Cuna, Tsepajivo	40	15.1%
Subtotal Zona 1	80	30.2%
3a Bajo Río Vichada 1	44	16.6%
3b Bajo Río Vichada 2	60	22.6%
Subtotal Zona 2	104	38.2%
4 Atana-Pirariami	14	5.3%
5 Caño Zama	4	1.5%
6 Matavén Fruta	6	2.3%
7 Berrocal-Ajota	10	3.8%
Subtotal Zona 3	34	12.8%
8 Lagunas Negra y Cacao	4	1.5%
9 Sejalito –San Benito	5	1.9%
10 Laguna Anguilla- Macarena	13	4.9%
11 Barranquito-Lag. Colorada	5	1.9%
Subtotal Zona 4	27	10.2%
12 Caño Bocón	1	0.4%
13 Cumaral	2	0.8%
14 Yuri	2	0.8%
15 Giro	3	1.1%
16 Morocoto-Buenav.-Manaj.	12	4.5%
Subtotal Zona 5	20	7.5%
Total	256	100%

Source: PDD CCB, Table 2

Illustration 96. Distribution of the number of RIU-SM communities, by Sector (2018)



Source: PDD CCB, Table 2

This distribution of the number of communities also influences the impact produced on the ethnic groups by the implementation of some of the Project Activities and ACATISEMA Reserves, for example:

- For the composition of the Indigenous Guard (Activity A1.1 on monitoring and control), the RIU-SM authorities have decided that there will be one representative from each community. Thus, Zones 1 and 2, of *Sikuani* majority, have 69.4% of indigenous guards, while this percentage is lower for the other Zones, where there is more variety of people from other ethnic groups. Likewise, other tasks associated with the work of the Indigenous Guard are distributed in the same way (economic assistance, training, materials, equipment, endowment).
- However, other elements, such as informative fences and boats for their transportation have been delivered 1 for each Zone (2 boats for Zone 2 due to its extension).
- A similar situation occurs with the Captains, since each community is represented by one of them and the distribution of the economic aid that is given to all of them equally, so that they can carry out their work, is greater for Zones 1 and 2 because they have more communities than the rest of the RIU-SM.
- The number of socialization, training and coordination meetings with the indigenous communities (Activity A1.2 on means of information, communication and transportation) have been more concentrated in Zones 1 and 2, although the Zonal meetings are more homogeneous.
- The implementation of the System of Family Agro-food Production Units (FAPUS) and the provision of tools and equipment (e.g., cassava graters) to facilitate the work in food processing, is also influenced by the heterogeneous distribution of the number of communities in the territory of the Indigenous Reserve, since more production is found in Zones 1 and 2 of the RIU-SM.
- The distribution in the provision of school kits for children in basic education has also depended on the number of school-age population per Sector, while the provision of libraries and sports equipment has depended on the number and location of schools in the RIU-SM. Thus, 4 schools have benefited in Zones 1 and 2, while 3 schools have benefited in Zones 3, 4 and 5.
- The productive project silvo-pastoral system, in addition to the distribution of the communities in the

Sectors, was also influenced by the decision of the inhabitants, with those in Zones 1 and 2 being the most interested in receiving this benefit. Thus, the communities of Zones 4 and 5 requested fewer heifers and bulls (in Zone 3 there was no delivery).

- In the delivery of *toldillos* (RA1) and roof tiles (RA3), and food and groceries for the elderly (RA4), there is also a greater distribution in Zones 1 and 2, compared to the other Zones, due to the greater concentration of communities in the north of the RIU-SM.

Viewed another way, the distribution of benefits derived from the implementation of the Project Activities and ACATISEMA Reserves in 2018 and 2019, according to ethnic groups, can be understood as explained below:

- Regarding Activity A1.1 (Surveillance and Control of the Territory) the resources and benefits were distributed to people belonging to all ethnic groups, in the proportions described in the previous tables.
- Regarding Activity A1.2 (Information, Communication and Transportation Systems) the meetings and workshops for socialization, training and coordination are carried out as mentioned above, but other tasks such as the provision of ACATISEMA offices and the provision of boats and motors for the transportation of the authorities and the population of the 5 Zones, are considered as actions that have a general impact on all the inhabitants. On the other hand, the provision of boats to contribute to the mobilization of students benefits children, mostly from the Piaroa and Sikuani ethnic groups in Zone 3; the construction of bridges and improvement of roads has benefited the inhabitants of Zones 1 and 2 (Sikuani majority).
- Regarding Activity A1.3 (Governance), the meetings, workshops and cultural gatherings that the inhabitants of the RIU-SM hold in different scenarios of the Indigenous Reserve, benefit all the participants of the 5 Zones.
- On the other hand, ACATISEMA's two headquarters (in Cumaribo, whose influence is in Zones 1 and 2, and in Inírida, whose influence is in Zones 3, 4 and 5) have been provided with offices and equipment (including boats for transportation of authorities), with the aim of providing the means to serve the entire population of the RIU-SM in an equal manner.
- Regarding Activity A2.1 (Food Security), the provision of tools, equipment and utensils for the cultivation and preparation of food has benefited all the inhabitants of the RIU-SM, especially women. Likewise, the indigenous self-census covered the entire population.
- Regarding Activity A2.2 (Education), the endowments to libraries and schools, the provision of school kits and uniforms, impacted all the Zones of the RIU-SM, as well as the construction of classrooms (except in Zone 4), benefits that reach the different ethnic groups in the distribution already presented. Likewise, the distribution of participants in the training workshops for the Indigenous Guards and Captains is based on the number of communities per Sector, as explained above.
- Regarding the higher education students who are receiving support for tuition and, some of them, for maintenance, the distribution is as follows:
 - From Zone 1 27 students benefit (27.5%) and from Zone 2 24 students benefit (24.5%), most of whom are from the Sikuani ethnic group.
 - From Zone 3 benefits 13 students (13.3%), Zone 4 benefits 28 students (28.6%) and Zone 5 benefits 6 students (6.1%), where there is a greater variety of inhabitants from different ethnic groups.
- In this distribution of beneficiaries, the majority are from Zone 4 and together with the beneficiaries from

Zones 3 and 5, they make up 48% of the students, while Zones 1 and 2 comprise 52%.

- Another exception is training in productive projects, which, at the request of the communities themselves, has been concentrated in Zones 3, 4 and 5, where all ethnic groups are present.
- In Activity A2.3 (Productive Projects), the silvopastoral project has been concentrated, especially in Zones 1 and 2 (Sikuani majority), while in Zones 3, 4 and 5 (where all ethnic groups are present) the inhabitants have been interested in agroforestry projects, integrated farms, nature tourism, minor species, ornamental fish, among other initiatives.
- In the ACATISEMA 1 Reserve (RA1: Health), the establishment of its own IPS is intended to benefit the entire population of the RIU-SM. On the other hand, a health post was built in each Zone and awnings were provided in all the communities of the Indigenous Reserve. Oral health services were provided only in Zones 1 and 2, at the request of the inhabitants.
- Regarding the ACATISEMA 2 Reserve (RA2: Water Provision), half of the deep wells benefited communities in Zones 1 and 2, while the other half benefited communities in Zones 4 and 5.
- On ACATISEMA Reserves 3 (RA3: Housing) and 4 (RA4: Attention to special population) the indigenous communities of the RIU-SM benefited were distributed according to their concentration by Zone, as explained above.
- ACATISEMA Reserve 5 (RA5: Center for Indigenous Thought in Cumaribo) is intended to offer benefits to the entire RIU-SM as its main headquarters.
- On the ACATISEMA 6 Reserve (RA6: Attention to emergencies) the beneficiaries of aid for being affected by the winter wave, which occurred in 2018, were concentrated in Zones 3, 4 and 5, where there is greater variety in the distribution of inhabitants by ethnicity.

A final manner of looking at the distribution of resources among the ethnic groups present in the RIU-SM is to consider the investments made, with an estimate of the values representing the benefits granted to each ethnic group, as shown in the following table:

Table 35. Distribution of economic investment according to RIU-SM ethnicities (2018 - 2019)

Ethnic groups	Investment (in COP millions)	%
All ethnics	5,646	23.98%
<i>Cubeo</i>	14.5	0.06%
<i>Curripaco</i>	117.9	0.50%
<i>Piapoco</i>	2,208.5	9.38%
<i>Piaroa</i>	1,979.2	8.41%
<i>Puinave</i>	315.7	1.34%
<i>Sikuani</i>	13,259.5	56.33%
Total	23,540.9	100%

Source: Based on budget execution 2018 and 2019 (executed contracts)

Note: the total value presented in the previous table does not include administrative aspects such as, for example, auditing-contracts.

It can be seen that the ethnic group that benefited the most was the *Sikuani* (with a little more than half of the resources, for the reasons already mentioned), followed by the *Piapoco* and *Piaroa* ethnic groups (with

almost 18% of the resources). Finally, the other ethnic groups *Puinave*, *Curripaco* and *Cubeo* presented a slightly lower allocation, but it should be noted that all ethnic groups together benefited from almost 1/4 (24%) of the resources invested in 2018 and 2019.

Contribution of Project Activities to achieving community adaptation to the likely impacts of climate change (Gold Level)

With the implementation of Project Activities, the following aspects about likely impacts of climate change and their consequences on the well-being of communities have been addressed and have generated adaptation capability.

- The GHG emission reductions achieved by REDD+ Project RIU-SM contributes to mitigate the increment of global temperature generated by the accumulation of these gases, which are produced by anthropogenic activities (particularly deforestation and degradation) and would cause changes in climatic conditions, loss in territorial sustainability, soil degradation, and agricultural food production capacity under the without-Project land use scenario.
- Forest protection against the deforestation prevents loss of vegetation cover, forest fragmentation, desertification, flooding, loss of soil quality and its productivity, impact on water sources, migration of populations (human and animal), loss of habitats, ecosystem connectivity, and biodiversity richness (extinction of trigger species). So, indigenous communities can withstand the effects of climate change and preserve their well-being.
- Sustainable Management Plan for Land and Forest (Annex 4 of the validated PDD - VCS) contributes to avoid erosion on the riverbanks near communities, a very specific situation that occurs in several places in the RIU-SM, due to frequent river flooding. Thus, the settlements are protected against this phenomenon, the housing, crops and productive systems in the communities, offering a high capacity to withstand flood seasons due to the effects of strong climate change.
- Project is providing infrastructure for the provision of water for indigenous communities, as described in the verified Monitoring Report – VCS 2018 & 2019, Section “3.1.1 Operation of the Project Activities during this Monitoring Period / RA2”, page 152, by installing deep wells with photovoltaic pumping equipment and drinking water treatment plants, in order to generate capacity in communities to adapt to phenomena such as reduction in the level of the streams and lagoons during intense droughts due to climate change, that would make it difficult to supply water to cover the basic need, because they have to bring water from more distant sources, a situation that is also frequent in many places of the RIU-SM.

The main process to let the adaptation to these climate change impacts derives from the conservation and protection of forests, implementing measures to mitigate the threats to this conservation and protection (the threat of deforestation), as well as the establishment of alternative sustainable production systems, mainly for food. These measures, which correspond to the Project Activities, contribute to that the communities adapt to the observed impacts of climate change, since the communities are the main executors of these Activities and measures.

The following Table 36 shows how the Project Activities helped communities adapt to the likely impacts of climate change.

Table 36. How the Project Activities helped communities adapt to the likely impacts of climate change (GL1)

Project Activities / Measures	How the Activity helped communities adapt to the likely impacts of climate change (GL1)
Activity A1.1: Monitor and control the conservation and recovery of forests and lands of the RIU-SM	<p>This Activity is to mitigate deforestation threats. This includes the implementation and strengthening of community control and surveillance routes that seek to monitor the forests of RIU-SM and related resources, to reduce the anthropogenic impact generated by deforestation.</p> <p>The communities under great risk have been identified (mainly in Sectors 2, 7, 8, 9, 15 and 16) in order to develop better planning for avoid deforestation and erosion on riverbanks near communities, strengthening population to cope with the potential impacts of climate change.</p> <p>See details about results of this Activity in verified Monitoring Report – VCS 2018 & 2019, Section “3.1.1 Operation of the Project Activities during this Monitoring Period”, page 70.</p>
Activity A1.2: Develop and to implement a system of communication and information at the RIU-SM	<p>This Activity complements the mitigation of deforestation threats, improving strategies and information-communication-transport methods, essentials to assist in the monitoring and control of forests and lands of the Indigenous Reservation.</p> <p>See details about results of this Activity in verified Monitoring Report – VCS 2018 & 2019, Section “3.1.1 Operation of the Project Activities during this Monitoring Period”, page 79.</p>
Activity A1.3: Develop and implement a governance for development and sustainability system of ACATISEMA Association	<p>This Activity is essential for the mitigation of deforestation threats. It involves strengthening the governance of community organization, which includes management of RIU-SM territory, collective use norms, cultural events, and participatory actions through meetings and socialization and training workshops. With the improvement that has been achieved in governance in the RIU-SM, the indigenous authorities are able to attend the requirements, needs, and contingences that arise among the population due to the impacts of climate change.</p> <p>See details about results of this Activity in verified Monitoring Report – VCS 2018 & 2019, Section “3.1.1 Operation of the Project Activities during this Monitoring Period”, page 90.</p>
Activity A2.1: Establish and to develop a Family Agri-food Production Units System (FAPUS)	<p>This Activity contributes to the implementation of alternative agri-food production systems that guarantees food guarantee even in the event of climate change impacts. Also, it is contributing to reducing dependence on natural resources, which has an impact on the conservation of forests and soils.</p> <p>See details about results of this Activity in verified Monitoring Report – VCS 2018 & 2019, Section “3.1.1 Operation of the Project Activities</p>

Project Activities / Measures	How the Activity helped communities adapt to the likely impacts of climate change (GL1)
	during this Monitoring Period”, page 103.
Activity A2.2: Design and to develop a training programs plan to administration and management of natural resources of the RIU-SM	<p>This Activity is absolutely necessary for the establishment of new alternative production systems adapted to climate change. It consists of training and educating people in the community on management and human welfare issues related, about other aspects, to climate change adaptation.</p> <p>See details about results of this Activity in verified Monitoring Report – VCS 2018 & 2019, Section “3.1.1 Operation of the Project Activities during this Monitoring Period”, page 113.</p>
Activity A2.3: Manage resources for project design and establishment of production chains	<p>This Activity complements the establishment of alternative production systems through production chain projects to improve crop and soil management alternatives.</p> <p>These productive projects will also provide economic resources that could, in a given event, contribute measures to contingencies that arise as effects of climate change to the communities.</p> <p>See details about results of this Activity in verified Monitoring Report – VCS 2018 & 2019, Section “3.1.1 Operation of the Project Activities during this Monitoring Period”, page 126.</p>
<p>Activity 3.1: Validate a REDD+ Project with international standards</p> <p>Activity 3.2: Verify Project and to register units of forest compensation for avoided deforestation</p>	<p>These Activities related to the establishment of a valuation and compensation mechanism for environmental services generated in the RIU-SM, which makes possible to obtain economic resources to finance Project Activities and, therefore, adaptation measures to the impacts of climate change, as mentioned above.</p> <p>See details about results of this Activity in verified Monitoring Report – VCS 2018 & 2019, Section “3.1.1 Operation of the Project Activities during this Monitoring Period”, page 139.</p>
Other measures to provide health care, supply of treated water, housing improvement, attention to special population (such as children, elderly and disabled), and attention to calamities	<p>These additional measures are very important, since they provide goods and services that derive in benefits to improve the conditions of well-being in indigenous communities and, at the same time, represent advantages in the face of possible effects of climate change</p> <p>See details about results of this Activity in verified Monitoring Report – VCS 2018 & 2019, Section “3.1.1 Operation of the Project Activities during this Monitoring Period”, page 149.</p>

4.1.4 Protection of High Conservation Values (CM2.4)

The above sections demonstrate that none of the HCVs related to community well-being have been negatively affected by the Project. On the contrary, the Project activities shown the positively impact to community wellbeing-related HCVs.

In Section 4.3.1 of this document, monitoring actions are presented to evaluate the effectiveness of

measures taken to maintain or improve all identified HCVs related to community well-being.

4.2 Other Stakeholder Impacts

4.2.1 Mitigation of Negative Impacts on Other Stakeholders (CM3.2)

As no specific negative impacts on the welfare of other stakeholders were anticipated nor were detected during the implementation of the Project Activities, therefore, no specific mitigation measures were foreseen nor implemented in this regard. However, the "*Measure to mitigate any negative impacts arising from internal conflicts, within communities*" applies, as described in Section 4.1.2 of this document.

4.2.2 Net Impacts on Other Stakeholders (CM3.3)

Based on the PDD-CCB, Section "4.3.1 Impacts on Other Stakeholders / Table 58", which describes the positive impacts of the Project Activities on the well-being of other stakeholders, and where no negative impacts were identified, then the net impact is always positive. Following Table 37 shows these impacts.

Table 37. Impacts that the Project Activities have caused on the well-being of other stakeholders

Other stakeholders	Potential impacts that the Project Activities are likely to cause on the well-being of other stakeholders
	Positives
Primary and secondary basic education teachers of the Resguardo Indígena Unificado	<p>In particular, Project Activities A.1.2 (communication and transportation), A1.3 (governance) and A2.2 (education) have a direct positive impact on basic and secondary school teachers.</p> <p>The positive impacts for teachers are:</p> <ul style="list-style-type: none"> ✓ By improving communication and transportation systems, it facilitates the educational activity of teachers in communities where there are educational centers (Activity A1.2). ✓ By improving governance in the territory, they benefit from the provisions and support that the ACATISEMA Association provides to the communities and to the educational processes. In the ACATISEMA Coordinator Committee there are two people in charge of coordinating these educational aspects (Activity A1.3). ✓ By offering financial support for higher education studies, teachers in particular are being benefited, as they have easier access to universities (Activity A2.2). ✓ Teachers are being facilitated in obtaining appropriate material for their pedagogical purposes through the distribution of school kits in the different communities (Activity A2.2). ✓ This community group is being benefited from other measures that the ACATISEMA Association develops with the resources of the Project, such as

	<p>health posts, housing improvement, provision of drinking water, among others.</p> <p>The other Activities (A1.1 -monitoring and control of the territory-, A2.1 -food sustainability- and A2.3 -productive projects-) also benefited the teachers join to other indigenous people of the communities, that obtain occupation and food products in these Activities.</p> <p>Likewise, with Activities A3.1 and A3.2 that favor equally all the people of the Indigenous Reservation.</p>
Settlers	<ul style="list-style-type: none"> ✓ They are being benefited from the environmental protection of the reservation forests, in terms of their land and crops (Activity A1.1). ✓ They also are being benefited from the Project Activities for the mitigation of climate change impacts (Activity A1.1). ✓ They are being benefited from the care and improvement of the HCVs of the RIU-SM territory, particularly those of critical ecosystem services (regulation and support areas: forest areas at the edge of large rivers and around communities) and those supplying food and material resources (Activity A1.1). ✓ In addition, the settlers are being benefited from the improvement of their income, which they are achieved through the economic exchange of products generate d by the indigenous people of the RIU-SM (Activities A2.1 and A2.3).
Government Institutions	<ul style="list-style-type: none"> ✓ The Project's progress contributes with the forest monitoring system established, which allows the institutions to have in-situ information that will facilitate the environmental evaluation and planning systems at the national and regional levels (Activities A1.1 and A3.2). ✓ The Project generates a system of indicators that produce, in turn, statistics that allow monitoring over time, generating information that can be used by Government Institutions (Activities A1.1 and A3.2). ✓ The Project, through its entire Activities, also contributes to the achievement of objectives and goals of national institutions in terms of their functions related to climate change mitigation and adaptation. ✓ There are already contacts with the Mayor's Office of Cumaribo, the Governor's Office of Vichada, the Secretaries of Education and Health, the Ombudsman's Office and other agencies, with which work agendas are being organized to carry out interventions in the RIU-SM, generating more benefits to the communities (Activities A1.2 and A1.3).
Non-governmental institutions	<ul style="list-style-type: none"> ✓ The Project Activities are creating opportunities for coordination and collaboration with non-governmental institutions whose main objective is the environmental aspects and protection of the forest and the communities, in this case, indigenous communities (Activities A1.1, A1.2, A1.3, A2.1, A2.2, and A2.3). ✓ It will be possible to establish very concrete cooperation actions in specific projects, such as agroforestry and silvopastoral systems (such as the Agreement that is being executed with FEDECACAO for the production of cocoa, corn, plantain and <i>abarco</i>), biodiversity studies, life plan studies, among others (such as the first approaches with entities like Conservation International

	<p>and Panthera Colombia) (Activity A2.3).</p> <ul style="list-style-type: none"> ✓ It is important to refer to the impact that is being generated in the business surrounding the RIU-SM. One of the guidelines that ACATISEMA has defined is the provision of goods and services required for the implementation of the Project Activities within the territory of the indigenous reservation through contracts signed with companies that are located within the same region. This is how many companies in the departments of Vichada, Guainía and Meta (among others) have boosted their economic activity and generated income and jobs. These contracts are referenced and supported in each of the tasks executed as part of the Project Activities (Section " 2.1 Project Goals, Design and Long-Term Viability" of this document).
Other indigenous reservations	<ul style="list-style-type: none"> ✓ The indigenous reservations neighboring the RIU-SM are already considering the feasibility of this type of initiative and, in fact, are already organizing their own projects (Activities A3.1 and A3.2). ✓ On the other hand, an economic and cultural exchange is being achieved, based on the results of the entire Project Activities with the communities of other indigenous reservations. <p>These indigenous peoples outside the RIU-SM have communicated orally with some indigenous leaders, to raise questions and exchange experiences in the development of the REDD+ Project RIU-SM. It is known that reservations such as <i>Unuma</i> (east of the RIU-SM), <i>Ríos Cuyarí</i> and <i>Isana</i>, <i>Ríos Atabapo</i> and <i>Inírida</i> and <i>Tonina</i>, <i>Sejal</i>, <i>San José</i> and others (south of the RIU-SM) are already carrying out their own initiatives.</p>

4.3 Community Impact Monitoring

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

Community Monitoring Plan for measures related to community wellbeing in the development of the REDD+ Project RIU-SM

The Monitoring Plan of the measures related to the well-being of the communities in the development of the REDD+ Project RIU-SM is based on the indicators of the General and Specific Objectives and the Expected Outputs/Results defined in the Project design (validated PDD - VCS, Section "1.8 Description of the Project activity / Matrix of Logic Structure (MLS)", page 45). The following Table 38 describes this plan, identifies its variables, and presents the corresponding results.

Table 38. Monitored variables according the Matrix of Logic Structure

Variables (MLS)	<p>Related to the General Objective:</p> <ul style="list-style-type: none"> ✓ Number of communities in agri-food production. 265 communities are applying the FAPUS for agri-food production (Activity A2.1). ✓ Number of young people (between 15 and 26 years old) who have been certified in technical and technological programs related to sustainable management.
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	<p>At the end of 2019, 121 students belonging to the communities of the RIU-SM have received support through the payment of tuition fees at universities and educational institutes, and financial support to sustenance.</p> <p>Related to the Specific Objective:</p> <ul style="list-style-type: none"> ✓ Number of Captains, women and young people who have participated in the establishment in the Sustainable Management Plan for Land and Forest of the RIU-SM. 244 Captains and 3,117 farmers (with some female heads of household and young people) have participated in the establishment in the Sustainable Management Plan for Land and Forest of the RIU-SM during 2018 & 2019. ✓ Number of members of the Coordinator Committee, the <i>Cabildos</i> Board, and Zonal Coordinators who have been trained in management and organizational governance to conserve the RIU-SM forests and lands. The 16 members of the Coordinator Committee, and the 17 members of the <i>Cabildos</i> Board, and 6 Zonal Coordinators have been trained in management and organizational governance to conserve the RIU-SM forests and lands. ✓ Number of communities per Sector that have improved their communication. All RIU-SM communities have access to the elements that have been made available to improve the means of information, communication and transportation, since these systems are for the general welfare in the Indigenous Reservation. ✓ Number of people expressing satisfaction about participation in the Project. Around 1,000 indigenous people of communities (125 women), 244 Captains, and 730 indigenous guards, have participated in socialization meetings and training workshops in 2018 & 2019, events in which they have expressed satisfaction with the benefits received from Project and, of course, suggestions for improvement. <p>Related to the Expected Product / Result 1:</p> <ul style="list-style-type: none"> ✓ Number of indigenous guards, Captains, Zonal Coordinators and community members who have been trained in surveillance, control and monitoring of the RIU-SM. 730 indigenous guards, 244 Captains, 6 Zonal Coordinators and around 1,000 community members have been trained in surveillance, control and monitoring of the RIU-SM during 2018 & 2019. ✓ Number of members of the Coordinator Committee, the <i>Cabildos</i> Board, and Captains who have been trained and apply knowledge in the Statutes and organizational aspects of the RIU-SM and ACATISEMA. 16 members of the Coordinator Committee, 17 members of <i>Cabildos</i> Board, and 244 Captains have been trained and apply knowledge in the Statutes and organizational aspects of the RIU-SM and ACATISEMA. ✓ Number of basic education graduates who have been trained in integrated forest and
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land management.

121 students belonging to the communities of the RIU-SM are receiving education to be the ones in charge of integrated forest and land management in the Indigenous Reservation.

- ✓ Number of communities and people who have been trained and apply knowledge about the nature and characteristics of the Project.

During the years in which the Project has been executed, all members of all indigenous communities have been summoned to participate in meetings and workshops for socialization and training. Although events have not been held in each and every one of the communities, the participants do belong, if not all, to the vast majority of the RIU-SM communities. Around 1,043 community members have been trained and apply knowledge about the nature and characteristics of the Project.

- ✓ Number and characteristics of materials disseminated for understanding and better participation in the project.

In each socialization and training event, materials are presented to support the development of the contents. Additionally, around 2,000 booklets / brochures, 2,000 posters, and 1,200 bulletins have been distributed among the RIU-SM population, which has sought to provide enough information for members of indigenous communities to understand the different aspects of the Project.

Related to Expected Product / Result 2:

- ✓ Number of hectares of Production for Food guarantee.

It is estimated that around 5,670 ha of HAA were used for agri-food production in 2018 & 2019.

- ✓ Number of projects and their characteristics implemented for agri-food production.

The Family Agri-food Production Units System is being implemented in the RIU-SM. In addition, it is supporting the initiatives that indigenous families have proposed, such as the silvopastoral project, beekeeping, and improvements in cassava production (with machinery to improve the efficiency of the processes). In addition, steps are being taken to develop other projects, such as *panelera* cane, minor species, crop fish in floating cages, self-sufficient integral community farms, and *lapa* zoo-breeder.

- ✓ Number of agri-food production units (FAPUS) established. Areas of these units.

It is estimated that there are currently around 9,694 lots of HAA (conucos, where food is grown), occupying an area of 10,013 hectares (Annex 4 of validated PDD - VCS).

- ✓ Production of the FAPUS: types and quantity of product:

Crops / Products	Quantity (tons.) 2018	%	Fruits	Quantity (tons.) 2018	%
Cassava	3,229.3	62.0%	Pineapple	414.6	82.9%
Plantain	948.9	18.2%	<i>Guama</i>	19.8	4.0%
Corn	440.8	8.5%	Papaya	19.7	3.9%
Sugar cane	200.4	3.8%	Watermelon	24.2	4.8%

Yam	106.0	2.0%
Sweet potato	70.2	1.3%
Chili pepper	36.1	0.7%
Tavena	24.3	0.5%
Caimarón	21.1	0.4%
Chontaduro	15.8	0.3%
Mapuey	15.3	0.3%
Madura verde	8.1	0.2%
Ahuyama	5.9	0.1%
Rice	2.9	0.1%
Cocoa	2.5	0.05%
Avocado	0.8	0.02%
Others	77.6	1.5%
Subtotal crops	5,205.9	100%

Orange	8.0	1.6%
Lulo	4.3	0.9%
Copo azul	2.7	0.5%
Merey	2.5	0.5%
Temare	1.7	0.3%
Passion fruit	1.4	0.3%
Cashew	0.7	0.1%
Lemon	0.3	0.1%
Subtotal fruits	499.9	100%

TOTAL GENERAL 5,705.8 tons.

Crops / Products	Quantity (tons.) 2019	%
Cassava	4,031.2	78.6%
Plantain	595.5	11.6%
Corn	224.9	4.4%
Sugar cane	96.0	1.9%
Sweet potato	50.3	1.0%
Chili pepper	47.1	0.9%
Yam	27.9	0.5%
Tavena	12.7	0.2%
Ahuyama	12.1	0.2%
Cocoa	9.4	0.2%
Caimarón	8.9	0.2%
Chontaduro	8.0	0.2%
Madura Verde	2.3	0.0%
Tupiro	1.3	0.0%
Subtotal crops	5,127.8	100%

Fruits	Quantity (tons.) 2019	%
Pineapple	142.5	61.4%
Lulo	63.3	27.3%
Guama	6.0	2.6%
Mango	5.4	2.3%
Papaya	4.7	2.0%
Merey	2.7	1.2%
Guava	2.7	1.2%
Watermelon	2.7	1.2%
Lemon	1.3	0.6%
Cashew	0.7	0.3%
Subtotal fruits	231.9	100%

TOTAL GENERAL 5,359.7 tons.

Source: verified Monitoring Report – VCS 2018 & 2019, Section "3.1.1 Operation of the Project Activities during this Monitoring Period / ACTIVITY A2.1: Establish and develop a Family Agri-food Production Units System - FAPUS / Tables 8 and 9" (page 104)

- ✓ Number of families linked to the FAPUS.
Around 3,117 farmers, in 2,677 families, are linked to the FAPUS.
- ✓ Number of training workshops for the indigenous population and number of people trained on the following topics: climate change, REDD+ projects, compensation for environmental services, governance, monitoring and control, agrosilvicultural practices.
About 20 training workshops have been carried out for the indigenous population, in which around 1,043 community members participated in trained process on the following topics: climate change, REDD+ projects, compensation for environmental services, governance, monitoring and control, agrosilvicultural practices.

- ✓ Number of agreements or contracts with partner organizations in the development of productive projects.

At the moment an agreement has been signed with FEDECACAO and continues in execution to develop an agroforestry project with cocoa, plantain, corn, and forest trees: This project is carrying out in 10 communities in Zones 4 and 5 of the RIU-SM. In each community 10 families are in charge of the cultivation and production in 1 hectare of land (each one), in this way 100 families are cultivating 100 hectares. In addition, steps are being taken to develop other projects.

- ✓ Economic income of indigenous communities from the development of productive projects.

The productive projects implemented are helping to ensure food sustainability. However, it is expected that they will soon give results for their commercialization and generation of income for the families that participate in them.

Related to expected Product / Result 3:

- ✓ Design and validation of a mechanism for compensation for environmental services in accordance with international standards.

The REDD+ Project RIU-SM achieved to complete its validation process in 2017. It is registered under ID VCS PD 1566 (it can be consulted at <https://registry.verra.org/app/projectDetail/VCS/1566>).

- ✓ Design and validation of the REDD+ Project RIU-SM Project with the estimation of VCUs throughout the thirty-year life of the Project.

t	VCU
t = 1 : 2013	2,812,745
t = 2 : 2014	2,600,441
t = 3 : 2015	3,090,273
t = 4 : 2016	3,113,533
t = 5 : 2017	2,185,370
t = 6 : 2018	2,625,812
t = 7 : 2019	3,842,235
t = 8 : 2020	3,455,208
t = 9 : 2021	2,933,500
t = 10 : 2022	4,234,780
t = 11 : 2023	3,891,914
t = 12 : 2024	3,186,481
t = 13 : 2025	2,101,325
t = 14 : 2026	1,940,595
t = 15 : 2027	2,725,887
t = 16 : 2028	1,522,708
t = 17 : 2029	641,751
t = 18 : 2030	563,617
t = 19 : 2031	2,817,576
t = 20 : 2032	3,462,126

	t = 21 : 2033	2,582,973																																					
	t = 22 : 2034	3,801,662																																					
	t = 23 : 2035	1,907,857																																					
	t = 24 : 2036	2,101,168																																					
	t = 25 : 2037	2,442,873																																					
	t = 26 : 2038	3,906,213																																					
	t = 27 : 2039	4,155,300																																					
	t = 28 : 2040	4,055,156																																					
	t = 29 : 2041	3,668,534																																					
	t = 30 : 2042	1,208,612																																					
	Total	83,578,228																																					
	Average/annual	2,785,941																																					
<i>Source: validated PDD – VCS, Table 82, page 233</i>																																							
✓	Periodic verification of Project results with the corresponding VCUs certified for each verification.																																						
	<table border="1"> <thead> <tr> <th>Verification processes</th> <th>Entity</th> <th>Issued date</th> <th>Verified periods</th> <th>VCUs</th> </tr> </thead> <tbody> <tr> <td>1st with validation</td> <td>ICONTEC</td> <td>3-Jun-2017</td> <td>2013</td> <td>3,615,316</td> </tr> <tr> <td>1st with validation</td> <td>ICONTEC</td> <td>3-Jun-2017</td> <td>2014-2015</td> <td>7,097,573</td> </tr> <tr> <td>2nd verification</td> <td>EPIC</td> <td>19-Nov-2018</td> <td>2016-2017</td> <td>6,404,775</td> </tr> <tr> <td>3rd verification</td> <td>EPIC</td> <td>10-Nov-2020</td> <td>2018</td> <td>3,175,941</td> </tr> <tr> <td>3rd verification</td> <td>EPIC</td> <td>10-Nov-2020</td> <td>2019</td> <td>4,921,874</td> </tr> <tr> <td colspan="4">Total</td> <td>25,215,479</td> </tr> </tbody> </table>				Verification processes	Entity	Issued date	Verified periods	VCUs	1st with validation	ICONTEC	3-Jun-2017	2013	3,615,316	1st with validation	ICONTEC	3-Jun-2017	2014-2015	7,097,573	2nd verification	EPIC	19-Nov-2018	2016-2017	6,404,775	3rd verification	EPIC	10-Nov-2020	2018	3,175,941	3rd verification	EPIC	10-Nov-2020	2019	4,921,874	Total				25,215,479
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3rd verification	EPIC	10-Nov-2020	2019	4,921,874																																			
Total				25,215,479																																			
Type of measurement	Rating scale of the variables identified to measure their evolution since the beginning of the implementation of the Project.																																						
Sampling Method	Sampling methods are not required, since the data regarding the variables are obtained as the Project Activities are carried out, which is stored and recorded in an Information System, based on minutes, workshops, meetings, tours, etc.																																						
Frequency of monitoring	It started with the implementation of the Project and with monitoring each verification event is required, annually or biennially.																																						

As described in PDD-CCB, to evaluate the social impact of the REDD+ Project RIU-SM, the suggestions of the Social and Biodiversity Impact Assessment Manual (SBIA) and the guidelines of the Conservation Steward Program (CSP) methodology of Conservation International are used. The monitoring plan presented for communities has three objectives that seek to evaluate the adaptive capacity of each community, in relation to the socioeconomic, socioecological and institutional indices. The monitoring plan for community groups takes into account the social, technical, socioeconomic, ecological and financial sustainability indicators, with which a comprehensive sustainability index.

The variables indicated in the SBIA Manual and in the CSP methodology guidelines for indigenous communities, community groups and other stakeholders will be monitored from 2022 and repeated every

three years

Monitoring the effectiveness of measures for the maintenance or enhancement of HCV attributes related to community wellbeing

In Section 4.1.2 of this document, the application of measures for the maintenance or improvement of HCV attributes related to community well-being was described. The effectiveness of these measures was evaluated in the Monitoring Plan, which will be included in the survey plans already referenced on the variables described in Tables 60 – 71 of PDD-CCB.

The measures for the maintenance or improvement of the HCV attributes related to the well-being of the RIU-SM communities are focused on the protection, conservation and recovery of the forests and lands of the Indigenous Reservation, based on the implementation of the Sustainable Management Plan for Land and Forest (Annex 4 of the validated PDD - VCS), through its Strategic Elements and Project Activities.

