

MONITORING & IMPLEMENTATION

ISANGI REDD+ PROJECT



Document Prepared By South Pole & Zamba Consulting



Project Title	Isangi REDD+ Project
Project ID	1359
Version	1.0
Report ID	1
Date of Issue	26-02-2020
Project Location	Isangi territory, Yangambi District, Tshopo Province, Democratic Republic of Congo
Project Proponent(s)	Safbois SPRL, 1 Ave Des Poids Lourdes Kingabwa, Limete, Kinshasa; +243 81 500 8300, +1 215 295 4040 Contact: Daniel Blattner Email: Daniel.blattner@usa.net Phone: +243 81 500 8300
Prepared By	South Pole Contact: Abel Alan Marcarini Email: a.marcarini@southpole.com Phone: +57 4 352 4428

	Zamba Consulting Contact: Jennifer Holland Email: Jenn@Zambaconsulting.com Phone: +1 604 614 4180
Validation/Verification Body	AENOR
GHG Accounting/Crediting Period	12/09/2009 - 11/09/2039; 30-year total period
Monitoring Period of this Report	01/01/2014 - 31/12/2019
History of CCB Status	Issuance date of Validation statement: 09/09/2014 Issuance date of verification statement for 1st monitoring period: 18/12/2014
Gold Level Criteria	Biodiversity – the project protects endangered and vulnerable floral species through forest conservation.

Table of Contents

1	Summary of Project Benefits	4
1.1	Unique Project Benefits.....	4
1.2	Standardized Benefit Metrics	5
2	General	8
2.1	Project Description	8
2.2	Project Implementation Status	15
2.3	Stakeholder Engagement.....	26
2.4	Management Capacity and Best Practices	33
2.5	Legal Status and Property Rights	40
3	Climate.....	45
3.1	Monitoring GHG Emission Reductions and Removals	45
3.2	Quantification of GHG Emission Reductions and Removals	63
3.3	Optional Criterion: Climate Change Adaptation Benefits	73
4	Community.....	73
4.1	Net Positive Community Impacts	73
4.2	Offsite Stakeholder Impacts	92
4.3	Community Impact Monitoring	94
4.4	Optional Criterion: Exceptional Community Benefits	107
5	Biodiversity	107
5.1	Net Positive Biodiversity Impacts	107
5.2	Offsite Biodiversity Impacts.....	112
5.3	Biodiversity Impact Monitoring	113
6	Additional Project Implementation Information.....	124
7	Additional Project Impact Information	124

1 SUMMARY OF PROJECT BENEFITS

1.1 Unique Project Benefits

Outcome or Impact	Achievements During the Monitoring Period	Section Reference	Achievements During the Project Lifetime
1) Increased access to protein from project supported and community-built and managed tilapia ponds	Community members have built 27 ponds this monitoring period. 48% of community members (46% of women) with reported access to fishponds report having an increased weekly supply of protein.	4.1.1, 4.1.2	27 ponds built; 48% of community members (46% of women) with reported access to fishponds report having an increased weekly supply of protein.
2) Increased accesses to protein and revenue and decreased primary forest disturbance during season due to project and community	29 community elected Local Development Committees (CLD) have been formed this monitoring period. Five of those implemented their own agricultural plans and subsequent diversification and intensification fields to generate income and seeds for following seasons. One has reported increased revenue from these activities (most are saving seeds, or the harvest is still in progress).	4.1.1, 4.1.2	29 Local Development Committees; five implementing agricultural plans; one reporting increased revenue from said activities.
3) Increased access to protein and revenue and decreased primary forest disturbance during season due to project and community	602 mature caterpillar hosting trees planted and an additional 950 juveniles. The impact of these trees is emerging but is important for the number of project objectives it impacts. 5% of community members surveyed report harvesting from caterpillar trees instead of the primary forest.	4.1.1, 4.1.2	602 caterpillar trees hosting; 950 juveniles planted; 5% of community members surveyed report harvesting from trees instead of primary forest.

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		Not applicable
	Net estimated emission reductions in the project area, measured against the without-project scenario	2,413,135 tCO ₂	3.2.4	1,699,905 tCO ₂ in MP1, 1,391,623 tCO ₂ (after buffer deduction) +2,413,135 tCO ₂ in MP2
Forest ¹ cover	For REDD ² projects: Number of hectares of reduced forest loss in the project area measured against the without-project scenario	Not applicable		Not applicable
	For ARR ³ projects: Number of hectares of forest cover increased in the project area measured against the without-project scenario	Not applicable		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		Not applicable
	Number of hectares of non-forest land in which improved land management has occurred as a result of the project's activities, measured against the without-project scenario	Not applicable		Not applicable

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

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

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

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

Category	Metric	Achievements during Monitoring Period	Section Reference	Achievements during the Project Lifetime
Training	Total number of community members who have improved skills and/or knowledge resulting from training provided as part of project activities	5,698	2.4.2 4.1.1 Anne x A,	M=1: Most data not available Estimated 680 Total project lifetime: 6,378
	Number of female community members who have improved skills and/or knowledge resulting from training provided as part of project activities	491	4.1.1 Anne x A	Data not available from M=1 Total project lifetime: 491
Employment	Total number of people employed in of project activities, ⁵ expressed as number of full-time employees ⁶	62 full-time staff, 23 teachers = 85 (41 new hires this monitoring period)	2.4.3 Anne x AA	Total project lifetime: 85 (31 in M=1, Section 2.6 of 1 st MR)
	Number of women employed in project activities, expressed as number of full-time employees	Seven women hired this monitoring period	2.4.3 Anne x AA	Total project lifetime: Seven women hired in M=2
Livelihoods	Total number of people with improved livelihoods ⁷ or income generated as a result of project activities	6,531	2.4.2 2.4.3 4.1.1 Anne x A	825 (Annex A) Total project lifetime: 7,356
	Number of women with improved livelihoods or income generated as a result of project activities	449	2.4.2 2.4.3 4.1.1 Anne x A	M=1 Data not available Total project lifetime: 449

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

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

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

Category	Metric	Achievements during Monitoring Period	Section Reference	Achievements during the Project Lifetime
Health	Total number of people for whom health services were improved as a result of project activities, measured against the without-project scenario	255 patients treated, 140 estimated attendees at Public Health workshops. Total: 395	4.1.1	Data not available for M=1 Total project lifetime: 395
	Number of women for whom health services were improved as a result of project activities, measured against the without-project scenario	140 estimated attendees Public Health workshops. Total: 140	4.1.1 Anne x A	Data not available for M=2 Total project lifetime: 140
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	1,729 students + 108 university or high school interns = 1,837 total	4.1.1	114 (Section 7.1.1 of 1 st MR) Total project lifetime: 1,843
	Number of women and girls for whom access to, or quality of, education was improved as a result of project activities, measured against the without-project scenario	754	4.1.1	56 (Section 7.1.1 of 1 st MR) Total project lifetime: 810
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	Not applicable	4.1.1	Not applicable
	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	Not applicable		Not applicable
Well-being	Total number of community members whose well-being ⁸ was improved as a result of project activities	8,536	4.1.1	M=1 Same as livelihoods: 825

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

Category	Metric	Achievements during Monitoring Period	Section Reference	Achievements during the Project Lifetime
				=9,361
	Number of women whose well-being was improved as a result of project activities	1,684	4.1.1	1,684
Biodiversity conservation	Change in the number of hectares significantly better managed by the project for biodiversity conservation, ⁹ measured against the without-project scenario	178,474 (better managed than in a logging concession scenario)	3.2.2.2	178,474
	Number of globally Critically Endangered or Endangered species ¹⁰ benefiting from reduced threats as a result of project activities, ¹¹ measured against the without-project scenario	1	5.3.5	1

2 GENERAL

2.1 Project Description

2.1.1 Implementation Description

The project is located in the territory of Isangi in Tshopo province of the Democratic Republic of Congo (DRC). It contains one parcel of forest spanning two concession totaling 187,571 hectares (ha). Deforestation is occurring on three sides adjacent to the exterior boundaries of the project area.

In 2009, the project owner, Jadora, signed an agreement with Safbois SPRL (a DRC-based logging company) to develop carbon offsets on the logging concession leased from the DRC government by Safbois. The goal of this project was to avoid deforestation, protect forest biodiversity, and improve the livelihoods of forest-dependent communities. Jadora operated as the project proponent and directed and

benefits such as empowerment of community groups, strengthened legal rights to resources, conservation of access to areas of cultural significance, etc.

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 benefits.

funded all activities in the project area. The project started activities in early 2009 and was successfully validated and verified to CCB and VCS in 2014.

The project went through a significant transition in this, second, monitoring period. With the sudden death of the project proponent and Jadora CEO Donald Tuttle, Safbois, who provides the in-country logistical support for the project, decided to buy the Isangi REDD+ project. In August 2017, Safbois SPRL's CEO, Daniel Blattner, set in motion the process of purchasing Jadora and all the rights associated with the Isangi REDD+ project. This acquisition was complex, and the transition was not completed until May 2018. During this period of changeover, Safbois continued to develop and implement project activities, including all monthly funding of these activities and salaries. Now that the sale of all Jadora assets is complete, Safbois has hired a team of international experts and local staff to support the existing team and activities.

For clarification, though Safbois is now the full and legal owner of Jadora, and all government and legal documents are signed by Safbois, Jadora is the on-the-ground operating entity and the name that communities associate with project activities and partnership. Throughout this report, project implementation activities are executed by Jadora, and legal, governmental activities are executed by Safbois.

Activities to achieve the biodiversity and community objectives are numerous and are grouped into four major program areas: Improved access, Education, Land-use Planning, and Improved Agriculture.

Key programs implemented this monitoring period to achieve community objectives include the enrichment and expansion of capacity building programs, both for project staff and communities; the election and training of local development committees (CLDs) and locally-based community facilitators; and agricultural enhancement and diversification programs that achieve several simultaneous objectives such as providing agricultural alternatives, improving and varying access to food sources, and increasing the economic value of crops. See Section 4 for community monitoring results and demonstration of net-positive community impacts for this monitoring period.

Jadora's protection of the project area through its agreement with Safbois to forgo logging has preserved habitat for fauna and avoided the conversion of forest occupied by native tropical forest flora, including endangered plant species. In addition, its activities to improve quality of life and nutrition, the training of community members in aquaculture, as well as the tilapia and caterpillar tree program, work to provide alternatives to bushmeat protein. In this monitoring period, the biodiversity team has worked with communities, particularly hunters, to educate them on the importance of protecting flora and fauna in the forest and to inform them on nationally protected, endangered, and threatened species. In this monitoring period, Jadora has continued the faunal monitoring program and developed a flora monitoring program. To do this, the project has hired a regional expert on flora biodiversity. See Section 5 for biodiversity monitoring results and an assessment of net-positive impacts for this monitoring period.

Leakage is monitored using medium-resolution satellite image classification. Further details on leakage monitoring are presented on section 3.2.2 and its sub-sections.

Non-permanence risk factors are monitored throughout the project crediting period; however, there were no major non-permanence risk factors during the monitoring period. In the event that any non-permanence risks arise, they will be discussed and mitigated as part of the adaptive management process.

The total greenhouse gas (GHG) emission reductions generated in this monitoring period is 1,930,508 tCO₂e.

Also, some changes occurred due to changes in project ownership, as stated above. Other changes for the current monitoring period will be described in later sections.

2.1.2 Project Category and Activity Type

Project Scope: 14. Agriculture, Forest and other Land Use

Project Category: Reduction Emission from Deforestation and Degradation (REDD)

Type of Activity: Carbon Accounting for Mosaic and Landscape-scale REDD Projects

The project is not a group project.

2.1.3 Project Proponent(s)

Organization name	Safbois SPRL
Contact person	Daniel Blattner
Title	CEO Safbois
Address	1 Ave Des Poids Lourdes Kingabwa, Limete, Kinshasa Democratic Republic of Congo
Telephone	+243 81 500 8300, +1 215 295 4040
Email	Blattner.daniel@gmail.com

2.1.4 Other Entities Involved in the Project

Organization name	CEMCO
Role in the project	Branding/sales arm for Safbois
Contact person	Brandon Blattner
Title	CEO
Address	1790 Yardley Langhorne Rd. Suite 201, Yardley, PA 19067
Telephone	+1 215 601 3320
Email	brandon@cemcodrc.co

Organization name	South Pole
-------------------	------------

Role in the project	Project Developer South Pole elaborates and oversees the development of appropriate project design and monitoring techniques in line with the guidelines of the VCS.
Contact person	Abel Alan Marcarini
Title	Project Manager
Address	Carrera 46 # 7-59, Medellín, Colombia
Telephone	+57 4 520 5000
Email	a.marcarini@southpole.com

Organization name	Zamba Consulting
Role in the project	Project Developer; Program Development/Oversight Zamba Consulting oversees program development in accordance with CCBS guidelines as well as the operational management of project development.
Contact person	Jennifer Holland
Title	Program Manager
Address	9617 Stirling Arm Crescent, Port Alberni, BC, Canada
Telephone	+1 604 614 4180
Email	Jenn@zambacosulting.com

2.1.5 Project Start Date (G3.4)

The project start date is September 12, 2009.

2.1.6 Project Crediting Period (G3.4)

Thirty years starting September 12, 2009 and ending September 11, 2039. The results presented below occurred during the second monitoring and implementation period spanning from January 1, 2014 to December 31, 2019.

2.1.7 Project Location (G3.3)

Country: Democratic Republic of Congo
Nearest Large City: Yangambi (100 km west of Kisangani) Territory: Isangi
District: Yangambi Province: Tshopo

Precise Location of Project Activities: 0°24' North, 23° 55' East
Description: Isangi Logging Concessions of Saffois SPRL (ID numbers: 007/11 and 008/11)
Geographic location: Located in the central northeast of the DRC, the Isangi territory lies at the

heart of the Congo River basin and is described as a triangular peneplain at the confluence of the Congo River and one of its midreach ordered rivers, the Lomami. Surrounding it on the remaining sides are upland and lowland tropical forests. For a map of the project and leakage area, see Figure 1. KML files of the project and leakage area can be found in Annex 4¹².

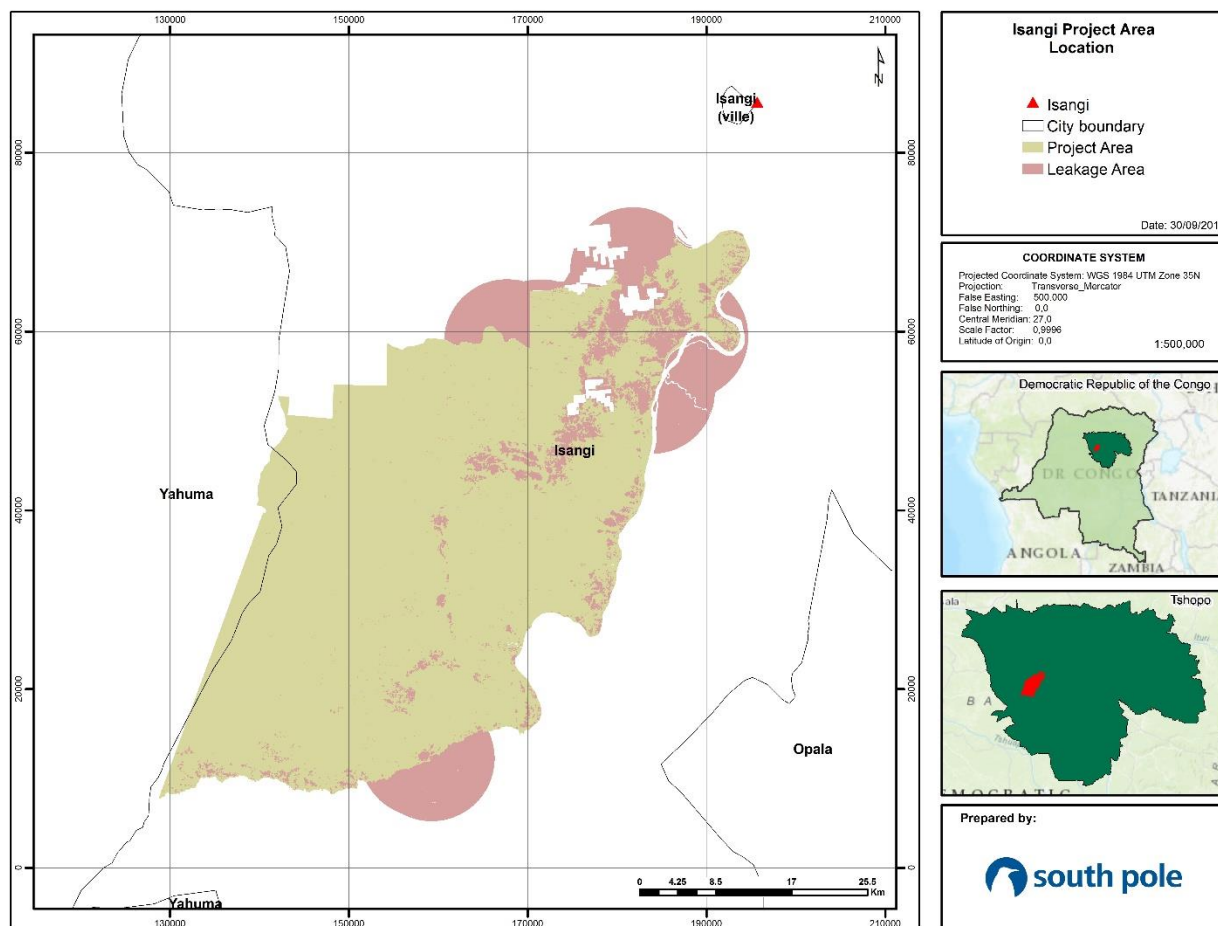


Figure 1: Map of project location in Africa and the DRC

2.1.8 Title and Reference of Methodology

VCS Methodology VM0006, Version 2.1. Methodology for Carbon Accounting for Mosaic and Landscape- scale REDD Projects.

2.1.9 Other Programs (CL1.5)

Not applicable. The Isangi REDD+ project has not been, and will not be, seeking registration under any other GHG programs other than VCS and CCB.

2.1.10 Sustainable Development

¹² Available at folder Supporting documents.

DRC has committed to implementing the new United Nations Sustainable Development Goals (SDGs) by 2030. It released its first national sustainable development report in 2016, which includes 17 SDGs, 38 targets, and 58 indicators.¹³

The Isangi REDD+ project provides many benefits, prioritized as sustainable development goals (ODD in French) by the DRC, to communities in the project zone. The project's theory of change measures activities intended to achieve objectives to improve quality of life and alleviate poverty by increasing access to quality education, improving public health practices, and promoting sustainable economic development and agricultural practices. In doing so, the project seeks to maintain the value of the ecosystem services upon which the community depends while supporting them in maintaining their traditional, cultural, and spiritual identities.

As the project's above-mentioned activities, objectives and focal issues align with the nationally prioritized SDGs, the monitoring and reporting of project activities and progress towards the objectives will also capture achievements towards the SDGs.

SDG 1. Poverty:

"In terms of eliminating poverty in all its forms, the DRC aims to completely eliminate extreme poverty and reduce the national incidence of poverty by at least half."

The project area is home to 33 villages with a combined population of more than 50,000 people. The Isangi project area supports a large but isolated population living off subsistence agriculture and less than USD 1 per household per day. Most basic needs are lacking while the potential and desire for economic development clearly exist. The health and nutrition status is extremely poor in the area and has deteriorated over the past decades. The national strategy document for poverty reduction identified focus areas for poverty alleviation. Enhancing agricultural production, providing clean water in villages, and improving health are among the main actions to be undertaken in this regard. The project is promoting sustainable development and poverty elevation through the advancement of sustainable agriculture and agriculture intensification (see section 4.1.1). Improving agricultural production and producing economically viable crops is one of the most effective ways to improve a community's economic outlook and livelihood. During this monitoring period, teaching gardens have been created in five different villages and qualified agronomists, as well as 18 newly hired and community based agronomists, have been working with community members across the entire project area to assist them in producing and selling their own commercially viable crops.

SDG 2. Zero hunger:

"With regard to the elimination of hunger and malnutrition, the DRC's objective is to eliminate hunger and all forms of malnutrition. And the need to ensure food security and better nutrition, as well as support for small farmers through sustainable farming practices."

The Isangi project has implemented educational programs and improved agricultural practices that have led to more agricultural productivity. The project has supplied the local communities with disease-resistant crops and improved seeds, while introducing the practice of field-soil improvement, intercropping, and no-burn farming. Through training the project has provided access to new techniques, tool and material distribution, agricultural support, assisted access to

¹³ National Report on the Contextualization and Prioritization of Sustainable Development Goals in the Democratic Republic of Congo Oct.2016.

markets, and assistance with domestic animal husbandry. These practices result in greater crop diversity and productivity, a wider range of nutritionally valuable crops, and a significant increase in the useable life of farmland. A good example of this has been the promotion of peanut cultivation, a plant that is a significant source of nutrition and fixes nitrogen to rejuvenate tropical soils. To date, Jadora has constructed over 51 community-built and managed ponds where we supply fry. Our caterpillar trees produce hundreds of kilograms of caterpillars in their two-month season (that naturally populate several endangered species of trees). These initiatives provide protein sources that dramatically reduce the practice of illegal bushmeat hunting in the project region.

SDG 3. Good Health and Well-being:

"In the area of health and well-being, the DRC wishes to significantly reduce maternal mortality by lowering the rate below 70 per 100,000 live births, drastically reduce the neonatal mortality rate to 12 per 1,000 live births and the mortality rate of children under 5 years of age to 25 per 1,000 live births, and ending the epidemics, malaria and other neglected diseases."

The project provides family planning workshops, a free dispensary (avg. USD 300/month), 24-hour health clinic and nurses (two salaried) for staff and community members in desperate need, as well as health and sanitation workshops. In late 2019, the project started a well and water source repair and maintenance program.

SDG 4. Quality of Education:

"As far as the education sector is concerned, the DRC aims to provide a full cycle of primary and secondary education for all children, to significantly increase the number of young people and adults with technical and professional skills, and to ensure equality in access to all genders and social groups (vulnerable, etc.)."

The project employs seven elementary and 14 secondary school teachers in what was the old Safbois school. The school is in progress to be qualified under the Ministry of Education. This is the first step to increase access to education in Yafunga. The project also hosts a student internship exchange from the University of Kisangani and other regional institutions.

SDG 5. Gender equality:

"In the area of gender, the DRC wishes to eliminate all forms of violence against women from public and private life and to ensure that women are effectively involved in all levels of decision-making."

2019 marks a significant increase in women staff positions (from 0-7), including high-level management positions and local (village-based) animateurs/agronomes. Each CLD must have two women in every 15-person committee and our senior biodiversity consultant is female.

SDG 6. Clean water and Sanitation:

"In terms of access to basic social services, the DRC's objective is to ensure equitable access to safe drinking water, at an affordable cost, as well as adequate sanitation and hygiene."

This monitoring period the project has upgraded water sources in two villages to reduce contamination especially during the wet season. Access to water sources used by approximately 1,000 people.

SDG 8. Decent work and Economic growth:

"To promote sustained economic growth and full employment, the DRC's ambition is to maintain an economic growth rate of at least 7% per year, achieve full employment of productive capacity

and ensure decent work for all and implement, policies to promote sustainable tourism to create jobs and showcase local cultures and products."

The project employees 62 full-time, salaried employees, 23 and teachers and in 2019, hired for 158-day work positions over the yearly activity cycle, mainly in agriculture and biodiversity monitoring. The entire team received a 20% pay raise this year. For more information see section 2.4.3.

SDG 13. Climate action:

"To combat climate change and its impacts, the DRC intends to incorporate climate change measures into its national and local policies, strategies and planning."

The Isangi project's main objective is to address the issue of deforestation by protecting the climate and reducing CO₂ emissions that result from the conversion of intact forest to agricultural land. The project implements a program to prevent degradation and deforestation by replacing the drivers of deforestation with more sustainable ways to meet the needs of the local communities, improve their quality of life and alleviate poverty. It also increases access to quality education, improves public health practices, and promotes sustainable economic development and agricultural practices. Jadora has verified 1,699,905 metric tons of CO₂ during the first monitoring period and aims to verify another 1,930,508 in this second monitoring period.

SDG 14 & 15. Aquatic & terrestrial life:

"To sustainably conserve marine resources, the DRC is committed to preserving and significantly reducing marine pollution of all types and to effectively regulating fisheries. In order to preserve terrestrial ecosystems, the option raised is to ensure the preservation, restoration and sustainable exploitation of ecosystems, promote the sustainable management of all types of forests and integrate the protection of ecosystems and the biodiversity in national planning."