Table 39. Monitoring of the effectiveness of measures for the maintenance or improvement of HCV attributes related to community wellbeing

HCVs	Measures to maintain or improve HCVs attributes related to the well-being of the communities	Monitoring to evaluate the effectiveness of measures to maintain or improve HCVs
<p>HCV 4.1: Regulating and supporting areas: forest areas at the edge of large rivers and around communities.</p>	<p>The following specific measures are complementary to the general measures described above:</p>	<p>The Sustainable Management Plan for Land and Forest is monitored through the following variables:</p> <ul style="list-style-type: none"> - Sustainable system established and implemented of forest and land management of RIU-SM This system is achieved by all Project Activities. - Number of hectares of forest and land sustainably managed with a plan that complies with national and international standards that guarantee the conservation of forest biomass and soil carbon. These areas are located and referenced in maps by Sectors. According to Sustainable Management Plan for Land and Forest (Annex 4 of validated PDD - VCS), there are around 11,329 has. of secondary forest, 36,111 has. of Heterogenous Agricultural Areas, 6,767 has. of natural regeneration, and 2,997 has. of grassland. These areas are under improved land management practices. Map in Annex 17 of validated PDD – VCS, file “sustainab_manag_plan_land_forest.pdf”. - Deforestation areas at the RIU-SM. These areas are located and referenced in maps by Sectors.

HCVs	Measures to maintain or improve HCVs attributes related to the well-being of the communities	Monitoring to evaluate the effectiveness of measures to maintain or improve HCVs					
			2013	2014-2015	2016-2017	2018	2019
		Has	Has	Has	Has	Has	Has
		Project Area	245.7	785.0	1,501.8	766.9	641.7
		Leakage Belt	358.8	959.1	2,137.9	1,108.0	967.7
		Total	604.5	1,744.1	3,639.6	1,874.9	1,609.5
		Annual	604.5	872.1	1,819.8	1,874.9	1,609.5
		<p>Source: folder "calculation_tables", file "monitoring.xlsx", sheet "Gral_defor_PA_LB"</p>					
		<p>Cartographic Information about 2018 & 2019 period is in Annex 6 of verified Monitoring Report – VCS 2018 & 2019, folder "6b_GIS_layers".</p>					
		<ul style="list-style-type: none"> - Number and identification of communities involved in the Project, based on its sectorial and zonal organization. <p>The different indigenous authorities of the RIU-SM, that is, the members of the <i>Cabildos</i> Board (at the sectoral level), Coordinator Committee (at the RIU-SM level), Community Captains (at the community level) and other leaders are in charge of ensuring that all communities participate in the implementation of the Project Activities and receive the benefits that are being generated.</p> <ul style="list-style-type: none"> - System of communication and information established and implemented for the 5 areas of the RIU-SM. <p>According to Project Activity A1.2 "Develop and implement a system of communication and information at the RIU-SM", in the implementation of this initiative, some actions have been developed to provide logistical capacity to hold meetings of the authorities and indigenous communities, equipment for the Association's offices, boats to improve transportation between settlements, boats for the service of students, construction of neighborhood bridges and improvement of roads (verified Monitoring Report – VCS 2018 & 2019, Section "3.1.1 Operation of the Project Activities during this Monitoring Period / ACTIVITY A1.2", page 79).</p> <ul style="list-style-type: none"> - Mechanism for valuation and compensation for environmental services designed and validated according to 					

HCVs	Measures to maintain or improve HCVs attributes related to the well-being of the communities	Monitoring to evaluate the effectiveness of measures to maintain or improve HCVs																												
		<p>international standards.</p> <p>The Project Activity A3.1 related to the establishment of a valuation and compensation mechanism for environmental services generated in the RIU-SM, which makes possible to certificate the REDD+ Project RIU-SM, was carried out in 2017 under VCS Program. Activity is now being performed under CCB Program.</p> <p>- Verifications of Project has been made.</p> <p>The Project Activity A3.2 related to the verification process to obtain economic resources to finance Project Activities has been developed three times: in 2017 to verify the periods 2013 & 2014-2015, in 2018 to verify the period 2016-2017 and in 2020 to verify the periods 2018 & 2019 (under VCS Program).</p> <p>See details about results of this Activity in verified Monitoring Report – VCS 2018 & 2019, Section “3.1.1 Operation of the Project Activities during this Monitoring Period”, page 140.</p> <p>- Number of VCUs by verification registered.</p> <table border="1"> <thead> <tr> <th>Verification processes</th> <th>Entity</th> <th>Verified periodes</th> <th>VCUs</th> </tr> </thead> <tbody> <tr> <td>1st with validation</td> <td>ICONTEC</td> <td>2013</td> <td>3,615,316</td> </tr> <tr> <td>1st with validation</td> <td>ICONTEC</td> <td>2014-2015</td> <td>7,097,573</td> </tr> <tr> <td>2nd verification</td> <td>EPIC</td> <td>2016-2017</td> <td>6,404,775</td> </tr> <tr> <td>3rd verification</td> <td>EPIC</td> <td>2018</td> <td>3,175,941</td> </tr> <tr> <td>3rd verification</td> <td>EPIC</td> <td>2019</td> <td>4,921,874</td> </tr> <tr> <td colspan="3">Total</td> <td>25,215,479</td> </tr> </tbody> </table> <p>- Number of young people (15 to 26 years old) who have been certified in technical and technological programs related to the sustainable management of the Indigenous Reservation.</p> <p>At the end of 2019, 121 students belonging to the communities of the RIU-SM have received support through</p>	Verification processes	Entity	Verified periodes	VCUs	1st with validation	ICONTEC	2013	3,615,316	1st with validation	ICONTEC	2014-2015	7,097,573	2nd verification	EPIC	2016-2017	6,404,775	3rd verification	EPIC	2018	3,175,941	3rd verification	EPIC	2019	4,921,874	Total			25,215,479
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		<p>the payment of tuition fees at universities and educational institutes, and financial support to sustenance.</p> <ul style="list-style-type: none"> - Number of Captains, women and youth who have participated in the establishment of the Sustainable Management Plan for Land and Forest of the RIU-SM. 244 Captains and 3,117 farmers (with some female heads of household and young people) have participated in the establishment in the Sustainable Management Plan for Land and Forest of the RIU-SM during 2018 & 2019. - Number of trained members of the Coordinator Committee, the Board of <i>Cabildos</i> and Zonal Coordinators, in the management and organizational governance to conserve the RIU-SM forests and lands. The 16 members of the Coordinator Committee, and the 17 members of the <i>Cabildos</i> Board, and 6 Zonal Coordinators have been trained in management and organizational governance to conserve the RIU-SM forests and lands. - Number of communities per Sector that have improved their communication. All RIU-SM communities have access to the elements that have been made available to improve the means of information, communication and transportation, since these systems are for the general welfare in the Indigenous Reservation. - Number of people from the communities expressing satisfaction about participation in the Project. Around 1,000 indigenous people of communities (125 women), 244 Captains, and 730 indigenous guards, have participated in socialization meetings and training workshops in 2018 & 2019, events in which they have expressed satisfaction with the benefits received from Project and, of course, suggestions for improvement. - Number of members of the Coordinator Committee,

HCVs	Measures to maintain or improve HCVs attributes related to the well-being of the communities	Monitoring to evaluate the effectiveness of measures to maintain or improve HCVs
		<p><i>Cabildos</i> Board and Captains trained by applying knowledge in the Statutes and organizational aspects of RIU-SM and ACATISEMA.</p> <p>The 16 members of the Coordinator Committee, the 17 members of the <i>Cabildos</i> Board, and 244 Captains have been trained by applying knowledge in the Statutes and organizational aspects of RIU-SM and ACATISEMA.</p> <ul style="list-style-type: none"> - Number of basic education graduates who have been trained in integrated forest and land management. <p>121 students belonging to the communities of the RIU-SM are receiving education to be the ones in charge of integrated forest and land management in the Indigenous Reservation.</p> <ul style="list-style-type: none"> - Number of communities and people who have been trained and apply knowledge about the nature and characteristics of the Project. <p>During the years in which the Project has been executed, all members of all indigenous communities have been summoned to participate in meetings and workshops for socialization and training. Although events have not been held in each and every one of the communities, the participants do belong, if not all, to the vast majority of the RIU-SM communities. Around 1,043 community members have been trained and apply knowledge about the nature and characteristics of the Project.</p> <ul style="list-style-type: none"> - Number and characteristics of the material disseminated for understanding and better participation in the project. <p>In each socialization and training event, materials are presented to support the development of the contents. Additionally, around 2,000 booklets / brochures, 2,000 posters, and 1,200 bulletins have been distributed among the RIU-SM population, which has sought to provide enough information for members of indigenous communities to understand the different aspects of the Project.</p>

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		<p>- Number of training workshops for the indigenous population and number of people trained on the following topics: climate change, REDD+ projects, compensation for environmental services, governance, monitoring and control, and agroforestry and cultural practices.</p> <p>About 20 training workshops have been carried out for the indigenous population, in which around 1,043 community members participated in trained process on the following topics: climate change, REDD+ projects, compensation for environmental services, governance, monitoring and control, agrosilvicultural practices.</p>																																																
	<p>• Protection of the riverbanks of the four main rivers to prevent erosion and landslides along their banks. Regulation, monitoring and prevention of landslides on these banks.</p>	<p>- Number of hectares of protected forest on the riverbanks of the four main rivers (Vichada, Orinoco, Guaviare and <i>Brazo Amanavén</i>) around the communities by Sector. These areas are located and referenced through maps.</p> <table border="1"> <thead> <tr> <th>Zone</th> <th>Sector</th> <th>HCV 4.1 forests (has.)</th> </tr> </thead> <tbody> <tr> <td rowspan="2">1</td> <td><i>Caño Cavasi</i></td> <td>524</td> </tr> <tr> <td><i>Aiwa - Cuna, Tsepajivo</i></td> <td>1,060</td> </tr> <tr> <td rowspan="2">2</td> <td><i>Bajo Río Vichada 1</i></td> <td>1,067</td> </tr> <tr> <td><i>Bajo Río Vichada 2</i></td> <td>858</td> </tr> <tr> <td rowspan="4">3</td> <td><i>Atana - Pirariami</i></td> <td>571</td> </tr> <tr> <td><i>Caño Zama</i></td> <td>129</td> </tr> <tr> <td><i>Matavén Fruta</i></td> <td>245</td> </tr> <tr> <td><i>Berrocal - Ajota</i></td> <td>322</td> </tr> <tr> <td rowspan="4">4</td> <td><i>Lagunas Negra y Cacao</i></td> <td>155</td> </tr> <tr> <td><i>Sejalito - San Benito</i></td> <td>51</td> </tr> <tr> <td><i>Lag. Anguilla - La Macarena</i></td> <td>146</td> </tr> <tr> <td><i>Barranquito - Lag. Colorada</i></td> <td>97</td> </tr> <tr> <td rowspan="5">5</td> <td><i>Caño Bocón</i></td> <td>38</td> </tr> <tr> <td><i>Cumaral</i></td> <td>253</td> </tr> <tr> <td><i>Yuri</i></td> <td>46</td> </tr> <tr> <td><i>Giro</i></td> <td>141</td> </tr> <tr> <td><i>Morocoto-Buenavista-Manajuare</i></td> <td>307</td> </tr> <tr> <td colspan="2">Central Region</td> <td>276</td> </tr> <tr> <td colspan="2">Total</td> <td>6,286</td> </tr> </tbody> </table> <p>See Map 14. Location of High Conservation Value – HCV 4: Ecosystem services in PDD-CCB.</p> <p>- Number and area of landslides detected in these areas.</p> <p>During 2018 & 2019, 131 landslides occurred due to the</p>	Zone	Sector	HCV 4.1 forests (has.)	1	<i>Caño Cavasi</i>	524	<i>Aiwa - Cuna, Tsepajivo</i>	1,060	2	<i>Bajo Río Vichada 1</i>	1,067	<i>Bajo Río Vichada 2</i>	858	3	<i>Atana - Pirariami</i>	571	<i>Caño Zama</i>	129	<i>Matavén Fruta</i>	245	<i>Berrocal - Ajota</i>	322	4	<i>Lagunas Negra y Cacao</i>	155	<i>Sejalito - San Benito</i>	51	<i>Lag. Anguilla - La Macarena</i>	146	<i>Barranquito - Lag. Colorada</i>	97	5	<i>Caño Bocón</i>	38	<i>Cumaral</i>	253	<i>Yuri</i>	46	<i>Giro</i>	141	<i>Morocoto-Buenavista-Manajuare</i>	307	Central Region		276	Total		6,286
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		<p>force of the water currents that, on average, affect 1 hectares of land each, for a total of 135.4 hectares.</p> <p>- Number of communities and people benefiting from the protection of these areas.</p> <table border="1"> <thead> <tr> <th>Sector</th> <th>Communities</th> <th>Population</th> </tr> </thead> <tbody> <tr> <td>Caño Cavasi</td> <td>Caracol Guaratones</td> <td>67</td> </tr> <tr> <td>Bajo Río Vichada 1</td> <td>Awiribo, Camuaniana, Chawarama, Kalibo, Kulaya, La Urbana, Loma Cocuy, Palmar Yawisi, Provincial, Puerto La Miel, Remanso Carimagua</td> <td>549</td> </tr> <tr> <td>Bajo Río Vichada 2</td> <td>Belen, Bopone Sarrapia, Caño Sardina, Chaparralito, Guanape, Laguna Samaricuna, Lejanía, Marimba, Nuevo Oriente, Puerto Arebe, Santa Cruz, Sibiare, Yuri</td> <td>542</td> </tr> <tr> <td>Atana - Pirariami</td> <td>Cajaro, Campo Alegre Cochibo, Caño Cristal, Guabina</td> <td>149</td> </tr> <tr> <td>Caño Zama</td> <td>Marida, Piedra Pintada, San Luis</td> <td>169</td> </tr> <tr> <td>Matavén Fruta</td> <td>Pueblo Nuevo Mataven</td> <td>39</td> </tr> <tr> <td>Lag. Anguilla - La Macarena</td> <td>Caño Onoto, La Libertad, Laguna Anguilla, Monterrey</td> <td>234</td> </tr> <tr> <td>Barranquito - Lag. Colorada</td> <td>Barranquito, Santo Domingo</td> <td>184</td> </tr> <tr> <td>Caño Bocón</td> <td>Caño Bocón</td> <td>91</td> </tr> <tr> <td>Cumaral</td> <td>Cumaral</td> <td>127</td> </tr> <tr> <td>Yuri</td> <td>Yuri</td> <td>94</td> </tr> <tr> <td>Giro</td> <td>Giro, Picua</td> <td>86</td> </tr> <tr> <td>Morocoto-Buenavista-Manajuare</td> <td>Barranco Tigre, Belen, Buenavista, Charco Mure, Cumaralito, Jardin de Flores, Laguna Casanare, Manajuare, Morichal, Morocoto, Palmarito, Trupialito, Yarumal</td> <td>978</td> </tr> <tr> <td>Totals</td> <td>57 communities</td> <td>3,309</td> </tr> </tbody> </table>	Sector	Communities	Population	Caño Cavasi	Caracol Guaratones	67	Bajo Río Vichada 1	Awiribo, Camuaniana, Chawarama, Kalibo, Kulaya, La Urbana, Loma Cocuy, Palmar Yawisi, Provincial, Puerto La Miel, Remanso Carimagua	549	Bajo Río Vichada 2	Belen, Bopone Sarrapia, Caño Sardina, Chaparralito, Guanape, Laguna Samaricuna, Lejanía, Marimba, Nuevo Oriente, Puerto Arebe, Santa Cruz, Sibiare, Yuri	542	Atana - Pirariami	Cajaro, Campo Alegre Cochibo, Caño Cristal, Guabina	149	Caño Zama	Marida, Piedra Pintada, San Luis	169	Matavén Fruta	Pueblo Nuevo Mataven	39	Lag. Anguilla - La Macarena	Caño Onoto, La Libertad, Laguna Anguilla, Monterrey	234	Barranquito - Lag. Colorada	Barranquito, Santo Domingo	184	Caño Bocón	Caño Bocón	91	Cumaral	Cumaral	127	Yuri	Yuri	94	Giro	Giro, Picua	86	Morocoto-Buenavista-Manajuare	Barranco Tigre, Belen, Buenavista, Charco Mure, Cumaralito, Jardin de Flores, Laguna Casanare, Manajuare, Morichal, Morocoto, Palmarito, Trupialito, Yarumal	978	Totals	57 communities	3,309
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	<p>and the river communities in each Sector, through the implementation of river surveillance routes.</p>	<p>been trained and participate in the surveillance, control and monitoring of the areas surrounding the main rivers (Vichada, Orinoco, Guaviare and <i>Brazo Amanavén</i>) around the communities per Sector.</p> <table border="1"> <thead> <tr> <th>Zone</th> <th>Sector</th> <th>Indigenous guards</th> <th>Captains</th> </tr> </thead> <tbody> <tr> <td rowspan="2">1</td> <td><i>Caño Cavasi</i></td> <td>105</td> <td>31</td> </tr> <tr> <td><i>Aiwa - Cuna, Tsepajivo</i></td> <td>95</td> <td>37</td> </tr> <tr> <td rowspan="2">2</td> <td><i>Bajo Río Vichada 1</i></td> <td>158</td> <td>55</td> </tr> <tr> <td><i>Bajo Río Vichada 2</i></td> <td>140</td> <td>55</td> </tr> <tr> <td rowspan="4">3</td> <td><i>Atana - Pirariami</i></td> <td>28</td> <td>12</td> </tr> <tr> <td><i>Caño Zama</i></td> <td>17</td> <td>2</td> </tr> <tr> <td><i>Matavén Fruta</i></td> <td>22</td> <td>1</td> </tr> <tr> <td><i>Berrocal - Ajota</i></td> <td>18</td> <td>9</td> </tr> <tr> <td rowspan="4">4</td> <td><i>Lagunas Negra y Cacao</i></td> <td>17</td> <td>3</td> </tr> <tr> <td><i>Sejalito - San Benito</i></td> <td>14</td> <td>5</td> </tr> <tr> <td><i>Lag. Anguilla - La Macarena</i></td> <td>22</td> <td>12</td> </tr> <tr> <td><i>Barranquito - Lag. Colorada</i></td> <td>21</td> <td>5</td> </tr> <tr> <td rowspan="5">5</td> <td><i>Caño Bocón</i></td> <td>13</td> <td>1</td> </tr> <tr> <td><i>Cumaral</i></td> <td>15</td> <td>2</td> </tr> <tr> <td><i>Yuri</i></td> <td>9</td> <td>2</td> </tr> <tr> <td><i>Giro</i></td> <td>12</td> <td>3</td> </tr> <tr> <td><i>Morocoto-Buenavista-Manajuare</i></td> <td>24</td> <td>9</td> </tr> <tr> <td colspan="2" style="text-align: right;">Total</td> <td>730</td> <td>244</td> </tr> </tbody> </table> <p>6 Zonal Coordinators and around 1,403 indigenous persons have attended to meetings and workshops in 2018 & 2019. In addition, the inhabitants of the communities are committed to monitoring the forest, in order to support the protection of the resources of the RIU-SM, including the areas surrounding the main rivers.</p> <p>- Number of river surveillance and control routes carried out in these protected forest areas by Sector.</p> <table border="1"> <thead> <tr> <th>Zone</th> <th>Sector</th> <th>Number of surveillance and control routes</th> </tr> </thead> <tbody> <tr> <td rowspan="2">1</td> <td><i>Caño Cavasi</i></td> <td>4</td> </tr> <tr> <td><i>Aiwa - Cuna, Tsepajivo</i></td> <td>4</td> </tr> <tr> <td rowspan="2">2</td> <td><i>Bajo Río Vichada 1</i></td> <td>3</td> </tr> <tr> <td><i>Bajo Río Vichada 2</i></td> <td>6</td> </tr> <tr> <td rowspan="4">3</td> <td><i>Atana - Pirariami</i></td> <td>1</td> </tr> <tr> <td><i>Caño Zama</i></td> <td>1</td> </tr> <tr> <td><i>Matavén Fruta</i></td> <td>3</td> </tr> <tr> <td><i>Berrocal - Ajota</i></td> <td>1</td> </tr> </tbody> </table>	Zone	Sector	Indigenous guards	Captains	1	<i>Caño Cavasi</i>	105	31	<i>Aiwa - Cuna, Tsepajivo</i>	95	37	2	<i>Bajo Río Vichada 1</i>	158	55	<i>Bajo Río Vichada 2</i>	140	55	3	<i>Atana - Pirariami</i>	28	12	<i>Caño Zama</i>	17	2	<i>Matavén Fruta</i>	22	1	<i>Berrocal - Ajota</i>	18	9	4	<i>Lagunas Negra y Cacao</i>	17	3	<i>Sejalito - San Benito</i>	14	5	<i>Lag. Anguilla - La Macarena</i>	22	12	<i>Barranquito - Lag. Colorada</i>	21	5	5	<i>Caño Bocón</i>	13	1	<i>Cumaral</i>	15	2	<i>Yuri</i>	9	2	<i>Giro</i>	12	3	<i>Morocoto-Buenavista-Manajuare</i>	24	9	Total		730	244	Zone	Sector	Number of surveillance and control routes	1	<i>Caño Cavasi</i>	4	<i>Aiwa - Cuna, Tsepajivo</i>	4	2	<i>Bajo Río Vichada 1</i>	3	<i>Bajo Río Vichada 2</i>	6	3	<i>Atana - Pirariami</i>	1	<i>Caño Zama</i>	1	<i>Matavén Fruta</i>	3	<i>Berrocal - Ajota</i>	1
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	<ul style="list-style-type: none"> • Surveillance and prevention of fires and impacts of strong winds, taking into account early warnings from IDEAM or other sources. 	<p>- Number of fires occurring in the areas surrounding the riverbanks of the four main rivers around the communities.</p> <p>No fires in the areas surrounding the riverbanks of the four main rivers around the communities were reported.</p> <p>- Number of strong winds detected and magnitude of their impact.</p> <p>No strong winds in the areas surrounding the riverbanks of the four main rivers around the communities were reported</p>																							
	<ul style="list-style-type: none"> • Training of indigenous guards, authorities and communities in the implementation of these specific measures. 	<p>- Number of indigenous guards, authorities and people from indigenous communities trained in the implementation of these specific surveillance and control measures.</p> <p>730 indigenous guards, 244 Captains and around 1,043 persons of indigenous communities were trained in, among other topics, the implementation of surveillance and control measures.</p> <p>- Number of workshops and training meetings on the implementation of these specific measures.</p>																							

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HCV 4.2: Regulating and supporting areas: upland and floodplain forest areas	<p>The following specific measures are complementary to the general measures described above:</p> <ul style="list-style-type: none"> • Protection of forest areas in high and flood zones. • Surveillance and control by the indigenous guard and the communities surrounding the forest areas in the highlands and flood zones, through the implementation of land surveillance routes. • Monitoring and prevention of fires and impacts of strong winds, taking into account early 	<p>The Sustainable Management Plan for Land and Forest is monitored through the variables described for HCV 4.2.</p> <ul style="list-style-type: none"> - Number of hectares of protected forest in upland and flood zones near the communities. There are 95,456 has. of primary forest, 9,648 has. of secondary forest, and 129,704 has. of flooded forest, in relation to HCV 4.2. - Number of communities and people benefiting from the protection of these areas. In general, practically all the indigenous communities of the RIU-SM benefit from the protection of floodplain forest areas. - Number of indigenous guards, Captains, Zonal Coordinators and members of the communities that have been trained and participate in the surveillance, control and monitoring of the protected forest areas in high and floodable zones, close to the communities. - Number of surveillance and control routes carried out in these protected forest areas by Sector. - Number of workshops, meetings and other training activities on the protection of forests in high and flood zones near the communities. <i>See "Monitoring to evaluate the effectiveness of measures to maintain or improve HCVs / Surveillance and control by the indigenous guard and the river communities in each Sector, through the implementation of river surveillance routes" of HCV 4.1 above.</i> - Number of fires that have occurred in high forest and flood zones near the communities. A fire was reported in Sector 4 Atana - Pirariami by

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<p>HCV 5.1: Food resource supply areas</p>	<p>The following specific measures are complementary to the general measures described:</p> <ul style="list-style-type: none"> • Protection of Heterogeneous Agricultural Areas (HAA), pastures and floodable forests near the communities. 	<p>The Sustainable Management Plan for Land and Forest is monitored through the variables described for HCV 5.1.</p> <ul style="list-style-type: none"> - An established Family Agrifood Production Units System (FAPUS) per Sector. <p>FAPUS has been being implemented in all sectors of the RIU-SM, as described below.</p> <ul style="list-style-type: none"> - Number of hectares of Heterogeneous Agricultural Areas (HAA), pastures and floodable forests near the communities per Sector. <table border="1"> <thead> <tr> <th>Sectors</th> <th>HAA</th> <th>Pastures</th> <th>Floodable forests</th> </tr> </thead> <tbody> <tr> <td><i>Caño Cavasi</i></td> <td>89.2</td> <td>1.9</td> <td>2,403.1</td> </tr> <tr> <td><i>Aiwa - Cuna, Tsepajivo</i></td> <td>1,079.8</td> <td>8.7</td> <td>4,082.5</td> </tr> <tr> <td><i>Bajo Río Vichada 1</i></td> <td>2,431.9</td> <td></td> <td>12,387.9</td> </tr> <tr> <td><i>Bajo Río Vichada 2</i></td> <td>2,393.8</td> <td>16.2</td> <td>20,283.1</td> </tr> <tr> <td><i>Atana - Pirariami</i></td> <td>952.3</td> <td>2.0</td> <td>9,037.7</td> </tr> <tr> <td><i>Caño Zama</i></td> <td>43.6</td> <td>14.8</td> <td>3,195.2</td> </tr> <tr> <td><i>Matavén Fruta</i></td> <td>715.9</td> <td>339.7</td> <td>4,073.7</td> </tr> <tr> <td><i>Berrocal - Ajota</i></td> <td>1,072.4</td> <td>98.9</td> <td>5,113.5</td> </tr> </tbody> </table>	Sectors	HAA	Pastures	Floodable forests	<i>Caño Cavasi</i>	89.2	1.9	2,403.1	<i>Aiwa - Cuna, Tsepajivo</i>	1,079.8	8.7	4,082.5	<i>Bajo Río Vichada 1</i>	2,431.9		12,387.9	<i>Bajo Río Vichada 2</i>	2,393.8	16.2	20,283.1	<i>Atana - Pirariami</i>	952.3	2.0	9,037.7	<i>Caño Zama</i>	43.6	14.8	3,195.2	<i>Matavén Fruta</i>	715.9	339.7	4,073.7	<i>Berrocal - Ajota</i>	1,072.4	98.9	5,113.5
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		<p>According to the 2018 census, there are 3,117 indigenous persons that are considered agricultural and are applying the FAPUS</p> <ul style="list-style-type: none"> - Number of projects and their characteristics implemented for agrifood production. <p>According to Project Activity A.2.1, the following is being developed:</p> <ul style="list-style-type: none"> - Family Agri-food Production Units System – FAPUS, that which is constituted as a strategy to improve land use and food production. - Cassava graters and other elements have been delivered to all indigenous communities in every Sector, to improve the production processes that are carried out to obtain derivative-products from this tuber. - Agricultural machinery was acquired (as a pilot process) to strengthen the food sustainability of the indigenous reservation. - Cookware (“menaje” in local language) was provided, with which the aim is to support indigenous women, as heads of household, in their food preparation task, with elements that can contribute to the improvement of health and life quality of the family members. <p>According to Project Activity A.2.3, steps were taken to define the productive projects that can begin to be implemented as pilot initiatives in some communities of the RIU-SM, in order to evaluate their development and success. The proposals are as follows:</p> <ul style="list-style-type: none"> - Cassava cultivation project to obtain <i>mañoco</i>. - <i>Panelera</i> cane production project. - Minor species (hens) production project. - Crop fish in floating cages (fish farming for food guarantee). - Self-sufficient integral community farms (Agrosilvopastoral). - <i>Lapa</i> zoo-breeder for consumption. - Of the proposals, the Silvopastoral production project is in

HCVs	Measures to maintain or improve HCVs attributes related to the well-being of the communities	Monitoring to evaluate the effectiveness of measures to maintain or improve HCVs
		<p>execution: A meat and milk production line is being implemented to complement the FAPUS and improve food production</p> <ul style="list-style-type: none"> - Number of agreements or contracts with partner organizations in the development of productive projects. <p>Agroforestry project with cocoa, plantain, corn, and forest trees: This project is carrying out in 10 communities in Zones 4 and 5 of the RIU-SM. In each community 10 families are in charge of the cultivation and production in 1 hectare of land (each one), in this way 100 families are cultivating 100 hectares. An agreement was signed with FEDECACAO to develop this project.</p> <ul style="list-style-type: none"> - Economic income of indigenous communities for their participation in the Family Agrifood Production Units System (FAPUS). <p>The productive projects implemented are helping to ensure food sustainability. However, it is expected that they will soon give results for their commercialization and generation of income for the families that participate in them.</p>
	<ul style="list-style-type: none"> • Surveillance and control by the communities surrounding the Heterogeneous Agricultural Areas (HAA), pastures and floodable forests near the communities, through the implementation of river and land watch routes. 	<ul style="list-style-type: none"> - Number of Captains and people from the communities who have been trained and who participate in the surveillance, control and monitoring of the areas of the Family Agrifood Production Units System (FAPUS). - Number of workshops, meetings and other training activities on the protection of the areas of the Family Agrifood Production Units System s (FAPUS). <p><i>See "Monitoring to evaluate the effectiveness of measures to maintain or improve HCVs / Surveillance and control by the indigenous guard and the river communities in each Sector, through the implementation of river surveillance routes" of HCV 4.1 above.</i></p>
	<ul style="list-style-type: none"> • Monitoring and prevention of fires and impacts of strong winds, taking into account early warnings from IDEAM or other sources. 	<ul style="list-style-type: none"> - Number of fires in the areas of the Family Agrifood Production Units System (FAPUS). <p>The common practice to prepare the ground to start the crops is to burn the biological material that is on the ground, to fix some nutrients. However, these burns do not become</p>

HCVs	Measures to maintain or improve HCVs attributes related to the well-being of the communities	Monitoring to evaluate the effectiveness of measures to maintain or improve HCVs
		<p>fires, as it is controlled to avoid damage.</p> <ul style="list-style-type: none"> - Number of strong winds detected and magnitude of their impact in these areas. <p>No strong winds in the areas of the Family Agrifood Production Units System (FAPUS) were reported</p>
	<ul style="list-style-type: none"> • Training of authorities and communities in the implementation of these specific measures. 	<ul style="list-style-type: none"> - Number of authorities and people from indigenous communities trained in the implementation of these specific measures for monitoring and control of the areas of the System of Family Agrifood Production Units (FAPUS). - Number of workshops and training meetings on the implementation of these specific measures. <p><i>See “Monitoring to evaluate the effectiveness of measures to maintain or improve HCVs / Training of indigenous guards, authorities and communities in the implementation of these specific measures” of HCV 4.1 above.</i></p>
	<ul style="list-style-type: none"> • Training in the implementation of collection plans and sustainable use of products generated in Heterogeneous Agricultural Areas -HAA-, pastures and floodable forests. 	<ul style="list-style-type: none"> - Number of Captains and community members participating in the implementation of plans for the collection and use of products generated in the Heterogeneous Agricultural Areas (HAA), pastures and floodable forests. <p>244 Captains and 3,117 farmers have participated in training workshops about, among other topics, the establishment and implementation of FAPUS in the Heterogeneous Agricultural Areas (HAA), pastures and floodable forests.</p> <ul style="list-style-type: none"> - Number of workshops and training meetings on the implementation of these specific measures. <p>About 20 training workshops have been carried out for the indigenous population, in trained process about, among other topics, the establishment and implementation of FAPUS in the Heterogeneous Agricultural Areas (HAA), pastures and floodable forests.</p>
	<ul style="list-style-type: none"> • Training in the implementation of productive projects (nurseries for the 	<ul style="list-style-type: none"> - Number of captains and community members participating in the implementation of productive projects (nurseries for the maintenance of seeds and germplasm bank of native species of traditional use for nutrition; technical assistance)

HCVs	Measures to maintain or improve HCVs attributes related to the well-being of the communities	Monitoring to evaluate the effectiveness of measures to maintain or improve HCVs
	<p>maintenance of seeds and germplasm bank of native species of traditional use for nutrition; technical assistance) in the Heterogeneous Agricultural Areas (HAA) and floodable forests.</p>	<p>in the Heterogeneous Agricultural Areas (HAA) and floodable forests.</p> <p>244 Captains and 3,117 farmers have participated in training workshops about, among other topics, the implementation of productive projects in the Heterogeneous Agricultural Areas (HAA), pastures and floodable forests.</p> <p>- Number of workshops and training meetings on the implementation of these specific measures.</p> <p>About 20 training workshops have been carried out for the indigenous population, in trained process about, among other topics, the implementation of productive projects in the Heterogeneous Agricultural Areas (HAA), pastures and floodable forests.</p>
	<ul style="list-style-type: none"> • Training for the implementation of productive projects and zoo-breeding of minor species, with the purpose of occupying the population dedicated to the hunting of wild species; and to encourage the sustainable management of hunting. 	<p>- Number of captains and community members participating in the implementation of productive and zoo-breeding projects for minor species, with the purpose of occupying the population dedicated to hunting wildlife species and encouraging sustainable hunting management.</p> <p>244 Captains participated in training of productive and zoo-breeding projects for minor species, projects that are expected to be implemented over the next few years.</p> <p>- Number of workshops and training meetings on the implementation of these specific measures.</p> <p>About 20 training workshops have been carried out for the indigenous population, in trained process about, among other topics, the implementation of productive projects that indigenous communities have proposed.</p>
	<ul style="list-style-type: none"> • Training in the preparation and application of compost and friendly organic supplements as good agricultural practices within the framework of productive projects. 	<p>- Number of captains and community members participating in the development and application of compost and friendly organic supplements as good agricultural and livestock practices within the framework of productive projects.</p> <p>- Number of workshops and training meetings on the implementation of these specific measures.</p> <p>The task on the implementation of composting practices</p>

HCVs	Measures to maintain or improve HCVs attributes related to the well-being of the communities	Monitoring to evaluate the effectiveness of measures to maintain or improve HCVs
	<ul style="list-style-type: none"> • Training for water management in the communities, a necessary element for the Heterogeneous Agricultural Areas -HAA-, pastures and floodable forests. 	<p>and friendly organic supplements as good agricultural and livestock practices within the framework of productive projects is in the design process. This initiative has not yet been generalized, which is expected to be completed in the next few years.</p> <ul style="list-style-type: none"> - Number of Captains and community members involved in water management in the communities, a necessary element for the Heterogeneous Agricultural Areas -HAA-, pastures and floodable forests. - Number of workshops and training meetings on the implementation of these specific measures. <p>In the training workshops on, among other topics, the design and development of productive projects, all aspects related to crops are dealt with, including, of course, the management of the water resources necessary for irrigation in HAA areas.</p>
<p>HCV 5.2: Material supply areas</p>	<p>The following specific measures are complementary to the general measures described above:</p> <ul style="list-style-type: none"> • Protection of material supply areas. 	<p>The Sustainable Management Plan for Land and Forest is monitored through the variables described for HCV 5.2.</p> <ul style="list-style-type: none"> - Number of hectares of material supply areas protected. 12,371 hectares have been identified. of secondary forest, corresponding to HCV 5.2 that provides material supply areas. According to the threat of deforestation on these secondary forests, 7,924 hectares have been protected (only with a loss of 1.26% of these forests annually). - Number of communities, families and individuals in material supply areas. All communities make use of the material supply areas according to their customary use. However, alternative materials are being provided to protect secondary forests (for example, for housing improvement), without altering the customs of indigenous communities. - Number of projects and their characteristics implemented in