187,571 ha of land is protected from logging through conservation. The Isangi project protects high conservation-value forests that provide ancillary benefits to wildlife and people and represent one of the most diverse habitats on the planet. Some of the world's most spectacular and endangered wildlife lives in the Congo basin, including one-half of the remaining elephants on the continent. Ten thousand species of plants (of which 3,000 are found nowhere else), 1,000 species of birds, and 400 species of mammals are found in the basin.¹⁴ Biodiversity workshops have been held with both local communities and regional leaders; locals hunters are now willing to convert to domestic animal farming. Tilapia farms and domesticated caterpillar trees provide alternatives to protein sourced from forests and rivers. Nurseries for fast-growing tree species like Acacia are being created in villages where there are limited fuel options available.

2.2 Project Implementation Status

2.2.1 Implementation Schedule (G3.4)

Date	Milestone(s) in the project's development and implementation
Sept 12, 2009	Project Start Date – Forest Conservation agreement between Jadora and Safbois signed
March 10, 2011	Letter of Attestation from the MECNT and the Minister of the Environment, Jose E.B. Endundo (Annex C)

¹⁴ USAID. [Congo River Basin Forest Partnership](#)

Sept 12, 2009 - Dec 31, 2013	First Monitoring Period
Sept 2013 - current	Tilapia pond training and construction
June 23, 2014	Partnership Contract signed between Safbois and MECNT (Annex D)
June, 2014	Original land rights agreements signed with land chiefs (Annex H)
Sept 9, 2014	Validated under CCB/VCS
Dec 18, 2014	Verified under CCB/VCS
Jan 1, 2014 - Dec 31, 2019	Second Monitoring Period
May 4, 2018	Safbois SPRL completes the purchase of Jadora LLC and Jadora SPRL (Annex F)
April 2019	Experienced Chef de Project hired and deployed
May 2019 - current	Agricultural Diversification and Intensification Plans co-developed with CLDs (Annex W)
October 2019	Social and Biodiversity Impact Assessment (SBIA) workshops completed (Annex I)
Nov 2019	Independent CLDs formed in every village in the project zone
Nov 2019 - current	Fuelwood plantations started and seedlings planted (re-implementation of activity)
Dec 20, 2019	Updated land use agreement signed with all 33 traditional landowners in the project area (Annex H)
Dec 20, 2019	Amendment to the Cahier de Charges signed (Annex J)

2.2.2 Methodology Deviations

Although the methodology foresees the measurement of biomass plots, for the current monitoring period, biomass plots were not measured. The project uses emission factors from the Tshopo JNR validation, and the biomass data used is derived from the DRC national FREL as further explained in Table 1 of the section 2.2.4 below. In addition to this, according to the methodology, 'for project areas registered within a JNR area and where biomass stock data has been registered under the jurisdictional REDD+ program for the same LULC class and forest strata as in the project areas, the most accurate estimates will be use'. This was also discussed with the VERRA technical team and the use of the emission factors from the DRC FREL was approved by the team for the current monitoring period. Supporting documents of the email communication with VERRA can be provided under request.

No other methodology deviations occurred during the current monitoring period.

2.2.3 Minor Changes to Project Description (*Rules 3.5.6*)

The 1st Monitoring Report (section 2.3) and the Implementation Plan from the 1st Monitoring Report (Annex E to PD) incorrectly stated that the calculation of community financial benefits was US 0.50/metric ton sold. This amount was determined in 2009 at project start within the Partnership Agreement (Annex D, Article 14) signed with the Ministry of Environment, Nature Conservation and Tourism and the project proponent. The correct calculation for community financial benefits is 12.5% of the total sale of carbon emissions reductions and this has been corrected throughout the project documents. This percentage allows for communities to receive an equitable share of the project's financial benefits in a fluctuating market.

There was no flora monitoring standard operating procedure (SOP) in the first verification as forest cover was used as a proxy state indicator. A separate flora monitoring SOP has now been created (Annex Y). Minor changes to the validated Fauna Monitoring SOP (Annex X) remove flora monitoring and include the restructuring of project management.

2.2.4 Project Description Deviations (*Rules 3.5.7 – 3.5.10*)

Table 1: Deviation in this monitoring period

Deviation	Deviation description
SOC	In this monitoring period, soil organic matter was not measured and is conservatively assumed to be zero.
Dead wood	Dead wood is not accounted in the DRC FREL, therefore this pool was not monitored during this monitoring period and conservatively excluded.
Project Baseline	The project is nested to the Tshopo JNR baseline. The Tshopo baseline is spatially explicit and maps for the whole province are available for years 2015, 2016, 2017, 2018, and 2019. Therefore, the project baseline is derived from the baseline developed to the Tshopo JNR. Since all pixels of the Tshopo map have an emission related to them, the cookie-cut method was used to determine the project baseline for those years. For year 2014, the project baseline used is the same as reported in the PD.
EF (emission factor)	In this monitoring period, the transition EF data under project scenario and leakage area were extracted from the DRC FREL data. ¹⁵ Therefore, forest inventory plots are not measured during the current monitoring period. The data under the baseline scenario in 2014 comes from the registered PD and data from 2015 onwards from the FREL of the DRC (EF for transition from forest to cropland is 688.30 tCO ₂ e/ha and 744.99 tCO ₂ e/ha from forest to settlements).

¹⁵ Page 60 of the DRC FREL. Available at folder Supporting documents, Annex 1

Modification of CCB Community and Biodiversity Monitoring Indicators

The CCB monitoring indicators were developed and validated prior to the implementation of most project activities, as per the requirements of the CCB standard. As project implementation continued, community-based consultations and implementation expanded (particularly with input from the Social and Biodiversity Impact Assessment workshops and the establishment of Local Development Committees). It was identified that some indicators were difficult or impossible to quantify and others were not realistic or attributable. As part of our adaptive management plan, in this second monitoring period, some community and biodiversity indicators were modified. In summary, the following changes were made in 2019:

- an objective and target were added for each retained indicator;
- where previously left blank, method, frequency, and responsibility were added;
- indicators that were found to repeat the measurement of the same or similar project activities with the same indicator type were combined and/or deleted;
- indicators that were developed for project activities that have not been implemented have been removed for this monitoring period;
- indicators that were identified as not specific, attributable, or realistic to measure were modified;
- some biodiversity indicators were not realistic to monitor in this monitoring period due to financial constraints but have been retained for subsequent monitoring; and
- indicators were developed for project activities developed and implemented in this second monitoring period.

Details for modified, removed, or added indicators can be found in Annex K and are reflected in sections 4.3 and 5.3 below.

Modification of the Project Proponent

In the Project Description of the Isangi REDD+ Project the project proponent is listed as Jadora LLC. Safbois SPRL is listed as “another entity involved in the project”. On September 24, 2016, the CEO of Jadora, Donald Tuttle, passed away and on May 4, 2018, Safbois SPRL bought all of the rights and assets of Jadora LLC. Safbois SPRL is now the sole project proponent. The deeds of Accession Representation and Partial Release Representation were submitted to VCS and Markit on June 6, 2018 (Annex F).

2.2.5 Risks to the Project (G3.5)

Jadora continues to be committed to the long-term enhancement of the community, climate, and biodiversity benefits of the project beyond the project lifetime. The primary avenue to ensure the permanence of the benefits to the community, and to a certain extent to biodiversity, is to increase the human capacity and access to opportunity for the people in the project area. Education and capacity

building are key components of this, and Jadora's commitment to workshops and skills development and extension services is foundational to this long-term goal.

Natural Risks to carbon stocks

- **Fire:** While fire is often used to clear small fields prior to cultivation, the project area is composed of wet tropical rainforest with a very low risk of significant fires. According to the results obtained from the (World Bank, 2020)¹⁶ natural risk analysis tool "Think Hazard", the forest fire danger in the project area is classified as medium. Project activities are designed to discourage small fires used in subsistence agriculture. Through the cessation of logging, access to primary forest through the road network is greatly reduced. No evidence of large-scale fires in the project area exists.
- **Pest and Disease Outbreak:** Due to the project area's wet tropical climate, high biodiversity levels, and natural distribution of native species, the forests have low susceptibility to losses due to pest and disease compared to forest plantations. No evidence of pest or disease outbreaks has been identified in the project area. The FAO profile for DRC does not show any forest areas affected by insects, disease, or fire.¹⁷ Furthermore, the two most common pests identified by FAO to occur in DRC are the cypress aphid (*Cinara cupressivora*) and the eucalyptus canker (*Chrysosporthe cubensis*). The project proponent has cross-referenced the hosts of these two pests with the forest inventory and found no individuals in the project area.¹⁸
- **Extreme Weather:** The primary weather risk in the project area is from flooding and/or drought as well as significant wind events. These occur naturally throughout the project zone and life in the region has adapted to the natural cycles of flooding and drought. These disturbances pose a very low risk to the project and project activities contribute to reducing this risk.
- **Geological Risk:** While there are active volcanos and seismic activity in eastern DRC, there is no risk of loss due to geologic forces in the project area. This assertion is confirmed by the United States Geologic Survey (USGS).¹⁹

Human Risks to carbon stocks

Jadora has identified multiple human risks to project benefits and designed measures to mitigate them. The following table summarizes the risks to climate, community, and biodiversity benefits. Each risk and relevant mitigation measures are described in greater detail below. Internal and external human risks affecting climate benefits are described in greater detail in the completed VCS Non-Permanence Risk Report²⁰.

¹⁶ World Bank. (2020). DRC. Available at: <https://doi.org/10.30875/efe120f9-es>

¹⁷ Disturbances statistics, Dem republic of Congo. Available at: <http://www.fao.org/forestry/country/32267/en/cod/>

¹⁸ Available at: <https://www.cabi.org/isc/datasheet/13579>

¹⁹ United States Geological Survey. (2020). Available at: <http://earthquake.usgs.gov/earthquakes/world/africa/gshap.php> and <http://earthquake.usgs.gov/earthquakes/world/africa/seismicity.php>

²⁰ Available at folder Supporting documents, Annex 6

Table 2: Risks to project benefits

Risk	Climate Benefits at Risk	Community Benefits at Risk	Biodiversity Benefits at Risk
Political Instability	Loss of forest protection due to change in ownership or carbon rights	No in-kind community benefits or development projects due to overall project implementation failure	Loss of habitat protection due to changes in ownership or carbon rights
Social Instability/ Unequal Distribution of Project Benefits	Failure of agreements with communities leading to loss of forest protection	Unequal distribution of project benefits to community members	Increase in hunting pressure due to the unequal distribution of alternative protein sources and education
Failure of the Project to Issue or sell Carbon Credits	Project failure due to lack of revenue source	Loss of in-kind project benefits and development projects funded by credit issuance	Loss of habitat protection and funding for surveys and biodiversity-related project activities
Customary Use Rights	Loss of forest protection due to communities opting out or not participating in project	Project may infringe on customary use rights to clear land for agriculture and hunting	No reduction in threats to biodiversity due to lack of community participation in project. Customary rights allow for hunting and forest clearing
Stakeholder Trade-Offs	N/A	Project activities may impact some community members more than others (e.g. hunters and Saffois employees may be negatively affected)	N/A
Hunting Leakage	N/A	N/A	Reduction in threats to faunal diversity may lead to increase in hunting outside of the project zone
Activity-Shifting Leakage	Communities may re-locate or travel outside of the project area to convert forest for agriculture, leading to an increase in CO ₂ emissions.	N/A	If deforestation activities shift outside of the project area, floral species and habitats will not be protected.
Natural Risks	See Non-Permanence Risk Report	Pests, disease, fire, and flooding could negatively impact crop yields from new agriculture and aquaculture projects.	Pests, disease, fire, and flooding could lead to habitat destruction or failure of project activities related to alternative protein sources.

Political Instability

Over the last 50 years, the DRC has been one of the least politically stable countries in the world. The most recent conflict, the Second Congo War, lasted from 1998-2003 and included several major conflicts in the Orientale Province. However, the country is emerging from these past conflicts, and the second free elections under a new constitution were held in 2019, in which the current president Felix Tshisekedi was elected. Furthermore, forest concessions have rarely been affected by conflict and are rarely subject to extra-legal, third-party takeover.

Political risks largely relate to the overall implementation of the project and its climate benefits as demonstrated in the project's Non-Permanence Risk Report²¹. However, these operational risks have implications for the project's community and biodiversity benefits as they are made possible through the issuance and sale of VCU's. By mitigating the political risks to climate benefits through engaging and partnering with communities, the various levels of government, and civil society, Jadora has mitigated the associated risks to community and biodiversity benefits. During the monitoring period, Jadora has maintained close relationships with local, regional, and national government officials. This support is evident from the approval and support granted to Jadora by the Ministry of Environment, Natural Resources, and Tourism (see Annex AS²²).

Social Instability/Unequal Distribution of Project Benefits

In the UNDP's most recent Human Development Report, the DRC ranks 179 out of 187 countries – very low, but with an upward trend in the last five years. Military, health, and social unrest issues remain at critical levels, notably in eastern DRC. Jadora recognizes this risk and the alleviation of critical social ills is one of the primary goals of the Isangi REDD+ Project. The integrated program has a focus on social capacity building. By focusing on education, healthcare, and economic well-being, Jadora has improved the social stability of the region and meets regularly with local chiefs of the project region to ensure open discussion that will help ward off social uprising. In the last monitoring period, the villages of the project zone established 29 CLDs as well as 18 village-based community facilitators. These CLDs and village-based facilitators will be the focus of local governance and social capacity building and are the liaison between project area communities and the project.

There is a risk that project benefits will not be distributed equally among participating communities in the project zone as a result of social instability or a lack of oversight in community benefits allocation. This risk has been mitigated by electing and training CLDs (as above) and holding open meetings with representatives from Jadora and local government officials, on community benefit planning (as below, *Cahier de Charges*). Jadora also has a robust grievance process for responding to community feedback such as the perception of unequal project benefit distribution (Annex M).

Support from the community for the project is strong. Community engagement and consultation has been ongoing and will continue throughout the life of the project. These participatory methods allow for feedback from communities and allow adjustments to be made in the event that communities express concern over unequal distribution of benefits. In December 2019, at the request of communities, the project re-negotiated the *Cahier de Charges*, (social commitments) with communities (Annex J). These updated agreements will create a solid foundation to update benefit sharing mechanisms that are both equitable, incentivized, and representative of traditional environmental benefit distributions.

²¹ Available at folder Supporting documents, Annex 6.

²² Available at folder Supporting documents, Annex previous certification, First verification

With the above-mentioned measures, the project has mitigated these risks in the last monitoring period and will continue to do so into the future.

Failure of the Project to Issue Carbon Credits

Since the last verification the project has sold most of the stock of carbon credits issued. Unfortunately, the market has been very low over the past five years, so profits from this sale have not been significant and have been diverted, in part, to the Safbois purchase of Jadora. However, even with these realities, the profits from sales, and the additional income provided by the project proponent, have continued to support the project activities. Looking forward, the project has an NDA with a significant project financier and at least two multi-million dollar grant applications (USAID and Green Climate Fund) that are in the secondary stages of application.

The project's success hinges on the issuance and sale of carbon credits. As such, the failure to issue credits poses a risk to climate, community, and biodiversity benefits. The project proponent has mitigated the risk to climate benefits by hiring and retaining experts to ensure the project meets the requirements of the methodology and the VCS program (see section 2.4.1). Jadora has also procured adequate funding to continue to implement during an era of low VCU prices and has continued to use conservative VCU prices in the project's financial model. For more information, see the Non-Permanence Risk Report²³ and project net revenue and cash flow worksheet (Annex AD). The risks and mitigation measures for these climate risks also apply to the related biodiversity risks.

Jadora contributes 12.5% of total revenue of carbon credits sold for use in in-kind services to communities. There is a risk that Jadora will fail to issue and sell credits over the project lifetime due to funding, capacity, or technical issues. This risk is mitigated by the fact that community benefits are directly aligned with Jadora's interests in maintaining its investments and generating income over the project lifetime. Since 2009, Jadora has maintained project activities with upfront investments and the sale of carbon credits.

Customary Use Rights

There was a risk that the project would infringe on the communities' customary land use rights for agriculture, animal hunting, and other traditional cultural uses in the project zone. Jadora has mitigated this risk by taking a voluntary approach to project activities approved by communities through a thorough free, prior, and informed consent (FPIC) process (see section 3.7.1 of the Jadora Isangi Project Description). The FPIC process is iterative throughout the project lifetime and was formally completed again in December 2019 where all 33 project area traditional land owners signed renewed land use agreements. The project does not infringe on communities' rights to use the forest; however, it does create alternatives to traditional activities that deplete forest and biodiversity resources.

Furthermore, customary rights pose a risk to climate and biodiversity benefits because communities may opt-out or not participate in the project. This could lead to adverse effects on GHG emissions and biodiversity resources in the project zone. Jadora has mitigated this risk by providing attractive incentives to participating in the project. Over time, ongoing stakeholder consultation and an adaptive management process will continue to ensure project activities and incentives effectively meet the

²³ Available at folder Supporting documents, Annex 6.

needs of communities in the project zone and encourage continued participation in the project. During the first monitoring period, Jadora's programs have received wide community support, and Jadora has not received any claims that the project has infringed on customary use rights in community consultation meetings, the public comment period, or through the grievance process.

Stakeholder Trade-Offs

Project activities have the potential to affect some individuals more than others. For example, the cessation of logging in the project area affected employment in and around the concession. While many people benefited from learning and practicing new agricultural techniques, some Safbois employees were negatively affected by the change in forest management type. Jadora had 62 employees at the end of 2019 (this increased in January 2020) where Safbois previously employed 80. Jadora works with offsite stakeholders to ensure that project benefits are also implemented in project zone communities. Jadora also engages with individual stakeholder groups, such as agriculturist and hunters who may be impacted by the conservation nature of the project, to ensure that benefits are also positive for them. While the project has had a net-positive impact on communities and biodiversity resources, some individuals were disproportionately affected by the project. Jadora's grievance process (Annex M) and Community Engagement Department also have helped to identify and resolve negative impacts on individuals that have occurred as a result of the project.

Hunting Leakage

While the project discourages hunting, it does not prohibit hunting in the project zone. It is possible, however, that hunters have relocated their activities to areas outside of the project zone due to social or other pressures, leading to offsite impacts on biodiversity. Jadora has mitigated this risk by taking a non-confrontational approach to education and monitoring. Hunters are not chastised or punished in any way. Moreover, Jadora has created access to alternative protein sources through activities that require less time and fewer financial resources than hunting. These incentives have encouraged community members to obtain protein and food from sources other than wild animals without having to travel into the primary forest or outside the project zone. It is still difficult to assess how programs have affected hunting within or outside of the project zone; however, we know that all protein alternatives are well received and quickly replicated by communities. For these reasons, hunting leakage is assessed to be minimal at this time.

Activity-Shifting Leakage

Activity-shifting leakage poses a threat to climate and biodiversity benefits. By changing land use behaviors in the project area, individuals may choose to relocate their homes or farms to areas outside the project area. This can cause a reduction in forest area protected from conversion to cropland resulting in an increase in GHG emissions and/or a loss of habitat. Jadora actively monitors and has mitigated activity-shifting leakage (see sections 5.2 and 5.5 of the Jadora Isangi Project Description). While leakage occurred in the monitoring period, this deforestation largely occurred in established buffer zones and is dwarfed by the amount of area that was protected in the project area compared to the baseline scenario. Project activities related to land-use planning have been designed to reduce the effects of activity-shifting leakage and are slated to be implemented further in the next monitoring period.

2.2.6 Enhancement of High Conservation Values (G3.6)

By converting the project area from a logging concession to a conservation concession, and subsequently halting industrial road building and the ensuing forest degradation, Jadora has significantly protected high conservation values (HCVs) for biodiversity and communities in the project area. In addition to this conversion, many of the project's activities aim to maintain and enhance important habitats and landscapes. Activities such as flora and fauna monitoring, community capacity-building, and education that teaches both the importance of flora and fauna conservation and the important alternatives to forest- and biodiversity-degrading practices are all helping to maintain and enhance HCVs. Activities implemented to achieve this during the monitoring period are discussed below.

Biodiversity Education Workshops (HCVs 1,5)

Jadora has held 20 workshops between 2014 and 2019 that bring together communities, hunter groups, and local authorities to discuss the importance of respecting the law regarding DRC's protected species²⁴, specifically the IUCN Red-listed species. These workshops also discuss the importance of flora and fauna conservation overall and how this conservation aligns with the objectives and success of the project. See sections 5.3.2 and 4.1.3 for further detail on the biodiversity workshops and their impacts and Annex BD and Annex AH for transcribed minutes.

Conversion from Logging to Conservation (HCVs 1,2,4,5,6)

The project area was a logging concession in the past; however, the owner decided to protect the area. The area of forest preserved accounts for 178,474 ha.

Protein Alternative Activities like Tilapia Ponds and Caterpillar Trees (HCVs 1,5)

Project activities such as caterpillar tree planting and aquaculture will fundamentally enhance the community's access to protein as well as its ability to produce for revenue at the same time, relieving the pressure and dependence on animals for bushmeat. These activities began in the last monitoring period and continued throughout this monitoring period. See Section 5.1.3, 4.1.3 and 4.1.1 for further discussion on activities and impacts. See Annex BD, Agricultural Activities.

Agriculture Diversification and Intensification (HCVs 1,2,4,5)

Throughout the monitoring period, Jadora provided seeds, materials, training, and mentorship to project zone communities in an effort to provide them with the resources and skills to move away from traditional slash and burn agriculture and towards techniques that improve crops and revenue without having to fall back on converting forest to cropland. For further discussion see sections 4.1.1, 4.1.3, and 5.3.3 and Annex BD.

Agroforestry for Fuelwood and Construction Materials (HCVs 1,2,4,5)

Jadora has started nurseries of Acacia (*Acacias nilotuca*), Wenge (*Millettia laurentii*), and Eucalyptus (*Eucalyptus spp*). This tree planting program is designed to increase the production of fuelwood and

²⁴ https://hcvnetwork.org/wp-content/uploads/2018/05/2012WWF-ProforestInitiative_HCV_Congo.pdf

construction materials to fulfill community needs while relieving the pressure on the primary forest. The project is currently focusing this program on communities with limited or no access to primary forest. See sections 4.1.1, 4.1.3, and 5.1.3 for further details.

Faunal and Flora Surveys (HCVs 1,2,3)

Jadora is implementing measures to better understand the biodiversity in the project zone through flora and faunal surveys as well as bushmeat market surveys. The flora survey started in 2019 and fauna surveys have taken place each year of the monitoring period. While these activities were delayed somewhat in the middle of the last monitoring period, they have been initiated again with the help of a local GIS technician and flora diversity expert. The results of these surveys will be used to develop a forest and biodiversity conservation program that will be initiated in 2020. See sections 5.1.2 and 5.3.2 for further discussion and results from these activities as well as Annex AZ and Annex BC for the inventory reports.

Updated Land Use Agreements with Project Area Communities (HCVs 1,2, 4,5,6)

In December 2019, Jadora met with all 33 project area village chiefs, representing all 74 project area clans. These meetings were the culmination of many months of renewed engagement and Social and Biodiversity Impact Assessment workshops, and they resulted in traditional landowners agreeing to the continuation of project activities and the principles of forest conservation and land use management. See sections 2.5.2 and 4.1.1 and Annex H for further details.

2.2.7 Benefit Permanence (G3.7)

The pervasive challenge to sustained development and improving poverty levels in rural DRC is the systemic lack of capacity throughout all disciplines that reaches profoundly across basic community needs. This has been identified by communities themselves during the SBIA workshops and throughout community consultation activities. To be successful in the near-term, project activities need to meet the communities' basic needs today, this season, and this year. But, to maintain these positive impacts and carry them through from one generation to the next, cultural change and generational improvements to capacity and opportunities need to be supported. For this reason, one of Jadora's four main program areas – and likely our most important – is education. Education does not just refer to schools and children, but also to building capacity across genders, stakeholder groups, disciplines, and economies. Capacity-building for the Isangi REDD+ project strikes a careful balance between the needs and desires of communities, the realities of local, regional, national, and international markets, and the objectives of the project. It is this focus on education, capacity-building, long-term opportunities, and adapting it to the realities on the ground and in the region over the lifetime of the project, that will maintain and enhance climate, community, and biodiversity benefits beyond the lifetime of the project.

An example of the capacity-building described above is the support of community elections of CLDs in all 29 villages in this second monitoring period. These CLDs represent their communities' interests in the planning and implementation of project activities funded through the community benefit fund, as well as for other activities that concern the development and well-being of the community. Once elected, these CLDs were given extensive training to support their administration in the early stages and will receive ongoing support as needed for the lifetime of the project. CLDs have established their rules and regulations and submitted them to regional government officials.

Another example of capacity-building is the Isangi REDD+ Project's agriculture extension program. In the first year of the program, communities have shown an important desire to move away from labor-intensive, low-return-on-investment (specifically time and energy investment) activities such as slash and burn agriculture and hunting, as well as a strong interest in learning alternatives that are less labor-intensive, more sustainable for the local ecosystems, and have improved market revenue, scalability, and sustainability over time.

It is these long-term capacity-building and opportunity-generating activities (described here and in sections 4.1.1 and 4.1.2) that will enhance the permanence of project activities and benefits beyond the lifetime of the project.

2.3 Stakeholder Engagement

2.3.1 Community Consultation (G3.8)

Stakeholders have had direct involvement with the planning and implementation of the project since its inception in 2009. The development of the PD and monitoring plan was informed by the project's first theory of change as was the activity implementation and subsequent monitoring. In the first monitoring period, stakeholders were identified and engaged by the Community Consultation Team via meetings with various stakeholder groups and radio broadcasts, all results from stakeholder involvement were presented to the Jadora Management Team. The Community Monitoring SOP (Annex N) supported all community engagement activities.

The Jadora Management Team and Isangi Project Manager continue to be responsible for overseeing stakeholder involvement; however, a more robust system has been developed for communicating and engaging with, and utilizing input from, community stakeholders. Changes to the communication and consultation plan were made based on feedback from communities at the beginning of the new project manager's term in early 2019. Based on this feedback, new communication techniques were formalized and consultation has taken a more bottom up approach. Local animateurs were hired in nine of the project area villages in June 2019 and community-elected CLDs have been formed and facilitator and stakeholder engagement training has become a pillar of project activities. Because project staff live, work, and belong in the project area, all project staff are trained on the basic principles and objectives of the project and questions frequently asked by community members are raised and discussed in all staff meetings. The Community Consultation Team is now referred to as the Stakeholder Engagement Department. The Community Monitoring SOP has been updated to reflect these changes (Annex N).

Jadora continues to hold different types of workshops and meetings in each village. Meeting types include specific stakeholder groups (such as hunters or agriculturalists) just the village chiefs, the general populace, and youth and women only meetings to ensure each subset of a community are in an environment in which they feel free to discuss their ideas, opinions, and desires from the project. For each meeting, the community engagement team follows the community monitoring SOP and records the names of participants along with a summary of the topics discussed. These records are filed in the project offices (see Annex N for the Community Monitoring SOP and Annex O Jadora Meeting Policy).

Outside of formally organized meetings and workshops, the communities have multiple avenues of communication with the project. Local Animateurs are now employed in 28 villages across the project area. They are carefully trained project staff (see Worker Training Section 2.4.2) and the first point of contact for communities. The CLDs also serve as a liaison between project zone communities and Jadora. The Jadora offices are always open to the communities, with community members visiting on a daily basis. The Project Manager meets with community members when possible, and otherwise, other senior members of the community engagement team do so. If there is a conflict or grievance the Grievance Policy is followed (see section 2.3.4 and Annex M for further details).

As noted in the Isangi Implementation Plan, and its replacement, the Annual Operating Plan (Annex P), ongoing consultation, and community monitoring feed directly into the adaptive management process for the project. Community impact monitoring, particularly participatory community impact monitoring, is undertaken to gauge if the project has been effective in moving toward achieving its objectives from the community perspective (see Annex Q for the Community Participatory Monitoring Method). Results from this monitoring is shared with stakeholders and presented as an infographic for project area communities. Their feedback is encouraged and documented in project offices.

Key stakeholder engagement activities undertaken in the last monitoring period are described in further detail below.

as



Figure 2: Community-wide meeting in October 2019 with the CLD, wise men, and the community at large in Yaula 2

Information, Education and Communication (IEC) Meetings

IEC meetings are held with various levels of stakeholder groups in the project area (mainly leaders and chiefs, women, youths, and local government officials). These meetings are organized to educate communities about key project issues such as climate change, REDD+, and the carbon market, as well as to share information about the implementation of project activities and hear from communities regarding their

questions, ideas, feedback, or concerns (Annex AX). Jadora also holds meetings specifically for women to ensure engagement with this important stakeholder

group. Further details can be found in section 4.1.1 and in the Terms of Reference for Women's Awareness workshops Annex AX.

Establishment of Local Development Committees

The election of CLDs followed extensive IEC meetings in each village. The purpose of a local development committee (determining and managing the community's development activities – both associated with the project and outside of project activities) is explained to the village population, as well as the roles that each of its members will have. Elections are held in public with ballots and the entire population is encouraged to vote. Project staff hold a facilitation role only. The only stipulation for CLD membership is that two or more women must be elected, and the total number of members is 15. Elected CLDs carefully represented each clan and stakeholder group in each village.

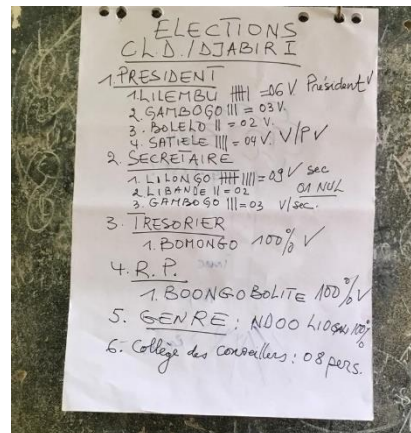


Figure 3: Tally card for the CLD election in Djabiri

Once elected, CLDs are visited twice a month, on average, by project staff to assist them in establishing their statutes, to provide training on each of their roles, and to generally support and enhance their capacity to operate (see Annex R CLD Engagement Protocol and Annex S Capacity Building Guidelines for CLDs). Of course, part of this has been working with various CLDs on the establishment of activities in their villages – such as the season B 2019 agricultural plan and tilapia ponds. The CLDs were also tasked with responding to five questions for the community participatory monitoring (Annex AL). The project and the CLDs are in frequent communication. A map with the location of the CLDs is provided in Annex BD, Community Activities.

Local Animateurs/Agronomists Hiring and Training in Nine Project Area Villages

At the beginning of 2019, it was identified via community input that project staff, and thus the project, were not effectively represented in many remote project area villages. For this reason, the project decided to hire community engagement and agronomist facilitators in each of the main project area villages. The available jobs were posted and a formal, but accessible, hiring and training process was followed. The process for this is described in full in section 2.4.2. These local animateurs, charged with both community engagement and managing agricultural programs on the local level, have become a center point of project activities; communities are able to access the project and its activities in their own villages, and community needs are better represented to project management through the staff living and working there. The Community Activities map in Annex BD, shows where these facilitators work and live.

Social and Biodiversity Impact Assessment Workshops

These three-day workshops were held in two of the three project area regions in October 2019 and directly followed guidance provided in the 2011

to



Figure 4: Community members work in focus groups to complete results chains during the SBIA workshops with the Secteur Baloulambila

Social and Biodiversity Impact Assessment.²⁵ Attendees were carefully selected to represent all the stakeholder groups in the region, to ensure men and women were equally represented, and ensure that village leaders and general community members were present. The workshops focused on producing a shared understanding of the project goal and vision, detailed stakeholder analysis, problem flow analysis, potential project activity identification, results chains analysis, and risk and negative impact assessment. Results from these workshops will inform all future project activities and have already been included in the

development of the 2020 agricultural plan and the *cahier de charge* negotiations. The outcomes of these workshops are discussed in further detail in section 4.1.2 (SBIA report Annex I).

Stakeholder groups identified by communities in these workshops are:

- land chiefs (chef de terre), Chiefs of sectors (chef de sector/groupment), wise men, clans;
- river communities (majority of project area communities);
- the provincial government;
- local Administrators;
- the Isangi Territory;
- future generations;
- youth;
- women;
- farmers;
- small scale producers and businesses;
- agriculturalists, hunters;
- buyers; and
- students.

The above identified stakeholder groups are included in the project's annual operating plan and incorporated as key stakeholder groups in the community monitoring workplan and all community engagement activities.

Amendments to Existing *Cahier des Charges*

The communities have requested a new *cahier des charges* be signed as the old *cahier des charges* was signed with Safbois prior to forest conservation activities commencing. The *cahier des charge* is the Social Chapter of the forest concession agreement that is signed between project area communities, the project proponent, and the government for any forest concession in the DRC. The document lists commitments that the concession holder makes to communities within the concession. The existing agreement was outdated and not representative of the current objectives of the project.

²⁵ *Social and Biodiversity Impact Assessment (SBIA) Manual for REDD+ Projects – Part 1 & Part 2, 2011*

Cahier des charges negotiations require that all traditional leaders and landowners are represented. These negotiations were held on December 18, 19, and 20 of 2019. Every village and clan in the project area was represented. In fact, so many wise men and village “notables” attended that a rule was created that those not appointed as immediate negotiators could only observe and consult with those negotiating on breaks.

The final amendment to the *cahier des charges* incorporates findings from the Social and Biodiversity Assessment Workshops and will be used as a foundation to plan major project activities for the remainder of the project lifetime (Annex J and Annex I).

Updated and Newly Signed Land Use Agreements with Landowners

At the beginning of the project, land use agreements were signed with between Jadora and 12 project area communities stating that they understood and agreed to project activities and agreed to avoid the conversion of primary forest into agriculture. In 2019, these agreements were renewed and signed with all 33 of the project area village chiefs (who are the traditionally recognized owners of the land). The agreements came after months of renewed Information, IEC meetings (as discussed above), and a multiday renegotiation of the project’s social commitments (discussed above). The land use agreements (signed and discussed in Lingala) state that they understand and agree to project activities and agree to avoid the conversion of primary forest into agriculture, including protecting this forest from outside actors. The communities acknowledge that they have made these commitments in their own time. Further discussion of these agreements can be found in section 2.5.2 and the agreements and translation can be found in Annex H.

Project Zone Communities Relying on Busira-Lomami

This monitoring period, the Community Engagement Team engaged more with communities that live outside of the project accounting area but within the project zone. Because these communities are surrounded by palm plantations, they are left with a limited amount of land with which to farm. To reduce the risk that expanding farming activities from these communities would pose on the project objectives, the project has undertaken community engagement activities in these communities. This includes establishing CLDs and activities such as agroforestry, agricultural intensification training, reforestation with fast growing species that can be used as fuel wood and building materials, and the planting of caterpillar trees for protein supply.

Local and Provincial Government Officials

Jadora engages frequently with local and provincial officials such as the Isangi Territory Administrator (*administrateur du territoire*), the Governor of Tshopo (*gouverneur de la Tshopo*), the Provincial Environmental Coordinator (*coordonateur provincial de la environnement*), and other regional and national stakeholders based outside of the project area but impacted and influenced by the project area. Local and provincial government officials are supportive of the project and frequently give their input on project direction and attend project meetings when requested.

Importance of Biodiversity Workshops

The project has organized meetings with local authorities to educate them on the importance of protecting both flora and fauna biodiversity in the project area. These meetings are important as they

enable authorities to better understand the role they play in the protection of this biodiversity and allow them to share their perspective on risks and mitigation strategies that can be implemented to further community-based conservation efforts. The location of these workshops can be seen in Annex BD, Biodiversity Activities, and further discussion of the outcomes of these workshops is given in section 5.1.

Engagement with Busira-Lomami Palm Oil Plantation Authorities

To inform the neighboring palm oil plantation of project objectives and activities, the Community Engagement Team has organized meetings with the Busira-Lomami authorities. The objectives of these meetings is to raise awareness with the company that their activities are a potential threat to the project objectives and share information about the project activities we have implemented in the palm oil plantation communities to reduce this threat (Annex AY).

2.3.2 Public Comment Period Publicity (G3.9)

This document will be posted to the VERRA project database²⁶ and held open for public comment. The project has also prepared a summary of this Monitoring and Implementation Report in French in accordance with the *Rules for the Use of the CCB Standards* (June, 2017).²⁷ These documents have been also been translated into Lingala, the language most prevalently spoken in the project zone, and posted on the CCBA website. French words are used to fill gaps in Lingala vocabulary in these summaries.

Communication of the comment process and availability of the above translated documents have been shared in the local language.

The project manager and staff have direct communication with all project area communities through our local animateurs based in many of the project area villages. These local animateurs began communicating the project information, dates, and process of the public comment period in early 2020. The local animateurs also oversee communication boards in many of the project area villages, where project information and the comment-period process is posted for all members of the communities to see.

CLDs are based in each of the project area villages. These committees act as the liaison between the project and their communities and have been provided copies of monitoring results and monitoring report summaries to review and comment on project information.

Finally, the project frequently uses radio to communicate project activities to project area communities. The public comment period will be communicated on the radio the second week of March with information on where community members can acquire additional information and materials, either at the communication boards, from the local animateurs, or at the project's main office, and where comments should be lodged.

Because of the limited to no existence of technology in the project area, as well as low literacy rates, comments for verification are accepted in all forms, verbal (recorded by animateur or project

²⁶ <https://www.vcsprojectdatabase.org>

²⁷ <https://verra.org/project/ccb-program/rules-requirements-and-guidance/>

secretary), handwritten or otherwise, and are carefully scanned and filed in the Yafunga office by the project secretary. A computer and access to the internet is provided for community members to comment.

Local, provincial, and national governmental officials such as the Isangi Territory Administrator, the Governor of Tshopo, the Provincial Environmental Coordinator and the DRC Minister of Environment, as well as other regional and national stakeholders based outside of the project area, have been notified of the public comment period via email and direct communication.

2.3.3 Distribution of Project Information (G3.9)

Because of project area logistics, the publicity of the comment period and distribution of project information are generally undertaken with the same means. For this reason, much of the response to this indicator is covered in the above section.

The project has prepared a summary of this Monitoring and Implementation Report in French (Annex T) in accordance with the Rules for the Use of the CCB Standards (June, 2017). These documents have been translated into Lingala (Annex T), the language most prevalently spoken in the project zone, and posted on the VERRA website, as described in Section 2.3.2 above. The monitoring plan results have also been presented as an infographic (Section 4.3.3) to facilitate visual comprehension and because of low community literacy rates.

In the project area a series of informational meetings were held. This began with the project's weekly staff training meeting dedicated to presenting the monitoring results and monitoring report. This staff meeting is important because our staff are also community, and even though they may not be in direct charge of project communication, they still communicate with communities and neighbors on a daily basis, so correct understanding of project activities is important.

Project staff also shared and explained project information to local animateurs and CLDs and communicated that project information was posted on community communication boards and available in the project offices. Project communication is always held in relevant local languages.

For outside stakeholders, project information was either emailed or delivered personally.

2.3.4 Conflicts and Grievances (G3.10)

In general, as the Grievance Policy states, Jadora works to reduce the potential for grievances by ensuring that there is equity in the distribution of opportunity and that there is open dialog and social inclusion with all communities and individuals. Community Engagement staff, and all Jadora staff, are trained in the principles of community facilitation and conflict resolution. To create an environment of open dialogue, Jadora holds regular village level meetings and always leaves ample time to hear community feedback, misunderstandings, and complaints. For this reason, most issues are resolved at the village level.

Formal grievances are generally received verbally during a visit to the Jadora office or during a staff visit to a village. Sometimes, groups of concerned community members write a letter together and send it to the Jadora offices. In all cases, misunderstandings, complaints, and grievances are dealt with following the Jadora Grievance Policy (Annex M) and are filed in the Jadora offices.

Jadora has both a formal process for considering input and community concerns as well as a more traditional approach to hearing and responding to community concerns: the speaking tree (*l'arbre à palabre*), where the old/wise men of the village sit under a special tree and discuss a conflict or problem to find resolutions. The majority of issues are solved with *l'arbre à palabre*; however, records of these issues and discussions are still kept in the Jadora offices.

When a grievance is received, the Community Engagement Team engages directly with the villages chief or chiefs involved. This is because they are responsible for the traditional conflict resolution mechanism in their own villages. During these meetings the Community Engagement Team determines who is involved, the nature of the grievance and whether the grievance is unique to that location or time or is systemic.

Resolutions vary depending on the grievance. They can either involve a policy change, timeline or location change to project activities, resource allocation change or increase, or personnel change. Most frequently, grievances come from a lack of understanding of the project process and can be resolved by taking time to listen and explain in a way that is meaningful to that person or community.

No grievances, since the project start date, have required that the issue be escalated to the level of the territory administrator.

2.4 Management Capacity and Best Practices

2.4.1 Required Technical Skills and Expertise (G4.2)

The management team, acting as an advisory panel, consists of international experts with decades of experience in the carbon market, REDD+ project implementation, and DRC national REDD+ strategy, requirements, and law. Further descriptions of roles and responsibilities and reporting hierarchies of the management structure can be found in the 2019 Annual Operating Plan (Annex P).

Because of the change in ownership in the project, the management team has changed significantly. This included signing a contract with Jennifer Holland, one of the world's leading experts in REDD+ project implementation in the DRC. Jennifer worked together with Jacques Ipoma on the Mai Ndombe REDD+ project and led that project through its first successful verification and directed the project's operations for a further three years after that. She lived in the DRC at that time and has the unique skills and expertise required to implement a REDD+ project in remote DRC. She is currently the CCB verification lead and the Program Manager.

For this verification the project has partnered with South Pole. South Pole has substantial experience in sustainable landscape and forest management. South Pole currently has a highly qualified and motivated team of more than 30 climate change and land use experts. Forests and nature-based co-benefits have been part of South Pole's core activities since the company was founded in 2006. South Pole's team continuously manages the MRV of GHG benefits of more than 25 land use projects, including reforestation, REDD+ and regeneration. South Pole successfully verified the first Voluntary Carbon Standard and Climate Community and Biodiversity Standard (VCS-CCBS) forestry project in South America in 2011: the Asorpar Regeneration of Degraded Lands Project in Colombia. In 2013, South Pole verified one of the world's largest community-based REDD+ projects, the Kariba REDD+ project in Zimbabwe. South Pole is the world's largest developer of climate mitigation projects, with a project team that consists of over 50 professional climate mitigation senior leads and project

managers with a variety of engineering, science/biology, geography/GIS, social/anthropology, and business management backgrounds. Since 2006, South Pole's project development team has successfully developed, managed, advised on project development for over 700 climate mitigation projects with different scopes, technologies, and scales in over 35 different countries.

Woods Hole Research Institute has taken a strong advisory role in the last few years of the project, providing technical and financial advisory support and contributing experienced team members when required. They are currently in the advanced stage of grant applications worth over USD 1 billion with both the Green Climate Fund and USAID/CARPE (see Annex AJ).

On the ground, since taking sole ownership of the project, Safbois/Jadora has carefully compiled a team of international (referred to above) and national experts. Most notably, the appointment of Jacques Ipoma, *Chef de Projet*. Jacques Ipoma brings with him seven years of experience working on the Mai Ndombe REDD+ project, where he led the Community Engagement Department for six years through both the project's first and second successful CCB/VCS site audits and subsequent verifications.

The biodiversity assessment team was augmented this monitoring period with the engagement of Lolo Cecile, a flora and fauna assessment, forest management expert, and GIS mapping technician based in Kisangani. Lolo designed the project's first flora monitoring SOP, oversaw the training and management of the biodiversity data collection teams – for both flora and fauna – and led the analysis of the data collected this monitoring period. She will continue to work for the project and with the biodiversity teams in this important and expanding role.

2.4.2 Worker Training (G4.3)

Fish Farming Workshop

In 2016, the agroforestry team and some community members (55 attendees), were given extensive theoretic and practical training on the building (with local materials), maintenance, feeding (with local plants), stocking, and harvesting of fish farms. These workshops have proven to be the basis of one of the most successful project activities with agronomists hosting numerous workshops over the past monitoring period and community-built ponds increasing significantly in popularity and demand (Annex AY).

Intensive, All Staff, Capacity-Building Workshop (Terms of Reference for Staff Capacity Building Workshop Annex V)

When the new project manager started in April 2019, he organized an all staff workshop (33 participants) to assess and renew the capacity of project staff. This workshop included the following topics:

- processes and application of REDD+ on the national and international scale;
- review of Isangi REDD+ project objectives;
- review of important concepts such as: climate change, voluntary carbon market, UN definition of FPIC, and CCB and VCS standards and their application to the Isangi REDD+ project;
- collaboration between project partners, the government, and communities;
- importance of local development committees, local development plans, and the *cahier des charges*; and

- importance of project activities such as agriculture enhancement and diversification, biodiversity monitoring and conservation, and socio-economic enhancing activities.

Saturday Morning All Staff Training Sessions

An outcome of the above-mentioned workshop was starting weekly staff training sessions in April 2019 (a half-workday each Saturday morning). It was identified that, while senior project staff had a good understanding of REDD+ and the project objectives, other workers such as mechanics, drivers, and bookkeepers had limited comprehension. Given that all staff are local community members that go home and speak with their families and neighbors about the project, and speak to community members throughout their daily tasks, they too should have a good understanding of the project's activities and objectives. The Saturday morning training sessions are an opportunity for project staff to talk about current project activities and bring up challenges or questions that have been raised from their daily work or community members they interact with. Topics of discussion range from the changes in the carbon market, importance of forests for climate change, importance of agricultural diversification, role of gender in forest conservation and current project activities and challenges. These sessions have been well received (Terms of Reference for Staff Training Session Annex V).

Local Community/Agronomist Facilitator (*Animateurs Locaux*) Training

In August 2019, the project hired the first '*animateurs locaux*', community-based facilitators in charge of running the project's community engagement and agricultural activities in their own villages. These individuals were required to be able to read and write in Lingala and have a basic understanding of French; they also needed to pass a basic competence test but were otherwise unskilled. Jadora has embarked on an ongoing training program with these staff which started with a three-day training workshop but continues on a regular basis as new skills are required of them. Examples of their training include all subjects previously mentioned in this section as well as: conflict resolution and the project's grievance policy, the role and comportment of a community facilitator, how to write a monthly activity report, community participatory monitoring, and detailed agriculture techniques training (Terms of Reference for Local Animateur Training Annex V and Community Participatory Monitoring Method Annex Q).

Election and Training of Local Development Committees (CLDs)

As detailed in section 2.3.1, once CLDs are elected by their local communities, they complete training provided by the community engagement team based on the government required statute for a CLD. This training took place during two formal training sessions for each CLD in 2019 and included: an understanding of their roles and responsibilities, financial management, and local development planning, management and reporting. This training is iterative and support for the CLDs is ongoing throughout the project lifetime and as project programs and activities advance and evolve (CLD Engagement Protocol Annex R, CLD Capacity Building Guidelines Annex S).

Agricultural Diversification and Intensification Training with Local Development Committees

Training for agricultural diversification and agroforestry started in 2014 with the cocoa, coffee, and caterpillar tree multicropping fields. This training and assistance has continued throughout this monitoring period. In July 2019, the project contracted a Woods Hole Research Centre agriculturalist to assist the project to develop a community-designed agricultural diversification and intensification

training program. This started with workshops with five project area CLDs, where together they designed an agricultural plan for season B of 2019. The plan was implemented and project agronomists supported the CLDs throughout the growing season with site visits and another series of trainings (20 in total). Other farmers elected to follow the plan in their own fields and they were also provided support throughout the season (164 farmers) with the planting, growing, harvesting, processing, and marketing of their new crops. The program was a huge success and is expanding in 2020 (see Annex W for the 2019 and 2020 Agricultural Plan and Reports).

Social and Biodiversity Impact Assessment (SBIA) Workshops

The project hosted SBIA workshops in October 2019 (also discussed in section 2.3.1). Hosting these workshops required the project staff to undertake in-house training in order to gain the skills and experience required to facilitate workgroups throughout the process. Staff members that participated in this training include the management team, the community engagement department, the agronomy department, and the local animateurs. This training workshop was two complete days and directly followed the guidance provided in the 'Social and Biodiversity Impact Assessment Manual for REDD+ Projects – Part 1 Core Guidance for Project Proponents, 2011' (and to a lesser extent, SBIA Manuals Part 2 & 3), particularly guidance provided in Part 1 Annex 1.4 'SBIA Training Meeting', including: understanding the theory of change methodology, the SBIA methodology, and the comportment of a facilitator. Our project manager, Jacques Ipoma, lead this training – he himself being trained by Dr. Mwangi Githiru of Wildlife Works Carbon and having led two previous SBIA workshops on the Mai Ndombe REDD+ Project (SBIA Report Annex I).

Biodiversity Monitoring Capacity Building/Re-training

The biodiversity team acquired a new team leader and trainer in October 2019 (described in 2.4.1). Cecile Lolo led the team through a refresher training session on the fauna monitoring standard operating procedure (Annex X) in November 2019, and with her lead, the team developed and trained on the new flora monitoring standard operating procedure (Annex Y). This monitoring work will also include re-training community members hired from the villages as daily workers. They learned to identify non-timber forest products, regenerations, HCV species identification and habitat assessment, and the collection of human evidence in the forest to develop solutions to reduce pressure on important species and habitat.