HCVs	Measures to maintain or improve HCVs attributes related to the well-being of the communities	Monitoring to evaluate the effectiveness of measures to maintain or improve HCVs
		<p>material supply areas.</p> <p>For the moment, measures have been taken to protect secondary forests, with the surveillance and control of the territory of the RIU-SM and the provision of alternative materials for use.</p> <ul style="list-style-type: none"> - Number of agreements or contracts with partner organizations in the development of projects in material supply areas. <p>No agreements or contracts with partner organizations in the development of projects in material supply areas have been signed yet.</p> <ul style="list-style-type: none"> - Economic income of indigenous communities for their participation in the areas of materials supply. <p>The measures implemented are helping to protect the areas of HCV 5.2. However, Secondary forests are expected to continue to provide materials for, for example, producing handicrafts that are commercialized to generate incomes for the families.</p>
	<ul style="list-style-type: none"> • Surveillance and control by the communities neighboring the material supply areas near the communities, through the implementation of river and land surveillance routes. 	<ul style="list-style-type: none"> - Number of Captains and community members trained and participating in the surveillance, control and monitoring of material supply areas. - Number of workshops, meetings and other training activities on the protection of material supply areas. <p><i>See “Monitoring to evaluate the effectiveness of measures to maintain or improve HCVs / Surveillance and control by the indigenous guard and the river communities in each Sector, through the implementation of river surveillance routes” of HCV 4.1 above.</i></p>
	<ul style="list-style-type: none"> • Monitoring and prevention of fires and impacts of strong winds, taking into account early warnings from IDEAM or other sources. 	<ul style="list-style-type: none"> - Number of fires in material supply areas. <p>No fires in material supply areas were reported.</p> <ul style="list-style-type: none"> - Number of strong winds detected and magnitude of their impact in these areas. <p>No strong winds in material supply areas were reported.</p>
	<ul style="list-style-type: none"> • Training of authorities 	<ul style="list-style-type: none"> - Number of authorities and people from indigenous

HCVs	Measures to maintain or improve HCVs attributes related to the well-being of the communities	Monitoring to evaluate the effectiveness of measures to maintain or improve HCVs
	<p>and communities in the implementation of these specific measures.</p> <ul style="list-style-type: none"> • Training in the design and development of sustainable forest harvesting and utilization plans for the construction of houses and canoes, as well as for the manufacture of utensils for traditional use, handicrafts and other materials and tools for agroforestry systems in the conucos. 	<p>communities trained in the implementation of these specific measures for monitoring and control of material supply areas.</p> <ul style="list-style-type: none"> - Number of workshops and training meetings on the implementation of these specific measures. <p><i>See “Monitoring to evaluate the effectiveness of measures to maintain or improve HCVs / Training of indigenous guards, authorities and communities in the implementation of these specific measures” of HCV 4.1 above.</i></p> <ul style="list-style-type: none"> - Number of Captains and community members participating in the implementation of plans for the collection and use of products generated in the material supply areas. <p>244 Captains and 3,117 farmers have participated in training workshops about, among other topics, the implementation of plans for the collection and use of products generated in the material supply areas.</p> <ul style="list-style-type: none"> - Number of workshops and training meetings on the implementation of these specific measures. <p>About 20 training workshops have been carried out for the indigenous population, in trained process about, among other topics, the establishment and implementation of FAPUS in the implementation of plans for the collection and use of products generated in the material supply areas.</p>
HCV 6.1: Sacred sites	<p>The following specific measures are complementary to the general measures described above:</p> <ul style="list-style-type: none"> • Protection of areas where there are sacred sites. 	<p>The Sustainable Management Plan for Land and Forest is monitored through the variables described for HCV 6.1.</p> <ul style="list-style-type: none"> - Number of sacred sites and characterization. <p>At the moment, around 18 sacred sites have been identified, of which the following are highlighted:</p> <p>Mouths of Vichada river.</p> <p><i>Tonina</i>: stone in the shape of a <i>tonina</i> and a manatee lying down.</p> <p>Mouth of <i>Zama</i> creek at the edge of the Orinoco River: a stone in the shape of a snake.</p>

HCVs	Measures to maintain or improve HCVs attributes related to the well-being of the communities	Monitoring to evaluate the effectiveness of measures to maintain or improve HCVs
		<p>Mouth of <i>Matavén</i> creek a stone with petroglyphs at the entrance of the village Piedra Pintada.</p> <p><i>Matavén</i> creek: sacred creek because there is food there, water protection</p> <p>Sacred lagoon in the Berrocal Ajota Sector.</p> <p>Site close to the Guayabal Anapo community.</p> <p>Special sites in the depths of the <i>Selva de Matavén</i>: “water births”, where shamans bury precious stones as an offering to guarantee the water source.</p> <p>- Location through maps.</p> <p>Map 17 in the Section "2.1.5 Project Zone Map" of PDD-CCB.</p> <p>- Number of hectares of protection of sacred sites around approximately 2 km.</p> <p>It is considered conducive for the area around sacred sites to be recognized for protection. The members of the indigenous communities are supported to preserve their cultural richness, including the important sites that are under their care.</p>
	<ul style="list-style-type: none"> • Surveillance and control by the indigenous guard and the communities surrounding the sacred sites. 	<ul style="list-style-type: none"> - Number of indigenous guards, Captains and community members trained and involved in the surveillance, control and monitoring of sacred sites. - Number of workshops, meetings and other training activities on the protection of sacred sites. <p><i>See “Monitoring to evaluate the effectiveness of measures to maintain or improve HCVs / Surveillance and control by the indigenous guard and the river communities in each Sector, through the implementation of river surveillance routes” of HCV 4.1 above.</i></p>
	<ul style="list-style-type: none"> • Training of indigenous guards, authorities and communities in the implementation of these specific measures. 	<ul style="list-style-type: none"> - Number of indigenous guards, authorities and people from indigenous communities trained in the implementation of these specific measures for monitoring and control of sacred sites. - Number of workshops and training meetings on the implementation of these specific measures.

HCVs	Measures to maintain or improve HCVs attributes related to the well-being of the communities	Monitoring to evaluate the effectiveness of measures to maintain or improve HCVs
		<p><i>See “Monitoring to evaluate the effectiveness of measures to maintain or improve HCVs / Training of indigenous guards, authorities and communities in the implementation of these specific measures” of HCV 4.1 above.</i></p>
	<ul style="list-style-type: none"> • Training in the monitoring of places of spiritual and cultural value. 	<ul style="list-style-type: none"> - Number of indigenous guards, authorities, and people from indigenous communities trained in the monitoring of sites of spiritual and cultural value. - Number of workshops and training meetings on the implementation of these specific measures. <p><i>See “Monitoring to evaluate the effectiveness of measures to maintain or improve HCVs / Training of indigenous guards, authorities and communities in the implementation of these specific measures” of HCV 4.1 above.</i></p>
	<ul style="list-style-type: none"> • Guidelines for a pilot project for responsible and sustainable nature tourism in areas of cultural importance for recreation and relaxation. 	<ul style="list-style-type: none"> - Guidelines plan for a responsible and sustainable nature tourism pilot project in areas of cultural importance for recreation and relaxation. - Number of communities and individuals participating in the nature tourism pilot project. <p>Training workshops have been held to guide communities in the development of potential sustainable nature tourism projects in areas of cultural importance for recreation and relaxation. This project is in the process of being designed and contacts are being established with expert entities at the national level in this type of activity (Annexs 4.6.1b2 and 4.6.1.2 -Anexo 12, Anexo 13- of Monitoring Report – VCS 2018 & 2019).</p>
	<ul style="list-style-type: none"> • Training communities in the cultural and environmental management of the tourism projects they develop. 	<ul style="list-style-type: none"> - Number of people from indigenous communities trained in the cultural and environmental management of the tourism projects they develop. <p>Meetings of socialization of the proposal to develop the community tourism project were attended by 101 participants.</p> <ul style="list-style-type: none"> - Number of workshops and training meetings on the implementation of these specific measures. <p>12 workshops and training meetings on the implementation of these specific measures were developed.</p>

Type of	Scale of values of the variables obtained in the monitoring through satellite images and
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measurement	<p>their processing and scale of values referring to the other discrete and continuous variables, with their collection methods through specific formats and their due statistical processing. Some of these variables are complemented through specifically designed surveys.</p> <p>The evolution of all these variables will be evaluated.</p>
Sampling Method	<p>Variables based on satellite images do not require sampling, since the entire corresponding universe is studied. Among the discrete and continuous variables referred to above, there are some that are also studied in the entire corresponding universe defined according to statistical criteria. Those that require surveys will have a simple random sampling method that corresponds to the Zones and Sectors.</p>
Frequency monitoring	<p>Each time verification is required, which may be annual or biennial.</p>

Community Monitoring Plan to achieve the Gold Level

Table 40. Climate Change Adaptation Benefits (GL1) for communities

Description of the benefit of adaptation to climate change for communities	Indicators of the benefits of adaptation to climate change for communities																																
<p>1) Protection in communities along riverbanks, mainly in large rivers, from possible landslides and erosion in gullies. Communities adapt to these critical situations through measures related to HCV 4.1.</p> <p>Decrease in the possibility of deforestation of riverbanks, rivers and lagoons due to deforestation and land use change.</p>	<ul style="list-style-type: none"> - Number of communities at risk from gully erosion and landslides on the banks of the four main rivers (Vichada, Orinoco, <i>Brazo Amanavén</i> and Orinoco). - Number of communities protected by the forest that prevents erosion and gully slides on the banks of the four main rivers. - Number of people by gender and age group protected from gully erosions and landslides on the banks of the four main rivers. - Number of people by gender and age group at risk. <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">Sector</th> <th rowspan="2">Communities</th> <th colspan="2">Woman</th> <th colspan="2">Men</th> <th rowspan="2">No data</th> </tr> <tr> <th>Adult</th> <th>Young</th> <th>Adult</th> <th>Young</th> </tr> </thead> <tbody> <tr> <td>1</td> <td><i>Caracol Guaratones</i></td> <td>13</td> <td>18</td> <td>16</td> <td>15</td> <td>5</td> </tr> <tr> <td>3a</td> <td><i>Awiribo, Camuaniana, Chawarama, Kalibo, Kulaya, La Urbana, Loma Cocuy, Palmar Yawisi, Provincial, Puerto La Miel, Remanso Carimagua</i></td> <td>136</td> <td>86</td> <td>161</td> <td>127</td> <td>39</td> </tr> <tr> <td>3b</td> <td><i>Belen, Bopone Sarrapia, Caño Sardina, Chaparralito, Guanape, Laguna Samaricuna, Lejania, Marimba, Nuevo Oriente, Puerto Arebe, Santa Cruz, Sibiare, Yuri</i></td> <td>138</td> <td>130</td> <td>163</td> <td>104</td> <td>7</td> </tr> </tbody> </table>	Sector	Communities	Woman		Men		No data	Adult	Young	Adult	Young	1	<i>Caracol Guaratones</i>	13	18	16	15	5	3a	<i>Awiribo, Camuaniana, Chawarama, Kalibo, Kulaya, La Urbana, Loma Cocuy, Palmar Yawisi, Provincial, Puerto La Miel, Remanso Carimagua</i>	136	86	161	127	39	3b	<i>Belen, Bopone Sarrapia, Caño Sardina, Chaparralito, Guanape, Laguna Samaricuna, Lejania, Marimba, Nuevo Oriente, Puerto Arebe, Santa Cruz, Sibiare, Yuri</i>	138	130	163	104	7
Sector	Communities			Woman		Men			No data																								
		Adult	Young	Adult	Young																												
1	<i>Caracol Guaratones</i>	13	18	16	15	5																											
3a	<i>Awiribo, Camuaniana, Chawarama, Kalibo, Kulaya, La Urbana, Loma Cocuy, Palmar Yawisi, Provincial, Puerto La Miel, Remanso Carimagua</i>	136	86	161	127	39																											
3b	<i>Belen, Bopone Sarrapia, Caño Sardina, Chaparralito, Guanape, Laguna Samaricuna, Lejania, Marimba, Nuevo Oriente, Puerto Arebe, Santa Cruz, Sibiare, Yuri</i>	138	130	163	104	7																											

Description of the benefit of adaptation to climate change for communities	Indicators of the benefits of adaptation to climate change for communities																															
	4	<i>Cajaro, Campo Alegre Cochibo, Caño Cristal, Guabina</i>	36	29	43	32	9																									
	5	<i>Marida, Piedra Pintada, San Luis</i>	51	42	36	31	9																									
	6	<i>Pueblo Nuevo Mataven</i>	16	5	11	7	0																									
	10	<i>Caño Onoto, La Libertad, Laguna Anguilla, Monterrey</i>	41	44	53	54	42																									
	11	<i>Barranquito, Santo Domingo</i>	33	35	34	40	42																									
	12	<i>Caño Bocón</i>	25	10	32	18	6																									
	13	<i>Cumaral</i>	26	27	40	31	3																									
	14	<i>Yuri</i>	17	14	22	31	10																									
	15	<i>Giro, Picua</i>	11	25	16	25	9																									
	16	<i>Barranco Tigre, Belen, Buenavista, Charco Mure, Cumaralito, Jardin de Flores, Laguna Casanare, Manajua, Morichal, Morocoto, Palmarito, Trupialito, Yarumal</i>	225	229	270	222	32																									
	Totals	57 communities	768	694	897	737	213																									
2) The regulation and control of soils or bio-geophysical conditions, such as soil and aquifer formation, fire control, flood regulation and drought control, benefits communities in their protection and food provision (agroforestry, silvopastoral and fish farming systems), including areas outside the Project Area (in the Leakage Belt), and in relation to HCV 4.2.	<ul style="list-style-type: none"> - Number of communities at risk from fires, floods and droughts in upland and flood-prone forest areas related to HCV 4. - Number of communities protected from fires, floods and droughts in upland and flood-prone forest areas. - Number of people by gender and age group protected from fires, floods and droughts in upland and flood-prone forest areas. - Number of people by gender and age group at risk from fires, floods and droughts in upland and flood-prone forest areas. 																															
	<table border="1"> <thead> <tr> <th rowspan="2">Sector</th> <th rowspan="2">Communities</th> <th colspan="2">Woman</th> <th colspan="2">Men</th> <th rowspan="2">No data</th> </tr> <tr> <th>Adult</th> <th>Young</th> <th>Adult</th> <th>Young</th> </tr> </thead> <tbody> <tr> <td>1</td> <td><i>Arbolito, Guayaquil, La Fortuna, Puerto Paloma, Punto Esperanza, Putare, Santa Gloria, Santa Isabel, Wisiriana</i></td> <td>34</td> <td>34</td> <td>39</td> <td>46</td> <td>1</td> </tr> <tr> <td>2</td> <td><i>Arenal, Brisas, Cidon, Cimarron, Cumariana, Guayabetal, Jordan Tamude, Kirey Loma, La Florida, Maniare,</i></td> <td>370</td> <td>331</td> <td>423</td> <td>333</td> <td>18</td> </tr> </tbody> </table>							Sector	Communities	Woman		Men		No data	Adult	Young	Adult	Young	1	<i>Arbolito, Guayaquil, La Fortuna, Puerto Paloma, Punto Esperanza, Putare, Santa Gloria, Santa Isabel, Wisiriana</i>	34	34	39	46	1	2	<i>Arenal, Brisas, Cidon, Cimarron, Cumariana, Guayabetal, Jordan Tamude, Kirey Loma, La Florida, Maniare,</i>	370	331	423	333	18
Sector	Communities	Woman		Men		No data																										
		Adult	Young	Adult	Young																											
1	<i>Arbolito, Guayaquil, La Fortuna, Puerto Paloma, Punto Esperanza, Putare, Santa Gloria, Santa Isabel, Wisiriana</i>	34	34	39	46	1																										
2	<i>Arenal, Brisas, Cidon, Cimarron, Cumariana, Guayabetal, Jordan Tamude, Kirey Loma, La Florida, Maniare,</i>	370	331	423	333	18																										

Description of the benefit of adaptation to climate change for communities	Indicators of the benefits of adaptation to climate change for communities					
		<i>Miraflores, Nuevo Camino, Palmita, Venecia, Villa San Roque, Waturiba</i>				
	3a	<i>Autana, Bachaquero, Campo Hermoso, Caribello, Dume, Jajaraba, Kalifina, Kalifina Loma, Lejanía, Lucero, Mangal Perdido, Merey Danubio, Miralejos, Montaña Fria, Naranjito, Palmar Yawisi, Puerto La Miel, Raya, Rincon Tonina, Xuperibo, Yulemana</i>	130	113	149	121 27
	3b	<i>Arebe Central, Azulejo, Belen, Brisas del Gaban, Cocotoba, Cocotoba Rincon, Cucurital, El Dorado, Furace, Furere, Guanape, Loma Primitivo, Marimba, Mawia Soledad, Palmar, Puerto Guanico, Puerto Rico, Rincon Ceiba, San Piñalito Morichal, Santa Ines, Santa Rosal, Sirare, Sukuara, Toforoto, Wereto</i>	325	300	388	275 20
	4	<i>Campo Alegre Cochibo, Caño Cristal, Cucurital, Guabina, Nuevo Cochibo, Palmar, Pirariame, Pueblo Nuevo, Santa Cruz</i>	80	76	94	74 14
	6	<i>La Urbana, Sarrapia</i>	137	107	138	96 29
	7	<i>Guayabla Anapo, Pueblo Nuevo, Santa Cruz</i>	56	48	80	55 23
	8	<i>San Luis la Rompida</i>	13	12	19	10 3
	10	<i>Caño Onoto, Monterrey</i>	14	11	28	25 39
	13	<i>Cumaral</i>	26	27	40	31 3
	15	<i>Giro, Picua</i>	11	25	16	25 9
	16	<i>Belen, Laguna Casanare, Morichal</i>	81	82	95	87 4
	Totals	94 communities	1,277	1,166	1,509	1,178 190

Description of the benefit of adaptation to climate change for communities	Indicators of the benefits of adaptation to climate change for communities																																	
	<p>- Number of people benefited by the provision of food (agroforestry, silvopastoral and fish farming systems), including areas outside the Project Area.</p> <p>All indigenous communities are benefited from the implementation of FAPUS.</p> <p>Regarding the agro-forestry productive project, the following communities are participating:</p> <table border="1"> <thead> <tr> <th>Zone</th> <th>Sector</th> <th>Communities</th> <th># families</th> </tr> </thead> <tbody> <tr> <td rowspan="7">5</td> <td rowspan="4">Morocoto-Buenavista</td> <td>Palmarito</td> <td>10</td> </tr> <tr> <td>Manajuaire</td> <td>10</td> </tr> <tr> <td>Morocoto</td> <td>10</td> </tr> <tr> <td>Morichal</td> <td>10</td> </tr> <tr> <td>Yrí</td> <td>Yurí</td> <td>10</td> </tr> <tr> <td>Cumaral</td> <td>Cumaral</td> <td>10</td> </tr> <tr> <td>Caño Bocón</td> <td>Caño Bocón</td> <td>10</td> </tr> <tr> <td rowspan="3">4</td> <td>Lag-Anguilla-La Macarena</td> <td>Berlín 1</td> <td>10</td> </tr> <tr> <td>Sejalito-San Benito</td> <td>Sejalito 1</td> <td>10</td> </tr> <tr> <td>Laganua negra cacao</td> <td>San Luis la Rompida</td> <td>10</td> </tr> </tbody> </table>	Zone	Sector	Communities	# families	5	Morocoto-Buenavista	Palmarito	10	Manajuaire	10	Morocoto	10	Morichal	10	Yrí	Yurí	10	Cumaral	Cumaral	10	Caño Bocón	Caño Bocón	10	4	Lag-Anguilla-La Macarena	Berlín 1	10	Sejalito-San Benito	Sejalito 1	10	Laganua negra cacao	San Luis la Rompida	10
Zone	Sector	Communities	# families																															
5	Morocoto-Buenavista	Palmarito	10																															
		Manajuaire	10																															
		Morocoto	10																															
		Morichal	10																															
	Yrí	Yurí	10																															
	Cumaral	Cumaral	10																															
	Caño Bocón	Caño Bocón	10																															
4	Lag-Anguilla-La Macarena	Berlín 1	10																															
	Sejalito-San Benito	Sejalito 1	10																															
	Laganua negra cacao	San Luis la Rompida	10																															
<p>3) Ensuring and maintaining food guarantee in communities through their adaptation to climate change resulting from the protection of forests that provide fruits, medicinal plants and game animals, fish supply, food products from agroforestry systems, food products derived from pasture planting (in forest conversion).</p> <p>And supply of energy sources (firewood).</p>	<p>- Communities benefited by the provision of fruits, medicinal plants and game animals, food products from agroforestry systems and those derived from the planting of pastures, in forests near the communities, lagoons, canals and HAA.</p> <p>According to the survey carried out about food production in FAPUS (Project Activity A2.1), in all communities, agricultural practices are carried out in the <i>conucos</i>, as well as hunting, fish, and the collection of forest products, including firewood.</p> <p>Both Activity A2.1 and A2.3 seek that all indigenous communities improve their common practices to produce their food and develop projects that ensure more products for their own consumption and marketing. The benefits that are being achieved with these Activities are general, for all the families that participate in the implementation of the Project, including men and women who carry out the main productive tasks, mothers who are heads of households and young people. In this way, productive capacities are improved to face possible effects of climate change, through the surplus of food that can replace possible losses that may arise. For now, 100 families are participating in the agro-forestry productive project with cocoa, corn, plantain, and <i>abarco</i>. Once the logistics to implement the other projects that are being developed are completed, more</p>																																	

Description of the benefit of adaptation to climate change for communities	Indicators of the benefits of adaptation to climate change for communities
	families will be involved in these Activities.
4) Contribution to the food guarantee and sustainability of the communities by reducing the migration of fauna and flora species caused by the impacts of climate change, and preserving the niches of species that are important for their own food and that of the communities.	<ul style="list-style-type: none"> - Number of communities per Sector benefited by the decrease in the migration of fauna and flora species in forests, lagoons and streams near the communities. - Number of people by gender and age group benefited by the decrease in the migration of fauna and flora species in forests, lagoons and streams near the communities. <p>With the implementation of the Sustainable Management Plan for Land and Forest, the forests of the RIU-SM and associated resources are being protected, including the richness in biodiversity and food sources for the entire population of the Indigenous Reservation.</p>

Exceptional community benefits (GL2)

The REDD+ Project RIU-SM generates short-term and long-term welfare benefits for all the indigenous communities of the Indigenous Reservation, particularly for the women who participate in the Project. It also strengthens their governance through the support of their association ACATISEMA (verified Monitoring Report – VCS 2018 & 2019, Section “3.1.1 Operation of the Project Activities during this Monitoring Period / ACTIVITY A1.3” page 90), which allows the full and effective participation of all indigenous people in decision making (as established in the ACATISEMA Statutes), in the implementation and management of the REDD+ Project RIU-SM, as presented in several previous sections. ACATISEMA's Statutes provide for the permanent participation of women in the Coordinator Committee to address issues specific to them.

Covenants have been defined and agreed upon for different aspects of the Project, such as the case of *Fedecacao*, for cocoa-plantain-corn-bark (valuable native forest species) agroforestry systems, which by developing them, risks are managed with the participation of groups of them in the different projects. The REDD+ Project RIU-SM has promoted the Cooperative of indigenous producers, with multiple uses, one in particular being the commercialization of their products, which is directed by a woman. The project has also supported the development of Ethnic and Territorial Life Plans.

Welfare benefits are shared equitably, not only within the RIU-SM communities, but also, in particular, with women, children, youth, adults and older adults, the other community groups (including the different ethnic groups) and other stakeholders, ensuring that these benefits flow to all members of the communities.

These different aspects of exceptional benefits to the well-being of indigenous smallholder farmers and women have been described in different sections above.

The following results are based on the indicators of the impacts on the aspects indicated above as exceptional benefits on the well-being of indigenous small farmers and women:

- Number of indigenous people (smallholder) women / men, number of indigenous people by age group and ethnicity, who have benefited from ACATISEMA governance decisions, in particular by full and effective participation in decisions.

It is estimated that 1,043 persons have participated in spaces where indigenous authorities and leaders meet for the purpose of socialization, training and decision-making (Annex 1 of verified Monitoring Report – VCS 2018 & 2019).

- Number of indigenous (smallholder) women / men, by age groups (youth, adults) and ethnicity, by Sector, engaged in their crops, products and management of their resources.
- Number of women / men, by age groups and ethnicity, by Sector, involved in production (areas of cultivation of their food products, mainly bitter cassava).
- Number of women / men, by age group and ethnicity, by Sector, who participate in the harvest, transportation and transformation of food (women are mainly in charge of these tasks).

Table 41. Distribution of farmers by Sector, Gender, Age (minors and over 18s) in RIU-SM

Sector	Gender	Age	Ethnicity							Total
			Cubeo	Curripaco	Piapoco	Piaroa	Puinave	Sikuni	Other	
1	Women	Adult						16		16
		Adult			3			318		321
	Men	Young						3		3
		No data						4		4
2	Women	Adult						8		8
		Adult						523		523
	Men	Young						2		2
		No data						6		6
3a	Women	Adult						7		7
	Men	Adult						403		403
		No data						34		34
3b	Women	Adult						13		13
	Men	Adult				1		605		606
		Young						2		2
		No data						10		10
4	Men	Adult						59		59
		No data						8		8
5	Women	Adult				5				5
	Women	Young				1				1
	Men	Adult				20	4			24
		No data				1			1	2
6	Women	Adult				27		2		29
		No data				2				2
	Men	Adult				92	2	2		96
		Young				1				1
		No data				7				7
7	Women	Adult		6	14	5	2			27
		Young			2					2
		No data		1						1

Sector	Gender	Age	Ethnicity							Total
			Cubeo	Curripaco	Piapoco	Piaroa	Puinave	Sikuani	Other	
	Men	Adult	4	47	55	33	12	1	4	156
		Young		1	2	1				4
		No data	2	7	2	2	4			17
8	Women	Adult		15			8	1		24
		Young		1			1			2
	Men	Adult		24			10			34
		Young		3						3
		No data		1			1			2
9	Women	Adult			7			16		23
		No data						1		1
	Men	Adult			14			34	2	50
		Young			1			1		2
10	Women	Adult		7				44		51
		Young						4		4
		No data						4		4
	Men	Adult		8			2	116	1	127
		Young						5		5
		No data						19		19
11	Women	Adult						7		7
	Men	Adult	1		7			81		89
		Young						2		2
		No data						17		17
12	Men	Adult					16		16	
13	Men	Adult		1	3	26			1	31
		No data					1			1
14	Men	Adult			13					13
		No data			4					4
15	Women	Adult			1					1
	Men	Adult			14		2			16
		No data			1		1			2
16	Women	Adult			15					15
		No data			1					1
	Men	Adult			140			6		146
		No data			6					6
Total			6	121	305	209	46	2,384	1	3,117

Source: Indigenous self-census 2018

- Number of tons of products obtained in their conucos, by Sector.

Table 42. Production of food in 2018 & 2019

#	Sectors	Tons of food products 2018	Tons of food products 2019
1	Caño Cavasi	629.7	591.5
2	Aiwa-Cuna, Tsepajivo	986.7	926.8
3a	Bajo Río Vichada 1	812.8	763.5
3b	Bajo Río Vichada 2	1,155.1	1,085.0
4	Atana-Pirariami	122.6	115.2
5	Caño Zama	58.6	55.0
6	Matavén Fruta	247.1	232.1
7	Berrocal-Ajota	378.9	355.9
8	Lagunas Negra y Cacao	119.0	111.8
9	Sejalito –San Benito	139.1	130.7
10	Laguna Anguilla- La Macarena	384.4	361.1
11	Barranquito-Laguna Colorada	210.5	197.7
12	Caño Bocón	29.3	27.5
13	Cumaral	58.6	55.0
14	Yuri	31.1	29.2
15	Giro	34.8	32.7
16	Morocoto-Buenavista-Manajuare	307.5	288.9
Total		5,705.8	5,359.7

Source: Based on verified Monitoring Report – VCS 2018 & 2019, Tables 8 and 9" (page 104) and distribution of farming families by Sector

- Characteristics of trade and exchange with other communities, settlers and white traders.

With the implementation of the Project Activities, economic relations are being generated between the indigenous people of the RIU-SM and the merchants of the neighboring populated centers (see, Map 19. "Locations where other stakeholders will be impacted - neighboring towns" in the PDD- CCB), through the exchange of surplus products derived from the agricultural activity of indigenous communities and also by the provision of goods and services provided by merchants and small companies, necessary to fulfill some Activities that could not be implemented without hiring third parties.

- Number of health posts that have been established with the Project and expected number of indigenous women / men benefiting from these health posts.

6 health posts for indigenous communities Santa Marta (Sector 1 Caño Cavasi), Raya - Raya Bakatsolowa School (Sector 3a Bajo Río Vichada 1), Progreso Integral – Cadanapay School (Sector 3b Bajo Río Vichada 2), Sarrapia (Sector 6 Matavén Fruta), Santa Isabel (Sector 10 Laguna Anguilla La Macarena) and Manajuare (Sector 16 Morocoto – Buenavista- Manajuare) of the RIU-SM (verified Monitoring Report – VCS 2018 & 2019, Section "3.1.1 Operation of the Project Activities during this Monitoring Period / EXECUTION OF ACATISEMA RESERVES", page 149).

- IPS obtained with Project resources.

In 2019 the steps for the creation of the *Sistema Indígena de Salud Propio Intercultural* - SISPI (Intercultural Own Health Indigenous System) were started. The REDD+ Project RIU-SM has supported all the efforts to form this SISPI, including socialization meetings of this system and the acquisition of the

facilities of the *Institución Prestadora de Salud* - IPS (Healthcare Provider Institution) in 2020.

- Number of indigenous women / men, youth, adults and older adults, by ethnicity, benefiting from oral health care (dental prostheses).

Dental prostheses were provided to strengthen the rehabilitation, promotion, prevention and oral hygiene habits of indigenous women from Sectors 1 Caño Cavasi, 2 Aiwa Cuna Tsepajivo and 3a Bajo Río Vichada 1 of the RIU-SM. The beneficiaries were 120 indigenous adults, mostly from the Sikuni ethnic group.

- Number of deep wells installed and equipped to supply drinking water.

22 deep wells with photovoltaic pumping equipment and drinking water treatment plants were built for the indigenous communities *Corocito*, *Miralejo*, and *Morrocoty* (Sector 1 *Caño Cavasi*), *Boponé*, *El Regreso* and *Kirey Rincón* (Sector 2 *Aiwa Cuna Tsepajivo*), *Chenebo*, *Laguna Checa*, and *Ukunaesito* (Sector 3a *Bajo Río Vichada 1*), *San Juan* and *Santa Inés* (Sector 3b *Bajo Río Vichada 2*), *Caño Fistol* and *Sejalito* Internship (Sector 9 *Sejalito - San Benito*), *Berlin Uno*, *La Macarena*, and *San Rafael* (Sector 10 *Laguna Anguila - La Macarena*), *Mapisiare* and *Puerto Esperanza* (Sector 11 *Barranquito - Laguna Colorada*), *Caño Bocón* (Sector 12 *Caño Bocón*), *Yuri* (Sector 14 *Yuri*), *Giro* (Sector 15 *Giro*), *Cumaryl* and *Manajuare* (Sector 16 *Morocoto - Buenavista - Manajuare*).

- Number of indigenous communities, women / men, youth, adults and seniors, by ethnicity, benefited with the supply of drinking water.

Table 43. Number of beneficiaries with the supply of drinking water

#	Sectors / Communities	Ethnic group	Women		Men		No data	Total
			Adult	Young	Adult	Young		
1	<i>Caño Cavasi / Corocito, Miralejo, and Morrocoty</i>	Sikuni	12	9	15	11	49	49
2	<i>Aiwa-Cuna, Tsepajivo / Boponé, El Regreso and Kirey Rincón</i>	Sikuni	67	51	63	48	229	229
3a	<i>Bajo Río Vichada 1 / Chenebo, Laguna Checa, and Ukunaesito</i>	Sikuni	62	37	71	36	216	216
3b	<i>Bajo Río Vichada 2 / San Juan and Santa Inés</i>	Sikuni	11	20	20	20	74	74
9	<i>Sejalito –San Benito / Caño Fistol and Sejalito</i>	Cubeo	1				1	1
		Curripaco	2		1		3	3
		Piapoco	18	15	16	13	84	84
		Sikuni	41	29	51	36	161	161
		Other			1		1	1
10	<i>Laguna Anguilla- La Macarena / Berlin Uno, La Macarena, and San Rafael</i>	Curripaco	9	4	4	6	23	23
		Puinave	2	1	2	1	6	6
		Sikuni	46	44	40	27	179	179
11	<i>Barranquito-Laguna Colorada / Mapisiare and Puerto Esperanza</i>	Sikuni	7	10	12	10	40	40
12	<i>Caño Bocón / Caño Bocón</i>	Piaroa		1	1	1	3	3

#	Sectors / Communities	Ethnic group	Women		Men		No data	Total
			Adult	Young	Adult	Young		
		Puinave	24	9	31	12	82	82
		Sikuani	1			5	6	6
14	<i>Yuri / Yuri</i>	Piapoco	17	14	22	31	94	94
15	<i>Giro / Giro</i>	Piapoco	7	8	11	10	39	39
		Puinave		4		5	10	10
16	<i>Morocoto-Buenavista-Manajuaire / Cumaral and Manajuaire</i>	Piapoco	24	22	26	16	96	96
		Total	351	278	387	288	92	1,396

- Number of indigenous communities, women / men, youth, adults and seniors, by ethnicity, benefited with support for home improvement.

Table 44. Number of beneficiaries with support for home improvement

#	Sectors / Communities	Ethnic group	Women		Men		No data	Total
			Adult	Young	Adult	Young		
1	<i>Caño Cavasi</i>	Sikuani	376	348	439	428	25	1,616
2	<i>Aiwa-Cuna, Tsepajivo</i>	Sikuani	735	633	845	632	31	2,876
3a	<i>Bajo Río Vichada 1</i>	Sikuani	564	446	627	477	135	2,249
3b	<i>Bajo Río Vichada 2</i>	Sikuani	782	706	905	664	33	3,090
7	<i>Berrocal-Ajota / Pueblo Nuevo Zama</i>	Piaroa	14	14	23	20	1	72
8	<i>Lag. Negra y Cacao / Lag. Negra</i>	Curripaco	18	23	25	21		87
		Puinave	3	3	5			11
		Sikuani	1					1
9	<i>Sejalito –San Benito / San Benito</i>	Piapoco	28	20	45	28	6	127
		Puinave	4	1		1		6
10	<i>Laguna Anguilla- La Macarena / Caño Pavita</i>	Sikuani	13	8	21	11	1	54
11	<i>Barranquito-Laguna Colorada / Barranquito</i>	Sikuani	33	35	34	40	42	184
12	<i>Caño Bocón / Caño Bocón</i>	Piaroa		1	1	1		3
		Puinave	24	9	31	12	6	82
		Sikuani	1			5		6
13	<i>Cumaral / Cumaral</i>	Cubeo			1			1
		Piapoco	1	1		4		6
		Piaroa	24	24	37	27	3	115
		Sikuani	1	2	2			5
15	<i>Giro / Giro Sabanita</i>	Piapoco	10	11	9	10	1	41
		Puinave	2	6	3	3		14
16	<i>Morocoto-Buenavista-Manajuaire / Charco Mure</i>	Piapoco	15	12	19	12		58
		Total	2,649	2,303	3,072	2,396	284	10,704

- Number of indigenous communities, women / men, youth, adults and seniors, by ethnicity, benefited with support for domestic markets, particularly in critical situations (floods and others).