New Staff Training

All new staff complete a thorough training session covering the topics mentioned above and specific topics relating directly with their new role, as well as company procedures, its organization, and their rights and benefits as an employee. These are all covered in the Employee Manual (Annex Z) and the New Staff Training Terms of Reference (Annex V).

Other Project Activity Training

As project activities evolve and community capacity building subjects and workshops expand, staff and community members alike benefit from project-hired experts on specific topics including: medicinal herbs, family planning, public health, biodiversity importance and conservation, satellite internet, and well and road repair.

A calculation of the total number of community members trained can be found in Annex A and a list of these trainings and dates can be found in Annex AY. As always, detailed notes on meetings and a list of participants present at each meeting are on file in the Jadora offices in Yafunga.

2.4.3 Community Employment Opportunities (G4.4)

One of the primary objectives of the Isangi REDD+ project is to create employment for the project area population. For this reason, wherever possible, the project will hire and train staff locally rather than hiring externally. Hiring local does not just benefit those hired, but helps to maintain salaries in the local economy, raise local capacities, and create community-based ownership of project objectives, thus meeting multiple project objectives both directly and indirectly.

Jadora employs 62 staff and an additional 23 teachers. The vast majority (71% – see Annex AA for a staff list) of project staff are from the project territory. In this monitoring period, we have hired 41 new staff members, all but seven, and our project manager, are from Isangi Territory (most of those that are not are from Tshopo province). Where workers are not from the Isangi Territory they were, almost exclusively, either hired on from previously employed Safbois staff or had immigrated to the area (often decades earlier, as Congolese will identify with their place of birth for their lifetime).

The project has also made a concerted effort this monitoring period to hire women wherever possible, raising our female staff members from zero to seven. Two women are now in management positions: our biodiversity monitoring consultant and our Communications and Development Manager (based in Kinshasa).

This monitoring period, 18 local community facilitators (animateurs) from 14 project area villages were hired (two women). The available job positions were made public across the project area. Basic skills such as reading and writing were necessary, but all other job skills were trained upon hiring (see 2.4.2 for further discussion and Annex BD for a map with the village locations of local animateurs, Community Activities). The local animateurs were delighted to each receive a new bike upon completing their training. These bikes will facilitate their responsibilities across the project area.

The project also employs daily workers for agriculture, inventory, and other intermittent activities. In 2019, 158 daily workers were hired in the project area from project area communities.

2.4.4 Relevant Laws and Regulations Related to Worker's Rights (G4.5)

Jadora and its legal operating business entity, Safbois SPRL comply with all relevant laws and regulations covering worker's rights in DRC. The following labor laws apply:

All worker's rights and employer regulations and responsibilities in the DRC are covered by the '*Code du Travail*' (the labor law). These laws are closely followed by Safbois with contracts and internal policies adhering to its regulations. Workers are informed of their rights and provided with an office copy of the *Code du Travail*. In keeping with this, Jadora has developed an employee manual that references important elements in the labor law. All documents concerning employer and employee adherence to the laws in this section can either be found in the Safbois offices or Jadora offices.

Employment Law (Law number 015/2002) and the following Ministerial Decrees:

- Ministerial Decree Number 070/0016, August 11, 1970 on working conditions;
- Ministerial Decree Number 68/13, May 1968 on women's wages and working conditions;
- Ministerial Order Number 12/CABMIN/TPS/AR/KF/059/02, September 27 2002 on determining implementing measures of:
 - Ministerial Order number 080/2002 July 3, 2002 on establishing a minimum wage; and
- Ministerial Order Number 12/CAB.MIN/116/2005, October 26, 2005 on employee dismissal procedures.

Safbois conforms with all the above laws and decrees.

National Security Law (Law number 75/028, September 19 1975, modifying Decree-Law of June 29, 1961, which established the National Social Security Institute (now CNSS) that covers employee pensions, occupational risks and accidents, and family allowances. The CNSS is compulsory and was established to benefit both the employees and employers. The employer pays a statutory contribution for every employee who is a member. All Safbois employees are registered to the CNSS, No. 503.435.

Health Benefits Decree-Law 67/310 August 9, 1965

Companies must pay health care needs of their employees. The health needs of employees and their families are covered by Jadora/Safbois. In the project area, where access to state medical care is difficult, the project has built, staffed, and supplied a small health post.

2.4.5 Occupational Safety Assessment (G4.6)

As required by the Jadora Health and Safety Policy (Annex AB) the *Chef de Personnel* completes a Worker Safety Risk Analysis each year (Annex AB). The objective of risk assessment is to comprehensively evaluate potential workplace hazards and, based on the analysis, establish measures to control them. Risk assessments identify hazards, workers at risk, control measures, and implementation responsibilities. While it is impossible to completely remove all hazards, with the risks assessed, it is possible to create controls and measures to reduce hazards. It has been found that the most frequent risks to project staff are minor injuries incurred by inventory staff while working in the forest, minor injuries to staff working in the agricultural fields, minor motorcycle accidents, insect bites (some poisonous).

The project manager uses the Saturday morning training sessions to inform staff of revisions to the Health and Safety Policy and to train them on the use of first aid equipment or kits and other safety procedures. The Health and Safety Policy and the results of the Worker Safety Risk Analysis are available to staff at all times. All new staff are also trained on these policies.

Risks have been minimized by requiring that all teams carry first aid kits with them when working outside of the project base camp; all those riding motorcycles use helmets and other protective gear

such as pants and boots; and all staff working in the forest or fields are required to wear boots and pants. In addition to this, work is only undertaken in optimal conditions, wherever possible.

There have been no major health and safety incidents this monitoring period.

2.4.6 Financial Health of Implementing Organization(s) (G4.7)

Due to unforeseen circumstances, the Isangi REDD+ Project had a change in its project proponent since its last verification in 2013. In 2016, the CEO of Jadora (the original project proponent) unexpectedly passed away. This left the project in a difficult transition period between the years of 2016 and 2019. Due to the CEO's untimely death, the project was faced with serious financial and administrative obstacles. At the time, Jadora was in a partnership with Safbois, a Congolese logging company that owns the timber and carbon rights to the project area and had provided Jadora with in-country assistance as the project stakeholder and partner. This assistance included access to facilities and equipment in Yafunga, as well as transportation and other logistics in the DRC. Jadora's original agreement with Safbois gave Jadora the exclusive rights to develop the Isangi REDD+ Project as well as all associated carbon rights, while Safbois would receive 51% of gross sale revenues in exchange for in-country logistical support during the project's development and implementation of activities.

After the CEO's death, Safbois financially supported the project during the transition to legally secure full ownership of the project for Safbois. This effort by Safbois ensured that project activities and salaries for existing staff would continue. In 2018, Safbois acquired Jadora LLC. 2018 was a difficult year, as sales of carbon credits were in a steep decline, while debts leftover from the previous project proponent mounted. Jadora prioritized project operations and activities and began to systematically reengage all of the stakeholders to bring the project back into compliance and on its way to positive cash flow.

By 2019, funds to meet past community benefit obligations were spent and payment plans for outstanding debt to the DRC government were negotiated (see Annex AC for concession fees). In addition, once full legal ownership was established, Safbois hired a new international management team, approved a new budget to reinvigorate support for project activities, and reconnected with the community to reestablish its partnership and participation. In addition to rebuilding trust with the community and support for the project activities, Safbois created a new company, Congo Emissions Management Corporation (CEMCO), to strengthen the marketing and sales of the verified carbon credits in the voluntary market.

CEMCO and Safbois have been, and will continue to be, financially committed to supporting the project. In the absence of sufficient carbon offset sales, Compagnie Africaine d'Aviation (CAA), a successful DRC airline owned by the Project Proponent, has assisted the project in its financial shortfalls and will continue to do so as is needed. Demand for Isangi REDD+ carbon credits has been increasing, and currently, the Isangi REDD+ Project has an executed ERPA that covers all of its verified credits (see Annex AI).

Isangi REDD+ carbon credits have been active in the voluntary market since its validation and first verification. We have chosen a relatively conservative approach to future carbon offset demand and price projections in the voluntary market, while acknowledging that Isangi REDD+ carbon offsets will benefit from an increasing price position due to anticipated DRC JNR status and an increased demand for pre-compliance carbon credits. Furthermore, the Isangi REDD+ Project has attracted

international investment opportunities that will only strengthen its financial sustainability and contribution to the DRC's landscape-level conservation efforts (see Annex AI).

Project cash flow estimates are based on realistic demand and price signals, and our cost estimates are based on years of experience in developing and managing large projects in the DRC. Documents supporting our cash flow sustainability and assumptions are located in Annex AD.

Although we have confidence in the anticipation of future increasing demand for carbon credits, we also continually seek out additional international partnerships committed to sustainable development and conservation to offset costs. One example is the Isangi REDD+ project's long-standing partnership with Woods Hole Research Center, as well as its being in the second phase for a USAID award of approximately USD 6.5 million (see Annex AJ).

Given the projected future market conditions for carbon credits, the project proponent's financial commitment, and the international investment interest in the project, we are confident that the Isangi REDD+ Project will have the reliable revenue sources necessary to continue implementing our project activities and operations to achieve our lofty but achievable conservation and development goals.

2.5 Legal Status and Property Rights

2.5.1 National and Local Laws (G5.1)

Jadora's legal operating entity is Safbois SPRL. Safbois complies with all applicable national and local laws and regulations. A summary of Jadora's compliance with relevant laws and those that have gone in to effect or changed is included here. In addition, in 2014, a Congolese attorney performed a thorough legal analysis and found Jadora to be in full compliance with all applicable laws. This legal opinion is available in Annex AE.

Compliance with existing laws:

Land Tenure Act (Law No.73-021, July 20, 1973) as amended and completed by Law n° 80-008 of 18 July 1980)

The Land Tenure Act allowed for certain types of "permanent private concessions" and also recognized that customary laws apply to user rights over "non-allocated lands in rural areas".

Forest Code (Law No. 011/2002, August 29, 2002 and Decree No. 11/27, May 20, 2011)

Forest ownership and user rights are now subject to the 2002 Forest Code, which sets out the basic "framework" for the DRC government's forest policy. The Code does not modify the 1973 Land Law and continues to assert state ownership over all areas of forest; however, it also broadly defines certain categories of forest, such as for "exploitation", "community use", and "conservation".

Under the 2002 Forest Code, forestry concessions of up to 500,000 hectares can be granted, within which the operator has the right to exploit all timber. Concessions cannot be sold, rented, or exchanged, and these concessions are subject to various stipulations detailed in the Code and implementation decrees. The planned legal arsenal in the Land and Forest Codes gives sufficient guarantees for the implementation of the project, after obtaining the required authorizations and titles of occupations, without risk of eviction for the time they are in effect.

Ministerial Order No. 033, October 2, 2006

This order establishes the organization and operation of a national forest *cadastre*. Article 2 requires that the *cadastre* conserve a copy of the concession contract. Jadora has provided the provincial *cadastre* with two copies of the concession contract.

Interministerial Order Nos. 006/CAB/MIN/ECN-EF/2007 and 004/CAB/MIN/FINANCES/2007, May 8, 2007

This order requires concession holders to pay annual taxes based on the area of forest leased. Safbois has signed an agreement with the DRC Cabinet Ministry Finances regarding a payment plan of annual area taxes (Annex AC).

Forest Code and its related Ministerial Order No. 024/CAB/MIN/ECN-T/15/JEB/08, August 7, 2008

This order establishes a public inquiry procedure when granting forest concessions.

Decree No. 08/08, April 8, 2008

This decree establishes the procedure for classifying and declassifying forests. Article 17 states that an Environmental Impact Assessment is only necessary when decommissioning a forest, and therefore, an Environmental Impact Assessment is not required for the Isangi REDD+ Project.

Ministerial Decree No. 11/27, May 20, 2011

This decree outlines specific rules for the allocation of forest conservation concessions. Chapter III establishes the process of awarding forest concessions. It requires that the request be submitted to the provincial governor. Though not in force at the time of Safbois' request, Safbois obtained an approval from the provincial governor and local authorities during the signing of the amendment of the forest conservation concession contract terms of reference (*cahier des charges*) between the province, district, local communities, and Safbois. The amendment was signed on December 20, 2019.

Law No. 10/008, February 27, 2010

This law amended and supplemented the Decree of the King Sovereign of February 27, 1887 and the Decree of March 6, 1951. The law established the Commercial Register. Jadora is registered to the new commercial register.

Investments Code (Law No. 004/2002, February 21, 2002)

The Investment Code outlines the legal structure for foreign investment in the DRC, which Jadora follows.

The Constitution of the Democratic Republic of the Congo, February 18, 2006 and amendments of Law No.11/002, January 20, 2011

The 2006 Constitution divides power between the central government and the provinces. Article 203 establishes forest rights to be the concurrent jurisdiction of the central government and the provinces.

New or Changed Laws

Ministerial Decree No. 14/019, August 02, 2014

This set the operating rules for procedural mechanisms for the protection of the environment. This piece of regulation applies to logging projects; as such, it is not relevant to the current Isangi REDD+ project.

Ministerial Decree No. 004/CAB/MIN/ECN-T/012, February 15, 2012 was cancelled and replaced by Ministerial Decree No. 047/CAB/MIN/EDD/MML, May 9, 2018 requires that REDD+ project approved before the signing of this Decree (see Art. 35, Chapter 6 of this Decree) complete the following:

1. register the REDD+ project to the DRC National REDD+ Registry. The National Registry has not yet been established; however, we informed the government of the initiation and continuation of project activities;
2. notify the Registry of validation/verification reports – Jadora submitted validation and verification statements after the last verification;
3. notify the Registry of emission reduction transactions – Jadora submitted updated emission reduction transaction reports to the registry in March 2020;
4. submit a progress report relative to the activities of the REDD + investment according to a template in the Manual in Annex I to this Decree. The manual in Annex 1 has not yet been published; however, Jadora submitted a progress report in February 2020; and
5. submit a compliance plan with the socio-environmental safeguards and feedback and grievance mechanisms as set by the decree. The grievance mechanism is not yet in place; however, Jadora has submitted the project grievance mechanism and feedback as well as a comparison between the CCB standards and SES REDD+ guidelines.

Ministerial Decree No. 026/CAB/MIN/EDD/AAN/KTT/04/2017, November 8, 2017 setting the national guidelines framework relative to FPIC in the context of the implementation of REDD+ in the DRC.

The project proponent warrants that all FPIC actions and documentations for the project establishment as a carbon sequestration project have and will be met. The Isangi REDD+ project has received communities' endorsement in 2014 before this Ministerial Decree adoption. Another round of consultations was undertaken in December 2019 with local communities to confirm communities' endorsement of the Isangi REDD+ project's activities. These consultations have followed the national guidelines requirements in their form and content. See section 2.5.2 for further details.

2.5.2 Free, Prior and Informed Consent (G5.3)

The project does not encroach uninvited on private property, community property, or any other government property. The land in the project area is owned by the government of the DRC and occurs within two logging concessions leased to Safbois (Partnership Contract Annex D) as further described in Section G.1.2.1 of the PD.

Land use in the project zone is governed by village chiefs according to customary rights and laws. Jadora works with communities in the project zone to adopt land-use practices that do not rely on forest conversion for agricultural practices. Jadora works together with communities and village leaders to ensure that project activities are undertaken without encroaching uninvited on traditional beliefs, practices, or land. Jadora's Community Engagement Department is responsible for implementing the project's ongoing stakeholder consultation process described in Section 2.3.1 of this report and section 2.7 of the PD. This process was designed to allow communities to give FPIC to participating in the project in accordance with the UN-REDD Programme's 'Guidelines on Free, Prior and Informed Consent' (2013) and the United Nations Declaration on the Rights of Indigenous Peoples (2007).

In 2014, village leaders representing 12 of the project area villages signed land-use agreements stating that they understood and agreed to project activities and agreed to avoid the conversion of primary forest into agriculture. In 2019, elaborated versions of these agreements were re-signed with representatives from all 33 project area villages, representing all 74 of the project area clans. The signed agreements, and English translations, can be found in Annex H. The land-use agreements cover the following:

- a formal agreement that Jadora can continue REDD+ activities on their traditional land;
- acknowledgement that Jadora is a private, for-profit company that seeks to monetize credits quantified in their forests;
- above which requires that the communities work together with the project to conserve these forests;
- understanding that local communities may continue to use their forests for agriculture but that they also have the authority to prevent outsiders from logging the forests or undertaking agriculture in the primary forest;
- understanding that they are partners with Jadora in the goal of conserving the forest;
- acknowledgement that the payment of community benefits is derived from the protection of this forest, and in turn, the sale of carbon offsets;
- understanding of the boundaries of the project area (with locally understood landmarks);
- acknowledgement that the project is also authorized by the Ministry of Environment;
- understanding that all project activities fall under the scope of the REDD+ project; and
- declaration that the agreements to continue with project activities were made freely and in their own time.

Evidence of prior information and consent to participate in the project and its activities can also be seen in the results report from the SBIA workshops (Annex I) and is discussed further in sections 2.3.1, 2.4.2, and 4.

Compensation for the use of traditional lands is paid to village chiefs and their families following local customs and traditions. Documentation of these *Doit de Joissance* payments can be found in Annex AG.

As noted in the Annual Operating Plan (Annex P, replacing the Isangi Implementation Plan) ongoing consultation and community monitoring feed directly into the adaptive management process for the project. Jadora acknowledges that giving consent is an ongoing process and continues to consult with communities on project developments. Villages can opt-out of project activities at any time.

All stakeholder meetings and consultations are undertaken in the local language of Lingala. They are documented using standardized procedures elaborated in the Community Meeting Recording Procedures (Annex O) and the Community Monitoring SOP (Annex N). These meeting reports, and often photos, are located in the project offices and on digital hard drive.

2.5.3 Property Rights Protection (G5.4)

The project does not require or involve the involuntary relocation of people or of the activities important for their livelihoods or culture. Jadora does not seek to relocate communities or people in the project zone. Jadora's commitments to working with communities in the project zone are discussed further in Section 2.3.1.

The project does not prohibit any activities traditionally undertaken by communities in the project zone. In the second monitoring period, leaders representing clans from all 33 of the project area villages voluntarily signed land use agreements re-authorizing project activities and consenting to continue to protect the primary forest – further discussion of this can be reviewed in section 2.2.8.

2.5.4 Identification of Illegal Activity (G5.5)

A very limited amount of illegal activities take place in the project zone from time to time. The most common of these are undocumented artisanal logging operations, where building materials or other timber forest products are extracted from the forest and exported out of the project area. These are minor in scale (the majority have permission from the province) and pose very low risk to climate benefits due to the lack of equipment necessary for extracting timber.

The DRC Forest Code defines “local community forest” where agricultural activities are permitted, this includes harvesting fuelwood for local consumption or construction wood for local use. However, the project is working to provide economically viable alternatives to these activities (discussed further in sections 4.1 and 5.1) as well as running a reforestation program where fast-growing species are planted for building materials and hardwood species are planted for primary forest regeneration (discussed further in sections 4.1 and 5.1).

The other illegal activity in the project zone is the hunting of protected species or hunting during the government enforced seasonal hunting closures. The project's biodiversity teams regularly monitor the local markets and have found that seasonal closures are respected for the most part. With regard to protected species, the biodiversity team is working with hunters and communities to educate them on protected species and the importance of biodiversity conservation. The project also works to provide alternatives to biodiversity depleting activities with our tilapia ponds and agricultural intensification and diversification program. In 2020, the project will specifically target hunters with education and materials assistance programs for animal farming. These programs will provide hunters with viable economic alternatives to hunting (discussed further in section 5.1).

3 CLIMATE

3.1 Monitoring GHG Emission Reductions and Removals

3.1.1 Data and Parameters Available at Validation

Data / Parameter	CF
Data unit	Mg C (Mg DM) ⁻¹
Description	Carbon fraction of dry matter in wood
Source of data	Default value of 0.5 (IPCC GPG-LULUCF 2003)
Value applied	0.5
Justification of choice of data or description of measurement methods and procedures applied	According to the IPCC, the default value of 0.5 Mg C (Mg DM) ⁻¹ is applicable for all three tiers when remaining forest land or biomass carbon is a key or non-key category.
Purpose of the data	Calculation of baseline and project emissions in 2014
Comments	

Data / Parameter	<i>P</i>
Data unit	n/a
Description	Average proportion of mass burned from the aboveground tree biomass
Source of data	GPG-LULUCF Table 3A.1.13
Value applied	83.9
Justification of choice of data or description of measurement methods and procedures applied	83.9 is the mean provided by the IPCC for the average proportion of mass burned from the aboveground tree biomass in primary tropical forests, which is the forest type that the project mostly aligns with.
Purpose of the data	Calculation of baseline emissions in 2014
Comments	For secondary tropical forests, 8.1 is provided as an average value for young secondary tropical forests, 41.1 for intermediate secondary tropical forests, and 46.4 for advanced secondary tropical forests. These are provided here because some of the growth within the project area is secondary but most is still primary forest.

Data / Parameter	SC ₁
Data unit	n/a
Description	First shape factor for the forest scarcity equation; steepness of the decrease in deforestation rate (greater is steeper).
Source of data	Statistical fitting procedure that uses remotely-sensed forest cover data in heavily deforested areas close to the project area such as neighboring provinces, states, or countries
Value applied	-6.6
Justification of choice of data or description of measurement methods and procedures applied	Use procedure from VM0006 v2.0
Purpose of the data	Calculation of baseline, project and leakage emissions in 2014
Comments	

Data / Parameter	SC ₂
Data unit	n/a
Description	Second shape factor for the forest scarcity equation; the relative deforested area at which the deforestation rate will be 50% of the initial deforestation rate.
Source of data	Statistical fitting procedure using remotely sensed forest cover data in heavily deforested areas close to the project area such as neighboring provinces, states, or countries
Value applied	0.83
Justification of choice of data or description of measurement methods and procedures applied	Use procedure from VM0006 v2.0
Purpose of the data	Calculation of baseline, project and leakage emissions in 2014
Comments	

Data / Parameter	EF 2014
------------------	---------

Data unit	tCO ₂ /ha
Description	Emission factors for LULC transition in 2014
Source of data	Registered PD
Value applied	Forest to Crop: 676.63 Forest to Settlement: 639.15 Crop to forest: -676.63 Settlement to forest: -639.15
Justification of choice of data or description of measurement methods and procedures applied	It is from the registered PD. The emission factors for above-ground living biomass were estimated using field data, while below-ground biomass using IPCC default ratios.
Purpose of the data	Calculation of baseline, project and leakage emissions in 2014
Comments	

Data / Parameter	$wwf(ty)$
Data unit	n/a
Description	Fraction of carbon in harvested wood products that are emitted immediately because of mill inefficiency for wood class ty . This can be estimated by multiplying the applicable fraction to the total amount of carbon in different harvested wood product categories.
Source of data	The default applicable fraction is 24% and 19%, respectively, for developing and developed countries (Winjum et al. 1998).
Value applied	24%
Justification of choice of data or description of measurement methods and procedures applied	Winjum et al. 1998 states that the default fraction is 24% for developing countries.
Purpose of the data	Calculation of baseline emissions
Comments	Any new updates from locally-generated results can be used instead of the default values.

Data / Parameter	$slp(ty)$
------------------	-----------

Data unit	n/a
Description	Proportion of short-lived products
Source of data	Default values are 0.2, 0.1, 0.4, and 0.3 respectively for wood class <i>ty</i> , i.e. sawn wood, wood-based panel, paper and paper boards, and other industrial round woods as described in Winjum et al. (1998).
Value applied	0.2, 0.1, 0.4, 0.3
Justification of choice of data or description of measurement methods and procedures applied	Winjum et al. provides the above values for sawnwood, wood-based panel, paper and paper boards, and industrial roundwood.
Purpose of the data	Calculation of baseline emissions
Comments	Any new updates from locally-generated results can be used instead of the default values. The methodology assumes that all other classes of wood products are emitted within five years.

Data / Parameter	$fo(ty)$
Data unit	n/a
Description	Fraction of carbon that will be emitted to the atmosphere between five and 100 years of harvest for wood class <i>ty</i>
Source of data	Winjum et al. 1998
Value applied	0.84, 0.97, 0.99, 0.99
Justification of choice of data or description of measurement methods and procedures applied	Winjum et al. provides these values for the fraction of carbon that will be emitted into the atmosphere between five and 100 years after harvest for tropical wood classes.
Purpose of the data	Calculation of baseline emissions
Comments	Any new updates from locally-generated results can be used instead of the default values.