Food and victuals were provided to support the population of 1006 older adults in a critical situation caused by floods, in all Sectors of RIU-SM, as follows:

Table 45. Number of beneficiaries with food and victuals

#	Sectors	Benefited older adults	Women
1	<i>Caño Cavasi</i>	103	49
2	<i>Aiwa-Cuna, Tsepajivo</i>	195	86
3a	<i>Bajo Río Vichada 1</i>	135	52
3b	<i>Bajo Río Vichada 2</i>	226	90
4	<i>Atana-Pirariami</i>	18	7
5	<i>Caño Zama</i>	12	5
6	<i>Matavén Fruta</i>	36	18
7	<i>Berrocal-Ajota</i>	47	24
8	<i>Lagunas Negra y Cacao</i>	56	28
9	<i>Sejalito –San Benito</i>	39	16
10	<i>Laguna Anguilla- La Macarena</i>	39	15
11	<i>Barranquito-Laguna Colorada</i>	26	14
12	<i>Caño Bocón</i>	6	3
13	<i>Cumaral</i>	6	4
14	<i>Yuri</i>	6	1
15	<i>Giro</i>	7	2
16	<i>Morocoto-Buenavista-Manajuare</i>	49	20
Total		1,006	434

- Number of meetings, with number of participants, for the elaboration of Ethnic and Territorial Life Plans.

93 indigenous persons attended the meeting about Ethnic and Territorial Life Plans held on November 17, 18, and 19 / 2019.

- Number of ACATISEMA headquarters built and improved with project resources.

In the Cumaribo municipality the Center of Indigenous Environmental Thought of the Selva Matavén was built, where the office is now located (see also ACATISEMA Reserve 5 - RA5) and In *Inírida* city an office was acquired to establish the ACATISEMA headquarters in that place and renovation works to improve its infrastructure were made.

- Number of agreements with other institutions that are made in partnership with ACATISEMA for the development of productive projects.

An Agreement already signed and in execution with the *Federación Nacional de Cacaoteros - FEDECACAO* (National Federation of Cocoa Farmers), with which is being implemented the “Pilot agroforestry project with cocoa, plantain, corn and forest trees”.

- Number of indigenous people, women / men, youth, adults and seniors, by ethnicity, associated with the

Cooperative.

There is 47 indigenous persons of the RIU-SM that are associated in the multipurpose cooperative called COOMATAVÉN, and that have received training in this regard. A woman is in charge of this cooperative.

The main risk foreseen is the non-participation of the communities in the REDD+ Project RIU-SM and failures in the communication system, for which participation measures have been implemented, such as Activities A1.2 and A1.3, which provide means and support in communication channels and strengthening of governance. No other significant risks are foreseen for the different aspects mentioned above. The net benefit is always positive. In Annex 23 of the validated PDD - VCS and in Section "4.3.3 Mitigation Measures and Monitoring actions", page 280 of this same PDD - VCS, internal, external and natural risks have been identified, characterized and evaluated for the whole Project, and the corresponding mitigation measures have been proposed. Also, the Annex 5 of verified Monitoring Report – VCS 2018 & 2019 present the analysis of internal, external and natural risks for current monitoring period.

4.3.2 Monitoring Plan Dissemination (CM4.3)

In Sections "2.2.1 Stakeholder Access to Project Documents", "2.22 Dissemination of Summary Project Documents", "2.2.3 Informational Meetings with Stakeholders", and "2.2.5 Information to Stakeholders on Validation and Verification Process" of this document, all the measures implemented by the Project to disseminate all the commitments and results of the REDD+ Project RIU-SM have been presented, including monitoring plans, their results and their verification by the auditors that develop the validation / verification processes.

A web page was created for the project www.selvamatavenredd.org where information on the results of the monitoring plan will be presented. Newsletters, brochures and booklets are also distributed.

Project documents (PDD, reports) are available on Verra Registry website: <https://registry.verra.org/app/projectDetail/VCS/1566>.

Meetings are planned with official and private institutions where written material is presented to disseminate and socialize the results obtained.

These media are distributed directly in the territory, in the different communities, and are accessible to indigenous communities, community groups and other interested parties.

4.4 Optional Criterion: Exceptional Community Benefits

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

The short-term and long-term net welfare benefits to members of the RIU-SM indigenous communities, which include, of course, smallholders/producers (corresponding to people of the 6 ethnic groups), are being achieved, in a scalable way, from the beginning of the Project's implementation (since 2013 until today), where the Project Activities have had different levels of implementation, starting with a strong component of training and surveillance of the territory, until developing currently several systems, strategies and projects, as explained in the previous sections of this document, in the PDD – VCS (including the Monitoring 2013 & 2014-2015) and in subsequent verified Monitoring Reports – VCS 2016-2017 and 2018 & 2019, Section "3.1.1 Operation of the Project Activities".

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

As described in PDD-CCB, Sections "2.1.4 Social Parameters" and "4.1.4 Without Project Scenario: Community", all RIU-SM community groups can be considered vulnerable and the Project precisely has designed actions to generate commitments with the communities to achieve net positive benefits, as explained in Sections "4.1.1 Community Impacts" and "4.1.3 Net Positive Community Well-Being" of this document, and detailed in the following Table 46.

Table 46. Vulnerable community groups that will gain positive net benefits

Vulnerable community groups	<p>Women / Men</p> <p>Youth</p> <p>Traditional authorities: Shamans, traditional doctors, healers and herders</p> <p>Ethnic groups: <i>Cubeo, Curripaco, Piapoco, Piaroa, Puinave</i> and <i>Sikuani</i>.</p>	
Net Positive Impacts	<p>Correspond to community impacts that are net positive:</p> <p>Impact 1: Improved capacity to develop monitoring of the quality of ecosystem services and participatory surveillance, in particular, of specific measures in the recovery and improvement of community HCVs.</p> <p>Impact 2: Recovery and improvement of the conditions of community HCVs, as described in Section 4.1.3 of PDD-CCB.</p> <p>Impact 3: Improved and strengthened governance of ACATISEMA in the <i>Resguardo Indígena Unificado - Selva de Matavén</i>, for decision making.</p> <p>Impact 4: Increased level of participation of people from community groups in activities related to the REDD+ Project RIU-SM.</p> <p>Impact 5: Improved food supply at the family level (FAPUS) through the implementation of food guarantee projects and support to the Captains and other people involved in this system (women, men and youth).</p> <p>Impact 6: Improved environmental knowledge of the communities about the state of the forests, soils and fauna that inhabit them, for timely decision making.</p> <p>Impact 7: Improvement of the economic income conditions of the families of each community group, through the commercialization of surpluses and the strengthening of productive chains.</p> <p>Impact 8: Availability of financial resources that will contribute to the sustainability and improvement of the living conditions of the indigenous communities of the RIU-SM.</p>	
Benefit access	Barriers / Risks that could prevent benefits from going to smallholders/producers, community members, the marginalized and/or the vulnerable	Evidence that Barriers / Risks have been addressed
	<p>Barrier 1: Entry of outsiders for unplanned land use.</p> <p>Risk: Loss of forest areas in deforestation processes</p>	<p>Reports on surveillance and control of the territory through the routes established in the RIU-SM (Annex 4.1</p>

	<p>due to unplanned burning and illegal extractive activities.</p>	<p>of verified Monitoring Report – VCS 2018 & 2019).</p>
	<p>Barrier 2: Scarce information and socialization of good agricultural practices.</p> <p>Risk: Families that have doubts about the Project and do not adopt sufficient sustainable practices to improve the conditions of their conucos.</p>	<p>Dissemination material, training minutes (files in Annex 1 include the materials for meetings and Annex 4.2.7 presents the bulletin of verified Monitoring Report – VCS 2018 & 2019).</p> <p>Technical advisory reports and agricultural productivity data (Annexes 4.4 and 4.6.1 of verified Monitoring Report – VCS 2018 & 2019).</p>
	<p>Barrier 3: Low participation of community members to contribute to the monitoring and control of the RIU-SM territory.</p> <p>Risk: Failure to sufficiently protect and conserve the natural resources of the territory (including the forest) of the RIU-SM.</p>	<p>Minutes of training and awareness-raising sessions on the commitments acquired in the protection of the natural resources of the RIU-SM (Annexes 1, 4.5.5, and 4.5.6 of verified Monitoring Report – VCS 2018 & 2019).</p>
	<p>Barrier 4: Producers do not have sufficient capacity to develop sustainable productive projects, continuing with habits that deteriorate the resources for their subsistence.</p> <p>Risk: Doubts about the application of friendly and sustainable practices to implement projects in production chains.</p>	<p>Minutes of training sessions for families participating in the productive projects, as part of the advisory services provided by expert entities (e.g., <i>Fedecacao</i>) (Annex 4.6.1 of verified Monitoring Report – VCS 2018 & 2019).</p>
	<p>Barrier 5: Low participation in training, accompaniment and socialization workshops.</p> <p>Risk: The beneficiary families do not see improvements in their economic conditions since the implementation of the productive projects.</p>	<p>Technical reports on productive projects, lessons learned and benefits achieved (Annex 4.6.1 of verified Monitoring Report – VCS 2018 & 2019).</p> <p>Workshops to socialize the development of productive projects (Annex 4.5.4 of verified Monitoring Report – VCS 2018 & 2019).</p>
	<p>Barrier 6: Low confidence in the success of productive projects.</p> <p>Risk: Doubts about participation in production chains and food guarantee.</p>	<p>Management reports on productive projects under agreements with expert institutions.</p> <p>(Annex 4.6.1 of verified Monitoring Report – VCS 2018 & 2019).</p>
	<p>Barrier 7: High dependence on the natural resources of the RIU-SM and low knowledge of the natural history of the species and their ecological</p>	<p>Design of measures taken to mitigate pressures on HCVs and training sessions on the importance of protecting the source of environmental</p>

	<p>importance.</p> <p>Risk: Doubts about the adaptive change generates by reducing the use of direct consumption of some species of flora and fauna, important for the functionality and sustainability of the ecological units of the RIU-SM, and if these species disappear, how its related to the decrease in quality and quantity of the environmental services of the territory.</p>	<p>services in the territory (Annexes 4.1, 4.4, 4.5, and 4.6 of verified Monitoring Report – VCS 2018 & 2019).</p>
<p>Negative Impacts</p>	<p>No small landowner/producer or community member has been identified as being marginalized or discriminated (as discussed in PDD-CCB, Section "2.3.11 Anti-Discrimination Assurance") and whose welfare would not be affected by Project activities, on the contrary, as described in Sections "4.1.1 Community Impacts", "4.1.2 Negative Community Impact Mitigation", "4.1.3 Net Positive Community Well-being", and "4.3.1 Community Monitoring Plan / Exceptional Community Benefits" of this document, the impact is always positive in the Project land use scenario, generating benefits to the well-being of the indigenous communities.</p> <p>On the other hand, as indicated in Section "4.1.2 Negative Community Impact Mitigation / Measures to mitigate any negative impact arising from internal conflicts within the communities" of this document, the authorities of the Indigenous Reservation and the ACATISEMA Association, as the entity that represents the RIU-SM communities and organizes the operation of the territory and the actions that occur in it, have the authority and resources to resolve any conflict that may arise from the implementation of the Project.</p> <p>Finally, through the ACATISEMA - MEDIAMOS Joint Commission, guidelines are established to ensure that the benefits are distributed equitably and favor all the inhabitants of the RIU-SM.</p>	

4.4.3 Net Impacts on Women (GL2.5)

Women, being a significant community group in the RIU-SM, directly appear as beneficiaries in the net positive impacts achieved by the implementation of the project, as described in Section "4.1.1 Community Impacts" of this document.

To determine the degree of impact that has been achieved with this population group in the framework of the implementation of the REDD+ Project RIU-SM for the years 2018 and 2019, the indicators defined in the PDD-CCB for this population group are taken into account. The following is a summary of these results achieved in the current verification period in relation to the role of women in the RIU-SM, based on those presented in the Sections "4.1.1 Community Impacts" and "4.3.1 Community Monitoring Plan / Exceptional community benefits" of this document (which are oriented in a general way), to establish the level of participation achieved and benefits in the well-being of the female population.

In relation to participation in or influence in decision making:

- Number of women that are members of the Coordinator Committee, *Cabildos* Board, Captains, and Indigenous Guard, who improve and apply knowledge in the statutory, organizational, and governance aspects to have the space to contribute at the administrative and decision-making level:
 - Women in authority bodies of the RIU-SM and ACATISEMA: Currently 7 of 16 members of the Coordinator Committee; 2 of 17 members of *Cabildos* Board; 6 of 315 are Captains; and 16 of 315 are

Indigenous Guards.

- Considering that traditionally the positions of authority were held exclusively by men and that, statutorily, as of 2002, 1 position of the 16 coordinators was left in charge of a woman, having today 44% of women within the Coordinating Committee allows inferring that the role of this population group is being valued at the level of the authorities at the top of the hierarchy (Minutes of General Assemblies of ACATISEMA 2019).



Life Plans and Women Coordinators of the ACATISEMA Coordinating Committee



ACATISEMA Coordinating Committee Youth Coordinator

- On the other hand, they are women among the Cabildos 12% (according to Annex 4.3.10 of verified Monitoring Report - VCS 2018 & 2019), among the Captains 2% (according to Annex 4.4.4 of verified Monitoring Report - VCS 2018 & 2019) and among the Indigenous Guard 5% (according to Annex 4.1.4 of verified Monitoring Report - VCS 2018 & 2019). This last figure is of interest, as traditionally the role of guarding was exclusively designated to men.
- It should be noted that these women, like their colleagues in the RIU-SM and ACATISEMA, receive financial support for their work.
- Number of women that participate in reunions Zonal, of General Assembly, Coordinator Committee, *Cabildos* Board, and Captains:
 - The female representation, described in the previous points, has participated in the different meetings and socialization and training events carried out in the framework of the implementation of the REDD+ Project RIU-SM, in spaces where the members of the Coordinating Committee and the *Cabildos* Board normally meet (according to Annexes 1.1, 1.12, 1.16, 1.17, 1.18, and 1.20 of verified Monitoring Report - VCS 2018 & 2019), the Captains in the Zonal Meetings (according to Annexes 1.2-1.6 of verified Monitoring Report - VCS 2018 & 2019 [where 47 out of 602 attendees were women]), at the General Assembly (according to Annex 1.28 of verified Monitoring Report - VCS 2018 & 2019 [where 30 out of 426 attendees were women]), and in meetings and workshops with other leaders (according to Annexes 1.22-1.26, and 4.5.6 of verified Monitoring Report - VCS 2018 & 2019 [where 34 out of 262 attendees were women]). With respect to the Indigenous Guard, its female members also participated in socialization and training workshops (according to Annex 4.5.5 of verified Monitoring Report - VCS 2018 & 2019).
 - 17 women (out of 85 attendees) have participated in the meetings held for the purpose of planning the formulation of the RIU-SM Ethnic Group Life Plans (according to Annex 4.3.5 of verified Monitoring Report - VCS 2018 & 2019).



Meeting of Captains, with participation of women

In relation to participation in REDD+ Project RIU-SM Activities and to benefit in well-being:

- Number of women trained in climate change, in the nature and characteristics of the REDD+ Project RIU-SM, and in the monitoring of the quality of ecosystem services and surveillance and control of territory, who reach a good level in the application of environmental knowledge:
 - 16 female Indigenous Guards attended the training workshops about the several aspects of REDD+ Project RIU-SM and the monitoring of the quality of ecosystem services and surveillance and control of territory, while 6 female Captains attended the workshops about participatory monitoring. In general, around 125 indigenous women have attended the training meetings in 2018 & 2019 about, among others affairs, climate change and the nature and characteristics of the REDD+ Project RIU-SM (according to Annex 4.1.4 of verified Monitoring Report – VCS 2018 & 2019).
- Number of women who improve the communication processes:
 - On one side, all meetings and workshops for socialization and training are spaces that have also contributed to improving communication between the indigenous communities of the RIU-SM. On the other side, around 950 women have been benefited by provision of transportation services in the Zones 1, 3, 4, and 5, and around 2,320 women can benefit by the improvement of ancestral roads and crossings and construction of bridges (which communicate communities with each other) (according to Annex 4.2 of verified Monitoring Report – VCS 2018 & 2019).
- Number of women who improve the performance of agricultural practices for food production and their daily household chores:
 - It is considered that the entire population of RIU-SM is benefiting from the implementation of Family Agrifood Production Units System - FAPUS, by improving agricultural practices in the *conucos*, as well as hunting and fish. Also, around 7,600 women have been benefited by provision of cassava graters (according to Annex 4.4.5 of verified Monitoring Report – VCS 2018 & 2019), which facilitates the work of processing the main tuber that makes up the diet of members of indigenous communities, and around 1,000 women have been benefited by provision of cookware (according to Annex 4.4.7 of verified Monitoring Report – VCS 2018 & 2019).
- Number of graduated high school women who have started their superior educational programs to become the future professionals who manage their territory:
 - 52 women belonging to the communities of the RIU-SM are receiving supports for tuition in higher

- education programs, in technical, technologic and professional careers (around 50%, according to Annex 4.5.7 of verified Monitoring Report – VCS 2018 & 2019).
- On the other hand, around 1,600 girls who are in basic education, have been benefited of kits and endowment for libraries (according to Annex 4.5.4 of verified Monitoring Report – VCS 2018 & 2019), which have been distributed to the children and schools of the RIU-SM, and around 300 girls have benefited from the facilities that have been built (school classrooms and dining room) (according to Annex 4.5.3 of verified Monitoring Report – VCS 2018 & 2019).
 - Also, 18 women have participated in the training sessions to develop the agroforestry pilot project (cocoa, plantain, corn, and *abarco*) (according to Annex 4.5.1 of verified Monitoring Report – VCS 2018 & 2019).
- Number of women participating in the productive projects to ensure food guarantee, self-sustainability and improve the economic income:
 - 5 women are part of the families that are responsible for the development of the pilot agroforestry project of cocoa, banana, corn and *abarco* (according to Annex 4.6.1.j of verified Monitoring Report - VCS 2018 & 2019). This productive project, already in execution, is one of the first own initiatives promoted by the REDD+ Project RIU-SM that the indigenous communities of RIU-SM Zones 4 and 5, together, decided to implement. It is expected that more families (and more women) will participate in the following stages.
 - In the same way, 140 women have participated in the meetings about socialization of REDD+ Project RIU-SM and to definition of other initiatives in productive projects (according to Annex 4.2.1 of verified Monitoring Report – VCS 2018 & 2019).
 - Regarding the silvopastoral project, around 6,200 women have benefited from the provision of products derived from this initiative (meat and milk), a project that the indigenous communities themselves requested as a priority (according to Annex 4.6.2 of verified Monitoring Report - VCS 2018 & 2019).
 - On the other hand, 80 women participated in a training day on basic dressmaking and were given 20 sewing machines (with their respective implements and materials), as an initiative to generate employment in the female population and encourage an economic practice related to sewing clothes (according to Annex 4.6.3 of verified Monitoring Report - VCS 2018 & 2019).
 - Number of women associated in the multipurpose cooperative, that includes the production, processing and marketing of the products of the chain projects:
 - In relation to the COOMATAVÉN Cooperative, of the 5 members of the Board of Directors, 1 is a woman.
 - Number of women benefited by implementation of other actions, according to their needs and proposals.
 - In an initial stage, about 300 women benefited from care in the health posts built as part of the first efforts to provide this type of service (according to Annex 4.8.1.3 of verified Monitoring Report - VCS 2018 & 2019). It should be noted that during the years 2020 and 2021, the constitution of the IPS of the indigenous communities of RIU-SM has been formalized, which seeks to improve the provision of health services to the entire population of the Indigenous Reservation in general (of which 7,600 are women).
 - On the other hand, 1,900 women from all RIU-SM communities have benefited from the provision of hammock kits, awnings and semi-thermal blankets to improve sleeping conditions and avoid mosquitoes (according to Annexes 4.8.1.4 and 4.8.1.5 of verified Monitoring Report - VCS 2018 & 2019).
 - A day of general dentistry service and provision of dental prosthesis for 120 indigenous women patients was also carried out (according to Annex 4.8.1.6 of verified Monitoring Report - VCS 2018 & 2019).

- In terms of provision of treated water for human consumption, 630 women have benefited from the installation of deep wells with solar-powered pumping systems (according to Annex 4.8.2 of verified Monitoring Report - VCS 2018 & 2019).
- In terms of housing improvement, 4,950 women benefited from the provision of zinc sheets to fix roofs on their houses (according to Annex 4.8.3 of verified Monitoring Report - VCS 2018 & 2019).
- Aid was provided through groceries to serve the elderly population, benefiting 434 women throughout RIU-SM (according to Annex 4.8.4.1 of verified Monitoring Report - VCS 2018 & 2019).
- Sports uniforms and personal grooming kits were provided to 178 women (according to Annex 4.8.4.2 of verified Monitoring Report - VCS 2018 & 2019).
- Also, due to the difficulties caused by the winter wave in 2018, aid was provided through food, groceries and other implements (toiletry kits) to assist the population that was affected by the loss of their crops and farm animals, benefiting 243 women throughout RIU-SM (according to Annex 4.8.6 of verified Monitoring Report - VCS 2018 & 2019).



Women working in the administrative area of ACATISEMA

Achievements that they share with their role as family administrators and, on some occasions, as heads of indigenous households, as described in Section "2.2.10 Stakeholder Participation in Decision-Making and Implementation" of this document, which explains the gender focus that the Project has also adopted, and which is also defined in the Strategic Alliance Agreement between ACATISEMA and MEDIAMOS F&M S.A.S.

4.4.4 Benefit Sharing Mechanisms (GL2.6)

The so-called "small landowners/producers", as explained above, are part of the communities of the RIU-SM, so they have formed part of the same decision-making mechanisms and participation in the distribution of the benefits of the Project for the communities and community groups. Taking into account the organizational structure of the Indigenous Reserve and the ACATISEMA Association (see Section "2.1.2 Project Objectives" of PDD-CCB), where indigenous authorities representing the communities, as Captains, *Cabildos*, members of the Coordinator Committee, indigenous guards and community leaders, converge in the decision-making bodies (meetings and assemblies), as described in Section "2.2.10 Stakeholder Participation in Decision-Making and Implementation" of this document).

Roles of indigenous authorities in decision making and benefit sharing were described in PDD-CCB, Section "4.5.6 Benefit Sharing Mechanisms". In the development of these participation mechanisms,

minutes of some of these meetings are presented (Annex 1 of verified Monitoring Report – VCS 2018 & 2019), where the decisions taken are recorded, as well as attendance lists, audiovisual record, and documents (such as vouchers, contract execution reports, and supervision reports) with which verify these actions corresponding to the implementation of the Project Activities and to the provision of goods and services to provide wellbeing to the communities (see Annex 4 of verified Monitoring Report – VCS 2018 & 2019 about execution of Project Activities). The specific beneficiaries have been listed in previous Sections. All this documentation generates transparency in the specific implementation of each Project Activity and in the distribution of benefits, which is also evaluated later in these instances of community participation (meetings and assemblies).

4.4.5 Governance and Implementation Structures (GL2.8)

As it was explained in PDD – VCS, the REDD+ Project RIU-SM has an organizational structure based on the role of ACATISEMA and MEDIAMOS F&M S.A.S. as signatories of the Strategic Alliance Agreement. This structure serves as the basis for determining the roles of the main stakeholders in the implementation of the Sustainable Land and Forest Management Plan and Project Activities.

ACATISEMA also has an organizational structure derived from the guidelines of its Statutes, which represents the structure through which governance is implemented in the RIU-SM territory.

The base of the structure of the entire Association is the indigenous communities, from where the authorities and other administrative and supervisory bodies start. Captains are elected by community members and represent them. Zonal Delegates, 17 Sector *Cabildos* (elected by the Captains), a Coordinator Committee and, as the highest authority, and the General Assembly make up the upper levels of the governance structure of the Association.

Thus, ACATISEMA's governance structure provides the conditions for autonomy, self-government, self-determination and participation in the organizational structure of the Project, where, therefore, the communities are the basis of the entire Project, which includes, therefore, the small landowners/producers of the RIU-SM.

As explained in Section "2.2.10 Stakeholder Participation in Decision-Making and Implementation" of this document, the communities have every possibility to participate in the decisions and implementation of the Project through the authorities that represent them, but also directly, as main stakeholders at the base in the execution of the Project Activities.

The Project Activity A1.3 "Develop and implement a governance for development and sustainability system of ACATISEMA Association" is implemented to reinforce the governance structure of ACATISEMA and, therefore, of the Indigenous Reservation. The results of its application are presented in the verified Monitoring Report – VCS 2018 & 2019, Section "3.1.1 Operation of the Project Activities during this Monitoring Period / Activity A1.3", page 90.

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

The REDD+ Project RIU-SM have contributed to the development of the capacities of the members of the indigenous communities and, therefore, of the small landowners/producers, to effectively and actively participate in the design, implementation and management of the project, through the implementation of the Activities and the other benefits (in health, water, housing and care), which generate positive impacts for the indigenous peoples of the RIU-SM.

With the implementation stage already advanced (during 7 years: 2016 - 2019), the Project Activities are being executed by the members of the indigenous communities themselves, under the direction of their Association ACATISEMA, which is managing the resources derived from the compensation of ecosystem services achieved by the Project to continue developing the routes of surveillance and control of the territory by fluvial and land for the protection and conservation of forests, soils and biodiversity in general (Project Activity A1.1); implementing the information, communication and transportation system (Project Activity A1.2); providing support for meetings and training and socialization workshops, in addition to Assemblies, where more members of the indigenous communities are involved (Project Activity A1.3); implementing the Family Agri-food Production Units System (FAPUS) to improve agricultural practices and ensure food sustainability (Project Activity A2.1); managing training programs with entities such as SENA and technical, technological institutions, and universities to higher education (Project Activity A2.2); and implementing pilot project initiatives in production chains (Project Activity A2.3).

In addition, the indigenous communities participate in the validation and verification processes, preparing logistics, maintaining forest inventory plots and accompanying the audit team in the field work in the RIU-SM territory (Project Activities A3.1 and A3.2).

As described in PDD-CCB, in relation to other local organizations or institutions, the leaders of the indigenous communities have improved their management capacities and are approaching the authorities of the municipality of Cumaribo, the department of Vichada and some at the national level, in order to obtain the support that must be provided as an obligation of the State, in areas such as education, health, housing, basic services, among others.

On the other hand, the indigenous communities are turning to institutions with expertise in, for example, the implementation of productive projects, supported by their Association ACATISEMA, to sign agreements that will provide them with the tools to execute these economic initiatives, which will bring development to the RIU-SM and provide a better quality of life for its inhabitants.

5 BIODIVERSITY

5.1 Net Positive Biodiversity Impacts

5.1.1 Biodiversity Changes (B2.1)

The REDD+ Project RIU-SM is an initiative of the indigenous groups that inhabit 17 reserves in the Matavén Forest. This project proposes a general objective of develop a participatory process to agree with the "cabildo" that represents the reservations, to implement a management plan for sustainable development of lands and forests in the Selva de Matavén Unified Indigenous Reservation (RIU-SM for its name in Spanish). The management plan seeks to mitigate threats to the conservation of biodiversity by implementing control and surveillance actions with the support of the indigenous guard to avoid deforestation, curb greenhouse gas (GHG) emissions, and the degradation of an area of 1,461.360 ha. of forests within the RIU-SM (determined in January 2018 (1,636,423 ha. including the leakage belt in the natural forest of the Project Area). This project complies with the requirements and standards REDD+, UNFCCC, VCS, and CCB, to generate positive net impacts on the climate, the community and the biodiversity of the Indigenous Unified Reserve-SM located at the east of the Colombian region of the high Orinoco plain, in the transition belt between the Orinoco savannas and the Amazon forests, in the southeastern part of the municipality of Cumaribo, Department of Vichada.

Based on the project framework, there has been established a strategy to get economic resources from the reduction of deforestation of forests, and the verification of the reduction of greenhouse gas (GHG) emissions, that includes reducing logging and unplanned burning for food production, and mitigating threats to the biodiversity of the RIU-SM. These resources are being used to strengthening the governance of ACATISEMA, a strong and fluid communication to facilitate early warnings, the implementation of mentioned RIU-SM sustainable management plan for land and forests with control and surveillance activities, the implementation of food guarantee projects, the strengthening of productive chains, and the training of captains on environmental administration.

These projects are presented as a compensation to local communities for their conservation efforts and seek to improve family production systems to meet the nutritional needs of indigenous communities, thus, to contribute to reduce the pressure on biodiversity.

Through cartographic review and field verification, the deforestation recorded in the Project Area (PA) corresponds to that shown in the following Table 47:

Table 47. Transition tables - Land Coverage change / Land Use (LC / LU) - 2018 and 2019 monitoring

Project area	2018 Ha.	2019 Ha.	Difference Ha.	% Protected
PF primary forest	975,155	974,666	489	99.9%
FPF flood primary forest	164,211	164,081	130	99.9%
SF secondary forest	5,846	5,724	122	97.9%
HAA heterogenous agric. area	1,304	478	826	36.7%
RV regenerating vegetation	2,451	1,462	988	59.7%
S savanna	15	15	0	100.0%
FS flood savanna	1	1	0	100.0%

Project area	2018 Ha.	2019 Ha.	Difference Ha.	% Protected
GL grassland	150	147	3	98.0%
WL wetlands	1,071	996	75	93.0%
BS bare soil	2	1	1	

Source: Monitoring Report VCS 2018 & 2019, folder "calculation_tables" / file "monitoring.xlsx" / worksheets "Defo 2018" and "Defo 2019": transition tables - land cover / land use change (LC / LU)

Table 48. Floristic composition

Change in biodiversity	1. Stability of primary forests and gene banks.																						
Monitored change	<p>Expected change: According to the transition table presented above, it is observed that the coverage of the primary forest decreased by 489 Hectares, with an insignificant probability to lose germplasm of native and endemic species of cultural and scientific interest on the project area. On the other hand, the flooded native forest and the secondary forest presented a reduction of 130 Ha and 122 Ha respectively, the verification of the MEDIAMOS team found that this loss of coverage was caused by natural processes such as strong winds that deforested large areas and the atypical floods presented in 2018, where forests on the upland of litobiome were submerged for more than four months and all forest species that were exposed to this moisture dried up and died. Additionally, appears a decrease in coverage related to heterogeneous agricultural areas and vegetation regeneration of 826 Ha and 988 Ha, respectively.</p> <p>The cover plant for 2018 in the project area, including leakage belt, there were 1.152,2224,07 Ha and in 2019 there was 1,149,590,21 Ha, for a total balance of 2.634,86 Ha of deforested plant cover during 2018 and 2019. These 1,152,2224 Ha correspond to all the areas of the previous table corresponding to the natural forest germplasm bank and the site for the conservation of vulnerable native forest species that have not yet been studied or classified.</p> <p>According to the following table prepared to qualify the selected indicator, we have:</p> <table border="1"> <thead> <tr> <th rowspan="2">Key ecological attribute</th> <th rowspan="2">Indicator</th> <th colspan="6">Qualification of indicator (%)</th> </tr> <tr> <th>No lose</th> <th>Insignificant</th> <th>Minor</th> <th>Major</th> <th>Devastating</th> <th>Catastrophic</th> </tr> </thead> <tbody> <tr> <td>Plant cover</td> <td>Percentage of loss of plant cover (deforestation)</td> <td>0</td> <td>0-5 %</td> <td>5-25 %</td> <td>25-50 %</td> <td>50-70 %</td> <td>>70 %</td> </tr> </tbody> </table> <p>The 489 Hectares used of primary forest corresponds to an insignificant decrease in plant coverage of 0.05 %, from 975,155. Ha to 974,666. Ha, which means an insignificant result of loss of coverage) for quality and the conservation status of the</p>	Key ecological attribute	Indicator	Qualification of indicator (%)						No lose	Insignificant	Minor	Major	Devastating	Catastrophic	Plant cover	Percentage of loss of plant cover (deforestation)	0	0-5 %	5-25 %	25-50 %	50-70 %	>70 %
Key ecological attribute	Indicator			Qualification of indicator (%)																			
		No lose	Insignificant	Minor	Major	Devastating	Catastrophic																
Plant cover	Percentage of loss of plant cover (deforestation)	0	0-5 %	5-25 %	25-50 %	50-70 %	>70 %																

primary forest. On the other hand, the loss of coverage of 130 and 122 Ha corresponding to deforestation in the primary flooded forest and secondary forest respectively since 164,210.8 and 5,846 Has registered in 2018 and 164,080,9 and 5,723,6 Has registered in 2019, corresponds to a loss of 0.08 and 2,09%, a lower value of 5%, which represents a value of the indicator (insignificant), which represents a value of the indicator (insignificant), with respect to the qualification threshold of the loss of plant cover.

Positive change: “The biomass measurement as a carbon base has been performed since the first year of the project, based on an inventory of plots in the field and following the steps of the Protocol for the national and subnational estimation of biomass-carbon in Colombia” (Yepes, et al., 2011). The estimated positive change in biodiversity corresponds to the maintenance of forest productivity.

This methodology corresponds to the measurement of aerial biomass (stems of trees with DBH > = 10 cm), which involves the monitoring method of fixed-area plots by biome, with the analysis by media of allometric equations to calculate the equivalent carbon and carbon dioxide. This calculation is performed every ten years, according to the suggested Standard VCS methodology.

Productivity record (ton / Ha), determined according to the biomass calculation methodology by biome (year 2013) (Yepes, et al., 2011).

Biome	Helobiome	Peinobiome	Litobiome	Zonobiome
Min value	155.3	93.5	128,2	151,9
Max value	533.2	354.0	351,5	1,296,3
Average	278.5	218.8	222,1	280,9
Total average biomass for the project area				250.75

Source: Annex 19 of validated PDD - VCS

According to the table, differences in productivity can be observed from the calculation of biomass on the type of biome that corresponds, where there exist clear differences in the richness of biodiversity. In (Villarreal Leal, et al., 2009) mentioned “the vegetation in the project area is highly diverse and the sites are complementary. In a relatively small area, the wide range of environments and the differences between them are evident, thus leaving the idea of the forest as a green, homogeneous, and continuing stain without support.

Regarding productivity, the four evaluated biomes (helobiome, peinobione, litobiome, and zonobiome), present average productivity values of 278.5; 218.8; 222.1, and 280.9, respectively. The average value is 250.75 ton / Ha, all values calculated under the biomass accounting methods. (Yepes, et al., 2011).

The measurement of biomass and carbon calculated from the beginning of the project (the year 2013) shows the productivity of the forests as a baseline for this approach, on

the other hand, it is proposed to carry out measurement again during 2023 to verify and measure the productivity trend of forests as sustenance of floristic biodiversity.

Direct change: The following table shows 29 families identified for the six landscapes. The Rubiaceae, Melastomataceae, Arecaceae, and Leguminosaceae families have a large number of genera and species, taken from the study of (Prieto, 2001) mentioned in (Villarreal Leal, et al., 2009) as a baseline to verify the conservation status of floristic biodiversity in 2022. Next, table shows the number of botanic species for each landscape.

Floristic composition by families with the highest number of species in each landscape. BR, BI-a, MI-b, BA, SA.

Family	BR	BI-a	BI-b	BT-a	BA	SA	Total
<i>Rubiaceae</i>	7	5	4	7		7	101
<i>Arecaceae</i>	3	2	2	5		2	
<i>Caesalpiniaceae</i>	4	3	4	4			18
<i>Fabaceae</i>	4	3	2	3			22
<i>Melastomataceae</i>	8		2	3		6	68
<i>Mimosaceae</i>	6		3			2	20
<i>Annonaceae</i>	4		2				14
<i>Apocynaceae</i>						5	20
<i>Clusiaceae</i>				3		3	21
<i>Euphorbiaceae</i>			3	5			19
<i>Bombacaceae</i>	5	2					
<i>Chrysobalanaceae</i>		3		6			
<i>Flacourtiaceae</i>			2				
<i>Lecythidaceae</i>				3			
<i>Moraceae</i>	10						14
<i>Aquifoliaceae</i>						3	
<i>Burseraceae</i>	5						
<i>Combretaceae</i>		2					
<i>Elaeocarpaceae</i>				3			
<i>Eriocaulaceae</i>						4	
<i>Malpighiaceae</i>		2					
<i>Myristicaceae</i>		2					

<i>Ochnaceae</i>		3					
<i>Vochysiaceae</i>						3	
<i>Xyridaceae</i>						3	
Total number of species / escenario	39	13	22	30	0	25	303
Total number on the sample / landscape	102	67	77	102	37	107	688

Source: (Villarreal Leal , et al., 2009, p. 109) *Caracterización de la biodiversidad de la Selva de Matavén, table 3.4.*

Alpha diversity

The BT-a forest presented the highest alpha index and a high dominance, which indicates that the distribution of individuals in the species is not equitable: a few species have the largest number of individuals. The high forest of the floodplain (BI-b) was the most equitable and the second in alpha diversity. In the savannas themselves (SA-h) the dominance of a few species was observed, which contrasts with the forests of the edge of the pipe (BBC) and moorland (MM).