Data / Parameter	$\rho_{wood,j}$
Data unit	Mg DM m ⁻³
Description	Average basic wood density of species or species group <i>j</i>
Source of data	GPG-LULUCF Table 3A.1.9. or published data/literature

Value applied	In section 5.3.4 of the registered PD
Justification of choice of data or description of measurement methods and procedures applied	IPCC table 3A. 1.9-2 provides average basic wood densities for multiple species in tropical Africa.
Purpose of the data	Calculation of baseline emissions Ex-ante calculation of project emissions
Comments	

Data / Parameter	<i>BEF₂</i>
Data unit	n/a
Description	Biomass expansion factor for converting volumes of extracted round wood to total aboveground biomass (including bark)
Source of data	IPCC GPG LULUCF Table 3A.1.10 or published data from scientific peer reviewed literature
Value applied	Broadleaf = 3.4 (2.0-9.0)
Justification of choice of data or description of measurement methods and procedures applied	BEF2 value for tropical broadleaf trees values according to IPPCC LULICF table 3A.1.10
Purpose of the data	Calculation of baseline emissions
Comments	

3.1.2 Data and Parameters Monitored

Data / Parameter	<i>sizeprojectArea</i> , <i>sizeleakageArea</i> , <i>sizereferenceregion</i> , <i>sizereferenceForest</i>
Data unit	ha
Description	Size of project area, leakage area, reference region, and forest area in the reference region
Source of data	Project design document
Description of measurement methods and	Coverage and demarcations are monitored and created using satellite imagery.

procedures to be applied	
Frequency of monitoring/recording	$size_{projectArea}$ and $size_{leakageArea}$ may be adjusted during crediting period per the rules for grouped projects and updated at verification, but only for the additional instances that were added after the project start date.
Value monitored	Project area: 187,571 ha Leakage area: 43,082 ha Reference region: 1,814,578 ha Reference forest: 1,814,578 ha
Monitoring equipment	GIS software, Landsat imagery, 30-meter tape, GPS, compass, clinometer, notebooks, water, writing utensils
QA/QC procedures to be applied	TIFF files were converted to shapefiles. Area was calculated for each shapefile and compared to calculations based on TIFF file.
Purpose of the data	Calculation of baseline emissions Calculation of project emissions Calculation of leakage emissions
Calculation method	Multiplication of number of pixels (30 m by 30 m) in each region by 0.09 ha pixel ⁻¹ for area in hectares
Comments	

Data / Parameter	$\Delta area_{projectAreaEAH,projectScenario}(t, i)$
Data unit	ha yr ⁻¹
Description	Hectares undergoing transition i within the project area, excluding ANR and harvest areas, under the project scenario during year t .
Source of data	Remote sensing analysis
Description of measurement methods and procedures to be applied	Coverage and demarcations are monitored and created using satellite imagery.
Frequency of monitoring/recording	At least once before verification
Value monitored	Forest to crop: 7,927.92ha (in this monitoring period) Forest to settlement: 47.16ha (in this monitoring period)
Monitoring equipment	GIS software, Landsat imagery, 30-meter tape, GPS, compass, clinometer, notebooks, water, writing utensils

QA/QC procedures to be applied	Data is to be entered into internal archive. Archive is accessed by qualified, authorised technical experts. All documents for monitoring, validation, verification, and certification are reviewed and signed-off by several team members. Data will be reported to project proponents and stakeholders. Discrepancies or disagreements will be justified by explanation or by visitation of the activities in question. All available satellite data for monitoring, validation, verification, and certification will be archived and made available to auditors.
Purpose of the data	Calculation of project emissions
Calculation method	Multiplication of number of pixels (30 m by 30 m) in each region by 0.09 hectares pixel ⁻¹ for area in hectares
Comments	

Data / Parameter	$\Delta area_{projectAreaEAH,baselineScenario}(t, i)$
Data unit	ha yr ⁻¹
Description	Hectares undergoing transition i within the project area, excluding the ANR area, and harvest areas, under the baseline scenario for year t .
Source of data	Land-use change modeling
Description of measurement methods and procedures to be applied	Coverage and demarcations are monitored and created using satellite imagery. The procedure is described in 3.2.1 of this MR.
Frequency of monitoring/recording	At least once before every baseline
Value monitored	In 2014: Forest to crop: 801.99 ha Forest to settlement: 33.84 ha From 2015 to 2019, this figure is not available. The figure available for those years are the emissions of tCO ₂ e per pixel, which are converted to total emissions of tCO ₂ e in the project area for the baseline scenario. More details can be found in the ER sheet in Annex 3.
Monitoring equipment	GIS software, Landsat imagery, 30-meter tape, GPS, compass, clinometer, notebooks, water, writing utensils

QA/QC procedures to be applied	Data is to be entered into internal archive. Archive is accessed by qualified, authorized technical experts. All documents for monitoring, validation, verification, and certification are reviewed and signed-off by several team members. Data will be reported to project proponents and stakeholders. Discrepancies or disagreements will be justified by explanation or by visitation of the activities in question. All available satellite data for monitoring, validation, verification, and certification will be archived and made available to auditors.
Purpose of the data	Calculation of baseline emissions
Calculation method	Multiplication of number of pixels (30 m by 30 m) in each region by 0.09 ha pixel ⁻¹ for area in hectares
Comments	

Data / Parameter	$\Delta area_{leakageArea, projectScenario}(t, i)$
Data unit	ha yr ⁻¹
Description	Hectares undergoing transition i within the project area, excluding the ANR area, and harvest areas, under the baseline scenario for year t .
Source of data	Land-use change modeling
Description of measurement methods and procedures to be applied	Coverage and demarcations are monitored and created using satellite imagery. The procedure is described in 3.2.1 of this MR.
Frequency of monitoring/recording	At least once before every baseline
Value monitored	In 2014: Forest to crop: 801.99 ha Forest to settlement: 33.84 ha From 2015 to 2019, this figure is not available. The figure available for those years are the emissions of tCO ₂ e per pixel, which are converted to total emissions of tCO ₂ e in the project area for the baseline scenario. More detail is available in the ER sheet in Annex 3.
Monitoring equipment	GIS software, Landsat imagery, 30-meter tape, GPS, compass, clinometer, notebooks, water, writing utensils

QA/QC procedures to be applied	Data is to be entered into an internal archive. The archive is accessed by qualified, authorized technical experts. All documents for monitoring, validation, verification, and certification are reviewed and signed-off by several team members. Data will be reported to project proponents and stakeholders. Discrepancies or disagreements will be justified by explanation or by visitation of the activities in question. All available satellite data for monitoring, validation, verification, and certification will be archived and made available to auditors.
Purpose of the data	Calculation of baseline emissions
Calculation method	Multiplication of number of pixels (30 m by 30 m) in each region by 0.09 ha pixel ⁻¹ for area in hectares
Comments	

Data / Parameter	$\Delta arealeakageArea, projectScenario (t, i)$
Data unit	ha yr ⁻¹
Description	Hectares undergoing transition <i>i</i> within the leakage area under the project scenario for year <i>t</i>
Source of data	Remote sensing analysis
Description of measurement methods and procedures to be applied	Coverage and demarcations are monitored and created using satellite imagery. The procedure is described in section 3.2.3 of this MR.
Frequency of monitoring/recording	At least once before verification
Value monitored	Forest to crop: 4,920.57 ha (in this monitoring period) Forest to settlement: 66.6 ha (in this monitoring period)
Monitoring equipment	GIS software, Landsat imagery, 30-meter tape, GPS, compass, clinometer, notebooks, water, writing utensils
QA/QC procedures to be applied	Data is to be entered into an internal archive. The archive is accessed by qualified, authorized technical experts. All documents for monitoring, validation, verification, and certification are reviewed and signed off by several team members. Data will be reported to project proponents and stakeholders. Discrepancies or disagreements will be justified by explanation or by visitation of the activities in question. All available satellite data for monitoring, validation, verification, and certification will be archived and made available to auditors.

Purpose of the data	Calculation of leakage emissions under project scenario
Calculation method	Multiplication of number of pixels (30 m by 30 m) in each region by 0.09 ha pixel ⁻¹ for area in hectares
Comments	

Data / Parameter	$\Delta \text{arealeakageArea}_{\text{baselineScenario}}(t, i)$
Data unit	ha yr ⁻¹
Description	Hectares undergoing transition <i>i</i> within the leakage area under the baseline scenario during year <i>t</i>
Source of data	Land-use change modeling
Description of measurement methods and procedures to be applied	Coverage and demarcations are monitored and created using satellite imagery. The procedure is described in section 3.2.3 of this MR.
Frequency of monitoring/recording	Once every baseline update. May also be updated at the time of instance inclusion that requires new leakage area.
Value monitored	In 2014: Forest to crop: 184.23 ha Forest to settlement: 7.74 ha Crop to forest: 721.98 ha Settlement to forest: 40.77 ha From 2015 to 2019, this figure is not available. The figure available for those years are the emissions of tCO₂e per pixel, which are converted to total emissions of tCO₂e in the leakage area for the baseline scenario. More detail is available in the ER sheet in Annex 3.
Monitoring equipment	GIS software, Landsat imagery, 30-meter tape, GPS, compass, clinometer, notebooks, water, writing utensils
QA/QC procedures to be applied	Data is to be entered into an internal archive. The archive is accessed by qualified, authorized technical experts. All documents for monitoring, validation, verification, and certification are reviewed and signed-off by several team members. Data will be reported to project proponents and stakeholders. Discrepancies or disagreements will be justified by explanation or by visitation of the activities in question. All available satellite data for monitoring,

	validation, verification, and certification will be archived and made available to auditors.
Purpose of the data	Calculation of leakage emissions under project scenario
Calculation method	Multiplication of number of pixels (30 m by 30 m) in each region by 0.09 ha pixel-1 for area in hectares
Comments	

Data / Parameter	$\Delta area_{historical} (CS_1 \rightarrow CS_2, t_1 \rightarrow t_2)$
Data unit	ha yr ⁻¹
Description	Area of transition from LULC class or forest stratum 1 to 2 from time 1 to 2 during the historical reference period
Source of data	Remote sensing analysis
Description of measurement methods and procedures to be applied	Calculate based on the remote sensing-based classification and stratification procedures
Frequency of monitoring/recording	At least once before every baseline update
Value monitored	Coverage and demarcations are monitored and created using satellite imagery
Monitoring equipment	GIS software, Landsat imagery, 30-meter tape, GPS, compass, clinometer, notebooks, water, writing utensils
QA/QC procedures to be applied	Data is to be entered into an internal archive. The archive is accessed by qualified, authorized technical experts. All documents for monitoring, validation, verification, and certification are reviewed and signed-off by several team members. Data will be reported to project proponents and stakeholders. Discrepancies or disagreements will be justified by explanation or by visitation of the activities in question. All available satellite data for monitoring, validation, verification, and certification will be archived and made available to auditors.
Purpose of the data	Calculation of baseline emissions
Calculation method	Multiplication of number of pixels (30 m by 30 m) in each region by 0.09 ha pixel-1 for area in hectares
Comments	

Data / Parameter	EF
Data unit	tCO ₂ /ha
Description	Emission factors of each LULC transition from the year of 2014 to 2019.
Source of data	FREL of Congo, published by WWF
Description of measurement methods and procedures to be applied	Official data
Frequency of monitoring/recording	Each baseline update
Value monitored	Forest to Crop: 688.30 Forest to Settlement: 744.99 Crop to Forest: -688.30 Settlement to Forest: -744.99
Monitoring equipment	
QA/QC procedures to be applied	
Purpose of the data	Calculation of baseline emissions, project emissions and leakage.
Calculation method	
Comments	

Data / Parameter	<i>uclassification</i>
Data unit	
Description	Discounting factor for NERs from avoided deforestation, based on the accuracy of classification, i.e., dividing land into broad land use types
Source of data	DRC FREL and PD
Description of measurement methods and procedures to be applied	According to section 8.1.2.7 of VM006 v2.1, if more than three images in historical reference period are assessed, one can be adopted as the classification uncertainty.
Frequency of monitoring/recording	At least once before verification

Value monitored	1
Monitoring equipment	
QA/QC procedures to be applied	
Purpose of the data	Calculation of baseline emissions and project emissions
Calculation method	
Comments	

Data / Parameter	<i>utransition(i)</i>
Data unit	
Description	Discounting factor for the emission factor for the transition from LULC class or forest stratum 1 to class 2 according to the uncertainty of the biomass inventory
Source of data	LULC analysis, classification
Description of measurement methods and procedures to be applied	Section 8.1.2.4 of VM0006-V2.1
Frequency of monitoring/recording	Each verification
Value monitored	1
Monitoring equipment	
QA/QC procedures to be applied	The EF in this monitoring period is from the DRC national FREL data and the error of determining the carbon stock from one stratum to another is less than 15%.
Purpose of the data	Calculation of emission reductions
Calculation method	
Comments	

3.1.3 Monitoring Plan

The purpose of the monitoring plan is to measure and record data and indicators used to measure the climate, community, and biodiversity effects of the project compared to the baseline, without project scenario. The monitoring methods, frequency, data recording methods and QA/QC procedures are enumerated in sections 3.1.1 and 3.1.2. Methodologies used to estimate and model values correspond to those proscribed by VM0006 v2.1 and are detailed in sections 4, 5, 6, and 7 of the Joint VCS-CCB

Project Description. Roles and responsibilities for monitoring are in section 3.1.3.1. GHG information management systems are described in section 3.1.3.2.

The climate impact on the project and other areas was monitored using remote sensing and a suite of monitoring strategies to track farming activity within the leakage buffer and the concession itself. While models of carbon savings will be created to predict the impacts, empirical evidence from the concession and similar control areas outside of the project will be used at verification to confirm the carbon savings generated.

Further information is available at the Monitoring Work Plan document (Annex AV).

3.1.3.1 Organization

The organizational structure is divided into the leadership, implementation and oversight, community consultation, biodiversity, and natural resources teams. The community and biodiversity managers and the agricultural advisor report to the project manager. Roles and responsibilities for the monitoring team members are presented below:

- CEO/President
 - Provides financial support and approval for project operations
- COO Sales/Marketing
 - Business development and marketing of ERs
 - Advises CEO/President on marketing strategies
- REDD+ Legal Advisor
 - Drafts, negotiates, and reviews legal documents and carbon contracts
 - Advises executive management in all matters related to REDD+ laws and regulations
 - Research and advises on in country REDD+ policies
 - Represents project interests in stakeholder negotiations
- CCB Technical Advisor/Operations Manager
 - Manages CCB reporting
 - Manages project operations in partnership with Project Manager
- VCS Carbon Technical Advisors
 - Manages documentation and analysis of carbon calculations
- Project Manager
 - Day to day management of project operations
- Government Liaison/Office Manager
 - Manages project partnership
 - Manages administrative process and accounting
- Accounting
 - Prepares payroll and all financial reporting
- Community Manager
 - Manages community engagement workshops and events
 - Manages CLDs
 - Prepares progress and year-end reports on community activities and indicators
- Biodiversity Manager
 - Manages all biodiversity reporting needs
 - Trains biodiversity staff
 - Prepares progress and year end reports on biodiversity indicators
- Agricultural Advisor
 - Trains community members on best practices
 - Reports on agricultural activities
 - Provides project support

- Assists the PM where needed and adheres to control and administrative processes

Further details are presented in Figure 5 below.

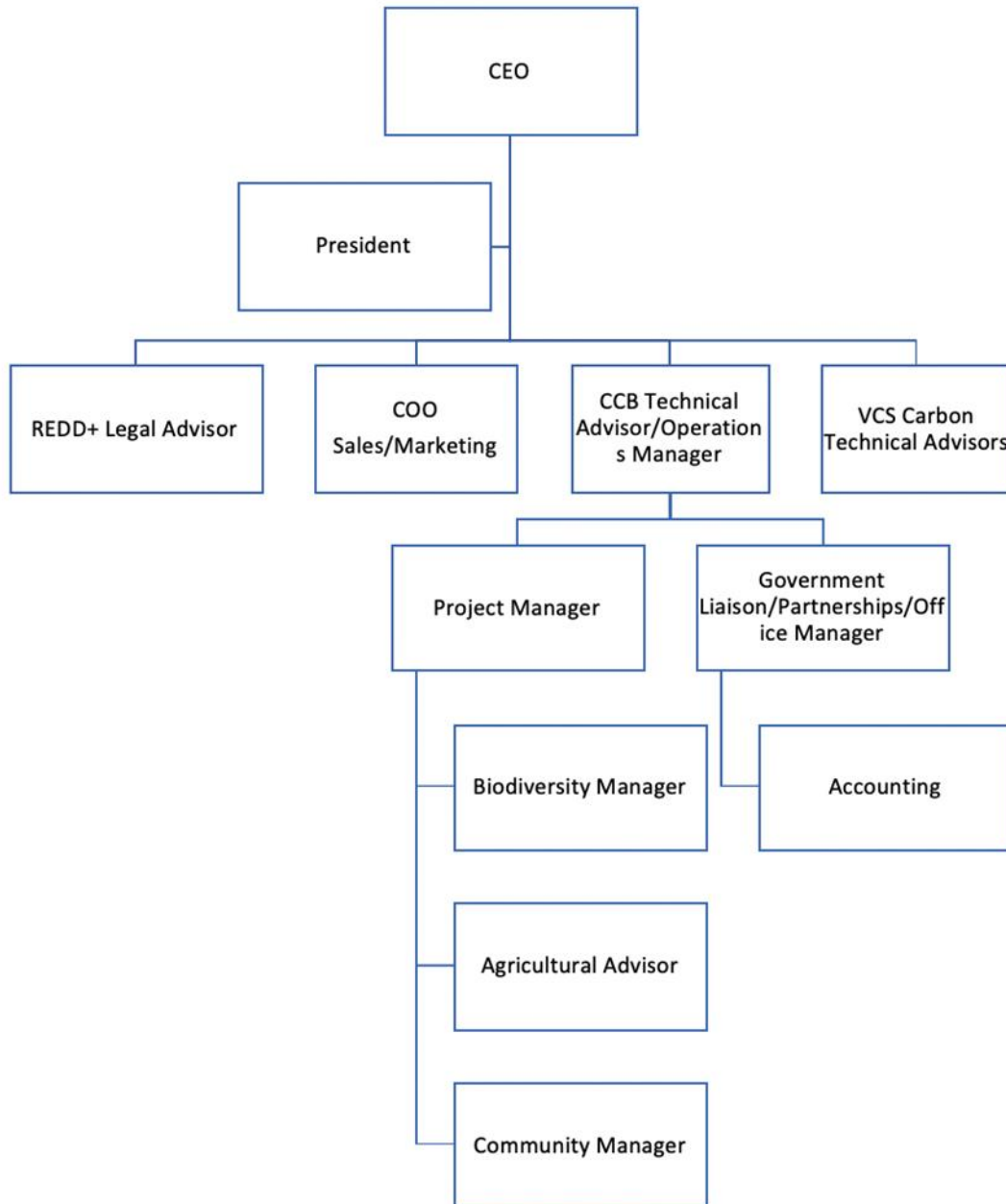


Figure 5: Organizational structure. The directors of each sector (community, biodiversity, and climate) are responsible for the SOPs, QA/QC, and adaptive management of their sector.

3.1.3.2 Data

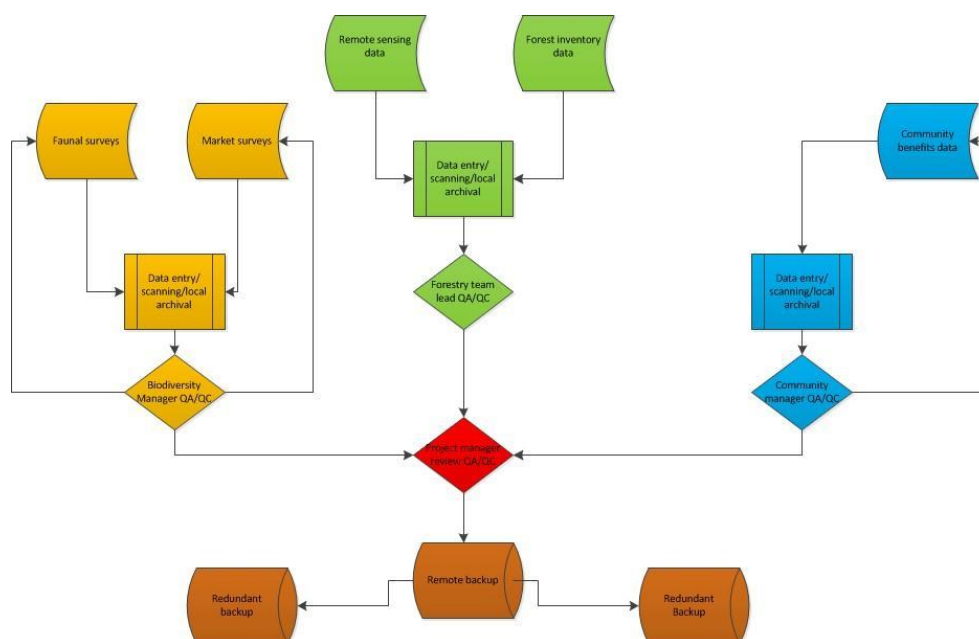


Figure 6: Data QA/QC, management, and archival system

3.1.3.3 Methods for Storing Data

Data monitored is stored in cloud storage and the rest is stored in project offices and on a hard drive in Kinshasa.

3.1.3.4 Management System

Each parameter measured have an associated measurement SOP for each monitoring period, created by the director for each sector. If an SOP is adapted from one monitoring period to the next, the documents shall be versioned and archived and the monitoring report reference the version and title of the SOP used for that monitoring period. All updates to SOPs shall be approved by the sector director on the leadership team. The project manager is responsible for ensuring that all SOPs are adhered to by the team managers.

3.1.3.5 Quality Assurance and Control

The directors of the Climate, Community, and Biodiversity teams are responsible for creation and adaption of QA/QC protocols as required, and for any technical direction of the project manager or teams. The project manager is responsible for ensuring that the QA/QC protocols are carried out by the sector managers.

The Jadora field teams minimize error by working together and verifying the data collected. Managers for each team verify a subset of the data recorded using risk-based assessment. The project manager also samples a subset of data recorded on a periodic basis using a risk-based assessment.

To reduce and eliminate transcriptional errors, spreadsheets are proofed by re-reading the field notebooks and comparing the data values to those entered in the database.

All data was reported to project proponents and local stakeholders and any discrepancies or disagreements were rectified by explanation or joint visitation of activities in question. All publicly-available satellite data used in monitoring, validation, verification, and certification is archived and available to auditors.

During the monitoring period, all persons were trained. Further information on training can be consulted in the Standard benefit matrix (Annex A).

3.1.3.6 Data Handling

Data entered on data sheets was archived using redundant electronic copies and a hard copy. All data entry was reviewed using a risk-based sampling approach by a party other than the person that performed the data entry. The SOP for each set of measurements specified the spreadsheet template used for data collation with a description of the fields for each template.

3.1.3.7 Climate

In this monitoring period, the deforestation area under project scenario is monitored by assessing the GIS maps of the project area and leakage area. The EF for calculating the emissions under project scenario is taken from FREL data of the DRC, which is derived from a WWF report.²⁸

While the deforestation area value for the baseline scenario for 2014 was taken from the registered PD, from 2015 onwards, the data has been obtained by assessing the GIS maps of the reference area. The EF is derived from FREL data of the DRC.

Selected pools included and excluded in the project scenario are as outlined in Table 3.

Table 3: Selected carbon pools

Included/ excluded	Included/ excluded	Justification
Above-ground tree biomass	Yes	Major pool
Above-ground non-tree biomass	No	Baseline land use is not perennial tree crop, optional
Below-ground biomass	Yes	Major pool
Litter	No	Excluded per VM0006
Dead Wood	No	Conservatively excluded in this monitoring period
Soil	No	Conservatively excluded in this monitoring period
Wood products	Yes	Major pool affected by project activities

²⁸ DRC forest carbon map can be freely requested from WWF Germany and the associated forest carbon map project document is available at <https://bit.ly/2T2YYGj>

3.1.3.7.1 Land-use land-cover classification and stratification of the project area

The project, reference, and leakage area are delineated and monitored for LULC and LULC change using remote sensing techniques approved per the requirements of VM006 v2.1 as in Sections 5.3, 5.4, and 5.5 of the Joint VCS-CCB Project Description and in the remote sensing SOP.

3.1.3.7.2 Emissions factors

EFs based on plot data are used to calculate the net carbon effect of a transition between LULC. The baseline emission factor for 2014 is from the value of the registered PDD, which are shown in the following table:

Table 4: 2014 EFs for each LULC transition under baseline scenario

LULC Transition	AGL (tCO ₂ e/ha)	AGD (tCO ₂ e/ha)	BG (tCO ₂ e/ha)	SOM* (tCO ₂ e/ha)	EF (tCO ₂ e/ha)	Data Source
Forest to crop	652.75023	-0.2710686	24.86169	0	676.63	Annex AD of registered PDD
Forest to settlement	615.802	0.5637995	22.784674	0	639.15	
Crop to forest	-652.75023	0.2710686	-24.86169	0	-676.63	
Settlement to forest	-615.802	-0.5637995	-22.784674	0	-639.15	

The EFs from 2015-2019 are taken from the FREL data of the DRC, as presented below.

Table 5: 2015-2019 EFs for each LULC transition from FREL

LULC Transition	EF (tCO ₂ /ha)	Data source
Forest to crop	688.3	Page 60, Table 7-4 of FREL Report 2018
Forest to settlement	744.99	
Crop to forest	-688.3	
Settlement to Forest	-744.99	

3.1.3.7.3 Emissions

The emissions mainly consist of three parts: emissions due to deforestation in the project area, emissions due to deforestation in the leakage area, and emissions due to harvested wood products.

Under the project scenario, emissions inside the project area and leakage area were monitored and documented using the procedures prescribed by VM0006, i.e., using the remote sensing of LULC to obtain the transition area, which is then multiplied by EFs from the DRC's national FREL.

3.1.3.7.4 Frequency

Jadora tracked changes in LULC every monitoring period.

3.1.4 Dissemination of Monitoring Plan and Results (CL3.2)

The monitoring plan and results from the 2014-2019 monitoring period is made publicly available for comment on the VERRA project database (<https://www.vcsprojectdatabase.org>).

Summaries of the monitoring plan and monitoring results from this and previous monitoring periods are available to project zone communities in Lingala by the following means:

- displayed on community notice boards in each village;
- available with local animateurs living and working in 28 project area villages;
- distributed to all 29 CLDs;
- available for review in project area offices; and
- depicted in the form of an infographic and displayed on community notice boards in each village.

3.2 Quantification of GHG Emission Reductions and Removals

3.2.1 Baseline Emissions

According to the project design document, the emission reductions are composed of three parts, emissions due to deforestation in the project area, emissions due to harvested wood products, and emissions due to deforestation in the leakage area. Baseline emissions, project emissions and leakage are calculated separately.

Baseline emissions includes emissions due to deforestation and those from harvested wood products.

For baseline emissions due to forest deforestation in the project and leakage area

As stated in section 2.2.4, the transition hectares and EF within the project area and leakage area under the baseline scenario in 2014 was taken from the registered PD, and the data from 2015 onwards is from the DRC's FREL.

As per section 5.3.6 of the PD (calculation baseline emissions), the transition hectares and EF under baseline scenarios in 2014 are shown in Table 6 and Table 7.

For detailed data from 2015 to 2019, refer to the Annex 3²⁹.

²⁹ Available at folder Supporting documents, Annex 3

Table 6: Baseline emissions in 2014 due to deforestation in the project area

Period	LULC Transition	Area change in Baseline Scenario (ha)	EF (tCO ₂ /ha)	Baseline emissions due to deforestation(tCO ₂)
01/01/2014 - 31/12/2014	Forest to crop	801.99	676.63	542,650
	Forest to settlement	33.84	639.15	21,629
	Crop to forest	130.32	-676.63	-88,178
	Settlement to forest	4.59	-639.15	-2,934
				473,167

Table 7: Baseline emissions in 2014 due to deforestation in the leakage area

Period	LULC Transition	Area change in Baseline Scenario (ha)	EF (tCO ₂ /ha)	Baseline emissions due to deforestation(tCO ₂)
01/01/2014 - 31/12/2014	Forest to crop	184.23	676.63	124,656
	Forest to settlement	7.74	639.15	4,947
	Crop to forest	721.98	-676.63	-488,513
	Settlement to forest	40.77	-639.15	-26,058
				-384,968

For baseline emissions due to harvested wood products

In the baseline scenario there were wood harvest activities and the volume comes from Annex AD³⁰ of the registration document. The volume and baseline emissions due to harvested wood products are shown in Table 8.

³⁰ Available at folder Supporting documents, Annex previous certification, Validation.

Table 8: Baseline emissions due to harvested wood products

Period	Wood Product Class	tC (carbon sequestered in harvested wood products)	wwf (wood wastefFraction)	slp (proportion of short-lived products)	fo (fraction of carbon that will be emitted to atmosphere between five and 100 years of harvest for wood class)	Baseline Emissions (tCO ₂)
01/01/2014 - 31/12/2014	Sawn wood	8,768.35	0.24	0.2	0.85	2,932
01/01/2015 - 31/12/2015	Sawn wood	8,768.35	0.24	0.2	0.85	2,932
01/01/2016 - 31/12/2016	Sawn wood	8,768.35	0.24	0.2	0.85	2,932
01/01/2017 - 31/12/2017	Sawn wood	8,768.35	0.24	0.2	0.85	2,932
01/01/2018 - 31/12/2018	Sawn wood	8,768.35	0.24	0.2	0.85	2,932
01/01/2019 - 31/12/2019	Sawn wood	8,768.35	0.24	0.2	0.85	2,932
Total in this monitoring period						17,592

3.2.2 Project Emissions

A land cover change analysis was carried out for the period going from January 1, 2014 and December 31, 2019 to monitor forest changes in the project and leakage area. The analysis was performed using medium resolution satellite image classification. Based on the classification of the satellite images, a land cover map was created for 2019 and then changes between 2014 and 2019 were analyzed. This one is based on the methodology and replicated for this monitoring period.

The land cover map of the year 2014 is the same as that used at the end of the first monitoring period. The methodology for obtaining the land cover map of the year 2019 and obtaining the change in land cover between years is summarized below.

- The medium resolution satellite image of the year 2019 is obtained.
- A pre-processing is applied to the satellite image obtained.
- A classification of the land cover for the satellite image of the year 2019 is made.
- The accuracy of the classification is calculated by means of a confusion matrix.
- A land cover map for 2019 is obtained.
- The land cover map 2014 is combined with the land cover map in 2019 to obtain the change in land cover and monitoring.

Data used to obtain the land cover map for 2019 is a Landsat 8 satellite image acquired from the free USGS (United States Geological Survey) data platform.³¹ The image is chosen for the month of December 2019, which coincides with the driest season in the project area.³²

Table 9 shows the image used to obtain the map.

Table 9: Satellite image used to obtain the land cover map for the year 2019

Image Number	Date	Image Name
177_60	12/17/2019	LC08_L1TP_177060_20191217_20191226_01_T1

The satellite image is preprocessed by applying a radiometric calibration and atmospheric correction process that is used to obtain the classification. This process is the same as that used during the first verification and is described in more detail in Annex AU³³ from validation.

As proposed in the VM0006 methodology, the six land-use land cover (LULC) classes proposed by the IPCC were used. These are: forest land, crop land, grassland, wetlands, settlements, and other land. For the classification of the images the classes considered were: forest, crop land, settlement, water, cloud, cloud shadow, and no data. The classification of the images was done through an unsupervised classification using the K-Means algorithm and a supervised classification using Maximum Likelihood Classification. See Table 10 for a subclass account for image classification.

A Majority Analysis Function was applied to meet a minimum mapping unit. Areas classified as no data, cloud, and cloud shadow were masked for further processing of map products, as described in Annex AL³⁴ from validation.

Table 10: Subclass account for image classification

Image Number	Date	Cloud	Cloud Shadow	Cropland	Forest	Off Image	Settlement	Water	Grand Total
177_60	2019	15	15	86	52	6	35	8	217

³¹ Available at: <https://earthexplorer.usgs.gov/>

³² Available at: <https://weatherspark.com/y/91740/Average-Weather-in-Kisangani-Congo---Kinshasa-Year-Round>

³³ Available at folder Supporting documents, Annex previous certification, Validation

³⁴ Available at folder Supporting documents, Annex previous certification, Validation

3.2.2.1 Accuracy Assessment

The accuracy assessment of the classification was carried out through a confusion matrix with omission and commission errors, obtaining a general accuracy between the land cover classified and the reference data. This is done through 249 random points that are assigned a land cover class, verifying them through the composition of the images of the Google Engine and the images of Sentinel 2 that are acquired on the Copernicus Open Access Hub free data platform³⁵ (Table 11) used to demonstrate how well the analyst's land cover classification compares to real land cover. The classes assigned to the pressure points are forest land, crop land, settlement, and water. For more details on the accuracy assessment, see Annex AV from first verification³⁶.

Table 11: Images used in the precision evaluation analysis of the 2019 classification for the second monitoring period

Image Type	Image Number	Date	Image Name
Imagen	T34NHF	30/12/2019	S2A_MSIL1C_20191230T083341_N0208_R021_T34NHF_20191230T100037
Compositon	N/A	December 2019 - January 2020	Composite_Sentinel_2_December_2019

The error results for 2019 classification were compiled in a confusion matrix and are presented in Table 12.

Table 12: Confusion matrix for classification 2019

Class Value	Forest Land	Crop Land	Settlement	Water	Total
Forest land	178	8	0	1	187
Crop land	6	41	1	0	48
Settlement	0	0	12	0	12
Water	0	0	0	2	2
Total	184	49	13	3	249

By summing the number of points that both classifications coincide (identified as the numbers in bold) and dividing that value by the total number of points interpreted (the value in the lower right corner), the percentage of general accuracy for the classification of 2019 can be calculated. This value is approximately 94%, which exceeds the minimum required percentage of 85% accuracy.

3.2.2.2 Observed Land Use Change

The land cover change of the project area was quantified using a land cover transition, classification 2014 compared to classification 2019. These transitions are calculated in Annex 5³⁷ and presented in the tables below. The total amount of forest converted to cropland in the project area since 2014 is 7,927.92 hectares. Table 13 shows the transition of land cover during the second monitoring period (2014-2019).

³⁵ Available at: <https://scihub.copernicus.eu/dhus/#/home>

³⁶ Available at folder Supporting documents, Annex previous certification, First Verification.

³⁷ Available at folder Supporting documents

Table 13: Land cover transitions (hectares) in the project area during the second monitoring period

Land Cover Transition	Area (ha)
Cropland to Cloud	0.09
Cropland to Cloud Shadow	0.00
Cropland to Cropland	28.71
Cropland to Forest	3.78
Cropland to Settlement	2.43
Cropland to Water	0.00
Forest to Cloud	329.49
Forest to Cloud Shadow	70.29
Forest to Cropland	7,927.92
Forest to Forest	178,474.86
Forest to Settlement	47.16
Forest to Water	77.58
Water to Cloud	0.00
Water to Cloud Shadow	0.00
Water to Cropland	0.00
Water to Forest	0.00
Water to Settlement	0.00
Water to Water	0.18

Table 14: Project emissions in this monitoring period in the project area

Period	Project Emissions in the Project Area Due to Deforestation	Project Emissions in the Project Area Due to Harvested Wood Products	Total Project Emissions
01/01/2014-31/12/2014	914,887	0	914,887
01/01/2015-31/12/2015	914,887	0	914,887
01/01/2016-31/12/2016	914,887	0	914,887
01/01/2017-31/12/2017	914,887	0	914,887
01/01/2018-31/12/2018	914,887	0	914,887
01/01/2019-31/12/2019	914,887	0	914,887
Total in this monitoring period			5,489,322

3.2.3 Leakage

3.2.3.1 Observed Land Use Change

The land cover change of the leakage area was quantified using a land cover transition, classification 2014 compared to classification 2019. The total amount of forest converted to cropland in the leakage area since 2014 is 4,920.57 hectares.

Table 15 shows the transition of land cover during the second monitoring period (2014-2019).

Table 15: Land cover transitions (hectares) in the leakage area during the second monitoring period

Land Cover Transition	Area (ha)
Cropland to Cloud	68.85
Cropland to Cloud Shadow	4.95
Cropland to Cropland	14,772.69
Cropland to Forest	2,708.19
Cropland to Settlement	716.67
Cropland to Water	3.51
Forest to Cloud	262.26
Forest to Cloud Shadow	43.29
Forest to Cropland	4,920.57
Forest to Forest	18,348.12
Forest to Settlement	66.60
Forest to Water	51.57
Settlement to Cloud	2.07
Settlement to Cloud Shadow	0.00
Settlement to Cropland	42.66
Settlement to Forest	6.30
Settlement to Settlement	150.66
Settlement to Water	0.72
Water to Cloud	0.00
Water to Cloud Shadow	0.00
Water to Cropland	0.00
Water to Forest	0.18
Water to Settlement	0.09
Water to Water	1.35

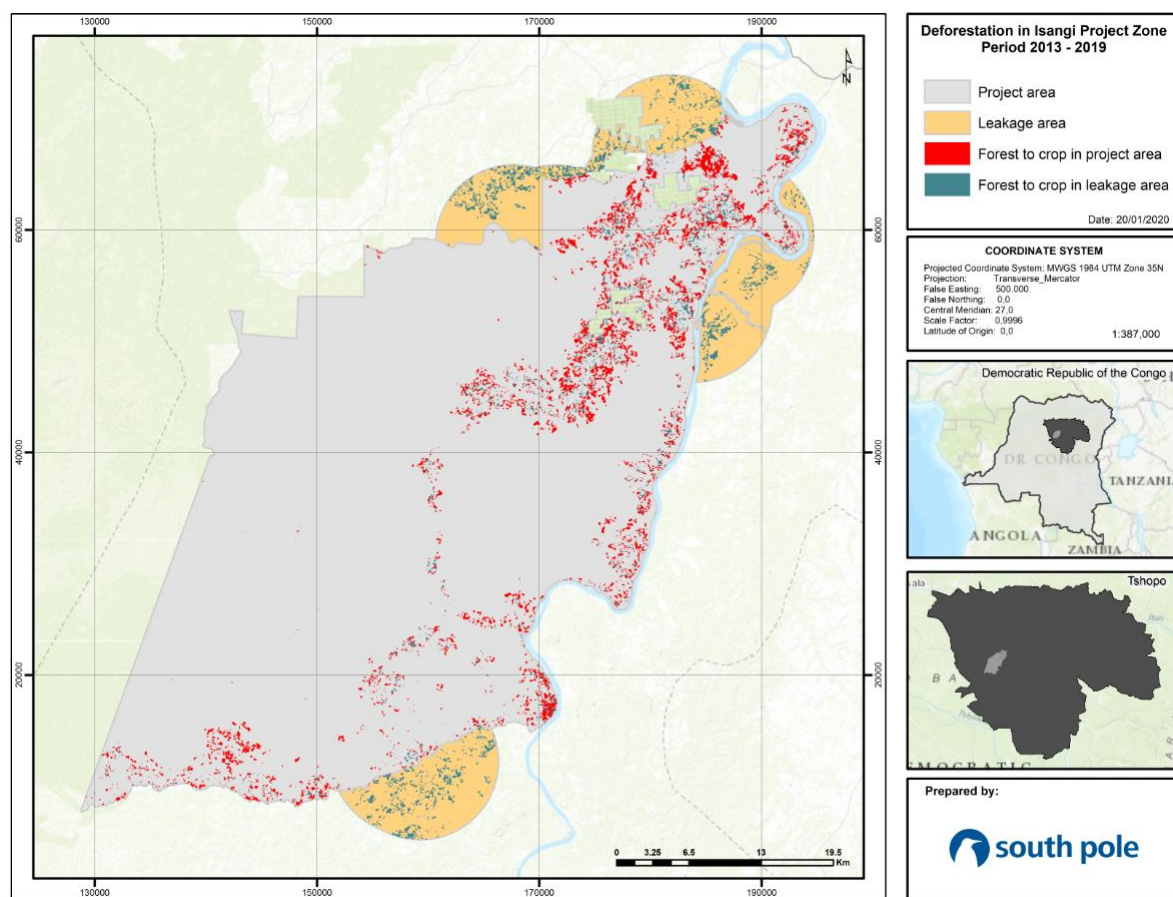


Figure 7: Forest land to cropland in project area and leakage area

3.2.3.2 Ex-Post Leakage From Geographically Constrained Drivers

The LULC change for the leakage area was calculated using the same method as for the project area. Maps of the LULC data for the project and leakage areas as of the end of 2013 are provided in Annex U and Annex V³⁸.

Table 16: Emission Reductions in the Leakage Area

Period	Baseline Emissions in Leakage Area	Project Emissions in Leakage Area	ER in Leakage Area
01/01/2014 - 31/12/2014	-384,968	261,283	-646,251
01/01/2015 - 31/12/2015	663,944	261,283	402,661
01/01/2016 - 31/12/2016	741,080	261,283	479,797
01/01/2017 - 31/12/2017	816,289	261,283	555,006
01/01/2018 - 31/12/2018	891,880	261,283	630,597

³⁸ Available at folder Supporting documents, Annex previous certification, First Verification

01/01/2019 - 31/12/2019	978,756	261,283	717,474
Total in this monitoring period			2,139,284

3.2.4 Net GHG Emission Reductions and Removals

Net GHG emission reductions were quantified using equation 105 (see Table 17, below) of the methodology. Vintages were established by year. Net GHG emissions reductions are presented in Table 18, while VCU's are shown in Table 19 per equation 106 of the methodology. The risk rating calculated using the Non-permanence risk tool is 20% for the current monitoring period.

Table 17: Net GHG emission reductions as per equation 105

Individual Term of Equation 105	Description	Value (tCO ₂ e)	Explanation
1	ΔGHG from avoided deforestation excluding ANR and harvest areas	3,041,794	Included, major source of emissions reductions
2	ΔGHG from deforestation due to leakage	-646,251	Included as described in section 5.5 of PD
3	ΔGHG from avoided degradation	0	Degradation is omitted as the drivers are for deforestation, as discussed in section 5.3.3 of PD.
4	ΔGHG from degradation due to leakage	0	Degradation is omitted as the drivers are for deforestation, as discussed in section 5.3.3 of PD
5	ΔGHG from leakage by unconstrained geographic drivers	0	There are no unconstrained geographic drivers, see section 5.5.3 of PD.
6	ΔGHG from assisted natural regeneration	0	Omitted, as ANR is not an included project activity

7	ΔGHG from changes in long-lived wood products	17,592	Included. The calculations can be consulted in the Annex 3 ³⁹ .
8	ΔGHG from improved cookstoves	0	Omitted, as CFE is not an included project activity
9	ΔGHG from other and secondary sources	0	No other secondary sources exist.
10	ΔGHG from avoided deforestation from areas under harvest	0	Omitted, as harvesting is not an included project activity
NERs		2,413,135	

Table 18: Ex-post net GHG emission reductions

Year	Baseline Emissions (tCO ₂ e)	Project Emissions (tCO ₂ e)	Leakage Emissions (tCO ₂ e)	Net GHG Emission Reductions (tCO ₂ e)
2014	476,099	914,887	-646,251	-1,085,039
2015	1,498,775	914,887	0	583.888
2016	1,555,244	914,887	0	640,357
2017	1,613,556	914,887	0	698,669
2018	1,669,304	914,887	0	754,418
2019	1,735,730	914,887	0	820,843
Total	8,548,708	5,489,322	-646,251	2,413,135

Table 19: VCUs in this monitoring period

Years	GHG emission reductions (tCO ₂ e)	Buffer Allocation (tCO ₂)	VCUs (tCO ₂)
2014	-1,085,039	-217,008	-868,031
2015	583.888	116,778	467,110
2016	640,357	128,071	512,285
2017	698,669	139,734	558,935

³⁹ Available at folder Supporting documents.

2018	754,418	150,884	603,534
2019	820,843	164,169	656,675
Total VCUs	2,413,135	482,627	1,930,508

3.3 Optional Criterion: Climate Change Adaptation Benefits

The project is not seeking Gold Level verification for climate change adaption benefits in this monitoring period.

3.3.1 Activities and/or Processes Implemented for Adaptation (GL1.4)

This project is not seeking gold level verification for community benefits.

This project is seeking gold level verification for biodiversity benefits.

4 COMMUNITY

4.1 Net Positive Community Impacts

4.1.1 Community Impacts (CM1.1)

Methodology

The theory of change approach to social impact assessment SBIA (Richards and Panfil, 2011; Richards, 2011) is used for the monitoring and evaluation of community impacts. Data collection for the second monitoring period (2014-2019) includes both quantitative and qualitative sources: document review from project records, local authority reports as detailed in section 4.3.2; a 2019 Social and Biodiversity Impact Assessment workshop (Annex I and Section 2.3.1), CLD questionnaires (Annex AS), Community Participatory Monitoring Survey (Annex AL), and onsite observations by key personnel. Triangulation of results across distinct data sources has been done where possible. Minor instances where we have elected not to measure previous indicators or added new indicators, or supplement existing baseline data, are explained in sections 2.2.4 and 4.3.2, and in detail in the Monitoring Plan, Community Adaptive Management Notes tab (Annex K).

The project's Theory of Change Matrix (Annex AM) and Theory of Change Document (Annex AM) and PD (Section 6.0) establishes anticipated cause and effect relationships from project activities housed in various program areas. Our theory of change assumptions, together with the second monitoring period results of outputs, outcomes, and impacts, provide evidence that the project is achieving positive change.

The program areas and project activities with associated indicators, targets, and objectives, are detailed in the community monitoring plan (Annex K) and below in section 4.3.2.

Jadora's community-oriented objectives are to:

- increase access to, relevance, and quality of education to communities in the project zone;
- improve quality of life and alleviate poverty in project zone by promoting sustainable economic development and agricultural practices and improving public health;
- maintain the value of natural resources and ecosystem services that are fundamental to the basic needs of communities in the project zone; and
- support communities in maintaining traditional, cultural, spiritual, and religious identities in the project zone.

These objectives fit within the project's four program areas: Education, Improved Access to Resources, Improved Production, and Land-Use Planning. Many of the project activities designed to achieve these objectives overlap with the four program areas.

Community Impacts by Program Area⁴⁰

In this last monitoring period, project activities generated outputs, outcomes, and some early impacts that contribute towards the achievement of long-term, net-positive community impacts as described by program area below.

Jadora identifies women as their own community group in the PD. Engaging with women as a cultural group is not traditional and gender roles are distinctly outlined and adhered to by all community members. However, Jadora communicates the importance of women across project activities and organizes separate engagement sessions and activities with women directly. Measured impacts on women and girls are included below, where available. Efforts will be made in future monitoring period to increase the data collection on this important community group.

Education

The Education program area includes activities and functions across multiple program areas. For example, Jadora responds to training requests from the community such as public health education, which fits within the Education program area; however, education activities also serve as the first phase in implementing activities in other program areas, such as agricultural workshops, which contribute to Improved Production. The project has organized and hosted over 200 workshops and training events on a wide range of essential topics for both staff and community members during this monitoring period.

Salaried Teachers: When Safbois started operations in the concession they built a private primary grade school for the employee's children. Jadora took over this school when the project became a conservation concession but has opened it up to the broader community. During the 2014 to 2019 monitoring period, and in the years of transition between project proponents, the project has maintained the salaries of the teachers in this school and hired new teachers to extend beyond the initial grade 1 to 5 primary level and include a full grade 6 to 12 secondary school component. There are now 23 teachers (one woman) and one headmaster in the Jadora staffed school where 1,729 students studied between the 2014 and 2019 (628 girls in primary and 126 in secondary; Annex AA

⁴⁰ Unless otherwise stated, references from this section (4.1.1) can be found in the 2014-2019 Summary Report (Annex T). Further details such as original minutes, location and attendees (examples of which, Biodiversity Awareness, can be found in Annex AH) are kept on site at the Jadora project offices and are managed as per the Monitoring Work Plan (Annex AO).

and Annex OP). While it originally opened as a private school, the project has begun the process of registering the school with the Ministry of Education, which will ensure that state criteria and curriculum are met. Once this happens, the state will pay teacher salaries from years kindergarten to grade eight. At the end of the 2019/2020 school year, three students will be taking the state graduation exams, a first for this school and a major achievement for a small rural village school.

REDD+ Workshops and Training: These workshops are part of our primary REDD+ IEC program held multiple times for different stakeholder groups in each community, 150 workshops were held this monitoring period. See Annex BD, Community Activities, for IEC locations. The workshops covered topics such as climate change, the carbon market, and the importance of forest ecosystems. The information and community discussion resulting from these workshops contributed to local knowledge from which community members make land management decisions. For example, the project recently renewed land use agreements with village leaders and all 33 formally committed to protect their forests and work with the project to foster measures to do so (Section 2.5.2 and Annex H).



Figure 8: Agricultural Department Manager, Emmanuel Alongoli, teaches about the VCS and CCB standards during a REDD+ information workshop.

Agricultural Diversification Workshops and Mentorship: A pillar of the project's agricultural intensification and diversification program are workshops and on-site mentorship. In this monitoring period, the project's Agricultural Department has hosted more than 25 workshops and visited 50 fields and households to help farmers implement and troubleshoot new techniques (crop rotation, systematic planting) and crops (nitrogen fixing crops, improved seeds for locally consumed crops).

This monitoring period, the Agricultural Department hosted workshops about tilapia farming (50 workshops), caterpillar farming (three workshops), and cultivating fast growing tree species for fuel wood. These workshops are increasingly in demand as the popularity of these programs (see Improved Production Section) has increased as community members begin to see the value in diversified agricultural techniques.