Alpha diversity of surveyed landscapes. For the savannas in sandy plains (SA), it was differentiated according to the types of vegetation: forest at the edge of the pipe (BBC), bush forest (MM) and savannas proper (SA-h).

Index	Landscapes					SA		
	BI-a	BI-b	BT-a	BR	BA	BBC	MM	SA-h
Alpha Fisher	10.4	21.58	47.38	9.55	12.35	4.93	12.81	12.41
Fairness	0.79	0.66	0.90	0.644	0.81	0.67	0.75	0.91
Dominance Berger-	0.17	0.43	0.06	0.44	0.34	0.53	0.21	0.12

Source: (Villarreal Leal , et al., 2009, p. 112) *Caracterización de la biodiversidad de la Selva de Matavén, table 3.6.*

Beta diversity

Beta diversity is extremely high. The complementarity values between the sites were greater than 95%, which indicates that the landscapes are markedly different from each other. This is to be expected given that the approach is landscaped, and the vegetation is one of the most contrasting characteristics of the landscape.

The vegetation of the area is remarkably diverse, and the sites are complementary; in a relatively small area, such as the wide range of environments and the differences between them (Villarreal Leal, et al., 2009) leaving the idea of the forest as a green, homogeneous, and continuous place without support.

Values of the complementarity index (CI) of woody plants between the sampled sites

Landscape	BA	BI-a	BI-b	BR	BT	SA
BA	37	5	2	0	4	0
BI-a	9.95	67	2	0	0	0
BI-b	0.98	0.99	77	1	3	0
BR	1	1	0.99	102	1	0
BT	1	1	0.98	1	102	0
SA	1	1	1	1	1	107

The diagonal (blue) corresponds to the number of species; the upper part of the diagonal corresponds to the number of species shared between the two localities; below the diagonal are the values of the complementarity index (CI).

Source: (Villarreal Leal , et al., 2009, p. 112) *Caracterización de la biodiversidad de la Selva de Matavén, table 3.7.*

Through the implementation of the following monitoring plan, the information corresponding to the floristic biodiversity indicators (alpha and beta) will be collected from the year 2022 and every five years thereafter.

Methodology of collecting information on Alpha and Beta floristic biodiversity

Description of the vegetation

The samplings carried out were taken in the transition strip between the Amazon forest and the typical Orinoco savannas. Thus, forests associated with rocky outcrops, forests in flooded and non-flooded areas, scrublands, and savannas, were recorded.

General characteristics of the vegetation of each visited site are presented in terms of the height of the main strata and the composition of species as described below.

Composition:

For each physiognomic type (forest, grove, and savanna), both the richest families in genera and species, as well as the most diverse genera were established. For this, the leaves of each physiognomic type were grouped, and the calculations were made for the whole leave.

For woody plants: Characterization focuses mainly on the measurement of alpha (species richness) and beta (species turnover) diversity, as well as the conservation status of forests (Villarreal et al. 2004). A total of 10 transects of 50 m x 2 m were established in each landscape and all individuals with a diameter greater than or equal to 1 cm were surveyed, for a total of 0.1 ha per landscape. The morphometric data (height and perimeter at 1.3 m high) and the morphotype were recorded for each census woody plant. Source: (Villarreal, et al., 2004).

Indirect change: Maintaining the functionality of the forests and their resources is

	<p>important to validate the ecological integrity in the intervened ecological systems. The monitoring of functional flora according to (Salgado-Negret, 2015), corresponds to a study on the traits of:</p> <ol style="list-style-type: none"> 1. The leaves such as the specific foliar area –AFE– and foliar longevity –Lf–, which inform about the rates of carbon gain and growth of the individual, 2. Wood traits, important for their relationship with the transport of water and nutrients and support of individuals, their resistance to drought and damage by natural enemies. 3. Root features, related to the transport and storage of substances and the mechanical support of individuals. 4. Regenerative traits, which can be vegetative - such as clonality - or sexual - such as mass and seed production. Both provide information on the potential for dispersal and establishment. 5. Morphological traits of plants such as growth form and maximum height, determine the position of individuals in the vertical layer and, therefore, their access to light and their potential growth rate. <p>By 2024 it will be establishing the variables and units of measurement for functionality and the approach for monitoring the functional traits of plants. This exercise depends on the result of the monitoring of the biodiversity indicators (Alpha and Beta index verifies in 2023), which allow identifying the species or families towards which it should be oriented the study of functional traits of plants, and this will continue every five years.</p>
<p>Justification of change</p>	<p>The forest conservation of the Selva de Matavén contributes to national climate change policies since it avoids the emission of more than three million tons of carbon per year into the atmosphere by avoiding the deforestation of 1,150,169.4 Ha. (registered cover plant for 2019 on VCS report monitoring 2018-2019).</p> <p>By halting deforestation, the plant cover is maintained and improved. Improving at the same time the biological conditions necessary for biodiversity, the productivity of the forests that is necessary for the establishment of the plant communities that form the RIU-SM.; and the species of flora classified as vulnerable (according to the IUCN red book list), endemic species and species of cultural and ecological importance that have not been studied yet. The result of the monitoring of the biodiversity indicators (Alpha and Beta) allows to determine the species or families towards which the study of functional traits of plants should be directed, which impact the adequacy of individuals and orient their effects on growth, reproduction, survival, and especially its adaptation to climate change. (Violle et al. 2007) in (Salgado-Negret, 2015). (Violle et al. 2007) in (Salgado-Negret, 2015).</p> <p><u>Methods used to estimate and/or document change</u></p> <ol style="list-style-type: none"> 1. RIU-SM forest and land surveillance and control patrols, -minutes and formats, indigenous guard workshops 2018 and 2019. 2. Evaluation and monitoring of the maintained plant coverage and deforestation to determine the reduction of GHG emissions. (REDD+ Project RIU-SM Methods). Transition tables verified "Monitoring Report -VCS 2018 y 2019"

	3. Monitoring of biodiversity indicators (Alpha and beta) (Villarreal, et al., 2004). Minutes and formats, indian guard workshops 2018 and 2019.
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Table 49. Wildlife composition

Change in biodiversity	2. Maintenance of the forests with the function of habitat and biological corridors of the fauna of the RIU-SM.		
Monitored change	<p>Expected change: The insignificant loose of plant coverage is a favorable mechanism to keep the source of food, refuge, and corridors for the fauna of the RIU-SM. The plant coverage as the productivity in the previous table, reflects the availability of habitat for the fauna and the possibility of maintaining sufficient resources for the maintenance of all the species, to reduce the critical situations caused for climate change that affect ecological integrity.</p> <p>In the change foreseen for the floristic composition, we observe that the primary forest undergoes an insignificant decreased by 489 Ha of plant coverage, while the flooded primary forest, as well as the secondary forest, presented a loss of 129,8 and 122,4 Ha respectively; values that were already compared in the description of the floristic composition chapter. These values show that the coverage is maintained in optimal conditions to support their fauna diversity and maintain ecological integrity. The loss of 0,08 and 2.09% of plant cover with a value (insignificant), indicates that the cover is suitable for reproduction habitats (mating and/or nesting), feeding habitats, routes, and migrations of fauna species.</p> <p>On the other hand, the maximum values of productivity as carbon biomass registered in the zonobiome (1,296.3 ton / Ha) and in the Helobiome (533.2 ton / Ha) (see <i>table on biomass in a positive change of floristic composition</i>), demonstrate biomes with high productivity, also related to the optimal conditions for the establishment of the niche of the fauna species of the RIU-SM.</p> <p>Positive change: Patch Cohesion Index to evaluate¹⁷:</p>		
	<p>(C121) Patch Cohesion Index</p>		
	<table border="1" style="width: 100%;"> <tr> <td style="width: 60%; text-align: center;"> $COHESION = \left[1 - \frac{\sum_{j=1}^n P_{ij}}{\sum_{j=1}^n p_{ij} \sqrt{a_{ij}}} \right] \left[1 - \frac{1}{\sqrt{A}} \right]^{-1} \cdot (100)$ </td> <td style="width: 40%;"> <p>P_{ij}: perimeter of patch ij in terms of number of cell surfaces.</p> <p>A_{ij}: area of patch ij in terms of number of cells.</p> <p>A: total number of cells in the landscape.</p> </td> </tr> </table>	$COHESION = \left[1 - \frac{\sum_{j=1}^n P_{ij}}{\sum_{j=1}^n p_{ij} \sqrt{a_{ij}}} \right] \left[1 - \frac{1}{\sqrt{A}} \right]^{-1} \cdot (100)$	<p>P_{ij}: perimeter of patch ij in terms of number of cell surfaces.</p> <p>A_{ij}: area of patch ij in terms of number of cells.</p> <p>A: total number of cells in the landscape.</p>
$COHESION = \left[1 - \frac{\sum_{j=1}^n P_{ij}}{\sum_{j=1}^n p_{ij} \sqrt{a_{ij}}} \right] \left[1 - \frac{1}{\sqrt{A}} \right]^{-1} \cdot (100)$	<p>P_{ij}: perimeter of patch ij in terms of number of cell surfaces.</p> <p>A_{ij}: area of patch ij in terms of number of cells.</p> <p>A: total number of cells in the landscape.</p>		

¹⁷ FRAGSTATS: Spatial Pattern Analysis Program for Categorical Maps. FRAGSTATS is a software program designed to calculate a wide variety of landscape metrics for categorical map patterns, allows the addition of cell-level metrics and surface pattern metrics, and a variety of sampling methods to analyze sub-landscapes.

Description	COHESION equals 1 minus the sum of patch perimeter (in terms of number of cell surfaces) divided by the sum of patch perimeter times the square root of patch area (in terms of number of cells) for patches of the corresponding patch type, divided by 1 minus 1 over the square root of the total number of cells in the landscape, multiplied by 100 to convert to a percentage. Note, total landscape area (A) excludes any internal background present.
Units	None
Range	$0 \leq \text{COHESION} < 100$ COHESION approaches 0 as the proportion of the landscape comprised of the focal class decreases and becomes increasingly subdivided and less physically connected. COHESION increases monotonically as the proportion of the landscape comprised of the focal class increases until an asymptote is reached near the percolation threshold (see background discussion). COHESION is given as 0 if the landscape consists of a single non-background cell.
Comments	Patch cohesion index measures the physical connectedness of the corresponding patch type. Below the percolation threshold, patch cohesion is sensitive to the aggregation of the focal class. Patch cohesion increases as the patch type becomes more clumped or aggregated in its distribution; hence, more physically connected. Above the percolation threshold, patch cohesion does not appear to be sensitive to patch configuration (Gustafson 1998).

Source: FRAGSTATS USER GUIDELINES Version 3, table C121

The following table is presented with the information corresponding to connectivity for the 2018 and 2019 validities in the “forest” and “non-forest” patches.

Patches	Years	
	2018	2019
Forest	99.98	99.64
No forest	99.63	99.68

This table shows that the variation in forest cohesion has not been significant, this is mainly due to the fact that deforestation has been controlled. In addition, the deforestation is mosaic mainly for subsistence and used only for two years, later it is abandoned and to become regenerating vegetation. The *Selva de Matavén* forest is a large block of forest, crossed by natural savannahs and small farming areas.

Direct change: Regarding wildlife the Selva de Matavén contains a considerable natural wealth and high presence of rare and endemic species of high potential, which give Colombia great importance for conservation. For example, 33% of bird species are

restricted to areas of endemism. The Matavén channel has the second-highest diversity of fish in the areas studied in the region.

The following table presents a summary of the values of the species by groups of wildlife registered in the Selva de Matavén (Villarreal Leal , et al., 2009).

Main characteristics of recorded wildlife (vertebrates and invertebrates)

Group	Number of species	Representativity Percentaje	Beta diversity	Sensibility	Diversity of landscape
Birds	249	17 %	≥ 0.7	Average (35%) Low (40%)	51% (BT-a)
Insects	33		0.56		BI-a, BI-b
Ants Subfamilies	196 11	43%	0.63		BT-a, SA
Butterflies Families Endemic sps	198	48% 44.7% 2%	≥ 0.7		BT-a
Fishes Registered sps	137	77%			

Source: (Villarreal Leal , et al., 2009, pp. 27-30). Caracterización de la Biodiversidad de la Selva de Matavén.

Some important characteristics about the **birds** are:

1. Most species of birds caught belong to the *Thamnophilidae* families (17%) and *Tyrannidae* (12%).
2. There have been 8 species of migratory birds in North America, in upland forests (BT-A) and rocky hills (BR) and Savannah (S).
3. The composition of bird communities is very different from landscapes, showing high levels of replacement or beta diversity (complementarity index > 0.7).
4. No captured species is endemic or is under some threat to extinction.
5. From the the total of registered species 62 - (25%) are habitat specialists (that is only found in a single habitat).
6. Forest land (BT-A) has the community of more specialized bird habitat use, with more than half (51%) of the species using only this habitat.
7. Most birds recorded have an average sensitivity and low to disturbances (35% and 40% respectively), while the minority has high sensitivity (26%).

Some important characteristics about the **insects** are:

1. They have collected 33 dung beetle species, genera with more species were *Canthon* 6, and *Dichotomius* and *Eurysternus* 5.
2. Communities dung manure have a high dominance by 2 species in 2 units under

forest landscape in the flood plain (BI-a,) the species *Canthon* sp. and *Uroxys* sp.

3. At the highest lowland forest plan (BI-b) it is the dominant species *Uroxys* sp.
4. The complementarity index values were above 0.56, indicating a high turnover between all landscape units.

Some important characteristics about the **ants** are:

1. There are 196 species recorded, represented in 11 subfamilies of neotropical ants, the most common subfamily is Myrmicinae 43% of the species recorded. The most common genre is *Pheidole* (Formicidae: Myrmicinae) with 25 species (12.7%).
2. Of the species identified to species level, about 75% are taxa.
3. The greatest wealth of ants is found in the woods of sedimentary plains (BT-A) with 63 species, less wealth is high forest flood plain (BI-b) with 24 species.
4. There is a high turnover of ant species among all landscape units.
5. Landscapes higher value of complementarity are the savannah on sandy plains (SA) and the forest of sedimentary plains (BT-A).

Some important characteristics about the **butterflies** are:

1. They have recorded 198 species.
2. The families with the highest number of species are Nymphalidae and Lycaenidae, each representing 37.8%, and the most abundant family is Lycaenidae followed by Nymphalidae.
3. 15% of the species found in Amazon's distribution.
4. 6% are exclusive species of the Guiana Shield.
5. 18% of the Guiana Shield is distributed to the base of the Amazon.
6. 2% are endemic to Colombia.
7. 59% are widely distributed species.
8. To obtain a greater diversity of butterflies' species for landscape richness, it studies the abundance of individuals into the forest of sedimentary plains (BT-A) of 294 finds are registered 94 species.
9. The highest lowland forest plan (BI-b) with 28 species and 68 individuals, and Savannah (SA) with 26 species and 108 individuals, had the lowest richness and abundance.
10. In high parts beta diversity of butterfly species between landscapes with rates above 0.7 complementarity.

Some important characteristics about the **fish** are:

1. The pattern of diversity is recorded in lower areas of the Neotropics, where the

	<p>dominant orders were Characiformes, Siluriformes and Perciformes.</p> <p>2. 77% of the total abundance recorded displayed only 15 of the 137 recorded species, excelling the species <i>Hemigrammus analis</i> with the equivalent of 23% of the individuals captured.</p> <p>Using the fishing of the 137 species recorded, 64 are used by the bocachico local communities for subsistence, for example, peacocks, head mantecos, piranhas, and matagueros; while 33 species are marketed as fish consumption, and 57 are used as ornamentals commercial species such as tetras, cardinal, kennels, old juna and scalar. However, the highest number of registered areas are ornamental species.</p> <p>Some aspects of fishing:</p> <ol style="list-style-type: none"> 1. The capture of ornamental species for marketing focuses on the Vichada, Orinoco and Matavén Creek rivers. The Matavén Creek constitutes the first fish collection center in the area, later to continue the marketing chain to Puerto Inirida and inside the country or abroad. 2. The fishing for commercial use is restricted mostly to the communities at the bottom of the Guaviare River. 3. The fishing for consumption in the Matavén Creek is basically to meet the needs of animal protein for communities living there. <p><i>Selva de Matavén</i> is a transition zone between the great forests of the Amazon and the vast savannas of the Orinoco, so that it has a particular biological interest, not only for its biogeographical position, but for its well-preserved state with less than 5% of the total area converted into crops and stubble.</p> <p>As mega-diverse territory is classified within the group of the 14 zones hosting the highest rate of biodiversity on earth. This is overlapped with the political, economic, and social, complex, and diverse history (MADS, PNUD, 2014) 18.</p> <p>Methodology for collecting information on Alpha and beta fauna biodiversity</p> <p><u>Insects</u></p> <p>Methods. The samplings were carried out in five landscape units that correspond to: forest associated with rocky hills (BR), savanna in sandy plains (SA), sedimentary plains forest (BT-a), forest under the floodplain of the Matavén channel (BI- a), and high forest of the floodplain of the Matavén channel (BI-b). In each of the sites and for five days, dung beetles, ants and butterflies were collected following the methodology proposed by Gema for carrying out biodiversity inventories (Villarreal, et al., 2004).</p>
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18 (MADS, PNUD, 2014). Ministerio de Ambiente y Desarrollo Sostenible, Programa de las Naciones Unidas para el Desarrollo. 2014. Quinto Informe Nacional de Biodiversidad de Colombia ante el Convenio de Diversidad Biológica. Bogotá, Colombia. Page 9

For the samplings, transects and traps were used depending on the group.

- For the three groups of insects sampled, the alpha diversity (number of species) found in the central-eastern sector of the Selva de Matavén is consistent with the richness values reported by other inventories of these groups in areas of the Colombian Orinoquia (Uribe et al. 1998, Amézquita et al. 1999, Escobar 2000, Fagua et al. 2003, FPR 2005, Fernández and Fajardo 2006, Villarreal and Maldonado 2007), mentioned in (Villarreal, et al., 2004).
- Beta diversity, meaning species turnover was high. In the three groups of insects, the samples from each landscape unit were independent, presenting low values of similarity between them and high levels of complementarity. This result was expected due to the great heterogeneity between the landscapes chosen for sampling.
- The Selva de Matavén is an important area for the conservation of butterflies, as it is home to a great wealth of them. It contains a considerable number of rare species, little represented in the collections, and three endemic species for Colombia that are not only distributed in this area, but whose endemic character gives relevance to the area.
- The species *Euselasia candaria*, *Mesene hyale* and *Oenomaus cyanovenata* are endemic to Colombia. *Adelpha plesaura*, *Cyrenia martia*, *Eunica tatila* and *Hyphilaria parthenis*, are species underrepresented in collections and present a low abundance in the field. *Parides orellana*, *Eunica macris*, and *E. sydonia* are rare species. Finally, *Baeotus deucalion* also corresponds to an important record because, in addition to being a rare species, the female is rare and was collected in this study. It is highly probable that *Euptychia* sp. 1, *Euptychia* sp. 2, *Ypthimoides* sp. 1 and *Ypthimoides* sp. 2 are species new to science. (Villarreal, et al., 2004, p. 134)

Birds

Methods. In the five landscapes selected within the study area: sedimentary plains forest - BT-a, rocky hills forest - BR, forests (high and low) of the Matavén floodplain - BI-a and BT-b and Savannas in sandy plains - SA, a standardized methodology was used, which allows obtaining a good approximation of the composition of bird communities. The methodology consists of using three simultaneous techniques: captures with fog nets, recordings of vocalizations and observations (Villarreal, et al., 2004, p. 146)

- Description of the methods to capture of birds with mist nets: In each landscape, 400 m of nets were extended for four days, which remained open for two days between 05:30 a.m. and 10:00 a.m. in two different places within the same landscape. The identification of the captured specimens was carried out using the Colombian bird guide (Hilty and Brown 1986), in (Villarreal, et al., 2004).
- Alpha diversity or species richness: The diversity was estimated for each landscape by means of the observed richness, and the calculation of the Shannon index (which considers both wealth and equity). The Shannon index varies between 1.5 (low diversity) and 3.5 (high diversity) and rarely reaches 4.5 (Magurran, 2004) in (Villarreal, et al., 2004).
- Alpha diversity: The highest number of species was recorded in the Sarrapia stubble (92), despite the fact that less sampling effort was made in this landscape; while the

minor corresponded to the old mother (17). The terra firme forest (BT-a) and the savannah (SA) were the second richest landscapes (with 85 registered species) (Villarreal, et al., 2004, p. 157)

- The landscapes in Matavén were very different from each other and highly complementary in terms of the species composition of the bird communities. Therefore, they showed high turnover or beta diversity values (Complementarity index > 0.5 and most of them very close to 1) The flooded forest without undergrowth (BI-a) contains the most dissimilar species composition to the rest of the sampled landscapes, presenting the highest values of the complementarity index (more than 80%). The Sabana (SA) and the terra firme forest (BT-a) also differ in more than 80% of their species.

- The diversity of birds in each landscape (alpha diversity) and their complementarity (beta diversity) is very high. The characterized landscapes presented very rich and different bird communities, which has implications when making decisions about conservation of the area: it is not enough to conserve some landscapes and modify others, since each one is very particular and different and contributes in a unique way to the diversity of birds in the Selva de Matavén (Villarreal, et al., 2004, p. 164).

Fishes

Methods. 31 collection stations were established in the lower reaches of the Matavén channel, covering an approximate transect of 67.6 km along the main channel of the channel (Figure 6.1). The collection stations were selected to cover the greatest possible heterogeneity of aquatic habitats; the foregoing, taking into account the great plasticity exhibited by fish in terms of their behavior and habitat preferences. (Villarreal, et al., 2004, p. 170).

Collection methods as has already been pointed out in fish inventories in the Orinoquia highlands (Maldonado-Ocampo 2001, Maldonado-Ocampo and Bogotá-Gregory 2007), there is a great difference in terms of captures of species according to the collection method used. because of the selectivity of the species for the habitat according to the climatic season in which the collection is made. In the case of the catches made in the Matavén channel, again, the most effective and least selective collection method for the capture of species in the low water season in the region was the chinchorro (Figure 6.4) (Villarreal, et al., 2004, p. 173).

Methodology taken from: (Villarreal, et al., 2004). Manual of Methods for the Development of Biodiversity Inventories. Biodiversity Inventories Program. Instituto de Investigación de Recursos Biológicos Alexander von Humboldt.

Indirect change: Functional traits in biodiversity are the morphological, physiological, and life history characters that affect the biological performance of individuals, are scalable to other levels of biological organization such as populations and communities, and may be involved in processes at the ecosystem level such as the regeneration of disturbed systems through seed dispersal, pest control, and pollination, among others, and are closely related to the ecological integrity, the functionality of forests and the

	<p>human well-being of indigenous communities.</p> <p>Methodology taken from: (Salgado-Negret, 2015). La ecología funcional como aproximación al estudio, manejo y conservación de la biodiversidad: Protocolos y aplicaciones. Instituto de Investigación de Recursos Biológicos Alexander von Humboldt.</p>
<p>Justification of change</p>	<p>The REDD+ Project RIU-SM executes food guarantee projects and the strengthening of productive chains with the purpose of improving the quality of the soils of family production sites, improving technical production conditions, supplying food necessary for the livelihood of the communities. Indigenous peoples trade the surpluses and reduce the pressure for hunting, fishing, and gathering activities in the project area.</p> <p>On the other hand, by keeping the forests intact, critical habitats for feeding, reproduction, routes, and corridors are maintained, such as the resting areas of the RIU-SM wildlife. The productivity analysis shows the quality of each biomass for habitat functions of the RIU-SM biodiversity. On the other hand, connectivity is defined by the number of functional junctions between patches of the corresponding patch type, where each pair of patches is connected or not based on a user-specified distance criterion and it is reported as a percentage of a maximum connectivity calculated by the possible number of patches. Considering that connectivity can be based on Euclidean distance or functional distance.</p> <p>Methods used to estimate or document change</p> <ol style="list-style-type: none"> 1. RIU-SM forest and land surveillance and control patrols 2. Monitoring of connectivity index (Gurrutxaga & Saura 2013). 3. Monitoring of biodiversity indicators (Alpha and beta), (Villarreal, et al., 2004).

Key assumptions

1. The project continues to avoid deforestation of the forests to verify carbon units and generates sufficient resources to continue with the pertinent participatory control and surveillance actions.
 - In accordance with the provisions of the project framework (REDD+ RIU-SM (PDD, page execution of Tasks and Activities during 2018 & 2019), by avoiding deforestation in the Project Area, it is possible to obtain economic resources as compensation for the reduction of GHG emissions. These resources make it possible to maintain the actions of protection and conservation of the lands, forests and biodiversity of the RIU-SM and improve the quality of life of the communities that inhabit it.

2. Strengthening the governance of ACATISEMA allows the design and implementation of participatory actions for the conservation and protection of plant coverage, maintaining species determining or triggering living flora and maintaining habitats, such as refuges, nesting areas, feeding and reproduction of the associated fauna.
 - The monitoring of the territory of the Indigenous Reserve through the implementation of 37 surveillance and control routes, carried out by the indigenous guard, in each Sector and Zone of RIU-SM, contribute to ensuring the protection, conservation, and recovery of the lands and forests of the RIU-SM.

- The organization of the 315 indigenous guards has been consolidating as a group of surveillance and control agents in the protection of the environment.
 - The indigenous guard has received financial support, endowment, equipment, tools, food, transportation (boats with outboard motor) and fuel necessary to carry out their work.
 - Five surveillance and control posts, with their respective information boards, and 4 river floats "hangar" rafts, have been built to strengthen logistics and transportation in surveillance and control of the territory.
3. With the implementation of the sustainable land and forest management plan, training, and technical strengthening of the communities, productive and food guarantee actions are implemented, which allow for participatory protection and conservation actions to be carried out to maintain the productivity of forest lands and the connectivity of the ecosystems of the RIU-SM.
- To avoid deforestation and forest degradation and the consequent negative affection on fauna, flora, and on the water resources of the RIU-SM, the indigenous guard has received training about the Project compromises, about the protection of natural resources, about the internal regulations of the Association, and have been carried out permanently, in accordance with the Logical Structure of the Project.
 - About the local strengthening in the communities in 2018 and 2019, ten workshops have been carried out for the indigenous guard in 2018, five in 2019 and five workshops for captains on natural resource management in 2019. In the workshops (one per area), printed material is provided to explain the problems presented by the "junta de cabildos" meetings, which gave rise to the REDD+ Project RIU-SM, explaining the objectives, the commitments of the indigenous guard and the benefits for the community and biodiversity.
4. Promote food guarantee and agroforestry projects allows diversification of productive activities and creates opportunities to provide healthy food to the families of the RIU-SM. In other words, these agri-food projects leave installed capacities in the communities to produce healthy food, to reduce the pressure on the biodiversity that inhabits the RIU-SM.
- With the strengthening of governance, the operation of ACATISEMA has been ensured, providing professional and technical support to the communities for the implementation of food guarantee projects, ensuring for 2018 the generation of 23 tons, and in 2019 of 25.5 tons of production of food in family agricultural production sites, for products such as cassava *Cassava sculenta*, banana *Musa paradisiaca*, corn *Zea mays*, sugar cane *Saccharum officinarum*, ñame *Dioscorea sp.*, sweet potato *Ipomea batata*, wild chili *Capsicum sp.* and some fruits such as the pineapple *Ananas sp.*, providing opportunities for family production to reduce hunting activities and generate net benefits on the biodiversity of the RIU-SM.
5. The maintenance of the plant cover with the REDD+ Project maintains the stable conditions of the RIU-SM forest that the fauna requires for its survival. This is how the plant coverage in good condition favors the functions of the biodiversity and the ecological units of the RIU-SM.
- The RIU-SM communities are aware of this activity and, in addition to it, they offer their support in the surveillance and protection of the territory, so this is how the threat of deforestation has stopped with

an efficiency of 87.95% during 2018 and 89.68% for 2019¹⁹.

6. The implementation and visibility of the REDD+ Project RIU-SM involves other national and regional institutions as allies for participatory research for the conservation of biodiversity of the RIU-SM, their monitoring to determine early warnings in a strategic location of rare and threatened species and ecosystems.
- The strengthening of communications and the divulgation of the project have been reached to show to other organizations the viability and social-economic rentability of bringing opportunities to these indigenous communities through the conservation actions. On the other hand, the communications strength is basic to let produce early warnings, increased from the baseline of 2017, towards 2018 and 2019, these alerts are related to non-planned forest burns, which have required greater vigilance, attention, and intervention from indigenous people, and a response to the emergency by local authorities and competent institutions.

5.1.2 Mitigation Actions (B2.3)

There are not known negative impacts generated by the REDD+ Project so far. However, there may be possible leaks that may occur due to migration of indigenous communities are controlled, generating negative impacts in other places outside the project area and by displacement of species in search of habitats and biodiversity resources. The Project does not involve the introduction of exotic and / or modified species, nor the extraction of genetic material or collection of wild fauna.

The measures necessary and designed for the maintenance or improvement of the attributes of HCV, correspond to the next activities and their respective tasks executed during this Monitoring Period 2018 & 2019

Table 50. Measures necessary and designed for the maintenance or improvement of the attributes of HCV

Activities	Tasks	Indicators	Results
Product 1. Measures to reduce the vulnerability of the RIU-SM generated by external factors, designed, and implemented.			
Activity A1.1: Monitor and control the conservation and recovery of forests and lands of the RIU-SM.	Task T1.1.1: Review and adjustment of the design and planning of the surveillance and control of the forests and lands of the RIU-SM to avoid deforestation and degradation.	<ul style="list-style-type: none"> • Have personnel for this commitment, at least one person per community for control and surveillance (C. and S.) • At least one training workshop for these people per year 	<ul style="list-style-type: none"> • Involved the indigenous guard (315 guards per year). • Trained in C. and S. the indigenous guards • Control and surveillance tours planned by sector

19 Taken from: Monitoring Report of Redd+ Project RIU-SM, excel worksheet – <transition tables - land cover / land use change (LC / LU) - Monitoreo 2019 / Defo 2018 / Defo 2019>

Activities	Tasks	Indicators	Results
		<ul style="list-style-type: none"> • Designed at least one route per sector for designed tour. • Develop a mechanism for collecting information from the C. and S. 	• Control and surveillance format elaborated
	Task T1.1.2: Execution of the established measures to implement the surveillance and control routes in the RIU-SM territory.	At least one tour designed per year, per sector of C and S	Submitted control and surveillance reports correctly completed with related information.
	Task T1.1.3: Review permanently the early warnings issued by the IDEAM on areas susceptible to forest fires within RIU-SM.	Address 100% of the early warnings presented by the environmental authority	Facilitated participation workshops to the environmental authority (<i>Corporinoquía</i>), to attend to these cases of early warnings.
	Task T1.1.4: Supervision of the execution of the established measures to implement the surveillance and control routes of the territory and definition of contingency measures, if necessary, and reports.	Appoint an indigenous guard program coordinator who presents periodic reports and evaluation of the performance of the program.	The indigenous guard was represented in the administration of the ACATISEMA association.
	Task T1.1.5: Systematization and divulgation of results about surveillance and control of territory and early warnings about forest fires within RIU-SM	100% of the pertinent activities and findings to be socialized on the website and local media have been divulgated.	Reports of socialization and social validation of the control and surveillance work carried out.
Activity A1.2: Develop and implement a communication and information system in the RIU- SM.	Task T1.2.1: Review and adjustment of design and planning of communication, information, and transport systems.	The design of a local communications system plan after a year of work	Implemented a strategic communications plan that favors the scope of the REDD+ Project
	Task T1.2.2: Execution of the established measures to implement the communication system.	A website for the project, a newspaper and an information booklet have been designed.	Presenting the means available for dissemination and socialization of the REDD+ Project.
	Task T1.2.3: Execution of the established measures to implement the information system.	At least one booklet prepared as a pedagogical guide on control and surveillance by guards.	There is pedagogical support material for the training of the indigenous guard in their tasks.

Activities	Tasks	Indicators	Results
	Task T1.2.4: Execution of the established measures to implement the transport system.	Improved at least 20% of the access and exit routes of the reservation to facilitate early warnings.	Improved communication conditions to establish early warnings of forest damage.
	Task T1.2.5: Supervision of the execution of the established measures to implement the communication, information, and transport systems, definition of contingency measures, if it is necessary, and report of informs.	At least two reports are presented per year on the management carried out in dissemination and effectiveness of the means of communication, information, and transportation designed to manage scope and improvements.	There are at least two communication professionals to support the dissemination of the project.
	Task T1.2.6: Systematization and divulgation of results about the implementation of the communication, information, and transport systems.	Produced per year at least two notes or press articles (project newspapers) and at least three publications on the project website every six months.	Socialized and validated the scope of control and surveillance.
Activity A1.3. Design and establish a system of governance for development and sustainability of ACATISEMA Association.	Task T1.3.1: Management special affairs: military situation, service of graduates, socialization of Project, alliances, census, woman in coordinator board, government system, indigenous jurisdiction, oversight, exchange with Consejo Regional Indígena del Cauca-CRIC (Regional Indigenous Council of Cauca)-, native culture, pastors.	Managed support at least 50% of community requests.	Provided support in the situations and basic needs of the community, such as opportunities for economic support so that the indigenous people do not depend on the consumption of the forest for trade
	Task T1.3.2: Management of the normative and regulatory aspects of ACATISEMA.	Held at least one annual meeting to manage the statutes, which ensure the rights and duties of the communities from the association.	Presented an operating manual and statutes that establish standards of behavior and responsibilities to improve and maintain natural resources.
	Task T1.3.3: Support to review of Life Plans in relation to the characteristics of the REDD+ Project RIU-SM.	At least one life plan designed by ethnic group in the RIU-SM.	Presented the life plan by ethnic group in the RIU-SM that demonstrates the cultural responsibility of conserving the heritage of the reserve.