Figure 9 Vigna (beans) ready for harvest in the CLD garden of Yolema

The program was revised in mid-2019 with the Agricultural Department meeting with five of the newly created CLDs to co-design objectives for crops, techniques, and schedules for the second 2019 growing season (season B). Alongside the CLD fields, Jadora built small school fields where new crops and techniques can be tested, communities can come to learn, and seeds can be grown for distribution (see Annex BD for locations). Season B resulted in over 164 individual farmers participating (see Improved Production Section below). The co-design process has expanded to an additional 15 CLDs in 2020. The success of this program can be attributed both to the results attained

and the community's increasing understanding of the importance of conserving the primary forest and having viable alternatives to do so.

Workshops for (and about) Women and Girls: The traditional roles that women and girls hold in the community can sometimes make it difficult for them to participate effectively in community wide workshops, therefore the project organizes workshops explicitly for women and girls (12 workshops, 293 participants this monitoring period). Hosting workshop specifically for women also allows the project to cover subjects that are particularly meaningful for women in capacities where they can have the most impact on project objectives. Subjects in these workshops ranged from the role women hold in REDD+ projects, understanding climate change, and the importance of forests. See Annex AX, TOR Women's Awareness, for one of these workshops. In the Community Participatory Monitoring survey, 19% of respondents reported having attended one or more of these workshops and 17% reported having learned "actionable poverty alleviating" information (Annex AL). The survey was conducted randomly in villages across the project area, so some villages were surveyed where women's workshops have not yet been hosted. These workshops continue to be in high demand.

Discussion on the importance of women's roles in achieving REDD+ project objectives is a subject



Figure 10: Female community members listen during workshops that are hosted specifically for women. Often, entire women's groups visit the project offices.

touched on by all REDD+ and climate change themed workshops and discussions. Community understanding of the importance of these roles is essential because many agricultural tasks are traditionally held by women and agriculture is a critical area of change that project communities must embrace for the project to be successful.

CLD Training: Once CLDs are elected by their local communities, they complete training provided by the community engagement team based on the government required statute for a CLD (also discussed in sections 2.3.1 and 2.4.2). This training has been completed in 29 villages with elected CLDs and support for the capacity of the CLDs to plan and manage their community's development will continue over the project lifetime. Supporting CLDs in decision making regarding the development of their communities increases local capacity for governance in a way that respects traditional leadership roles while embracing more modern governance approaches and state organization. At least two members of each CLD are women. This capacity building is essential for the continuation of project activities beyond the project lifetime and to

equip the communities to raise themselves out of poverty. See Annex S for the CLD Capacity Building Guidelines and Figure 20, below, for a map of CLD locations.

Radio Broadcasts: The Project Manager has hosted 30 radio segments on a popularly listened to radio frequency in this monitoring period. In a landscape where there is very little cell phone reception and information is most commonly shared by word of mouth or letters, radio is a central mode of information sharing, particularly as coverage spans 95% of the project area. Jadora subjects discussed on the radio include project objectives, climate change, and other frequently asked questions that the project hears from community members. In the Community Participatory Survey, 55% of respondents reported listening to the Jadora broadcast and 48% reported learning new information from that broadcast. These results confirm progress in increasing access to relevant and quality information to project area communities, a key project objective.

Medicinal Plants, Protected Flora and Fauna, Health and Sanitation: Additional workshops held in 2019: medicinal plant workshops (one workshop with an estimated 25 attendees) run by local traditional wise men with the goal of maintaining traditional ecological knowledge; workshops focused on the importance and identification of protected flora and fauna (20 workshops); and public health workshops for women focused on health and sanitation in the home as well as family planning (seven workshops with an estimated 140 attendees).

University or Highschool Study Trips: Between 2014 and 2019, 109 students visited the project to fulfil their school's internship or field study requirements. Of these, 103 were high school students from agricultural technical schools at the end of their year. These students visited in 2016 and 2019 and learned about forest inventory, agricultural techniques, rural development, and human resources management, as well as the skills required to start and manage a nursery. Six students visited from universities or technical institutes: five doing their masters at the University of Kisangani or in the Faculty of Agronomy at Yangambi and learned the practical side of forest inventory, and one from the Superior Institute of Agronomy (ISEA Bengamisa) to study rural development (Annex AQ).

Staff Training: Seventy-one percent of our staff are community members (Annex AA). Hiring local and training our staff is a project principle that spans across disciplines and responsibilities. Creating jobs that allow revenues to stay in the project area and increase local capacity has a lasting impact on the employability and well-being of the project staff, their families, and the wider community. Staff trainings held in 2019 include 15 staff-wide Saturday morning training sessions on key project subjects such as climate change and the importance of forests, Social and Biodiversity Impact Assessment training, and local animateur (facilitators) training. This monitoring period, women-held positions increased from zero to seven. Staff training sessions are described in detail in section 2.4.2 and the Terms of References for the trainings can be found in Annex V.



Figure 11 Staff members learn to make problem flow diagrams at the SBIA staff training in October 2019.

Improved Access to Resources

Employment: Between 2014 and 2019, 41 new staff were hired, 34 of these are from Isangi Territory and seven are women (Annex AA). The vast majority of these hires are community based local animateurs (with an additional nine starting in January 2020). See Figure 20, below, for the location of these animateurs. During the SBIA workshops in 2019, lack of employment was identified as one of six focal issues and a direct or indirect factor in four other focal issues. Monthly salaries Jadora employees, as well as teachers the project supports and daily workers (total 158 days in 2019) for inventories or agricultural labor, contribute both directly and indirectly to the local economy in and around the project area.

The project office itself also provides direct and indirect revenue for nearby communities through the local purchase of supplies for stocking and maintaining project activities. For example, the project has purchased 5,672 hand woven seedling baskets from 23 local community members (in lieu of using plastic sachets).



Figure 12: Local community and agronomy facilitators learn (L) about their roles in the project's agriculture program (R) and receive their bikes for better travel around the project area

Jadora Health Post: Created to treat Jadora staff and their families, the health post also occasionally treats community members where time and materials allow. This monitoring period, 255 community patients have been treated and an estimated USD 2,880 has been spent on medicine and supplies. The Community Participatory Monitoring found that 3% of those surveyed had visited the Jadora health post (half of which were women), the majority of those being from the nearby village of Yafunga (Annex AL). The staff health post was accredited with the Ministry of Health this monitoring period, which means that staff are supported through the regional Health Center's initiatives, training programs, and reporting. This partnership will serve as a foundation for significantly expanding the project's health initiatives in the next monitoring period.

Drinking Water Infrastructure Improvements:

During workshop and training events for women in 2019, the project staff heard that some open-air springs and wells were being contaminated during the wet season due to flooding and by users due to walking over the surrounding area. Workshop participants and local nurses felt that these circumstances may be contributing to illnesses in the community. In early 2020, the project encased an open-air spring in Yafunga with concrete and installed outlet pipes. This spring is the source of water for between 500 and 700 people, and early reports from the local Health Centre suggest that rates of water-borne illnesses may have already decreased. Jadora, together with the village CLD, will conduct maintenance on the spring every four months. There are near-term plans to continue this spring encasement throughout the project area. This activity will be reported in the next monitoring period.



Figure 13: New improved water source in Yafunga

Materials, Tools, and Inputs Provided for Agricultural Activities: Jadora provides tools and materials to community members and CLDs to ensure they have the resources to implement newly learned skills and practices. In this monitoring period, Jadora provided materials to families to build 27 community ponds including the 842 fry to supply them. To support the agricultural diversification/seed exchange program, tools such as machetes, hoes, and tarps were provided to five CLDs (Botoa, Itenge Haut, Djabir, Yolema, Yafunga). Improved seed varieties of peanuts, beans, and corn were also provided to CLDs and over 200 households (seeds are locally sourced at either the national seed service in Kisangani or the nearby research institute, Yangambi. See agricultural plans Annex W for more details. Tree seedlings were provided to communities, particularly caterpillar hosting trees (950), fuel-wood trees, and cocoa and coffee. By providing these inputs, communities have the tools to adopt improved agricultural practices that result in a greater, more reliable, and more nutritious food supply and can reduce their reliance on forest conversion, such as can be seen with the significant expansion of the tilapia ponds and seed exchange program. Further details and longer-term outcomes can be seen in the Improved Production Section below and sections 4.1.2 and 4.3.2, and the locations of teaching gardens in Annex BC, Agricultural Activities.

Fuelwood Trees: This monitoring period, the project continued a program to distribute and establish fast growing fuel wood trees in project zone communities to provide alternatives to primary forest trees for building and fuelwood materials. This includes Acacia (*Acacias nilotuca*), Wenge (*Millettia laurentii*), and Eucalyptus (*Eucalyptus ssp*). Earlier in the project, these trees were planted in demonstration fields near the office in Yafunga. In 2019, planting began in areas that have limited access to forest such as Kombe. At this time, branches from the mature trees planted near the office in Yafunga are being used by communities. Women specifically benefit from having fuel wood close to the home as they ordinarily have to travel far into the forest to collect it. The project has plans to continue planting in the Kombe region and assess the extent of planted fuelwood utilization during the next monitoring period.

Improved Production

Caterpillar tree program: In the dry months of July, August, September, and often into October, community members travel weekly into the primary forest to collect the protein rich caterpillars from a limited number of primary forest hardwood species (Bomanga (*Brachystesia lauretii*), Tali (*Erythrophleum Sauvolens*), Thiama (*Entandrophragma angolensis*), Rikkio (*Uapaca guineensis*)). The caterpillars have traditionally been an important seasonal nutrition source for communities, but availability has declined in tandem with the declining primary rainforest. Some communities now have no realistic access to this important protein source. Early in the project, Jadora began transplanting young caterpillar hosting trees from the primary forest to our nurseries. It takes 3-4 years for one of these seedlings to grow to a size where it will host caterpillars.



Figure 14: Caterpillars are an important source of protein for communities during their season.

602 trees planted by Jadora are now hosting caterpillars, and a further 950 trees have been planted by communities. These trees can be difficult to nurture as they require protection, water, and some shade; therefore, three workshops have been held this monitoring period to assist communities with their successful maturation. Evidence for the positive impact from these trees is emerging, with 5% of community members surveyed reported having harvested a total of approximately 20 kg/season from project trees (Annex AL and Annex AY). The biodiversity team also reports a positive impact on forest fauna, as the trees' ready access from the village reduces the need to travel into the forest where they might encounter other animals during these months. In response to increasing interest in this activity, the agricultural department has begun tracking household requests for trees and started a nursery with over 1,000 seedlings. Households and communities are interested in the trees not only because they are an important and bountiful source of protein but because, on the market, one cup of caterpillars sells for USD 1 (Annex AR). Notably, the caterpillar trees, fast growing fuel wood trees, and coffee are all successfully grown together in the project's demonstration fields.

Tilapia ponds: This activity started in 2012. In the first monitoring period, two demonstration ponds were built to show communities the techniques and benefits of pisciculture. Since then, the communities have taken on the program enthusiastically. Between 2014 and 2019, the agricultural team hosted 50 workshops with community members, teaching them how to build, stock, maintain, and harvest the ponds. Interest is growing and community members are building an increasing number of ponds. Jadora has augmented the original two demonstration ponds in the first monitoring period to 21, and these ponds are primarily being used to provide fry to the 27 community-built and managed ponds. In this monitoring period an estimated 842 fry have been provided to communities along with materials and mentorship.



Figure 15: Community tilapia pond in Yoela

Forty-eight percent of community members with access to fishponds report consuming an increased volume of protein on a weekly basis (46% of women) (Annex AL). When the CLDs were asked in their questionnaire how many community-built ponds existed, they reported there were 129 (our records show 27) (Annex AS). This shows a clear appetite to expand this activity as we interpret the 129 figure to include ‘anticipated’ or ‘planned’ ponds. We are currently working to meet growing demand for fishponds and stock through potential alternative means of fry supply and distribution. The location of tilapia ponds is shown in the Agricultural Activities Map in Annex BD.

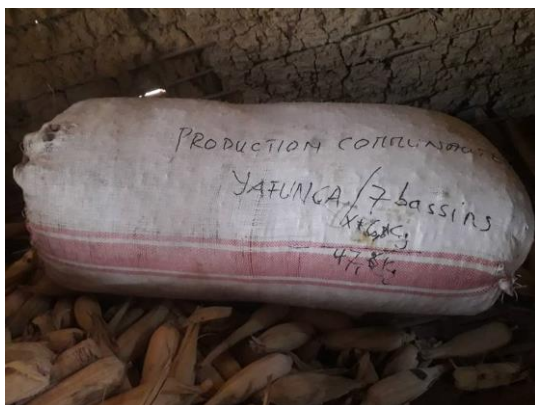


Figure 16: Seeds returned from the CLD of Yafunga to the seed exchange program

Agricultural Diversification/Seed Exchange Program:

A program to “loan” communities a quantity of improved seeds has facilitated eight seed exchanges in this monitoring period. In 2019, the Agricultural Team met with five newly elected CLDs and co-designed a more elaborate agricultural support process encompassing new project objectives, planning, implementation, and mentorship (see Annex W for the 2019 plan). This new program, which provided training and support on new techniques (discussed in Education) and improved seeds and tools (discussed in Improved Access to Resources). Each CLD has at least two women as members. Although only one CLD

reported increased revenue from the program, many indicated that they had either not yet sold their crops or that they were saving the harvest for sowing next season. All of the participating households and CLDs from the 2019 agricultural program returned the loaned seeds (due to clearer criteria and the establishment of commitment forms) and asked for the program to be expanded next season. The 2020 plan consulted with an additional 15 CLDs (see Annex W for the 2020 plan) and began in February 2020 with an exponentially larger group of farmers, including many women. The results from this will be reported in the next monitoring period. In addition, agricultural diversification activities are also being brought to project zone communities, particularly to those living within the limits of the palm plantations. These communities have very limited land for agriculture outside the palm nut cash crop; working together with them to support sustainable land use techniques has been identified as a priority for 2020. See Annex BD, Agricultural Activities for the location of CLD fields.

Agroforestry, Cocoa and Coffee Trees: The project began planting coffee and cocoa trees in 2012. Between 2014 and 2019, 5,123 coffee trees and 3,010 cocoa trees were planted, the majority of which have been producing for the last three to four years, with 693 kg of coffee produced this monitoring period. Our theory of change for this activity anticipated that harvests and subsequent revenues generated from these trees would prove to be an economically viable harvest, resulting in an increase in the interest of growing these crops and a decrease in forest converting agricultural activities. Though 664 of these trees were given to and planted by community members, we have since learned that most community members are not able to wait three to four years to generate revenue from a crop. In addition, access



to a market for these crops has proven to be a significant financial and logistical barrier for most project area households. Locally, however, this crop has been popular due to the free supply of dried coffee beans to families in need. This has been most beneficial during mourning ceremonies that can last several days where hosts are required to feed guests. Concerns with the marketability and income stream for these products have been formally identified and Jadora will be working with CLDs to improve results (see Annex X Value Chain Report for Coffee and Cocoa). The project has four nurseries in the project area to grow these trees, as well as caterpillar trees and fuel wood trees (see Annex BD, Agricultural Activities).

Land Use Planning

Amendment to the Social Terms of Reference (*Cahier des Charges*): In early 2019, as the new project manager familiarized himself with project area communities, he received community feedback that a new or amended *cahier des charges* needed to be signed as some commitments in the last agreement with Saibois had not been upheld and the central purpose of the forest concession had changed from logging to conservation. This sentiment was further identified in the Social and Biodiversity Impact Assessment workshops in 2019 where attendees selected the need for revision of the *cahier des charges* as the first of six focal issues. For these reasons, project management organized a meeting with all traditional and elected leaders from the 74 clans and 33 villages in the project area. The willingness of the project to negotiate an amended *cahier des charge* was welcomed by community members. The results of these negotiations are reviewed in further detail in section 2.3.1. The amended document (Annex J) is now a cornerstone of project activities and land use planning moving forward as it identifies the revised infrastructural and other benefit commitments Jadora has made to communities, and commitments the communities have made to conserve their forest.

Updated and Newly Signed Land Use Agreements:

Initial land use agreements were signed between Jadora and 12 project area communities, confirming mutual understanding and agreement to project activities and the avoidance of conversion of primary forest into agriculture. In 2019, these agreements were renewed and signed with all 33 of the project area village chiefs (the traditionally recognized owners of the land). The agreements came after months of renewed IEC meetings (discussed above) and a multiday renegotiation of the project's social commitments (discussed above). The 2019 updated land use agreements were signed and discussed in Lingala. They document updated understanding and agreement to project activities, avoided conversion of primary forest to agriculture, including protection from outside actors. Further discussion of these agreements can be found in section 2.5.2 and in Annex H. These agreements are the foundation of community-based project activities and future land use management decisions because they set out the principles of project objectives, in contract directly with the traditional owners and managers of the land.

Figure 17: Coffee harvest drying at the Jadora offices



Figure 18: Community signing new land use agreements

Election and Capacity Building of Local Development Committees: In 2019, 29 CLDs were

elected by their communities and completed multiple capacity building sessions with project area staff. The 15-member CLDs (at least two in each are women) are elected by their communities to facilitate development decision making, planning, implementation, and monitoring, both for project activities and activities outside of the scope of the project. Providing these committees with the skills and tools to facilitate development in their communities is at the heart of improving local governance and raising communities out of poverty. Committees formed during this monitoring period are functioning, with five involved in 2019 with the co-design of agricultural diversification plan (with support from project agronomists) and others managing micro projects such as well repair and tilapia ponds. Profits from agricultural diversification activities will go towards the funding of CLDs and further community development activities. Additional discussion on these committees can be found in section 2.3.1, the CLD Capacity Building Guidelines in Annex S, and the locations of existing CLDs in Annex BC.



Figure 19: CLD members of Itenge haut

Potential Negative Project Impacts

Conflicts due to Unequal Benefit Distribution: In a setting where commencing an activity this season or next season could potentially mean a significant difference in the quality of life for an individual, the geographic distribution and allocation of project benefits will always be a potentially inflammatory issue. Expectation management is a constant consideration for community engagement staff when discussing and planning activities. Community engagement staff are trained to be acutely sensitive to communities' perceived and actual sense of inconsistent distribution of benefits and our Grievance Policy has measures to address them. Unfortunately, however, it is not possible to implement all activities in all communities at the same time for financial and logistical reasons, and because it is important that activities are trialed on a smaller scale before they are rolled out across the project area. Specific examples of unequal benefit distribution conflicts that occurred this monitoring period include initial jealousy over the hiring of local animateurs in some communities and not others (hiring was done in two phases and they are now hired across all project area villages), and jealousy over the village of Yafunga benefiting more than other villages with assistance for funerals. Yafunga being the village where the head office is located likely played role in this, and the project manager is now careful to ensure that representatives from the project attend funerals of major leaders across the project area. An additional conflict has been complaints from some village leaders that the *doit de joissance* (traditional land tax) was remitted in Jadora offices instead of in each village, therefore lacking transparency for family members unable to attend. Jadora plans to ensure that the distribution is done in individual villages next year.

In each case, conflicts and complaints were addressed following the Jadora Grievance Policy (section 2.3.4 and Annex M), which encompasses traditional conflict resolution practices. Conflicts are typically resolved through community engagement staff, who first ensure that they understand the nature of the complaint and then explain the projected distribution of benefits over the remaining 15-year project period. Also, Jadora is working together with CLDs to formalize a benefit distribution policy and transparent reporting framework (Annex AT) that aligns with the commitments made in the *cahier des charges* and upcoming local development plans. Conflicts and grievances are discussed further in section 2.3.4.

Other Opportunity Costs

Reduced Access to Cropland: Communities understand that the project does not forbid land clearing or access to the use of the primary forest, or any other activities that communities have traditionally undertaken for their livelihood or cultural activities in these forests. This understanding is formally confirmed in both the *cahier des charges* (Annex J) and the Land Use Agreements (Annex H). Community engagement staff consistently communicate that the project only seeks to provide viable alternatives to the conversion of primary forest and hunting. Part of this communication is the understanding that each community has an agricultural buffer zone outside of the project accounting area – 29 communities (those with CLDs and local animateurs) are aware of these buffers. In 2020, the project will continue work on participatory community mapping to further delineate these areas and those the community would like to identify for conservation or other purposes.

Reduced Access to Employment: Before the project started, Safbois employed 80 staff most of whom moved to the project area for those jobs. When Jadora started, they hired 30 of those staff and the majority of the remainder returned to their hometowns. Between 2014 and 2019 Jadora hired an additional 41 staff, 33 of whom are from the project area (Annex AA).

Access to Building Materials and Fuelwood: There is a possibility that the cessation of logging activities could cause a reduction of access to building materials or fuelwood for project area communities, however, legally, project communities can continue to use the forest for their basic needs (further discussion in section 2.5.4). Though Jadora has not heard complaints of this impact, the project has initiated activities to provide alternatives to primary forest-sourced building materials by planting trees such as Acacia (*Acacias nilotuca*), Wenge (*Millettia laurentii*), and Eucalyptus (*Eucalyptus ssp*).

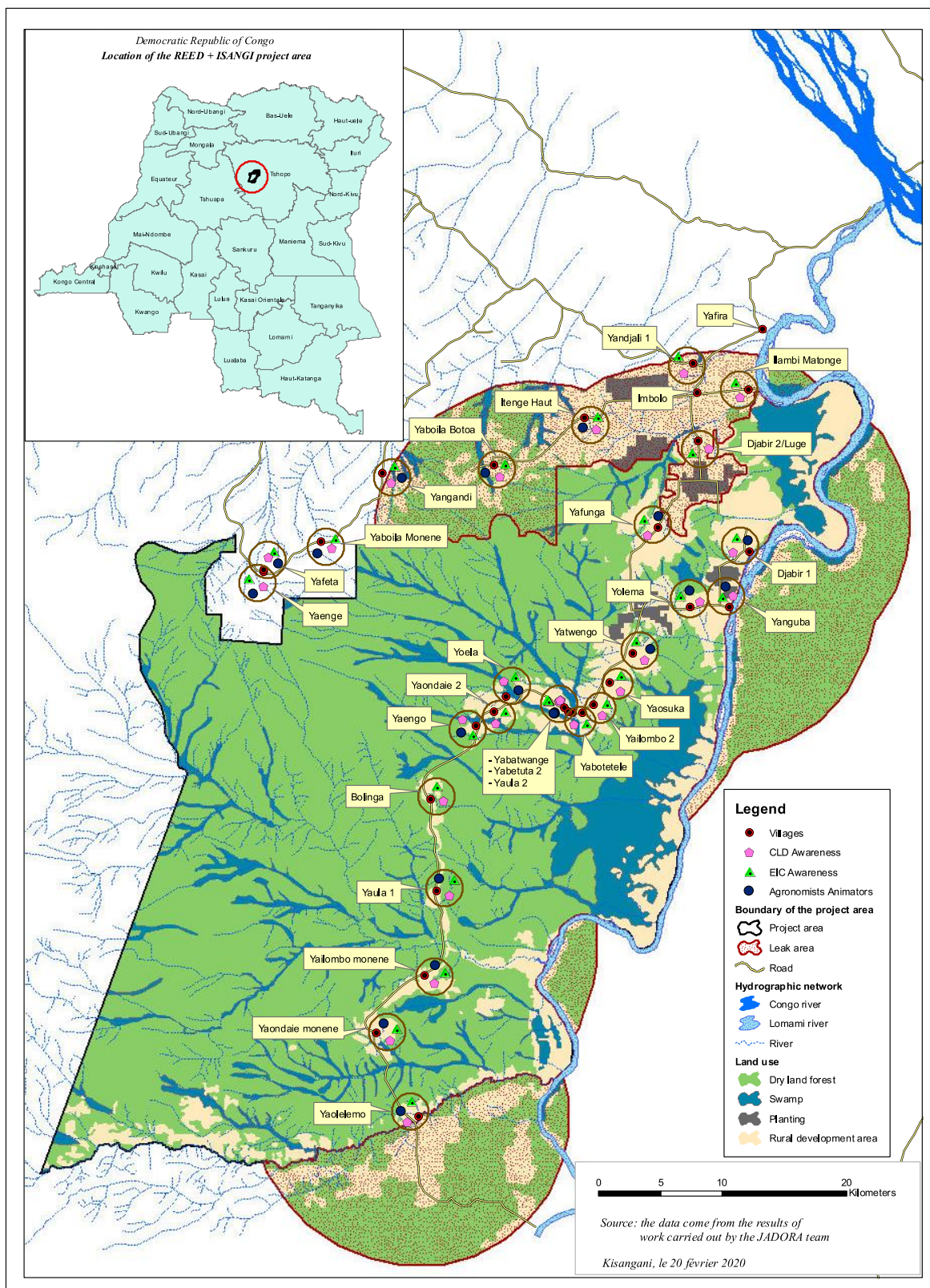


Figure 20: Map of the project area and project zone showing location of CLDs and local community facilitators