Activities	Tasks	Indicators	Results
	Task T1.3.4: Management of the boundaries.	Recruitment of at least two professionals in administration, to guarantee the proper use of resources.	Guaranteed the proper use of the resource so as not to stop control and surveillance activities, such as attention to early warnings.
	Task T1.3.5.1: Design, planning, and execution of the measures related to ACATISEMA headquarter	At least one sectoral meeting per year to socialize results from previous years, plan and define future actions with captains.	Minutes of sectoral meetings where budget allocation is made and investment in improving living conditions is demonstrated to reduce dependency on natural resources.
	Task T1.3.5.2: Supervision of the execution of the established measures related to ACATISEMA headquarters.		
	Task T1.3.6.1: Design and planning of the measures related to remuneration of authorities, indigenous guard, and Family Agri-food Production Units System-FAPUS activities.	At least one meeting of the board of councils and coordinators of programs or committees of the Association to socialize the results of previous years, plan and define actions at the beginning of each year.	Minutes of council meetings and annual coordinating committees where the scope of the project and to stop or reduce deforestation are reported
	Task T1.3.6.2: Execution of the established measures related to remuneration of authorities, indigenous guard, and FAPUS activities.		
	Task T1.3.6.3: Supervision of the execution of the established measures related to remuneration of authorities, indigenous guard, and FAPUS activities		
	Task T1.3.7.1: Design and planning of the measures to provide economic support to students.	<ul style="list-style-type: none"> • Creation of a coordinating committee or program for education in the Association. 	<ul style="list-style-type: none"> • Hired two education coordinators. • Reports of support were presented in meetings of councils and coordinating committees for students in careers related to the themes of the REDD+ project.
	Task T1.3.7.2: Supervision of the execution of the established measures to provide economic support to students.	<ul style="list-style-type: none"> • Supported at least 5 young people per area of the RIU-SM to carry out and complete higher education. 	
	Task T1.3.8.1: Design and planning of the measures to offer transport services in RIU-	At least one river route has been implemented for the community transport service	RIU-SM transport system for people and products

Activities	Tasks	Indicators	Results
	SM.	in the RIU-SM.	managed.
	TaskT1.3.8.2: Supervision of the execution of the established measures to offer transport services in RIU-SM.		
	TaskT1.3.9: Perform internal financial audit.	At least one tax and financial audit exercise per year.	Guaranteed to the community the good use and distribution of the resource, as a response to reduce deforestation.
Product 2. Sustainable production system implemented			
Activity A2.1: Establish and develop a Family Agri-food Production Units System - FAPUS	Task T2.1.1: Review and adjustment of the design and planning of the Family Agri-food Production Units System (FAPUS) (endowment, crops, minor species, silvopastoral system, orchards, pisciculture, plantain, cassava).	Intervention of agri-food pilot projects planned in at least 10% of the communities in the short term, at least 50% in the medium term and 100% in the long term in the improvement of their FAPUS	Planned intervention strategy to improve the production of family agri-food production systems and contribute to reducing the pressure on HCVs
	Task T2.1.2: Execution of the established measures to develop the FAPUS.	At least 10% of families supported in the short term, at least 50% in the medium term and 100% in the long term in improving their FAPUS	Family agri-food production systems intervened to reduce pressure on HCVs
	Task T2.1.3: Supervision of the execution of the established measures to develop the FAPUS.	At least two semi-annual visits to agri-food project activities.	Formulas and technical formats for monitoring projects that demonstrate nutritional benefits to reduce pressure on natural resources
	Task T2.1.4: Systematization and divulgation of results about the implementation of the FAPUS.	At least one annual SUPAF follow-up and evolution report.	Technical follow-up reports showing FAPUS evolution and improvement
	Task T2.1.5: Design and implementation of the indigenous self-census to update the social and economic characterization of the RIU-SM population	At least one comprehensive census implemented that assesses the socioeconomic progress of the communities in the RIU-SM.	Assessed socioeconomic situation to demonstrate benefits in this field by avoiding deforestation
Activity A2.2: Design and	Task T2.2.1: Management of	Established a special alliance with an expert entity in	Strategic alliance of Mediamos ACATISEMA

Activities	Tasks	Indicators	Results
develop a training and education program plan for the administration and management of natural resources RIU-SM.	special educational aspects.	managing special education aspects with indigenous communities.	for the management of educational aspects with specific purposes.
	Task T2.2.2: Management to provide libraries and educational endowment.	Designed at least one plan to provide bookstores and educational equipment	Provided with pedagogical material for specific purposes.
	Task T2.2.3: Management to build /remodeling of schools.	At least one tax review per year	Registration and tax monitoring of improved and/or installed infrastructures
	Task T2.2.4.1: Design and planning of the measures to develop training programs.	<ul style="list-style-type: none"> • Presentation of a training plan and technical strengthening of captains in productive, agroforestry and silvopastoral projects • Presented a training plan in the monitoring of High Conservation Values of the RIU-SM. 	<ul style="list-style-type: none"> • Educational material designed with specific purposes on the topics of each productive project for the respective beneficiaries • Captains prepared for participatory monitoring of CCB standards.
	Task T2.2.4.2: Execution of the established measures to develop training programs.	Signed at least one agreement with a facilitator for the implementation of training and courses	Agreement and work plan printed.
	Task T2.2.4.3: Supervision of the execution of the established measures to develop training programs.	At least one person responsible for the agreements and the implementation of training for captains	Terms and contracts of professional auditors of compliance with courses and training
	Task T2.2.4.4: Systematization and divulgation of management to develop training programs.	Preparation of at least one report or memoirs of the captain training courses and workshops	Minutes and memoirs of captain workshops, photographic record.
Activity A2.3: Manage resources for project design and establishment of production chains.	Task T2.3.1.1: Design and planning of the measures related to development of productive projects.	At least one productive project designed and planned per year.	Project validated in cost-effective terms
	Task T2.3.1.2: Execution of the established measures related to development of productive projects.	Signed at least one agreement for the execution of productive projects per year.	Terms of reference and signed contract minutes.
	Task T2.3.1.3: Supervision of the execution of the established	Presented at least one progress report on the	Submitted printed

Activities	Tasks	Indicators	Results
	measures related to development of productive projects.	activities of the productive projects per quarter.	technical report
	Task T2.3.1.4: Systematization and divulgation of results about the management to develop productive projects.	<ul style="list-style-type: none"> • A database to manage information on productive projects • At least one digital medium and one printed medium to disseminate the results of productive projects 	<ul style="list-style-type: none"> • Database in operation • Edited articles or progress notes
	Task T2.3.2.1: Design and planning of the measures related to development of commercialization and cooperatives projects.	A technical and economic proposal adjusted to the context of the territory.	Technical proposal reviewed and approved.
	Task T2.3.2.2: Execution of the established measures related to development of commercialization and cooperatives projects.	Signed at least one agreement for the execution of productive chains per year.	Terms of reference and signed contract minutes.
	Task T2.3.2.3: Systematization and divulgation of results about the management to develop commercialization and cooperatives projects.	<ul style="list-style-type: none"> • A database of circulating products in solidarity cooperative of productive chains. • At least one digital medium and one printed medium to disseminate the results of production chains 	<ul style="list-style-type: none"> • List of local products. • Edited articles or progress notes

Product 3- A mechanism for valuation and compensation for environmental services generated in the RIU-SM, validated, and verified.

Activity A3.1: Validate a REDD+ Project with international standards	Task T3.1.1: Review and adjustment of the design of the REDD+ Project RIU-SM fulfilling with international standards. Task already executed in previous years.	At least one review designed to validate the execution of tasks, fulfillment of achievements each year of execution of the REDD+ Project.	Validated the scope and results of the project against the fulfillment of activities.
	Task T3.1.2: Implementation of required adjustments according to review of the design of the REDD+ Project RIU-SM (baseline, boundaries, stocks of aboveground and belowground	Adjustments and review in at least 5% of the sampling plots to validate the conservation status, from the evaluation of the coverage and the presence of the	Technical report and follow-up minutes of validation activities.

Activities	Tasks	Indicators	Results
	carbon, GIS, calculations, quantity to reduced emissions, etc.).	species recorded in the inventory.	
	Task T3.1.3: Execution of validation process according to review and adjustment of the design of the REDD+ Project RIU-SM. Task already executed in previous years	<ul style="list-style-type: none"> • Implemented at least one biannual review to validate the project's products. • At least one remote monitoring of coverage per year in the RIU-SM. 	<ul style="list-style-type: none"> • Calculated the percentages of deforestation and greenhouse gas emissions from the coverage validation. • Transition tables and ecoregional maps for annual review of coverage.
Activity A3.2: Verify the Project and to registry the units of forest compensation for avoided deforestation.	Task T3.2.1.1: Planning of verification process of the REDD+ Project RIU-SM.	At least one external audit service for biannual verification is contracted.	External audit planning document.
	Task T3.2.1.2: Execution of verification process of the REDD+ Project RIU-SM	At least 80% of the project results are verified	Results of audit findings and clarification of observations and requests.
	Task T3.2.1.3: Systematization and divulgation of results about the verification process of the REDD+ Project.	100% of the biannual verification is systematized	The results of the verification audits are socialized in the media of the REDD+ project.
	Task T3.2.2.1: Commercialization (planning, execution, supervision, systematization, divulgation) of carbon credits issued by REDD+ Project RIU-SM, according to opportunities and conditions of market and customer requirements	Benefits are generated from 100% coverage data verified every two years.	Generated the necessary compensation resources

5.1.3 Net Positive Biodiversity Impacts (B2.2, GL1.4)

The sustainable land and forest management plan in its first 6 strategic elements proposes to give special management to the different areas of the project, for example, the primary forest areas will be preserved, secondary forest areas will be maintained to increase the carbon sequestration stock, stubble areas are recovered and preserved the family agri-food production areas will be maintained and sustained over time, improving their productivity by increasing soil fertility and facilitating crop rotation. All these actions

contribute to avoiding deforestation in primary and secondary forest areas to open new zones for production.

Evidence that the project's net impacts on biodiversity will be positive compared to the non-project land use scenario.

1. The community participation in the conservation and protection of biodiversity have been increasing thanks to the development of 10 indigenous guard workshops in 2018, 5 indigenous guard workshops in 2019, and 5 workshops to captains in 2019 on protection and conservation of the native forest and related to the administration of natural resources. These participatory exercises have allowed the community to receive and know first-hand all the benefits that the conservation of biodiversity brings is a positive scenario. Opposite of a scenario of land use without a project where communities and community groups remain isolated, do not receive training, or support to learn about the benefits of biodiversity conservation, which results in increased pressure on forests and land, as well as on the biodiversity and ecosystems of the RIU-SM. Section 4.3.2 "Monitoring and documentation of mitigation measures. Adaptive Management Plan", page 210 of the verified Monitoring Report – VCS 2018 & 2019.
2. The progressive reduction of deforestation in areas used to implement crops (Family Agricultural Production Units System - FAPUS) because the community knows clean techniques of sustainable agriculture, which allows them to rotate their crops in a short time. Faced with a scenario of land use without a project, where the communities expand the agricultural frontier and destroy primary forests, to establish new conucos causing habitat fragmentation and loss of germplasm of native flora and fauna species, loss of connectivity, productivity and functionality of biodiversity and ecosystems. Project Activities A2.1 and A2.3 through which processes of land use for food production and development of productive projects are improved (pages 103 and 126 of the verified Monitoring Report – VCS 2018 & 2019).
3. Between 2018 and 2019 there were 100 families receiving benefits from productive, agri-food and agroforestry projects, generating healthy food (10 families per 10 communities in zones 4 and 5 of the RIU-SM), making visible the most isolated community groups in the schemes of production, strengthening production chains and generating better living conditions from food sovereignty and trade in surpluses. In contrast with a scenario of land use without a project, where the opportunities to obtain food and resources come from the primary forest and the pressures of hunting, fishing and extraction of forest material without planning increase and affect the fauna and flora of the RIU -SM. Project Activities A2.1 and A2.3 through which processes of land use for food production and development of productive projects are improved (pages 103 and 126 of the verified Monitoring Report – VCS 2018 & 2019).
4. The plant coverage of the primary forest increased by 30.1 Hectares, and the deforestation of the flooded native forest and the secondary forest presented a reduction of -71.70 Ha and -0.50 Ha, respectively. Thus, the control of deforestation facilitated by an adequate custody system and the strengthening of the governance of the communities is evidenced compared with a scenario of land use without a project, where communities act in a disjointed way, there will be no planning for the use of lands and forests, generating an environment of low environmental governance and territory with multiple threats of intervention by people generating effects on the biodiversity of the RIU-SM. (Project Activity A1.1 is giving positive results in the control and surveillance of the territory (page 70 of verified Monitoring Report – VCS 2018 & 2019), Project Activity A1.3 that contributes to the strengthening of governance in the RIU-SM, and the protection of the autonomy of indigenous people (page 90 of verified Monitoring Report – VCS 2018 & 2019).
5. The maintenance of the control and surveillance activities of the indigenous guard to maintain the plant

coverage (coverage verified by the Monitoring report 2018-2019), allows to reduce the risk of extinction of species of local fauna and flora that are in danger of extinction categories or in a criterion of vulnerability, which has not been widely studied by science, and even species that have not been reported or classified. Compared with a scenario of land use without a project where unplanned deforestation activities are undertaken for agricultural expansion and the penetration of mining and oil exploration are not controlled that lead to the implementation of informal human settlements, purely extractive and polluting for individual benefit, and affect the natural regeneration of the forests and lands of the RIU-SM negatively affecting biodiversity. Project Activity A1.1 is giving positive results in the control and surveillance of the territory (page 70 of verified Monitoring Report – VCS 2018 & 2019), Project Activity A1.3 that contributes to the strengthening of governance in the RIU-SM, and the protection of the autonomy of indigenous people (page 90 of verified Monitoring Report – VCS 2018 & 2019).

6. The evidence of the positive impact on endangered species corresponds to the results obtained in the captains' workshops (November 2020 and June 2021). In the Annex 7 of this document: Workshop with social cartography methodology to identify triggering species (through the methodology of social mapping), it is possible to verify the existence of some areas, ecological units or ecosystems known to the participants of each workshop, where certain identified triggering species can be observed. Attendees verify the existence of 100% of trigger species identified in the RIU-SM.

- HCV 1.1. *Rebalses* that support species in IUCN categories

- Critically Endangered (CR)

- 3 species: 2 mammals: mono capuchino (*Cebus aequatorialis*) and saki barbudo (*Chiropotes sp.*) + 1 bird: pava común (*Pipile sp.*)

- In danger (EN)

- 4 species: 3 mammals: mono araña (*Ateles belzebuth*), mono cariblanco or maicero (*Cebus versicolor*) and pink dolphin (*Inia geoffrensis*) + 1 forest specie: *Pachira quinata*.

- Vulnerable (VU)

- 10 species: 5 birds: paloma vinosa (*Patagioenas subvinacea*), pavón negro (*Crax alector*), tucán amarillo surcado (*Ramphastus culminatus*), gallina tinamo gorgiblanco (*Tinamus guttatus*) and gallina tinamo grande (*Tinamus major*) + 2 mammals: micos nocturnos (*Aotus sp.*) and tigrillo (*Leopardus tigrinus*) + 1 forest specie: *Mauritia flexuosa*,

- HCV 1.2. Gallery forests supporting 15 endemic bird species.

Aprositornis disjuncta; Myrmotherula ambigua; Phaethornis malaris; Galbula albirostris; Thamnophilus nigrocinereus; Mitu tomentosum; Heterocercus flavivertex; Hylophilus brunneiceps; Pionites melanocephalus; Monasa atra; Euphonia plumbea; Myrmotherula ambigua; Picumnus pumilus; Myiarchus venezuelensis and Coccycua pumila.

Table 51. Contribution of the Project activities to biodiversity with its adaptation to the probable impacts of climate change (Gold Level)

Project Activities	Contribution of the Activity to achieve the adaptation of biodiversity to the probable impacts of climate change	Benefits of adaptation to climate change (GL1)
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Activity A1.1	Through preventive actions of control and participatory surveillance of forests and lands of the RIU-SM, it is possible to reduce emissions from unplanned burning and the fragmentation of the forests of the RIU-SM due to the consequent deforestation.	Community participation in reducing the vulnerability of forests to the actions of external agents is increased, which contributes to the participatory protection and conservation of plant cover, and that favors the adaptation and resilience of biodiversity to the probable impacts of climate change. Biotic communities remain because connectivity is maintained, which supports productivity and preserves the functions of forests as habitat and refuge for biodiversity in the face of changes in the climate.
Activity A1.2	With the strengthening of communication, means and dissemination strategies are facilitated, such as access, displacement, mobility, and it is possible to generate early warnings of the effects that may occur on the forests and lands of the RIU-SM.	
Activity A1.3	By strengthening governance, indigenous authorities improve the mechanisms to enforce collective environmental agreements, with tools and elements of judgment to make correct decisions and in time to implement adequate strategies and mitigate the impacts of climate change as to apply protection actions on the biodiversity of the RIU-SM.	
Activity A2.1	Deforestation is reduced by the sustainable management of activities in agricultural production units (FAPUS).	A sustainable production system is established, which provides occupational opportunities to the RIU-SM communities. It improves the conditions to produce healthy food, allowing food guarantee for families through techniques that allow the reuse of productive family units or farms; reducing the possibility of fragmenting and deforesting new forest areas and as a strategy for communities to reduce pressure from hunting activities of wild fauna (bushmeat).
Activity A2.2	Through the capacities installed in the territory on the administration of natural resources, decisions are made that favor the scenarios around environmental security, in the face of climate change.	
Activity A2.3	The strengthening of production chains seeks to improve the living conditions of indigenous communities, through the application of sustainable and friendly production schemes that mitigate the impacts of climate change.	
Activity A3.1	Validation and verification demonstrate that the above activities meet the objectives of mitigating the likely impacts of climate change.	A comprehensive mechanism for management and financing is established, which directly influences the compensation received by the communities for the conservation actions implemented, strengthening governance and enabling the implementation of land and forest control and surveillance programs; In addition, these compensations pay for the change in
Activity A3.2		

		behavior of a group that, as a customary use and custom, have depended on the consumption of natural resources.
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The REDD+ Project RIU-SM makes clear in its objectives that the intention is to conserve the natural forests and biological diversity of the Indigenous Reserve, the development objective of the project is "To contribute to the sustainable environmental development of the Colombian Orinoco Region, through the conservation and restoration of forest habitats and their ecosystem services as a factor for the sustainability of the territory, local communities, climate and biodiversity. Therefore, the specific objective of the project is: "To develop a participatory process to achieve the establishment of a forest and land management system of the RIU-SM, to ensure its sustainability and mitigate threats to its conservation."

The REDD+ Project RIU-SM does not promote, in any way, the conversion of natural forests into other land uses, but, on the contrary, it promotes the protection and conservation of these forests and their environmental services, which has made it possible to enhance the social and environmental benefits for indigenous communities and their territory. This spirit of conservation of the natural resources of the RIU-SM is reflected in how the Project Activities are being achieved.

Thanks to the achievement of economic resources obtained by reducing greenhouse gas (GHG) emissions and curbing deforestation, the sustainable land and forest management plan is operationalized, which involves the control and surveillance of forests and biodiversity. It also involves the implementation of projects for indigenous communities focused on improving family productive units (conucos), food production, and trade in surpluses, while strengthening the governance of ACATISEMA, communication in the territory and the capacity of captains to manage the natural resources of the RIU-SM.²⁰

The Monitoring Plan is the tool for data collection and to verify the level of deforestation within the Project Area and the Leakages Belt, constantly updating the emission estimates and allowing the generation of sufficient and timely information to adjust the strategies included in the initial project.

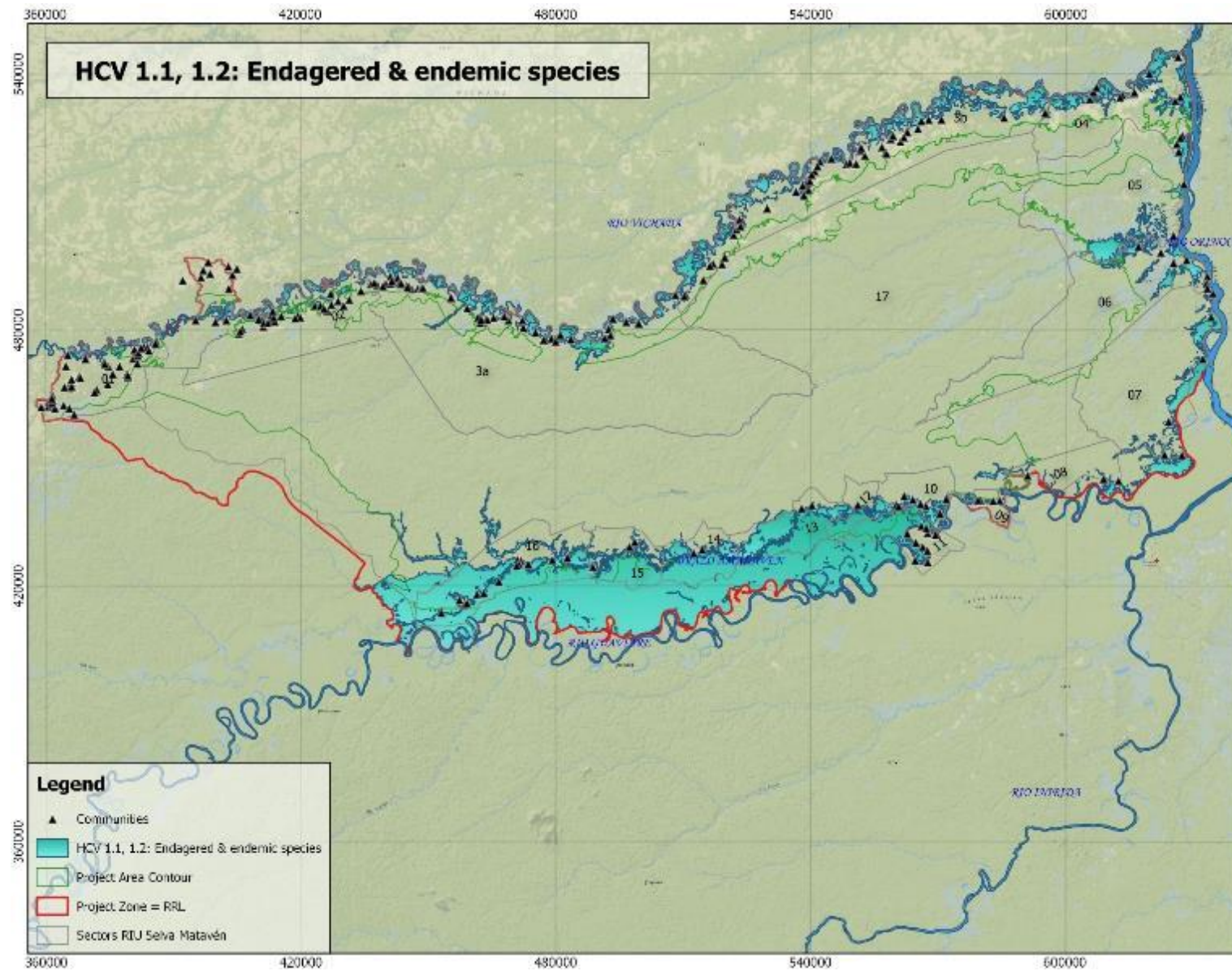
5.1.4 High Conservation Values Protected (B2.4)

All the actions related to the project, such as the control and surveillance program of the indigenous guard, are complementary to the management and recovery objectives of the High Conservation Values.

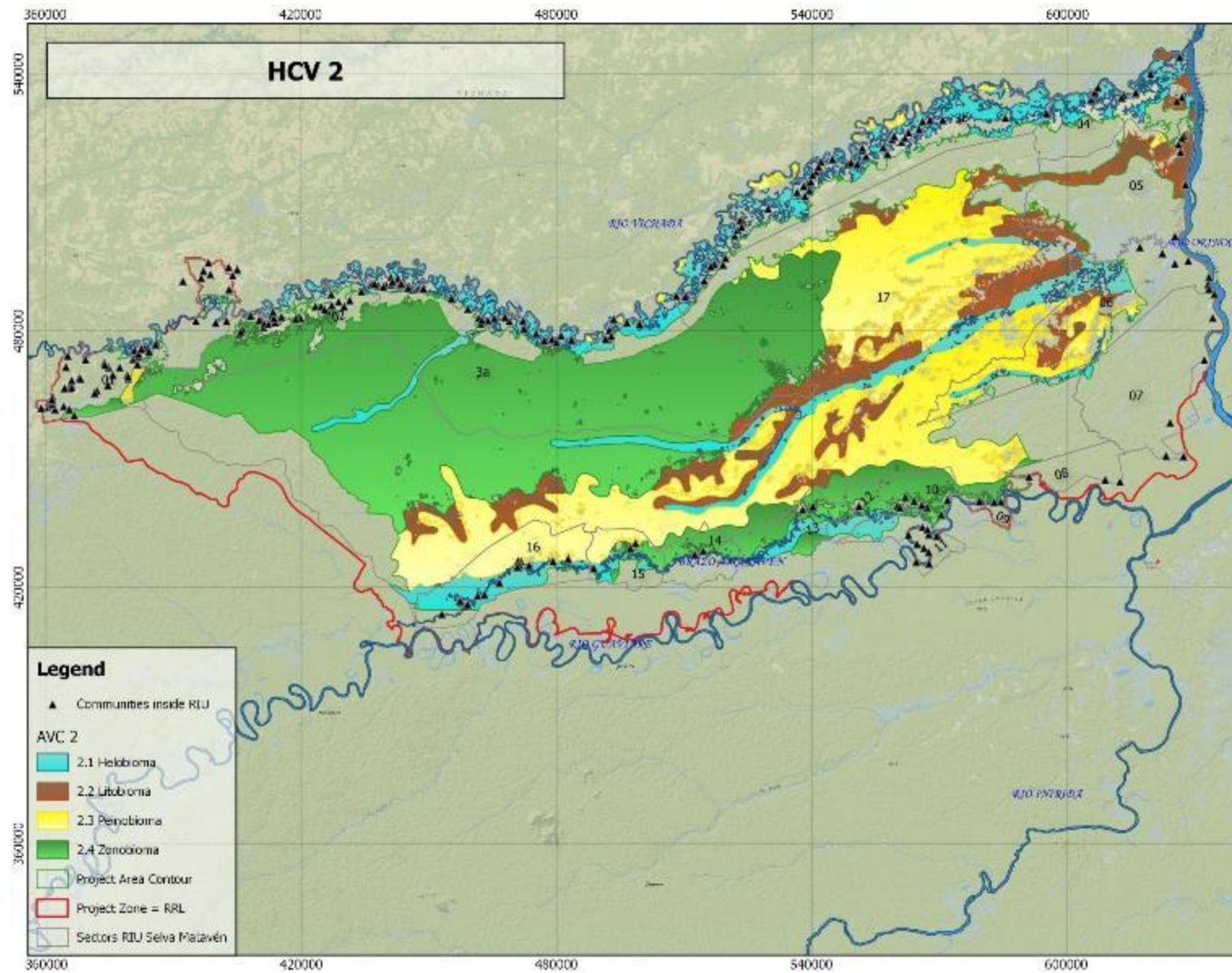
The implementation of the Project must diminish the negative situations (anthropic and natural) which affect the biodiversity in the project area. The monitoring of the HCV will demonstrate that the project has not generated negative impacts on biodiversity and on the environmental services.

²⁰ Source: Monitoring Report of REDD+ Project RIU-SM. VCS Version 4.0

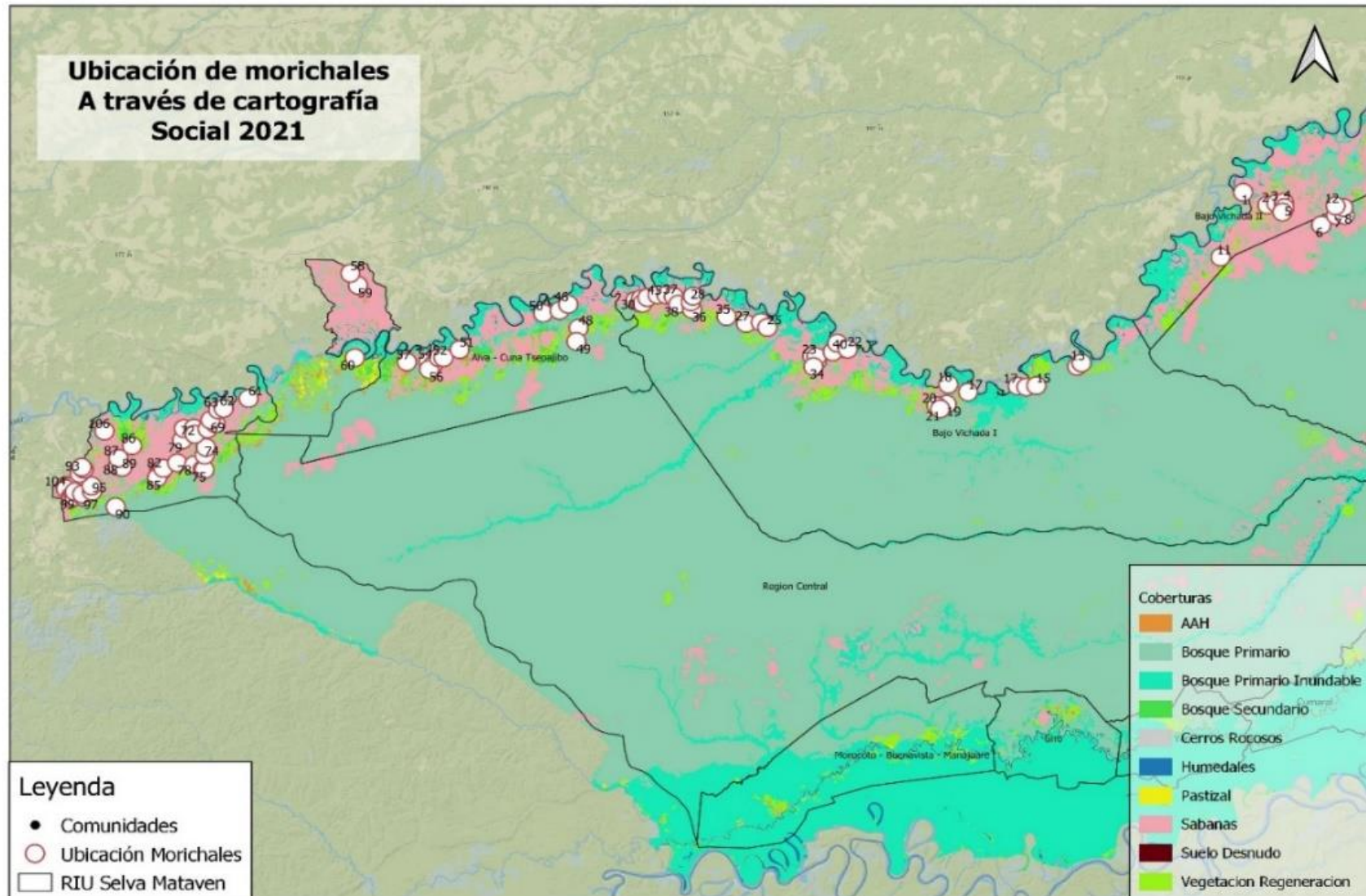
Map 1. Location of High Conservation Value – HCV 1: Species diversity



Map 2. Location of High Conservation Value – HCV 2: Landscape-level ecosystems and mosaics



Map 3. Location of High Conservation Value – HCV 3: *Morichales* – Rare and threat ecosystems



Source: PDD CCB, HCV maps

Table 52. Evidence that HCVs are not being adversely affected by the project

HCVs of biodiversity	Evidence that these HCVs are not being adversely affected by the project.																														
<p>HCV 1.1 – Floods supporting species in IUCN categories.</p> <p>CR - 2 mammals</p> <p>EN - 3 mammals + 1 forest species</p> <p>VU - 11 species: 6 birds + 2 mammals + 3 forest species.</p>	<p>The sustainable land and forest management plan is the RIU-SM tool to conserve biodiversity; This plan is developed through participatory control and surveillance actions with indigenous communities. The monitoring of plant cover through satellite tracking tools verifies land use and allows generating important indicators to determine the state of conservation of the monitored areas.</p> <p>According to the analysis of the expected changes on biodiversity and considering that:</p> <ol style="list-style-type: none"> 1. The primary forest presented a coverage loose between 2018 and 2019 of 489 Ha, and it is an area where extractive actions of biodiversity are not allowed, the conservation status of this ecosystem is optimal and not Critical values are presented that warrant actions other than those proposed in the sustainable land and forest management plan (control and surveillance and improvement of the quality of heterogeneous agricultural areas for family production). 2. Transition tables on land cover changes shows a loss of 130 Ha of cover in the ecosystems of the primary flooded forest (project area). 3. The secondary forest is taken as the gallery forest (project area), where the monitoring of endemic species will be carried out, in this secondary forest between the 2018 and 2019 periods there was a loss of 122 Ha of coverage. <p>In the validity of 2023, monitoring of the triggering species of flora and fauna will be implemented in the 5 zones of the RIU-SM.</p>																														
HCV 1.2. Gallery forests supporting 15 endemic bird species																															
HCV 2.1. Helobiome	Considering that the remote analyzes presented in the original project (validated PDD - VCS., 2013), are carried out from the evaluation of the baseline of the biomes presented by (Villarreal Leal, et al., 2009), and considering that:																														
HCV 2.2. Litobiome	Regarding coverage, the results of each biome show the following values:																														
HCV 2.3. Peinobiome																															
HCV 2.4. Zonobiome	<p>Coverage and% of loss due to deforestation in 2018 and 2019 by biomes.</p> <table border="1"> <thead> <tr> <th>Biome</th> <th>Year</th> <th>2018</th> <th>%</th> <th>2019</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Helobiome</td> <td></td> <td>359.8</td> <td>46.9%</td> <td>312.9</td> <td>48.8%</td> </tr> <tr> <td>Peinobione</td> <td></td> <td>80.7</td> <td>10.5%</td> <td>32.7</td> <td>5.1%</td> </tr> <tr> <td>Litobiome</td> <td></td> <td>3.9</td> <td>0.5%</td> <td>3.8</td> <td>0.6%</td> </tr> <tr> <td>Zonobiome</td> <td></td> <td>322.5</td> <td>42.1%</td> <td>292.3</td> <td>45.5%</td> </tr> </tbody> </table> <p>Source: Monitoring Report VCS 2018 & 2019, folder "calculation_tables" / file "monitoring.xlsx" / worksheets "Defo 2018" and "Defo 2019": transition tables - land cover / land use change (LC / LU)</p>	Biome	Year	2018	%	2019	%	Helobiome		359.8	46.9%	312.9	48.8%	Peinobione		80.7	10.5%	32.7	5.1%	Litobiome		3.9	0.5%	3.8	0.6%	Zonobiome		322.5	42.1%	292.3	45.5%
Biome	Year	2018	%	2019	%																										
Helobiome		359.8	46.9%	312.9	48.8%																										
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Zonobiome		322.5	42.1%	292.3	45.5%																										

HCVs of biodiversity	Evidence that these HCVs are not being adversely affected by the project.							
	According to the rating table							
	Key ecological attribute	Indicator	Indicator rating (%)					
			No lose	Insignificant	Minor	Major	Devastating	
	Plant cover	Percentage of loss of plant cover (deforestation)	0	0-5 %	5-25 %	25-50 %	50-70 %	>70 %
	<p>For the Helobiome and zonobiome it is observed that the deforestation of its initial area in 2018 was 46.9% and 42.1% respectively, and the resulting one in 2019 was 48.8% and 45.5%. The data presented indicate a higher level of deforestation for these two biomes (between 25 and 50%), and the trend is increasing.</p> <p>For the peinobiome and lithobiome, it is observed that the deforestation of their initial area in 2018 was 10.5% and 0.5% respectively, and the resulting one in 2019 was 5.1% and 0.6%. The data presented indicate a lower level of deforestation for the peinobiome and a negligible value for the lithobiome, and the trend is to maintain that level.</p> <p>On the other hand, referring to the productivity of the biomes, the highest value (which is related to the plant cover) is presented by the zonobiome (1,296.3 Ton / Ha). this biome presents more mature primary forests with taller trees and thicker trunks, and there is also a more closed and abundant canopy. Compared to the lithobiome (351.5 Ton / Ha) it is the lowest value, and they correspond to a small vegetation, with small trees with thin trunks and less foliage. The zonobiome represents the highest biomass compared to other biomes, representing diversity in vegetation, species, sizes, and productivity, generating a variety of microclimates that allow high diversity of species that are related between these biomes and ecosystems that offer opportunities for food, shelter and reproduction to the species that converge in this great ecosystem.</p>							
HCV 3.1. <i>Morichales</i> - Conservation and management	<p>Since the <i>Morichales</i> are communities characterized by the dominance of the <i>moriche</i> palm (<i>Mauritia flexuosa</i> L.f.) and according to the IDEAM National Cover Legend, they are found in dense high floodplain forests. They are mainly identified in the Matavén Forest on gallery and riparian forests in the vicinity of the savannas, while in southern zone 4 and 5 (Guaviare) in the vicinity of floodplain forests.</p> <p>In the sustainable land and forest management plan, for the <i>morichales</i> areas, which are in the vicinity of forest blocks, and are difficult to identify with the satellite image sources used so far, it is suggested to employ a strategy to</p>							

HCVs of biodiversity	Evidence that these HCVs are not being adversely affected by the project.
	georeferenced them and delimit them with aerial images using Drones (Phantom 4); additionally, a photogrammetric process is carried out to geographically delimit the <i>morichales</i> areas, quantify them and monitor them biannually.

5.1.5 Invasive Species (B2.5)

The REDD+ Project RIU-SM does not use any type of species identified as invasive in any area (Project Area, Leak Belt), nor does it propose to introduce exotic species that could become a pest.

5.1.6 Impacts of Non-native Species (B2.6)

To provide food guarantee to indigenous communities, a pilot project has been implemented to raise creole chickens with the purpose of producing eggs and meat for self-consumption, seeking to improve the food supply in families and reduce hunting pressure on the biodiversity of the reserve.

Table 53. Impacts of non-native species

Species	Domestic chicken <i>Gallus gallus domesticus</i>
Justification of Use	<p>The aim is to strengthen the food guarantee of the communities, establishing a breeding ground in some selected communities, where a confinement infrastructure is established to control displacement, ensure the use of eggs, increase the availability of animal protein in families.</p> <p>With guaranteed food, the indigenous people reduce the time spent outside their farm and get time available to dedicate to cultivating, caring for and producing their farm. This leads to a decrease in hunting frequency, creating an opportunity for focal species to regain their populations.</p>
Potential Adverse Effects	<p>The species used were the creole chicken, which does not represent a risk to the environment in the region.</p> <p>These chickens are short-flying, domestic, and fragile birds and their niches are associated with the human niches, in a wild environment, without the care of the human being, these birds would not have many opportunities to survive. These creole chickens are acquired in the region, are previously inspected to warn of any irregularity and possible observable disease, before entering the communities they are dewormed, and they are adapted to the climatic and temperature conditions.</p>

5.1.7 GMO Exclusion (B2.7)

The REDD+ Project RIU-SM does not involve the use of genetically modified organisms (GMOs) to generate reductions or removal of emissions, since this initiative is based on the protection of natural forests and conserving the stored CO₂ content, but not on capturing GHG for the creation or use of new individuals

different from those already identified in the baseline.

5.1.8 Inputs Justification (B2.8)

In the implementation of the REDD+ Project RIU-SM, the use of any fertilizer, chemical pesticide, biological control agent or other similar, or related input is not considered. The Project Activities related to the use of land for agricultural production are designed based on improving traditional practices, without introducing strange elements that are not consistent with the worldview of indigenous peoples.

Table 54. Use of any fertilizers, chemical pesticides, biological control agents and other inputs used for the project

Name	Dolomite lime
Justification of Use	Dolomite lime is a calcareous mineral composed of a double carbonate of calcium and magnesium. Dolomite raises the pH of the soil, it also favors the microbiological Activity in the same way it supplies calcium and magnesium which increases the availability of phosphorus, nitrogen, and potassium, neutralizes the toxic effect of aluminum, iron, and manganese, improves the structure of the soil accelerating the decomposition of organic matter, optimizes root growth, increasing yield and quality of crops. It was used in the conucos of the agroforestry project, to ensure that the crops acquire the necessary nutrients, and the expected results are obtained.
Adverse Effects	There are no known adverse effects of dolomite lime on the environment, however, small amounts were used per <i>conuco</i> 50 kg per hectare of crop, according to technical recommendations.

Name	Diammonium Phosphate Fertilizer (DAP)
Justification of Use	Super concentrated fertilizer suitable as a phosphate and nitrogen source in soils well supplied with potassium. Effective for a wide range of crops, this fertilizer was used at the time of planting the crops and twice more every 4 months, to strengthen the development of leaves and formation of the root system of the newly sown plants and increase survival success.
Adverse Effects	Diammonium phosphate fertilizer is composed of nitrogen and phosphorus and is not a toxic substance that affects the natural conditions of the place where it is applied.

Name	Ridomil - Fungicide
Justification of Use	It is a systemic and contact fungicide, with a broad spectrum, highlighting its action on late blight, mildew and other diseases that affect various crops. It is used to control the spread of fungi that attack cocoa and banana plants. The application was only made in three moments of the crops during the first year.
Adverse Effects	Fungicides can be harmful to nature depending on the degree of toxicity and the concentration applied. This fungicide is class IV of toxicity, a product that normally

	does not offer danger, minimal amounts were applied and directly on the cultivated plants, verifying that no spills or residues were generated. Its application was carried out with the support and recommendations of the expert professionals of FEDECACAO.
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Name	Regen – Insecticide
Justification of Use	Regent® 4 SC (fipronil) It is an insecticide of the pyrazole ²¹ group, formulated as a concentrated suspension that acts by contact and ingestion with rapid action, it does not have systematic action, nor is it fumigant. It was used only in the first stage of cultivation since young plants are susceptible to attack by adult and juvenile insects that attack the leaves, preventing normal development of established crops.
Adverse Effects	The Regen insecticide has toxicological Category III - moderately toxic, however, all the measures recommended by the FEDECACAO experts were taken to avoid leaks and did not represent a risk to human health and biodiversity.

Name	Nitrogen Fertilizer Urea
Justification of Use	Urea is a carbonic acid amide, it is the solid nitrogen fertilizer with the highest concentration of nitrogen, 46% in urea form, it is a fertilizer with slow and prolonged action over time, which depends on the climate for its transformation, it dissolves with the water and its mixture with DAP is extremely useful in soils where the concentration and availability of organic matter (OM) is low. This is the case of the soils where the project is located, they have a low concentration of OM, therefore, it was necessary to apply Urea in the implementation phase to ensure the survival of the planted crops that require a high concentration of available organic matter.
Adverse Effects	Urea is not a toxic or dangerous substance for nature; however, its application was accompanied and recommended by FEDECACAO's expert technicians.

Source: Report of benefits or adverse impacts of the use of additives and inputs - FEDECACAO Report on technical and participatory treatment (minutes, reports, attendance lists) valid for 2019 and 2020, Stage I.

5.2 Offsite Biodiversity Impacts

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

Negative off-site impacts	Results of Mitigation Measure(s)
No negative impacts generated by the project were detected off-site the project area.	Through the monitoring of plant cover through satellite and aerial photometry studies, it is established that the project activities have not generated negative impacts within the

²¹ The pirazol (IUPAC: 1,2- Diazacyclopenta-2,4-diene, molecular formula: C₃H₄N₂) is a heterocyclic organic compound consisting of a simple aromatic ring of three carbon and two nitrogen atoms in adjacent positions. Any compound that contains such a ring is also called pyrazole.

	<p>project area, however, in the leakage belt, outside the project area the activities of the project have not generated negative impacts, but the communities continue using the natural resources that exist in that strip for their subsistence with ancestral activities of planting in conucos, hunting, fishing and gathering non-timber forest products. These activities are part of their uses and customs that must be maintained for their subsistence, an issue highlighted in the Cancun safeguards.</p> <p>In addition, with the activities of the project, the impact that the communities may generate on the natural resources through their use, for their subsistence, has been mitigated. These actions correspond to agreements discussed in 6 workshops of captains and 6 workshops of indigenous guards (year 2020 – Annex 10 of this document) for the use of natural resources and improvement of environmental services, these agreements are based on planning for the rational use of biodiversity.</p> <p>The resources of the project have been invested in improving food security, making better use of the areas of their crops (FAPUS implementation), and strengthening the production chains, taking advantage of the surpluses for marketing to support their families. For example, production of <i>cassava</i> and the subproduct <i>mañoco</i> through the processing of bitter cassava, production of cocoa, banana, and fruit trees, as <i>copoazú</i>, among others.</p>
<p>The project activities did not generate a negative impact since the connectivity between the biomes and ecosystems was maintained.</p>	<p>In the monitor results, a high cohesion (connectivity) between landscapes, biomes and ecosystems of 99.6% has been observed (Table 49 of this document). This cohesion value approaches one hundred, which means that the proportion of the landscape composed of the same focal class increases, that is, the landscape units and ecosystems maintain similar biodiversity elements. In conclusion, the connectivity between landscapes inside and outside the project area is maintained.</p>
<p>The genetic variability of the flora and fauna of the RIU-SM is maintained due to the fact that there has been no overexploitation of natural resources inside or outside the project area.</p>	<p>Through the implementation of the productive projects, the food security of the communities and the productive chains is strengthened, with which it seeks to improve the fertility of the soils of their crops and avoid creation of new conucos and strengthen the recovery of secondary forests and stubble that will later form part of the forest stock and carbon sequestration, thus reducing the exploitation of primary forests, avoiding the loss of genetic variability.</p>

The Project design defines an area of forest contiguous to the Project Area (PA) with a series of characteristics similar to the PA (among them) that is intended to surround the PA, called a Leakage Belt (LB), in which, it is assumed that there will be displacement of deforestation activities that threaten the PA.

The Leakage Belt (LB) borders the Project Area (PA), is in the most accessible place and its areas are most likely to be deforested. It is a forest area (in 2011) that surrounds or is in the vicinity of the Project Area (PA) to face "leakage" related to the displacement caused by the Project Activities. It complies with the similarity requirements (Annex 10 of validated PDD VCS, VMD0007) (see Map 7 of PDD CCB: Spatial boundaries).

In the REDD+ Project RIU-SM, the Leakage Belt (LB) surrounds the Project Area (PA) (which is the innermost area of the RIU-SM) and which is also contained in the RIU-SM. Most of the communities are located within the LB, in this sense, the set of communities of the RIU-SM forms a kind of "protective wall" of the PA, which surrounds it (see Map 7 of PDD CCB -with the limits of the PA and LB, communities and RIU-SM- and the file "map_of_settlements.pdf" in folder "general maps" of verified Monitoring Report VCS 2018 & 2019). This arrangement, location, and relationship between these spatial elements (PA and LB as forest areas within the RIU-SM, communities and territory) are a strategic element conceived and executed in the design of the Project to reduce the risks of deforestation generated by external agents.

The indigenous guards are people from the reserve located in each of the 5 zones of the RIU-SM who carry out the task of control and surveillance, as a specific Activity of the Project (A1.1, see Matrix of Logical Structure - MLS-) financed with the compensation from the sale of the VCU's generated by the Project. But since the LB is also within the Indigenous Reserve, this area is also controlled and monitored by the Indigenous Guard and the RIU-SM communities (located in areas of the RIU-SM perimeter), protected from the interventions of external agents.

This set of aspects: strategic geographic location of PA, LB, communities and territory of the RIU-SM, combined with the operation of Project Activity A1.1, financed by it, constitutes a significant measure of control and monitoring of possible displacements by interventions of external agents of deforestation towards the Indigenous Reserve (LB, PA).

5.2.2 Net Offsite Biodiversity Benefits (B3.3)

Leaks from local deforestation agents are quantified in the leakage belt. The deforested area in the leakage belt (A_{DefLB} , i , t) is estimated in the same way as the deforested area in the AP project area (A_{DefPA} , i , t). The activity change leakage within the leak belt ($\Delta CLK-ASU-LB$) is calculated as the project emissions in the leak belt ($\square CP$, LB) minus the baseline emissions in the leak belt. (ΔC_{BSL} , LK, unplanned) (Section 5.3 of the VCS Follow-up report).

Immigrant flight is calculated using a series of equations found in the VCS VMD0010 LK-ASU Module. Most of the data to calculate the flight of immigrants have been obtained for ex ante estimates (including ΔC_{BSL} , LK, unplanned; AVFOR; TOTFOR; PROTFOR; MANFOR; PROPLB; LBFOR; COLB; CLB; PROPCS; and ABSL, PA, unplanned, t) or collected in the course of monitoring activity changing leakage within the leakage belt (LB) and deforestation in the project area (PA) (including A_{DefPA} ; A_{DefLB} , i , t ; and $\square CP$, LB).

The monitoring parameters MANFOR, PROTFOR, TOTFOR will be obtained from official data, peer-reviewed publications, or other verifiable sources, such as the Unique National Registry of Protected Areas - RUNAP (Unique National Registry of Protected Areas) of Natural National Parks of Colombia (National Parks Naturales de Colombia) and IDEAM. These follow-up parameters will be updated in the current literature review according to the follow-up period and available / updated information.

Leakage monitoring is carried out in accordance with the monitoring plan in the entire RIU-SM area; deforestation is monitored in PA and in LB as a planned and defined activity in the validated PDD - VCS, see:

- Section 2.2 of validated PDD - VCS “Applicability of the methodology / 3. LK-ASU, Estimation of emissions from displacement activity to avoid unplanned deforestation - VMD0010”. (validated PDD – VCS, page 129)
- Sub-step 2.3 of the PDD “Monitoring of emissions in the project scenario / iv Estimation of the project emissions (Project area - PA and leakage belt - LB)” (validated PDD – VCS, page 278).
- Section 4 of the PDD "Reductions and eliminations of GHG emissions achieved" (validated PDD – VCS, page 356).
- Section 4.2 of PDD “Monitored Data and Parameters” (validated PDD – VCS, page 257) and Section 7.1 of PDD “Monitored Data and Parameters” (validated PDD – VCS, page 356). Methods and assumptions for monitoring data and parameters have been developed in validated PDD – VCS, Section 4.
- Section 4.3.1.1 of PDD “Data and parameters” (validated PDD – VCS, page 265).
- Section 4.3.1.2 of the PDD “Stages or processes of information management / Sub-step 2.1 Monitoring of deforestation” (validated PDD – VCS, page 267).
- Section 7.4 of PDD “Emissions from leaks” (validated PDD – VCS, page 381).
- Section 7.1.1 of the PDD “Monitoring Plan” (validated PDD – VCS, page 364).

Monitoring data and parameters for leaks:

A_{DefLB,i}	Deforestation area recorded in the leakage belt in the case of the project in the stratum. (i in year t)
A_{DefPA,i,t}	i, t Area of deforestation registered in the project area in the case of the project in the stratum. (i in year t)
ΔC_{LK-AS, unplanned}	Net unplanned greenhouse gas emissions due to activity change for projects that avoid unplanned deforestation.
ΔC_{LK-ASU-LB}	Net CO2 emissions due to unplanned deforestation displaced from the project area to the leakage belt.
ΔC_{LK-ASU-OLB}	Net CO2 emissions due to unplanned deforestation displaced outside the Leak Belt
C_{OLB}	Area-weighted average of above-ground tree carbon stocks for unplanned deforestation of available forests outside the leakage belt.
C_{LB}	Area-weighted average of above-ground carbon stocks for forests available for unplanned deforestation within the leakage belt.
ΔC_{BSL,LK,unplanned}	Net baseline CO2 emissions from unplanned deforestation in the leakage belt.
ΔCP_{,LB}	Net greenhouse gas emissions within the leakage belt in the case of the project.
LB	Leak belt area. Map showing the location and stratification of the forests within the leakage belt. (100% forest at the beginning of the project).
P_{LK}	Relationship between leakage belt area and total DRR area.
RRL	Geographic limits of the reference region to locate deforestation

MANFOR	The total area of forests under active management at the national level.
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PROTFOR	Official data, peer-reviewed publications, and other verifiable sources
TOTFOR	Total available national forest area.
PROP_{IMM}	Estimated proportion of baseline deforestation caused by population immigration
PROP_{LB}	Forest area available in the leakage belt for unplanned deforestation as a proportion of the total national forest area available for unplanned deforestation
PROP_{CS}	The proportional difference in carbon stocks between forest areas available for unplanned deforestation both inside and outside the leakage belt.
PROP_{RES}	Estimated proportion of baseline deforestation caused by the population that has resided for ≥5 years.
Leakage Belt Forest Cover Monitoring Map	Map showing the stratification and location of the forest in the Fuga Belt at the beginning of each verification period. It must be evidenced if there are deforested areas.
Leakage Belt Forest Cover Benchmark Map	Map showing the location of forest lands within the leakage belt area at the beginning of each Monitoring Period. It only applies when leaks are to occur.

Source: Monitoring Report – VCS 2018 & 2019.

The REDD+ Project RIU-SM has provided resources from the sales of VCU for each of its 8 Activities, with which it seeks to avoid external deforestation, which also precisely seek to avoid internal deforestation caused by indigenous peoples in their territory (A2.1, A2.3) and to prevent them from migrating to other neighboring territories to carry out deforestation practices. These activities A2.1 and A2.3 seek to promote food production projects and production chains that allow changing the practice of deforestation and burning for other productive activities. This seeks to reduce the risks of deforestation by internal agents and the displacement of deforestation activities, both within the reserve (in LB) and outside the RIU-SM.

5.3 Biodiversity Impact Monitoring

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

Variable to monitor 1. Key attributes of areas hosting HCV 1.1 (floodwaters and floodplain) and HCV 1.2 (gallery forests). The key attributes of these areas are the conservation status of ecosystems and landscapes, such as the presence and abundance of biodiversity and trigger species.

1. The primary flooded forest contains the highest amount of “*rebalses*”, so these are the areas where fauna species are observed in vulnerability or danger of extinction criteria according to the IUCN red list.
2. Transition tables on land cover changes shows that in 2018-2019 the primary flooded forest ecosystems were 99.9% protected (see Table 47 of this document); Productivity record (ton / Ha) shows the helobiome related to high productivity primary floodplain forest areas with a high average value of 278.5 ton / Ha (see Table 48 of this document); and in relation to connectivity to and from the Primary flooded forests shows a value of 99.6 (see Table 49 of this document), which indicates that these areas present optimal levels of landscape connectivity for the transit, establishment and maintenance of the functionality of the RIU-SM forests.

3. The secondary forest is the gallery forest, where the monitoring of endemic species will be carried out, were 97.9% protected (see Table 47 of this document) in the period 2018 and 2019, generally the forests of gallery are part of the zonobiomes, which indicates that they are highly productive ecosystems (280.9 ton / Ha - see Table 48 of this document) average according to the biomass data registered in changes in biodiversity. On the other hand, in relation to connectivity to and from secondary forests, the value of 99.6 (see Table 49 of this document) of the cohesion index corresponds to a high value and represents ecosystems at the landscape level united and that support the presence and flow of the endemic trigger species.
4. Reservoirs and gallery forests that host or support trigger species are rated with an insignificant value in loss of cover and with remarkably high values in productivity (from calculation of biomass to carbon) and in connectivity (from connectivity index calculation). These three values correspond to an optimal state of conservation of HCV 1.1 and HCV 1.2 in the RIU-SM.

Table 55. Forest monitoring results (has.) from 2013 to 2019, in Project Area (HCV 1)

Project area	Project start	2013	2014-2015	2016-2017	2018 Ha.	2019 Ha.	% Protected Start-2019
PF primary forest	977,393	977,214	976,678	975,769	975,155	974,666	99.7%
FPF flood primary forest	165,978	165,959	165,826	164,849	164,211	164,081	98.9%
SF secondary forest	6,279	6,224	6,106	5,943	5,846	5,724	91.2%

Source: Monitoring Report VCS 2018 & 2019, folder "calculation_tables" / file "monitoring.xlsx": transition tables - land cover / land use change (LC / LU)

In this way, making a comparison from the beginning of the Project to the year 2019, the protection of the primary forest is on average 99.3% and the protection of the secondary forest is on 91.2%.

Sampling method	Plant cover monitoring: Remote monitoring with satellite images. Monitoring of focal species: Updating of inventories through line and point transects, where the largest number of independent variables of the habitats or ecological units integrated into the natural history of the species are correlated with the presence and ecological activity of the observed specimens, and the selected methodologies to determinate biodiversity indicators.
Monitoring frequency	Plant cover Deforestation and habitat availability in the Project Area: Annual / biennial from 2013. Monitoring of vulnerable, endangered, and critically endangered flora and fauna: Five-year from 2022 (2027, 2032, 2037...)
Measurement type	The type of measurement is nominal scale, where the critical habitats that host the species are identified and described, as are threats to these critical habitats, such as the attributes of the triggering species mentioned below.
Focal area	These correspond to coordinates verified in the social mapping workshop during the workshop with Captains in November 2020 and are presented on the map in Section

	"2.1.5 Project Zone Map" of PDD CCB.
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Variable to monitor 2. Key attributes of Helobiomes, Peinobiomes, Lithobiomes and Zonobiomes (HCV 2).

The key attribute of the biomes corresponds to the conservation status mentioned in this report.

On the other hand, with respect to the productivity of the biomes, the highest value (which is related to the plant cover) is presented by the zonobiome (1,296.3 ton biomass / ha), this biome presents more mature primary forests with taller trees and thicker trunks, there is also a more closed and abundant canopy. Compared to the lithobiome (351.5 ton biomass / ha) it is the lowest value, and they correspond to a small vegetation, with small trees with thin trunks and less foliage. The zonobiome represents the highest biomass compared to other biomes, representing diversity in vegetation, species, sizes, and productivity, generating a variety of microclimates that allow high diversity of species that are related between these biomes and ecosystems that offer opportunities for food, shelter and reproduction to the species that converge in this great ecosystem.

Table 56. Forest monitoring results (has.) from 2013 to 2019, by Stratum, in Project Area (HCV 2)

Stratum	Project start	2013	2014-2015	2016-2017	2018 Ha.	2019 Ha.	% Protected Start-2019
Helobiome	174,241	174,144	173,739	172,495	171,758	172,151	98.8%
Peinobiome	326,028	326,011	325,966	325,852	325,721	325,819	99.9%
Litobiome	116,092	116,092	116,085	115,979	115,971	115,975	99.9%
Zonobiome	533,283	533,151	532,820	532,235	531,766	531,873	99.7%

Source: Monitoring Report VCS 2018 & 2019, folder "calculation_tables" / file "monitoring.xlsx": transition tables - land cover / land use change (LC / LU)

In this way, making a comparison from the beginning of the Project to the year 2019, the protection of the forest in the biomes is on average 99.6%.

In addition to measuring productivity and connectivity of the biomes, the DBH measurements of focal flora species of each landscape unit have been collated, compared from the subsequent basic information. The qualified attributes of each biome are described below, which will be taken into account to check their possible changes from 2023 and every 5 years thereafter:

- ✓ Helobiomes: The presence of trees that reach 15 to 17 meters in height, families as CHRYSOBALANACEAE (cf. *Licania wurdacki*); TILIACEAE (*Mollia speciosa*), and LEGUMINOSAE as *Heterostemon mimosoides*, *Tachigali sp.* and *Swartzia argentea*.
- ✓ Lithobiomes: the presence and sizes of emerging individuals from 17 to 19 meters in height, of the following families LEGUMINOSAE (*Swartzia Schomburgkii*, *Heterostemon Mimosoides*, *Macrosamanea Pubiramea* and *Tachigali Sp*), CHRYSOBALANACEAE, MYRTACEAE, SAPOTACEAE, STERCULIACEAE and VOCHYSIACEAE. The canopy reaches 12 to 14 meters, is open and consists mainly of *Parinari sp.* CHRYSOBALANACEAE; also *Pachira sp.* BOMBACACEAE

and Hevea sp. EUPHORBIACEAE.

- ✓ **Peinobiomes:** The presence of emergent arboreal individuals from 20 to 25 meters in height, belonging to the following families LEGUMINOSAE (Senna sp., Abarema sp., Macrosamaneae sp.), MYRISTICACEAE (Virola sp. and MORACEAE (cf. Maquira calophylla). The most frequent palm trees are Manicaria saccifera (seje) and trees as Pouteria sp. (SAPOTACEAE), Protium sp. (BURSERACEAE), Brosimum cf. alicastrum (MORACEAE).
- ✓ **Zonobiomes:** The presence of emergent trees that reach from 18 to 20 meters in height with species as Xylopia sp. (ANNONACEAE), Sloanea sp. (ELAEOPHYLLACEAE), conceveiba sp. (EUPHORBIACEAE) and Micropholis sp. (SAPOTACEAE). The canopy measures between 10 to 13 meters in height. The underwood has species such as Tapirira guianensis (ANACARDIACEAE), palms as Iriartella setigera and Leopoldinia sp; Protium sp. (BURSERACEAE), Hirtella Guainíae, Licania sp. and Parinari sp. (CHRYSOBALANACEAE) in forest in sedimentary plains (BT-A); and the presence of emerging trees from 17 to 20 meters in height to the APOCYNACEAE family. The canopy is discontinuous and presents tree species such as Parinari sp. (CHRYSOBALANACEAE), Protium sp. (BURSERACEAE), Ferdinandusia sp. (RUBIACEAE) and Qualea paraensis (VOCHYSIACEAE) in forest on sandy plains (BA).

Sampling method	Stratified random sampling using existing plots, implementing a study of ecology and landscape structure, from base information on qualified attributes of biomes and selected methodologies to determine biodiversity indicators.
Monitoring frequency	Plant cover Deforestation and habitat availability in the Project Area: Annual / biennial since 2013. Monitoring of vulnerable, endangered, and critically endangered flora and fauna: Five-year from 2022 (2027, 2032, 2037 ...)
Measurement type	The type of measurement is nominal and at a ratio scale, where the field of study is the interactions between spatial patterns and different ecological processes. The study of landscape ecology is based on the spatial structure of landscapes and the relationship with their variations over time, with special emphasis on the disturbance that man causes over time on connectivity and on the forest functionality
Focal area	The study area is located to the east of the Colombian Orinoquia highlands, in the extreme southeast of the Vichada department, between the Vichada rivers, to the north, and Guaviare to the south; specifically, it is in the lower basin of the Matavén creek, in the municipal jurisdiction of Cumaribo. Due to its physiographic and geological characteristics, the study area is part of the western edge of the Guiana Shield, and corresponds to what is known as the RIU-SM.

Variable to monitor 3. Key attributes of *Morichales* (rare and threatened ecosystem) (HCV 3). This key attribute corresponds to focal areas with the presence of one of the trigger species considered and monitored in Section 5.4 of this document (since the Project is applying the "Optional Criterion: Exceptional Biodiversity Benefits" evaluating the Moriches, whose importance is related to with being precursors of water, wetlands and the development of associated vegetation and fauna) and, given the results that have already been achieved to obtain the Gold Level in Biodiversity, the aspects that have been monitored since 2020 are taken into account for this Report (since they correspond to impacts generated by the implementation of the Sustainable Management Plan of Lands and Forests and the Project Activities that

were developed during 2018-2019, and whose benefits were measured after its execution).

The indigenous guards have clarity about the *morichales* being rare ecosystems threatened by deforestation and burning, which is why in the control and surveillance activities of the REDD+ project they must pay special attention to their conservation status. On the other hand, the strengthening of communication, and governance, allows generating early warnings about these ecosystems and ensures compliance with the conservation commitments acquired with the REDD+ project.

In addition, indigenous captains received training on natural resource management and productive projects for food guarantee helping to reduce pressure on the *Morichales* and making the communities aware of the benefits of conserving these threatened ecosystems.

Regarding the monitoring of the *morichales*, as mentioned in Section “5.1.4 High Conservation Values Protected” of this document, it is mentioned in the HCV “the *morichales* are communities characterized by the dominance of palm of *moriche* (*Mauritia flexuosa* Lf) and according to the National Legend of covers from IDEAM, these are found in dense high floodplain forests”. They are mainly identified in the Selva de Matavén on gallery and riparian forests in the vicinity of the savannas, and in southern zone 4 and 5 (Guaviare) in the vicinity of floodplain forests. Annex 14 presents the results obtained from the monitoring of the *morichales*.

For the remote analysis of these ecosystems, the verification of gallery and riparian forests, such as floodplain forests, presents information that does not show the reality of the *Morichal* ecosystem.

In the Sustainable Management Plan for Land and Forest, for the *morichales* areas, which are in the vicinity of forest blocks and are difficult to identify with the satellite image sources used so far, a strategy to georeference and delimit with aerial images using Drones (Phantom 4) was employed. Additionally, a photogrammetric process is carried out to geographically delimit the *morichales* areas, quantify them and monitor them biannually.

To date, the remote analyses made with the satellite methodology presented in the REDD+ standard VCS project have not been able to identify the *morichal* ecosystem and determine its conservation status. The specific analyses of these ecosystems will be carried out from 2022 and every five years will be verified.

The methodology to measure and calculate the cover and biomass of the *morichales* involves the monitoring of the conservation status of the *morichales* with information captured by means of the use of drones, photogrammetry techniques and remote geopositioned indicates levels of deforestation, however, this is complemented with information on the natural history of the *moriche* species (15 m high *moriche* palms and 20 cm DBH) - *Mauritia flexulosa* (VU) classified as vulnerable by IUCN Red List -, as with information on characteristic *morichal* species of fauna such as the Tayassu tajacu Peccary); the tapir (*Tapirus terrestris*), some rodents such as the guatín (*Myoprocta acouchy*), guagua (*Agouti paca*), the guatusa (*Dasyprocta fuliginosa*), and some parrots such as parrots *Amazona spp* and *Ara spp*, which are indicators of the health status of this rare and threatened ecosystem.

Sampling method	Simple and stratified random sampling.
Monitoring frequency	Plant cover Deforestation and habitat availability in the Project Area: Annual / biennial since 2020. Monitoring of flora and fauna to indicate the conservation status and health of <i>Morichales</i> : Five-year from 2022 (2027, 2032, 2037 ...)
Measurement	Sustainability indexes (carrying capacity, ecological footprint) of biomes and impact on

type	ecological units. Functional diversity of the <i>moriche Mauritia flexulosa</i> and water volume, such as the attributes of the trigger species mentioned below.
Focal area	These correspond to coordinates identified in the social mapping workshop during the workshop with Captains in November 2020 and are presented on the map in Section “2.1.5 Project Zone Map” of PDD CCB.

The identification of the baseline of fauna species is based on the list of species identified in the validated PDD - VCS, taken from: (Ariza Vera, Polanco Ochoa, Yepes Guzmán, & Suárez Navarro, 2006) and in (Villarreal Leal, et al., 2009), said information was verified in a captain’s workshop with social mapping methodology, during November 2020. From the baseline species information, the triggering species were identified according to the criteria established in the framework of the SBIA - CCB, comparing the information with the IUCN red list reports²² and CITES²³ (International Commission for Traffic in Fauna and Flora Species) publications. The monitoring of presence - absence of these species will begin in the 2022 period and will continue every 5 years.

For future verification (from 2022 and every five years onwards) the monitoring plan is evaluated to determine composition, richness (number of species), abundance, structure of sizes and / or sizes, spatial distribution and accumulation curves of focal species in IUCN and / or endemic criteria, present in the project area; on the other hand, complementary investigations of the natural history of some trigger species will be carried out, which will allow to know their ecological aspects, and calculate assumptions determining the function and ecological integrity of the forests of the RIU-SM.

Table 57. Measures to maintain HVCs

Measures	Indicators	Means of verification
1. Development of the Sustainable Land and Forest Management Plan of the RIU-SM.	- 37 routes of surveillance and control routes designed and implemented in 2018, 2019, 2020 and 2021. (3 fluvial and 5 terrestrial in Zone 1, 5 fluvial and 4 terrestrial in Zone 2, 5 fluvial and 1 terrestrial in Zone 3, 3 fluvial and 3 terrestrial in Zone 4; and 3 fluvial and 5 terrestrial in Zone 5. - 5 control stations installed and performance.	- Annex 4.1.2 of verified Monitoring Report VCS 2018 & 2019: Description surveillance routes. - Annex 4.1.6 of verified Monitoring Report VCS 2018 & 2019: Description of contract about control stations construction.
2. Control and surveillance activities of the indigenous guard, to prevent deforestation on	- In 2018 the indigenous guard present 72 reports, in 2019 increase to 105, and 2020 present 315 surveillance and control reports of the lands and	- Annex 4.1.9 of verified Monitoring Report VCS 2018 & 2019: records about the implementation of surveillance and control routes.

²² <https://www.iucnredlist.org/en>

²³ CITES: <https://cites.org/esp>

Measures	Indicators	Means of verification
the RIU-SM forest.	forest of the RIU-SM.	
3. Implementation of productive projects and food guarantee, to keep the community dedicated to the productive work of their conucos.	<ul style="list-style-type: none"> - 100 families in zones 4 and 5 in the cacao agroforestry project and 15 families in the agrosilvopastoral project in Zone 1. - 240 captains in 2019, 312 in 2020, and 312 farmer captain's assistants registered in list of workshops. 	<ul style="list-style-type: none"> - Annexes 8.1-8.2 of this document: Agreement and minutes of start and socialization of agreements and contracts signed with the implementors of FEDECACAO. - Annexes 9.1-9.4 of this document: Agreement and minutes about agro-silvo-pastoral farms with FEDECACAO and Fundación Granja Tarapacá. - Annex 4.5.6 of verified Monitoring Report VCS 2018 & 2019: Minutes of training with Captains about, among other affairs, FAPUS, and Annex 10 of this document.
4. Obtaining compensation resources by stopping deforestation and reducing greenhouse gas emissions.	<ul style="list-style-type: none"> - The emission reductions (tCO₂e) per year: 3,578,335 to 2018, and 5,538,798 to 2019. - The Verified Carbon Units per year: 3,175,941 VCU's to 2018, and 4,921,874 VCU's to 2019. 	- The Table 58 presents the estimated of GHG emission reductions (tCO ₂ e) and Verified Carbon Units VCU between 2013 and 2019.

Table 58. Estimated GHG emission reductions (tCO₂e) in the Project Area under the with-project land use scenario

Year	Estimated GHG emission reductions (tCO ₂ e) in the Project Area under the with-project land use scenario	Reduced emissions	VCU
Year 1 (2013)	3,840,053	4,468,852	3,615,316
Year 2 (2014)	3,549,920	8,769,222	7,097,573
Year 3 (2015)	4,126,550		
Year 4 (2016)	4,157,144	7,584,460	6,404,775
Year 5 (2017)	2,824,977		
Year 6 (2018)	3,394,234	3,578,335	3,175,941
Year 7 (2019)	4,967,059	5,538,798	4,921,874
Total estimated	26,859,937	29,939,667	25,215,479

Source: Validated PDD – VCS, Section “3.4 Estimated GHG emission reductions and removals”, page 229.

Table 59. Measures to improve HCVs

Measures	Indicators	Means of verification
1. The implementation of the plan for the sustainable management of lands and forests of the RIU-SM.	<ul style="list-style-type: none"> - Investments in control and surveillance - logistical and operational strengthening (315 guards receive bonuses, 315 captains receive bonuses, general training, boats, engines, investment in productive projects). 	<ul style="list-style-type: none"> - Annex 4.1 of verified Monitoring Report VCS 2018 & 2019: results in the development of Project Activity A1.1 surveillance and control of RIU-SM territory.
2. The educational programs and didactic material for the strengthening of pedagogical capacities for training in natural resource management.	<ul style="list-style-type: none"> - One training workshops per zone in 2018 for indigenous guards, two workshop to indigenous guards per 2019, and one to captains in 2019, 2020 and 2021). - Each year bring to the participants to the workshops support material (3 guidebooks to the workshops and training realized, and 500 newspapers per 2019 and per 2020). 	<ul style="list-style-type: none"> - Annex 10 of this document: Minutes of workshops and courses about natural resources management with the indigenous guards and captains. - Annex 4.2.7, 4.4.1 and 4.4.2 of verified Monitoring Report VCS 2018 & 2019; Annexes 11.1-11.3 of this document: Material presented to the workshops and courses, FAPUS survey and maps.
3. The Implementation of agroforestry and food guarantee projects, which seek to reduce the dependence of the forest, reducing the deforestation and affections to the HCV.	<ul style="list-style-type: none"> - One technique of plants nursery, using just organic and green supports and addends, sowing on savannas on the RIU-SM. (Cacao project with FEDECACAO, and Silviculture and agricultural project with “Granja Tarapacá” Foundation). - One hundred hectares sown with the agroforestry products. - One technique of silviculture and forestry practices. - In the pilot phase the transformation of 4 hectares. 	<ul style="list-style-type: none"> - Annex 12 of this document: Report of performance and productivity including families per zone, production units (Hectares / Kg of products) of implementors (FEDECACAO and Fundación Granja Tarapacá).
4. Continue with the verification of the protected forest covers to avoid deforestation with the participative actions of control and surveillance.	<ul style="list-style-type: none"> - 489 Ha decrease in plant coverage of 0.050%. in primary forest, and -130 Ha in the primary flooded forest and secondary forest. 	<ul style="list-style-type: none"> - Included in transition tables - Land Coverage change / Land Use (LC / LU) - 2018 and 2019 monitoring (file “monitoring.xlsx” in folder “calculation_tables” of Monitoring Report VCS 2018 & 2019)

Evidence that the net impacts of the project on biodiversity have been positive compared to the without-project land use scenario.

The main evidence is the community participation in the conservation and protection of biodiversity thanks to the realization of 5 indigenous guard workshops in 2018, 10 in 2019 and 5 in 2020 and 2021; 5 captains workshops in 2019, 2020 and 2021 on protection and conservation of native forest and on natural resource management, allowing the community to receive and know in person all the benefits brought by biodiversity conservation is a positive scenario; This is a positive scenario compared to a scenario of land use without a project, where communities and community groups do not have training or direct attention to learn about the benefits of biodiversity conservation, which results in increased pressure on forests and lands, as well as on the biodiversity and ecosystems of the RIU-SM. Section 4.3.2 "Monitoring and documentation of mitigation measures. Adaptive Management Plan", page 210 of the Monitoring Report VCS 2018 & 2019.

The evidence corresponds to the results obtained in the captains' workshops (November 2020 and June 2021). Annex 7 of this document shows verify the existence of some areas, ecological units or ecosystems known by the participants of each workshop, where certain identified trigger species can be observed. The attendees verify the existence of 100% of identified trigger species and the locations where they are found in the RIU-SM. Since 2013 there are forest inventories present in sampling plots by zone and by biome (PDD-CCB, Section 5.1.2, Tables 95 to 98: Qualified attribute of landscape units).

In the workshops with 315 captains in 2020 and 315 in 2021, the presence of the triggering species identified in the baseline and bibliographic review was verified using social mapping methodology, determining location, cultural use (food, pet, no use or conflict) and trend.

Two triggering flora species were identified as present in the study area as follows: (1 endangered, and 1 vulnerable); and 27 trigger fauna species were identified as present in the study area distributed as follows: 12 species corresponding to 3 critically endangered, 2 endangered, and 7 vulnerable; and 15 species correspond to endemic birds).

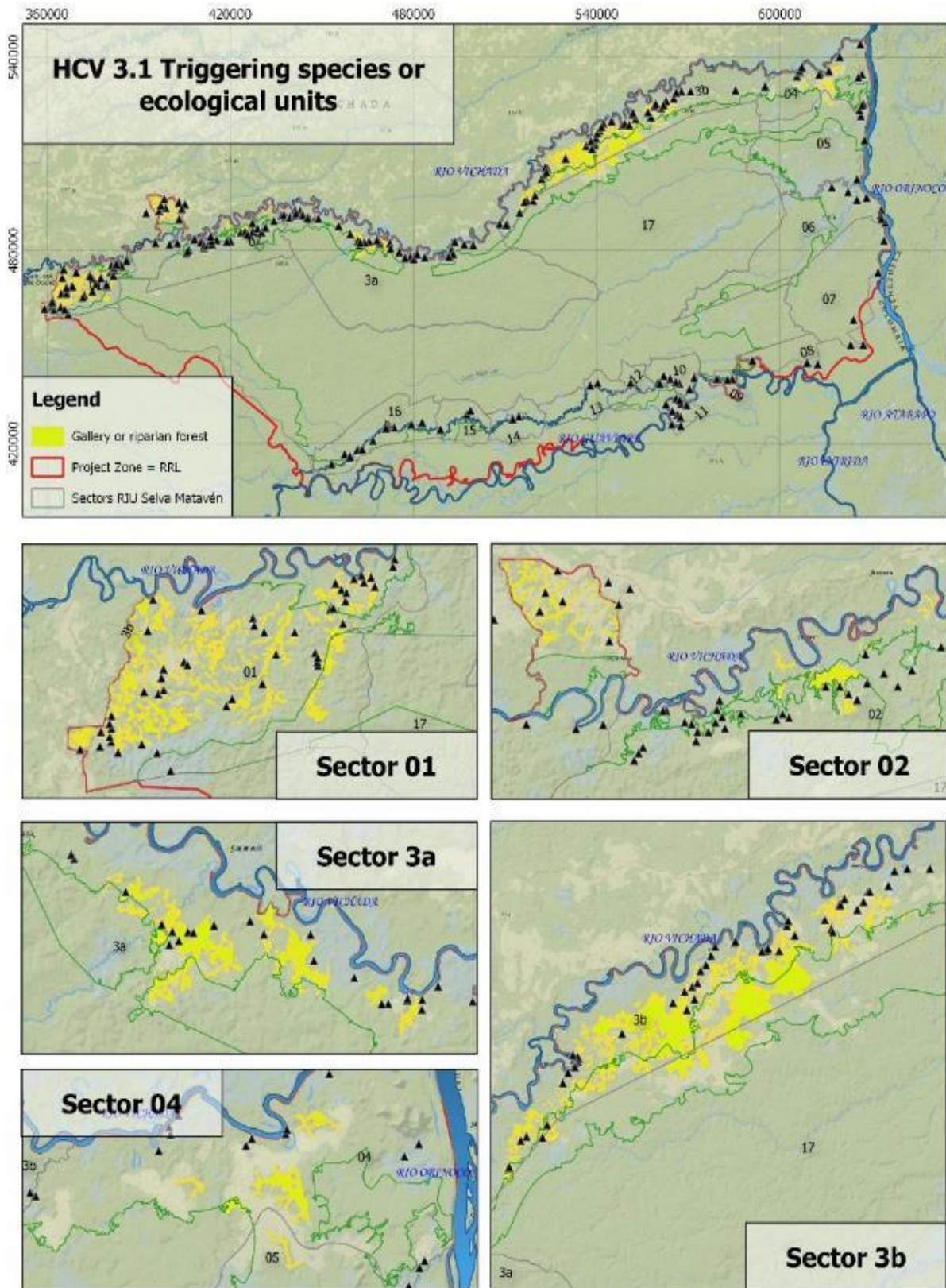
Table 60. Monitoring Plan for Exceptional Biodiversity Benefits (GL3)

Monitoring Populations of triggering species	Population trend indicators of species	Threats to these species
FLORA: <i>Pachira quinata</i> (EN); <i>Mauritia flexuosa</i> (VU).	Presence of at least one individual (critically endangered or endangered).	Changes on land use Loss of connectivity of the forests and lands of the RIU-SM due to deforestation.
FAUNA: <i>Chiropotes satanas</i> CR; <i>Cebus aequatorialis</i> CR; <i>C. versicolor</i> EN; <i>Inia geoffrensis</i> EN; <i>Ateles belzebuth</i> EN; <i>Leopardus tigrinus</i> VU; <i>Aotus brumbacki</i> : VU; <i>Agamia agamí</i> (VU); <i>Crax alector</i> . VU; <i>Patagioenas subvinacea</i> . VU; <i>Ramphastos culminatus</i> : VU; <i>Tinamus guttatus</i> VU; <i>T major</i> : VU.	Presence of at least 30 individuals or 10 pairs of a vulnerable species (detail in point 5.1.18) High priority status of biodiversity conservation.	Loss of productivity of forests and lands of the RIU-SM Destruction of critical habitats by fragmentation of ecosystems and the growth of the agricultural frontier. Loss of birds and other vertebrates responsible for pollination and seed dispersal, as well as forest productivity due to human consumption
<i>Aprositornis disjuncta</i> ; <i>Myrmotherula ambigua</i> ; <i>Phaethornis malaris</i> ; <i>Galbula</i>	Presence at least 5% of the global population of a	Disappearance of mammalian

Monitoring Populations of triggering species	Population trend indicators of species	Threats to these species
<i>albirostris</i> ; <i>Thamnophilus nigrocinereus</i> ; <i>Mitu tomentosum</i> ; <i>Heterocercus flavivertex</i> ; <i>Hylophilus brunneiceps</i> ; <i>Pionites melanocephalus</i> ; <i>Monasa atra</i> ; <i>Euphonia plumbea</i> ; <i>Myrmotherula ambigua</i> ; <i>Picumnus pumilus</i> ; <i>Myiarchus venezuelensis</i> y <i>Coccyca pumila</i> .	restricted range species. Presence at least 5% of the global population of a species with large but clustered distributions.	connectors of ecosystems, due to wildlife meat consumption.

The following map is attached as a result of the captains' workshop, where the location of HVC 3 "Rare and Threatened Ecosystems" - *morichales* is identified through social mapping methodology, in order to plan the identification of these ecosystems, included as High Conservation Value due to their cultural and natural importance; and to assess the conservation status of these ecosystems throughout the RIU-SM.

Map 4. Location of triggering species or ecological units



Source: PDD CCB, HCV maps

There are independent visual and photographic records of the presence of species such as *Inia geoffrensis*, of some primates of the genus *Cebus* (unidentified species), and of the presence of all those identified as vulnerable *Leopardus tigrinus*, *Aotus brumbacki*, *Agamia agamí*, *Crax alector*, *Patagioenas subvinacea*, *Ramphastos culminatus*, *Tinamus guttatus* and *T major*, however, they are not part of any monitoring report. For the next report there will already be records of trigger species.

5.3.2 Biodiversity Monitoring Plan Dissemination (B4.3)

Description of the dissemination of the Monitoring Plan and its results

The REDD+ Project RIU-SM presents in its Activity 1.2 a strategy for strengthening communication, which involved the preparation of pedagogical material for the development of ten workshops for the indigenous guard in 2018, five in 2019, and five additional workshops that aimed captains on natural resource management in 2019 to socialize project activities and generate early warnings about the impact that occurs on lands and forests, such as on the biodiversity of the RIU-SM.

The strengthening of the means of dissemination for the communities and other stakeholders, both the monitoring plan and the results, is carried out through the web pages of ACATISEMA and the REDD+ Project RIU-SM.

The dissemination of the monitoring plan and its results are wide and correspond to printed reports, booklets, or guides for presentation at events and for dissemination at ACATISEMA bulletins, publications of audiovisual reports, and digital reports in pdf, available for consultation.

For more details of the means of communication established as stated in Sections “2.3.2 Dissemination of Summary Project Documents (G3.1)”, “2.3.3 Informational meetings with Stakeholders (G3.1)” and “2.3.9 Stakeholder Consultation Channels (G3.5)”.

5.4 Optional Criterion: Exceptional Biodiversity Benefits

5.4.1 Trigger Species Population Trends (GL3.3)

Next, the monitored data about the presence and absence of triggering species, population trends by social estimation are presented. The first results of verification by field monitoring will be presented in 2023 and continue to be presented every five years (Annex 7 of this document: identification triggering species workshop with social cartography methodology).

Table 61. Trigger species population – Flora and Fauna (IUCN Red List and Resolution 1912, 15 September, 2017 of Colombia)

Trigger species	<p>FLORA:</p> <p><i>Pachira quinata</i> (EN) (Annex 13 of this document: Status of <i>Pachira quinata</i> (EN) in Zones 4 and 5);</p> <p><i>Mauritia flexuosa</i> (VU) (Annex 14 of this document: Status of <i>Morichales</i>, in Zone 1).</p>
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	<p>FAUNA:</p> <p><i>Inia geoffrensis</i> (EN);</p> <p><i>Ateles belzebuth</i> (EN);</p> <p><i>Cebus aequatorialis</i> (CR);</p> <p><i>Cebus versicolor</i> (EN);</p> <p><i>Chiropotes satanas</i> (CR);</p> <p><i>Leopardus tigrinus</i> (VU);</p> <p><i>Aotus brumbacki</i> (VU);</p> <p><i>Agamia agamí</i> (VU);</p> <p><i>Crax alector</i> (VU);</p> <p><i>Patagioenas subvinacea</i> (VU);</p> <p><i>Ramphastos culminatus</i>: (VU);</p> <p><i>Tinamus guttatus</i> (VU);</p> <p><i>T major</i>: (VU)</p>
Focal Area	<p>1. In Río Uva brazo Amanavén, lagoons, reservoirs, jungle, forest canopy, the presence of at least one individual of a species on the IUCN Red List that is critically endangered or endangered is verified. FLORA: <i>Pachira quinata</i> (EN); FAUNA: <i>Chiropotes satanas</i> (CR); <i>Cebus aequatorialis</i> (CR); <i>C. versicolor</i> (EN); <i>Inia geoffrensis</i> (EN); <i>Ateles belzebuth</i> (EN).</p> <p>2. In <i>Rebales</i>, in flooded forest and in the leakage belt, the presence at least 30 individuals of a vulnerable species - VU is verified. FLORA: <i>Mauritia flexuosa</i> (VU);</p> <p>3. In gallery forests, natural or secondary forest canopy, mainly the parcels selected for forest monitoring, salting areas, the presence of at least 10 pairs of a vulnerable species - VU is verified. FAUNA: <i>Patagioenas subvinacea</i>; (VU); <i>Inia geoffrensis</i> (EN); <i>Agamia agamí</i> (VU); <i>Crax alector</i> (VU); <i>Ramphastos culminatus</i> (VU); <i>Tinamus guttatus</i> and <i>T. major</i> (VU); <i>Aotus brumbacki</i>. (VU); <i>Leopardus tigrinus</i> (VU).</p>

Results of population trends

FLORA.

Endangered species (EN): "The presence of at least one individual" of *Pachira quinata*, endangered species (EN); field results are presented where DBH and total height are measured, and five individuals of ceiba are geographically located, which are georeferenced in the table and located on map 2 of the attached document on ceiba pachira in Zones 4 and 5, in the gallery forest of the Uva River, including photographic record of referenced specimens (Annex 13 of this document: status of *Pachira quinata* (EN)).

Vulnerable species (VU): "the presence of at least 30 individuals" of *Mauritia flexuosa*, vulnerable species (VU); and location of 2 *morichales* in Zone 1. Field results are presented where DBH and total height are measured, and two population groups are geographically located in the Aiwa Kuna Tsepajibo sector, Zone 1 of more than thirty individuals of *moriche* each group that appears georeferenced in the table and located

on map 2 of the attached document on *moriche* in the savannas of Zone 1, including photographic record of referenced specimens (Annex 14 of this document: status of *moriche* - Zone 1).

The trend in the populations of flora species is that they are maintained in the territory because these species are culturally important for the communities that inhabit it and therefore have a controlled use. In addition, control and monitoring activities prevent deforestation and the exploitation of these forest species outside of the territory, and productive projects are planting timber forest species such as the abarco (*Cariniana piriformis* CR - Cacao Agroforestry Project Zones 4 and 5), Sassafras (*Ocotea cymbarum* NT), *Moriche* (*Mauritia flexuosa* VU), Ceiba (*Pachira quinata* EN) and other culturally important palms that are being developed in the nursery of the Zone 1 agroforestry project. In addition, the project has been delivering zinc roofing tiles to improve the homes of the indigenous communities and thus regulate the excessive use of palms for roofing.

FAUNA

Concerning the fauna, there are independent visual records of the presence of at least 2 individuals of species such as *Inia geoffrensis*, some primates of the genus *Cebus* (unidentified species), and the presence of some identified as vulnerable *Leopardus tigrinus*, *Aotus brumbacki*, *Agamia agami*, *Crax alector*, *Patagioenas subvinacea*, *Ramphastos culminatus*, *Tinamus guttatus* and *T. major*, the record of these reports was compiled during the captains' workshop on social mapping methodology.

The following tables of analysis of information from these participatory workshops present the results of presence absence and population trends of trigger species (endangered species according to IUCN and resolution 1912 of September 15, 2017 and endemic species by sector) (Vila, Varga, Llausas, & Ribas, 2006).

Table 62. List of faunal species with classification IUCN categories and resolution 1912 of September 15, 2017, and summary of presence/absence by Sectors, resulting from social mapping exercise during captains workshop (1: presence, 0: absence)

Nombre científico	Sec_1	Sec_2	Sec_3a	Sec_3b	Sec_4	Sec_7	Sec_10	Sec_9	Sec_8	Sec_16	Sec_11	Sec_5	Sec_6	Sec_12	Sec_13	Sec_14 & 15	Total de presencia por especie
<i>Pipile</i> sp. CR	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16
<i>Agamia agami</i> VU	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16
<i>Crax alector</i> VU	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16
<i>Patagioenas subvinacea</i> VU	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16
<i>Ramphastos culminatus</i> VU	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16
<i>Tinamus guttatus</i> VU	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16
<i>Tinamus major</i> VU	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16
<i>Aotus brumbacki</i> VU	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16
<i>Leopardus tigrinus</i> VU	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16
<i>Ateles belzebuth</i> EN	0	0	0	0	0	0	0	0	0	1	1	0	1	1	1	1	6
<i>Cebus versicolor</i> EN	1	0	0	0	1	1	1	1	1	1	0	0	1	1	1	1	11
<i>Cebus aequatorialis</i> CR	0	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	14
<i>Chiropotes satanas</i> CR	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	3
<i>Inia geoffrensis</i> EN	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16
Total de Presencia sobre sectores	11	11	11	11	12	12	12	12	12	12	12	11	13	14	14	14	194

The table shows that there are species such as the primates *Ateles belzebuth* (EN) and *Chiropotes satanas*

(CR) with low presence in some sectors of the RIU-SM, since the assistant captains do not identify them in the review of species cards present in the bibliographic baseline. This does not mean that these species do not exist in these sectors, however, it is a starting point for all research questions that arise from these participatory mapping analyses. It is important to complement with field inventories and scientific studies of populations in the areas where the captains have identified these species.

Table 63. List of faunal species with IUCN category classification, and summary of population trends by Sectors, resulting from responses in social mapping surveys during the captains' workshop. Increases (↑), Decreases (↓), remains the same (=)

Nombre científico	Sec_1	Sec_2	Sec_3a	Sec_3b	Sec_4	Sec_7	Sec_10	Sec_9	Sec_8	Sec_16	Sec_11	Sec_5	Sec_6	Sec_12	Sec_13	Sec_14 & 15
<i>Pipile sp.</i> CR	=	=	=	=	↑	↑	=	=	↑	=	=	=	↓	↑	↑	↑
<i>Agamia agami</i> VU	=	=	=	↑	↑	=	↑	↑	↑	=	↑	=	↑	↑	↑	=
<i>Crax alector</i> VU	↓	=	↓	=	=	=	=	=	↓	↓	↑		↑	↑	↑	↑
<i>Patagioenas subvinacea</i> VU	=	↓	↑	↑	↑	↑	↑	↑	↑	=	↑	=	↑	↑	↑	↑
<i>Ramphastos culminatus</i> VU	=	↓	=	=	↑	=	↑	↑	↑	↓	↑	=	↑	↑	↑	↑
<i>Tinamus guttatus</i> VU	=	=	=	=	↑	=	↑	↑	↑	↓	↑	=	↑	↑	↑	↑
<i>Tinamus major</i> VU	↑	=	↑	=	↑	↑	↑	↑	↑	↓	↑	=	↑	↑	↑	↑
<i>Aotus brumbacki</i> VU	=	=	↑	↓	=	=	↑	↑	↑	↓	↑	=	↑	↑	↑	↑
<i>Leopardus tigrinus</i> VU	=	=	↑	=	=	=	↑	↑	↑	=	↑	=	=	↑	↑	↑
<i>Ateles belzebuth</i> EN										↓	=		↑	=	=	=
<i>Cebus versicolor</i> EN	↑				↑	=	↑	↑	↑	↓			↑	↑	↑	↑
<i>Cebus aequatorialis</i> CR		↑	↑	↓	=	=	↑	↑	↓		↑	↓	↑	↑	↑	↑
<i>Chiroptes satanas</i> CR														↑	↑	↑
<i>Inia geoffrensis</i> EN	=	↑	↑	↑	=	=	↑	↑	↑	=	↑	=	=	↑	↑	↑

Table 64. Trigger species population – Endemic

Identify the population of trigger species	ENDEMIC <i>Aprositornis disjuncta; Myrmotherula ambigua; Phaethornis malaris; Galbula albirostris; Thamnophilus nigrocinereus; Mitu tomentosum; Heterocercus flavivertex; Hylophilus brunneiceps; Pionites melanocephalus; Monasa atra; Euphonia plumbea; Myrmotherula ambigua; Picumnus pumilus; Myiarchus venezuelensis y Coccycua pumila.</i>
Population trend at the beginning of the Project	1. In the natural or secondary forest canopy, overflows and sites determined as niche for resident anteaters (foraging areas, nests, roosts and reproduction), the presence of at least 5% of the global population of Hormiguero yapacana (<i>Aprositornis disjuncta</i>) and Hormiguerito Barbiamarillo (<i>Myrmotherula ambigua</i>). (Ariza Vera, Polanco Ochoa, Yepes Guzmán, & Suárez Navarro, 2006) and (Villarreal Leal, et al., 2009).

2. In the natural or secondary forest canopy, floodwaters and sites determined as a niche for resident birds (foraging areas, nests, perch and reproduction), the presence of at least 5% of the global population of the Hermit Hummingbird is evaluated Colibrí ermitaño de pico grosero (*Phaethornis malaris*), Jacamar gabula (*Galbula albirostris*), cenizo batará (*Thamnophilus nigrocinereus*), paujil culi colorao (*Mitu tomentosum*), manakin con collar (*Heterocercus flavivertex*), empavesado amazónico (*Hylophilus brunneiceps*), loro pechiblanco (*Pionites melanocephalus*), tangurú de hombros blancos o monja negra (*Monasa atra*) and eufonia plumizo (*Euphonia plumbea*) are species with large but grouped distributions.

Table 65. List of endemic faunal species, and summary of presence absence by Sectors, as a result of the social mapping exercise during the captains' workshop (1: presence, 0: absence)

Nombre científico	Sec_1	Sec_2	Sec_3a	Sec_3b	Sec_4	Sec_7	Sec_10	Sec_9	Sec_8	Sec_16	Sec_11	Sec_5	Sec_6	Sec_12	Sec_13	Sec_14 & 15	Total de presencia por especie
<i>Aprositornis disjuncta</i>	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	15
<i>Myrmotherula ambigua</i>	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16
<i>Phaethornis malaris</i>	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16
<i>Galbula albirostris</i>	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16
<i>Thamnophilus nigrocinereus</i>	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16
<i>Mitu tomentosum</i>	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16
<i>Heterocercus flavivertex</i>	1	0	1	1	0	1	1	1	1	1	1	1	1	1	1	1	14
<i>Hylophilus brunneiceps</i>	1	0	0	1	0	0	1	1	1	1	1	1	1	1	1	1	12
<i>Pionites melanocephalus</i>	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	15
<i>Monasa atra</i>	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16
<i>Euphonia plumbea</i>	0	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	14
<i>Myrmotherula ambigua</i>	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	15
<i>Picumnus pumilus</i>	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16
<i>Myiarchus venezuelensis</i>	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	15
<i>Coccyzua pumila</i>	0	1	0	1	1	0	0	0	1	1	1	1	1	1	1	1	11
Total de Presencia sobre sectores	11	12	11	14	12	11	13	13	14	14	14	14	13	14	14	14	208

Table 66. List of endemic faunal species, and summary of population trend by Sectors, resulting from responses in social mapping surveys during captains' workshop. Increases (↑), Decreases (↓), Stays the same (=)

Nombre científico	Sec_1	Sec_2	Sec_3a	Sec_3b	Sec_4	Sec_7	Sec_10	Sec_9	Sec_8	Sec_16	Sec_11	Sec_5	Sec_6	Sec_12	Sec_13	Sec_14 & 15
<i>Aprositornis disjuncta</i>	↑	↑	↑	=	↑	↑	↑	↑	↑	=	↑	=	↑	↑	↑	↑
<i>Myrmotherula ambigua</i>	↑	↑		=	↑	↑	↑	↑	↑	=	↑	=	↑	↑	↑	=
<i>Phaethornis malaris</i>	↑	↑	↑	=	↑	↑	↑	↑	↑	=	↑	=	↑	↑	↑	↑
<i>Galbula albirostris</i>	↑	=	↑	=	↑	↑	↑	↑	↑	=	↑	=	↑	↑	↑	↑
<i>Thamnophilus nigrocinereus</i>	↑	=	↑	=	↑	↑	↑	↑	↑	=	↑	=	↑	↑	↑	↑
<i>Mitu tomentosum</i>	↑	↓	↓	=	=	↑	↑	↑	↓	↓	↑	=	↑	↑	↑	=
<i>Heterocercus flavivertex</i>			↑	=		=	=	=	↑	=	↑	=	↑	↑	↑	=
<i>Hylophilus brunneiceps</i>				=				↓	↑	=	↑	=	↑	↑	↑	↑
<i>Pionites melanocephalus</i>	↑	↓	=	=	↑	↑	=	=	↑	=	↑	=		↑	↑	=
<i>Monasa atra</i>	↑	↑	↑	=	↑	↑	↑	↑	↑	=	↑	=	=	↑	↑	↑
<i>Euphonia plumbea</i>		↑	=	=	↑		↑	↑	↓	=	↑	=	=	↑	↑	=
<i>Myrmotherula ambigua</i>	↑	↑		=	↑	↑	↑	↑	↓	=	↑	=	=	↑	↑	↑
<i>Picumnus pumilus</i>	=	↑	↑	=	↑	↑	↑	↑	↑	=	↑	=	=	↑	↑	↑
<i>Myiarchus venezuelensis</i>		↑	↑	↓	↑	↑	↑	↑	↑	=	↑	=	=	↑	↑	=
<i>Coccyca pumila</i>		↑		↓	↑				↑	=	↑	=	=	↑	↑	↓

Results of application of measures to maintain and improve the state of conservation of trigger species to reduce the threat to them

Section 5.5.2 of the CCB's PDD presents the indicators for measures to maintain and improve the conservation status of the trigger species. These species correspond to two flora species *Pachira quinata* (EN) and *Mauritia flexuosa* (VU), and thirteen fauna species, of which two primates are critically endangered: *Chiropotes satanas* (CR) and *Cebus aequatorialis* (CR); two primates are endangered: *C. versicolor* (EN), *Ateles belzebatorialis* (CR), and *Ateles belzebuth* (EN) an aquatic mammal *Inia geoffrensis* (EN); and eight vulnerable species of which one is a primate *Aotus brumbacki*: (VU), a feline *Leopardus tigrinus* (VU); and six are birds *Agamia agami* (VU); *Crax alector*. (VU); *Patagioenas subvinacea*. (VU); *Ramphastos culminatus*: (VU); *Tinamus guttatus* (VU); *T major*: (VU). In addition to the fifteen endemic bird species *Aprositornis disjuncta*; *Myrmotherula ambigua*; *Phaethornis malaris*; *Galbula albirostris*; *Thamnophilus nigrocinereus*; *Mitu tomentosum*; *Heterocercus flavivertex*; *Hylophilus brunneiceps*; *Pionites melanocephalus*; *Monasa atra*; *Euphonia plumbea*; *Myrmotherula ambigua*; *Picumnus pumilus*; *Myiarchus venezuelensis* and *Coccyca pumila*.

During the captains' workshops in 2020 and 2021, 315 captains participated each year. A social mapping exercise was carried out during these workshops. This report presents the results of the participatory assessment of the presence and absence of trigger species in Tables 63 and 64 and population trends of trigger species in Tables 65 and 66 (Annex 7 of this document: Identification triggering species workshop with social cartography methodology). These tables are elaborated with the results obtained in the indigenous captains' workshops. The results include the identification by sectors of the triggering flora and fauna reviewed in the documents used as baseline of the CCB PDD and in the bibliographic review to

describe these triggering species.

Table 67 shows in detail the measures to maintain the conservation status of the trigger species and Table 68 the measures to improve the conservation status of the trigger species, their indicators and means of verification. These are participatory measures established in the project activities and related to the training of the indigenous guard and captains for the control and surveillance of the RIU-SM lands and forests; strengthening communications and governance, strengthening productive activities and implementing financing mechanisms by verifying the reduction of emissions.

Table 67. Measures to maintain the state of conservation of trigger species

Measures	Indicators	Means of verification
1. Implementation of a trigger species monitoring plan.	<ul style="list-style-type: none"> - 315 communities of RIU-SM in 2020 and 315 in 2021 for validation the baseline during their participation in workshops to assess presence or absence, as a trend of populations of triggering species of flora and fauna reported in PDD. 	<ul style="list-style-type: none"> - Annex 7 of this document: Identification triggering species workshop with social cartography methodology. - Annex 10 of this document: Minutes of workshops and courses about natural resources management with the captains in 2020 and 2021.
2. Implementation of food guarantee projects, which seek to provide food and nutrition to indigenous families.	<ul style="list-style-type: none"> - 100 hectares in zones 3, 4 and 5 in the cacao agroforestry project were used for agroforestry and food guarantee projects. - 4 hectares in the agrosilvopastoral project in Zone 1 - 7 participative workshops about community and nature tourism realized on RIU-SM, four on zone 4 (two in Laguna Negra and two in Laguna Cacao), and three on zone 3 (two in La Urbana and one in Barranco Colorado). - 6 participative workshops in three communities of zone 3 (Pueblo Escondido, La Urbana, and Pueblo Nuevo Zama) about good practices for the capture, maintain and trade ornamental fish. - 4 workshops and one general Assemble for the strength of COOMATAVÉN cooperative. 	<ul style="list-style-type: none"> - Annexes 8.1-8.2 of this document: Agreement and minutes of start and socialization of agreements and contracts signed with the implementors of FEDECACAO. - Annexes 9.1-9.4 of this document: Agreement and minutes about agro-silvo-pastoral farms with FEDECACAO and Fundación Granja Tarapacá. - Annexes 15.1-14.5 of this document: Minutes of 7 community and nature tourism productive project meetings or workshops. - Annexes 16.1-16.2 of this document: Minutes and reports of good practices of capture, captive and trade of ornamental fishes' project. - Annexes 17.1-17.3 of this document: Minutes of workshops for the strengthen of the Cooperative and minutes of

		general assembly of ACATISEMA.
3. Feasibility studies of conservation agreement agreements for species of flora and fauna and/or triggering ecological units.	- In 2020 and 2021 reviewed and validated the baseline information of biodiversity and initiated the capacitation of captains about natural resources administration.	- Annex 10 of this document: Minutes of workshops and courses about natural resources management with the captains.
	- 315 indigenous guards and 315 captains assist on workshop in 2020 and the same number of IG and Captains during 2021, which participate in the design of the action Plan for the prevention and mitigation of non-planned forest fires.	- Annex 10 of this document: Minutes of workshops and courses about natural resources management with the indigenous guards and captains about control and management of threats on the lands and forests of RIU-SM of 2020 and 2021.
	- Biodiversity baseline established in the 2020. Determined the biological prioritization (biological importance of the site, existence of biological baseline, evaluation of priorities to conserve and how the evaluation is done).	- Annex 10 of this document: Minutes of workshops and courses about natural resources management with the indigenous guards and captains with analysis of the results of captain's workshops.

Table 68. Measures to improve the state of conservation of trigger species

Measures	Indicators	Means of verification
1. Implementation of the sustainable land and forest management plan and the monitoring plan of the High Conservation Values of community and biodiversity of the RIU-SM presented in this document.	<p>Number of trigger species identified in the current monitoring period (2018 & 2019):</p> <ul style="list-style-type: none"> • 2 species of triggering flora (1 endangered (EN) and 1 vulnerable (VU) identified in the project area. • 13 species of triggering fauna (2 critically endangered CR, 3 endangered EN and 8 vulnerable VU) identified in the project area. <p>Since the 2022 and each year needs to identify and actualize the biodiversity indicators, to determinate the orientation of the conservation actions.</p>	<p>Tables 62, 63, 65, 66, 67 of this document: presence/absence of trigger species, population trend indicators, such as functional biodiversity indicators that will be calculated every five years from 2022.</p> <p>- Annex 7 of this document: Identification triggering species workshop with social cartography methodology.</p>
2. Implementation of agroforestry and food guarantee projects, which seek to reduce	- 100 families in Zones 3, 4 and 5 in the cacao agroforestry project were reduce the forest extractive actions to substant.	- Annexes 8.1-8.2 of this document: Agreement and minutes of start and socialization of agreements and contracts signed with the implementors of FEDECACAO.

<p>dependence on the triggering flora and fauna resources.</p>	<ul style="list-style-type: none"> - 15 Families in the silvopastoral project in sector <i>Aiwa Kuna Tsepajibo</i>. Zone 1. - Number of tons and / or arrobas produced in recovered conucos: Until July 2021, 10 tones of plantain were produced by agro-forestal project. - 10 of families involved in each community in nature tourism project on RIU-SM: Laguna Negra and Laguna Cacao; in Zone 3: La Urbana and Barranco Colorado. - 10 families by community participating on workshops in three communities of Zone 3 (Pueblo Escondido, La Urbana, and Pueblo Nuevo Zama) about good practices for the capture, maintain and trade ornamental fish. - 4 workshops and one general assembly for the strength of COOMATAVÉN cooperative. 	<ul style="list-style-type: none"> - Annexes 9.1-9.4 of this document: Agreement and minutes about agro-silvo-pastoral farms with FEDECACAO and Fundación Granja Tarapacá. - Impact 5 in Section 4.1.1. Section 4.3.1 Appears the quantity of tons in recovered conucos. - Annexes 15.1-14.5 of this document: Minutes of 7 community and nature tourism productive project meetings or workshops. - Annexes 16.1-16.2 of this document: Minutes and reports of good practices of capture, captive and trade of ornamental fishes' project. - Annexes 17.1-17.3 of this document: Minutes of workshops for the strengthen of the Cooperative and minutes of general assembly of ACATISEMA.
<p>3. Design and implementation of agreements for the conservation of species of flora and fauna and/or triggering ecological units.</p>	<ul style="list-style-type: none"> - Action Plan to prevent and mitigate non-planned forest fires in 2021. 	<ul style="list-style-type: none"> - Annex 18 of this document: Action Plan for the prevention and mitigation of non-planned forest fires.

5.4.2 Effectiveness of Threat Reduction Actions (GL3.4)

The effectiveness of the measures is demonstrated from the focus of attention to the threats on the triggering species. Thus, by implementing the RIU-SM Sustainable Land and Forest Management Plan, the conservation status of the trigger species and their habitats is guaranteed as follows:

- The control and surveillance of RIU-SM lands and forests is achieved with an indigenous guard that receives training on prevention (identification of early warnings) and mitigation of threats to RIU-SM lands, forests and biodiversity (Annex 18 of this document: Action plan for the prevention and mitigation of unplanned burning in RIU-SM).
- The improvement of food security is achieved through the recovery of soil fertility with the application of the Family Agricultural Production Units System - FAPUS and the implementation of agri-food projects,

such as the strengthening of production chains, which has reduced the pressure on natural resources, reducing the intensity of their traditional extractive activities (hunting, fishing and extraction of materials), because these projects are providing food and committing productive time.

- The third measure, which corresponds to long-term actions and community commitments, involves conducting participatory research with specific purposes to learn the natural history of trigger species from 2022, in order to determine priorities for monitoring functional biodiversity from 2025, thus providing information on the adaptive response of lands and forests and their biodiversity to climate change in the RIU-SM, generating conservation agreements to form biodiversity stewards.

6 ADDITIONAL PROJECT IMPLEMENTATION INFORMATION

There is no additional information that explains more details about the Project implemented, in accordance with the validated project description for all Climate, Community & Biodiversity Standards indicators. In this document all indicators considering in the PDD-CCB have been approached, and many aspects of the monitoring process are referenced towards the verified Monitoring Report – VCS 2018 & 2019.

7 ADDITIONAL PROJECT IMPACT INFORMATION

There is no additional information that provides more details about the results of monitoring and shows how the project meets all indicators that require demonstration of impacts. In this document all indicators considering in the PDD-CCB have been approached, and many aspects of the monitoring process are referenced towards the verified Monitoring Report – VCS 2018 & 2019.

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