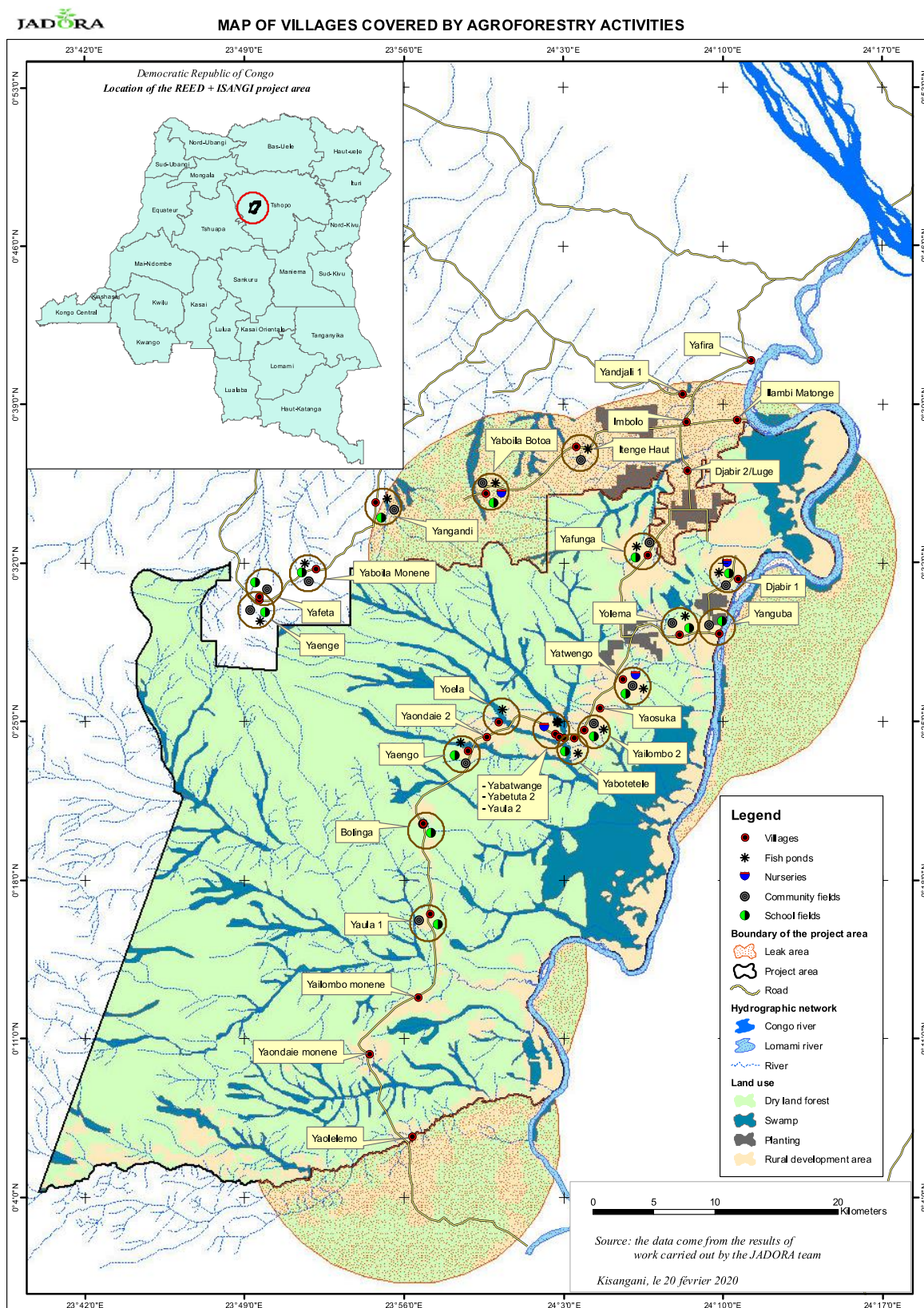


Figure 21: Location of community agricultural activities across the project zone (this map includes fields built in early 2020)

4.1.2 Net Positive Community Well-Being Impacts (CM1.1)

Guidance for social impact assessment⁴¹ was used for projecting future community social conditions in the absence of the project in the first monitoring period. This included the identification of focal issues, i.e., current social conditions of priority for the project communities and their current trends in the absence of the project interventions. Focal issues were identified through the stakeholder engagement process carried out by the original Community Consultation Team (see 2.7.2 of the PD). Problem flow diagrams were used to conceptualize the factors that contribute to existing focal issues and potential points of intervention by the project to improve focal issue conditions.

The original focal issues identified are as follows:

1. lack of sustainable food security;
2. lack of employment opportunities; and
3. inadequate health care.

In the second monitoring period, Social and Biodiversity Impact Assessment workshops (Annex I) were held with project area communities where focus groups re-visited and identified without-project focal issues.

The focal issues identified by communities during the 2019 SBIA workshops are as follows:

1. lack of alternatives to slash and burn agriculture and deforestation;
2. lack of basic infrastructure: education, health, roads;
3. unregulated hunting; and
4. lack of employment.

Issues concerning project area communities, and those across the country, are complex, systematic and will take generations to improve in any significant way. The consistency between focal issues identified at project commencement and by communities in the second monitoring period reflect these challenges, as well as the continued lack of outside support available to address existing conditions. Jadora is beginning to make a small but positive impact as discussed in section 4.1.1, above, and in the following section. Project activities are designed to have a positive impact on the above focal issues. The communities' confirmation of these focal issues indicates that project activities have been appropriately selected and prioritized.

Without project activities, the project area communities' well-being, opportunities, and ability to sustainably use resources would have stayed the same, or likely, deteriorated. Thus, the baseline scenario for communities in the project area is a reinforcing cycle of increasing population, increasingly scarce forest resources on which their living is predicated, and ultimately, increasing poverty.

The monitoring results presented in sections 4.1.1 and 4.3.1 show outputs, outcomes, and some early impacts that, reviewed together with validated baseline conditions and the project's theory of change model, demonstrate that Jadora's activities have had a net positive impact on the Program Areas for this monitoring period.

⁴¹ Guidance for social impact assessment (Richards and Panfil, 2011)

Finally, early evidence shows that project activities have been accessible to women and/or provided mechanisms for the direct inclusion of women. Results of monitoring demonstrate that these activities have had a measurably equal impact on women as a subgroup.

Education

There is a significant lack of educational infrastructure and capacity building opportunities in the Isangi area in the current and without project scenario, evident for example, in the absence of quality primary and secondary education, and employment and agricultural training for adults. In absence of the REDD+ project, the communities in the project zone would not have the financial resources to improve this situation. There are no other organizations providing education or capacity building opportunities in the project zone and the Jadora-supported school would have closed without the financial support from Jadora.

Project outputs, outcomes, and early impacts described in 4.1.1 and detailed by indicator type in Annex K, i.e., increased primary school capacity and training for adults, as shown through the monitoring data detailed in 4.3.2, demonstrate the net positive impact in this program area for both females and males. Furthermore, the positive impact of these activities extends beyond the education program area by contributing to the advancement of each of the individual focal issues and program areas. The problem flow analyses, created at project start and during the Social Impact Assessment workshops, confirm that education is important to addressing each focal issue (PD Section 4.5.2 and Annex I) The magnitude of impacts generated in this focal area is emergent, particularly across more difficult to access areas of the project; however, with over 350 workshops held this monitoring period, the impact of Jadora's education activities is mounting.

Access to Resources

In the without project scenario, communities will continue to have limited but diminishing access to resources from adjacent forests, including protein in the form of bushmeat, and the opportunity to clear forest to create temporarily arable land. Without the project, people living in the project zone do not have access to improved healthcare or agricultural supplies due to the relatively high cost of these resources in the project zone. Communities also have limited means of transportation to sell or buy goods, or the means to finance alternative livelihood-enhancing activities. This program area is designed to ensure that community members in the project zone have the resources to implement newly learned skills and practices and address the basic needs of the communities. By increasing access to needed resources, as described in 4.1.1, Jadora has begun to support communities to improve their livelihoods, reduce reliance on unsustainable resource exploitation, and help to ensure the continued availability of resources to meet basic needs in the future. Like education, improving access to resources is a vital project opportunity in addressing each focal issue. The Access to Resources program area will continue to grow; however, it has had definitive impact on agricultural intensification in five of the 33 project area villages and 31% of community members surveyed report having access to fish from Jadora-initiated tilapia ponds (Annex AL).

While there have been some organizations providing similar inputs in the project zone before the project lifetime, these projects are now closed and were not developed on this scale (normally in just one or two villages). Before the project, communities did not tend to have the custom or support to build tilapia ponds and implement crop rotation, nor did they have access to the resources that are

producing these results. Additionally, we are able to triangulate the outputs and outcomes measured in community surveys with data from Jadora's agricultural records.

Improved Production

Under the baseline scenario, production opportunities for the communities remain restricted to growing traditional low-yielding agricultural crops. While the forest provides land that can be cleared for agricultural purposes, the methods used unsustainable for maintaining production. In the absence of the REDD+ project, the communities within the project zone would have limited financial and educational resources to improve their production processes.

The improved production program area contributes outputs and outcomes through the implementation of a variety of activities described in section 4.1.1. By providing inputs such as seeds, seedlings, fry, tools, and materials, as well as training, mentoring, and ideas (such as village grown caterpillar trees), project activities are contributing to realizing community aspirations toward the improved availability, reliability, and sustainability of food supply by increasing agricultural yields and increasing livelihood opportunities in the project zone. The Improved Production program area is a vital constituent to addressing the short- and long-term needs of the communities and will be growing from five villages to 20 in 2020. Women are expected to be increasingly interested in this program in 2020.

Again, there have been some organizations providing similar inputs in the project zone before the project lifetime, these projects are now closed and departed and were not done on this scale (normally in just one or two villages). Before the project, communities did not have the project-wide culture or support to raise tilapia and reduce land clearing due to long-term crop rotation, nor did they have access to the resources that are producing these results. Additionally, we are able to triangulate the outputs and outcomes measured in community surveys with data from Jadora agricultural records.

Land Use Planning

Traditionally, land use and resources are managed by the chiefs of each clan. Each clan has an inherited geographic area of land and the chief is empowered to determine which areas are used for agriculture and hunting and by whom, as well as designate land for village expansion and continue the protection of spirit forests. Recently, however, the mounting challenges posed by growing populations, outside actors such as plantations and logging companies, more modern forms of governance flowing from the state, and conflict between clans is pressurizing this traditional approach to land use planning.

Project activities support the implementation of effective land-use planning through a participatory approach which relies on community knowledge and involvement. Between 2014 and 2019, Jadora facilitated the election of CLDs, which compliments existing village leadership structures in the project zone and amends more organized, government-recognized forms of governance. With guidance from the amended and signed *cahier des charge* and Land Use Agreements, together with CLDs, Jadora presents innovative land-use options including intensified agriculture and fuel wood plantations. Jadora also uses a hybrid approach that encourages the participation of under-represented groups such as women and youth, while leaving implementation of the plans to the CLDs. In this next monitoring period, Jadora has prioritized participatory land use mapping and the activities designated in the *cahier des charges*.

Land use planning plays a vital role in implementing the other three program areas. With both modern and traditional approaches in mind, land use planning will help to maintain ecosystem services while upholding the cultural and spiritual identities of the local people.

Community Evaluation of Impacts

The activities described and impacts demonstrated in the above section, sections 4.1.1 and 4.3.3 have been evaluated by communities indirectly in the following ways:

- during the HCV Interviews with project area chiefs in 2019 (Annex AU), these traditional village leaders and elders described positive impacts attributable to project activities such as improved understanding of the importance of forest ecosystems, the increased availability of non-timber forest products, and reduced pressure on the primary forest. Further discussion of this evaluation in section 4.1.3;
- CLDs were given the opportunity to provide comments on the Participatory Monitoring Survey they completed on project impacts (Annex AS). Comments frequently requested that activities be brought to more villages or expanded in villages where they already existed. These requests indicate that the CLDs have evaluated the impacts of existing project activities and determined they are positive;
- results from the Community Participatory Monitoring Survey for communities indicate that communities have begun to value project activities. Evidence of this includes 17% of participating women reporting having learned something from women-focused workshops and 46% of those with access to tilapia ponds reporting an increased availability of weekly protein (Annex AL); and
- feedback from the CLD Participatory Surveys and Community Participatory Surveys were very positive, with communities appreciating their inclusion in the reporting on Jadora project activities.

4.1.3 Protection of High Conservation Values (CM1.2)

None of the HCVs related to community well-being in the project zone identified in Section 1.3.7.1 of the PD the DRC's Forests for High Conservation Value (2012)⁴² have been negatively affected by the project. Activities undertaken this monitoring period to mitigate impact on these HCVs are discussed in section 2.2.6. Demonstrations of the net-positive impact of the HCVs are as follows.

HCV 4: Ecosystem Services

Critical ecosystem services provided by intact primary forest, as identified in Section 1.3.7.1 of the PD, are flooding regulation, the reduction of siltation in water systems, and water purification for a population entirely reliant on naturally-sourced drinking water. By preventing continued logging in the project area and converting of logging activities to conservation activities, the project has maintained and enhanced the protection of this HCV. The following activities and results are an additional demonstration of this:

- 178,474 hectares of forests protected;

⁴² https://hcvnetwork.org/wp-content/uploads/2018/05/2012WWF-ProforestInitiative_HCV_Congo.pdf

- amended and improved land use agreements (sections 2.5.2, 4.1.1 and Annex H and Annex J);
- successful harvests from agricultural intensification and diversification activities, and increasing interest in activities that align with the project's theory of change for the reduced the conversion of primary forests (sections 4.1.1, 4.1.2);
- the above results are corroborated by recent project manager interviews with 15 project area chiefs. The interviews found that by raising awareness of the importance of protecting the forest, providing alternatives to traditional agriculture methods that convert forests, and providing alternatives to clearing trees and overharvesting from the primary forest, communities are voluntarily adjusting land use practices that were previously threatening the long-term viability of local ecosystem services. Improvements to the functioning of ecosystem services compared to baseline are already apparent. Examples given by the chiefs during these interviews include the quality of drinking water and reduced concern about destructive winds damaging structurally weak housing infrastructure due to the loss of windbreaks from the removal of primary forest (Annex AU).

HCV5: Fundamental Community Needs

The entire project zone is fundamental for the basic needs of local communities in ways that are irreplaceable if lost. The project zone provides protein sources in the form of bushmeat and native caterpillars. Similarly, the plants and herbs used in traditional healing are very important to communities due to the absence of consistently accessible modern medicine. The project zone also provides most of the communities' energy needs and building materials. Alternative resources to meet these needs are not readily available or affordable. By preventing industrial logging, the project has maintained and enhanced the protection of this HCV. The following activities and results are additional demonstration of this:

- 178,474 hectares of forests protected;
- amended and improved land use agreements (Section 2.5.2, 4.1.1 and Annex H and Annex J);
- agricultural intensification and diversification activities are exhibiting increasingly positive results that align with the project's theory of change to achieve project objectives and reduce the conversion of primary forests (further discussed in sections 4.1.1, 4.1.2);
- specific, positive impacts for HCV 5 include an increase in alternative protein sources (and family income) from tilapia ponds and caterpillar trees, an increased presence of fast-growing tree species for fuel wood and building materials, and the preservation of species otherwise hunted for bushmeat. For example, project grown caterpillar trees are preferred over travelling into the forest – this also reduces having these collectors in the primary forest, thus reducing their impact on fauna species. These trees are now being requested by the community;
- Jadora workshops on IUCN Red Listed species have been well received. Hunters are eager to try alternatives to hunting such as domesticated animal farming, a program that will be starting in 2020; and

- project manager interviews with 15 project area chiefs corroborate the above analyses. Particularly, that they have experienced improvements in sourcing non-timber forest products since the project start and that forest and biodiversity conservation meetings and discussions have encouraged communities to prioritize forest governance (Annex AU).

HCV6: Cultural Identity

Each clan designates specific forest areas as “spirit forests” where they draw spiritual and cultural connections from the forest itself as well as the plants and animals which exist there. These connections are formative in traditional practices and beliefs, cultural rituals, and celebrations, as well as oral traditions and community history. While these sacred areas are not often well defined geographically, project communication with village chiefs and wise men ensures they remain protected. Sacred sites cannot be replaced or re-established elsewhere. Likewise, certain plant or animal resources that possess cultural or religious value may only exist and reproduce within particular cultural sites. More broadly, the presence of intact primary forest and associated attributes in the project area is significant in that, in the absence of primary forest, the culture of the forest communities would rapidly erode. By preventing continued logging in the project area and by initiating community activities focused on conserving primary forest attributes the project is maintaining and enhancing the long-term protection of this HCV. The following activities and results are additional demonstration of this:

- 178,474 hectares of forests protected;
- amended and improved land use agreements (Section 2.5.2, 4.1.1 and Annex H and Annex J); and
- project manager interviews with 15 project area chiefs state that cultural identity has been respected by the project and that conserving forests will protect their sacred spaces, habits, and customs. Some chiefs directly commented that protecting the forest and the sacred species in it gives them the opportunity to pass on their traditional knowledge of medicine and practices to future generations (Annex AU).

4.2 Offsite Stakeholder Impacts

4.2.1 Mitigation of Negative Impacts on Other Stakeholders (CM2.2)

Jadora values continued engagement with local, regional, and national governmental leaders, which contributes to the mitigation of negative impacts as interests of offsite stakeholders are heard and considered. All local, regional, and national leaders have expressed continued support for the project. Jadora identifies the following other stakeholders in the PD Section 2.7.2 and section 2.3.1 of this document. Activities implemented to mitigate negative impacts on these stakeholders are as follows.

Project Zone Communities: Communities located outside the project area but within the project zone are considered important stakeholders. Project activities such as the establishment of CLDs, workshops on agriculture, and the importance of biodiversity, community fields, and the hiring of local animators, are equally brought to these communities to reduce the impact that project conservation activities may have on them. Activities described in section 4.1.1 include project zone communities, as can be seen on maps in Annex BD and above in section 4.1.1.

Local Government Officials: There are no expected negative well-being impacts on local government officials. Jadora consults with the Isangi Territory Administrator and other regional government officials at least once monthly. He is involved in every aspect of the project that concerns the Territory or matters within his administrative duties. Jadora also meets, on average, once monthly with the Governor of Tshopo Province and the Provincial Environmental Coordinator.

DRC Minister of Environment: There are no expected negative well-being impacts on national government officials. Jadora has obtained approval from the Minister of the Environment and will continue to consult with the Minister's office over the lifetime of the project to ensure that it is in compliance with national REDD+ policies.

Yangambi Agricultural Research Center: The research center is located near the project zone. Jadora consulted with researchers at Yangambi in the first monitoring period to create partnership projects and has identified reconnection with the center as a priority for the next monitoring period. Jadora conservation activities align with the goals of Yagambi and project activities are expected to have a positive impact on these offsite stakeholders.

Busira Palm Oil Plantation: This palm oil plantation is located in the project zone. Jadora has met with management at the plantation regarding the encroachment of palm oil plantations in the project area and to communicate project objectives. Jadora has informed Busira management of activities that the project has implemented in palm oil plantation communities to reduce this threat. Project objectives are expected to reduce the amount of forest converted to cropland for Busira plantations.

Project Zone Communities Surrounded by Busira-Lomami Plantations: In 2019, the Community Engagement Department engaged with communities living within the area of Busira Lomami. These communities live outside of the project area but within the project zone. To reduce the risk that expanding farming activities from Busira-Lomami communities would pose on the project objectives, the project has begun community engagement activities. This includes establishing local development committees and providing agroforestry and agriculture intensification support. Project activities are expected to have positive impact on these offsite stakeholders.

Project documents, including translated summaries of monitoring reports, are distributed to stakeholders and communities in the project zone.

4.2.2 Net Impacts on Other Stakeholders (CM2.3)

The impacts of the project's community development activities are expected to be positive for project zone communities. The community activities described in section 4.1.1 include offsite community stakeholders, as stated in section 4.2.1. These activities will become more widely available over time as the number of community members involved and the geographic area of project implementation expands. Communities without direct access to project activities are also expected to benefit as foods and other products circulate in the dispersed market networks that connect villages. For example, improved seeds and cropping techniques will migrate out of the project zone and provide a positive impact that emanates from the Isangi market system to neighboring villages.

The impacts of project activities on government stakeholders and the Yangambi Research Center are also expected to be positive as project activities align with these stakeholders' goals and objectives and the project engages with them in an ongoing and meaningful way.

The impacts of project activities on Busira-Lomami are expected to be neutral, as project activities do not negatively impact their operations; however, the project objective of avoiding the conversion of forest to cropland could reduce their expansion possibilities.

Based on the above demonstrated activities, no net-negative social impacts on other stakeholders are expected. In the event that negative impacts arise, the Community Engagement Department will work with the impacted community to find solutions and, if necessary, follow the established grievance processes.

4.3 Community Impact Monitoring

4.3.1 Community Monitoring Plan Development (CM3.3)

Not applicable.

4.3.2 Community Monitoring Plan Results (CM3.1, CM3.2, GL2.5)

Education (E) Program Area Monitoring Results

No.	Objective	Project Activity	Indicator	Indicator Type	Methods/ Source	Frequency	Responsibility	M=2 2014-2019
E1	Increase access to, relevance, and quality of education to communities in the project zone	Hiring teachers	# of teachers hired	Output	Payroll records	Each monitoring period	Community department	23 teachers and one headmaster
E2	Increase access to, relevance, and quality of education to communities in the project zone	Hiring teachers	# of children attending schools with project-supported teachers	Outcome	School records	Each monitoring period	Community department	1,729 students
E3	Increase food security and promote sustainable economic development and agricultural practices	Tilapia farming workshops	# of tilapia workshops held	Output	Aquaculture records	Each monitoring period	Agriculture department	50 workshops
E4	Improve food security and promote sustainable development and agricultural practices	Agriculture workshops	# of and total attendance of workshops	Output	Agriculture records	Each monitoring period	Agriculture department	25 workshops; total of 450 participants
E5	Improve food security and promote sustainable development and agricultural practices	Agricultural assistance	# assistance visits to local farms or households by Jadora staff	Output	Agriculture records	Each monitoring period	Each monitoring period	50 visits to fields or households
E6	Improve food security and promote sustainable development and agricultural practices	Agricultural workshops	# of farmers employing new techniques	Outcome	Agriculture records	Each monitoring period start P2	Agriculture department	100 farmers

E7	Increase access to education to communities in the project zone	Radio station programming	# of radio programs hosted	Output	Community engagement records	Each monitoring period	Community department	30 broadcasts hosted
E8	Maintain the value of resources and ecosystem services in the project zone	REDD+ workshops	Total # of workshops held	Output	Community engagement records	Each monitoring period	Community department	150 workshops
E9	Improve quality of health in the project zone	Public health education	# of workshops held	Output	Community engagement records	Each monitoring period	Community department	Seven workshops
E10	Increase access to, relevance, and quality of education to communities in the project zone	Yangambi Research Station Partnership	# of guest researchers hosted	Output	Implementation records	Annually		N/A
E11	Increase access to, relevance, and quality of education	University of Kisangani Exchange	# of students hosted	Output	Community engagement records	Each monitoring period	Community department	108 students
E12	Improve food security and promote sustainable development and agricultural practices	Caterpillar farming workshops	# of workshops	Output	Community engagement records	Each monitoring period	Agriculture department	Three workshops
E13	Improve food security and promote sustainable development and agricultural practices	Caterpillar farming	# of community caterpillar trees of harvesting age	Outcome	Agriculture records	Each monitoring period	Agriculture department	602 trees hosting
E14	Support communities in maintaining traditional cultural identities in the project zone	Medicinal plant identification	# of workshops held	Output	Workshop records	Each monitoring period	Community department	One workshop
E15	Increase access to, relevance, and quality of education to communities in the project zone	Staff training	# of staff training sessions	Output	Community engagement records	Each monitoring period	Community department	15 training sessions

Improved Access (IA) to Resources Program Area Monitoring Results

No.	Objective	Project Activity	Indicator	Indicator Type	Methods/ Source	Frequency	Responsibility	M=2 2014-2019
IA1	Increase food security and promote sustainable economic development and agricultural practices	Seed exchange	# of seed exchange events	Output	JN	Each monitoring period	Agriculture department	Eight exchanges (2/year)
IA2	Increase food security and promote sustainable economic development and agricultural practices	Seed exchange	# of farmers participating in seed exchange program	Outcome	Agriculture records	Each monitoring period	Agriculture department	220 farmers
IA3	Increase food security and promote sustainable economic development and agricultural practices	Tilapia farming supplies	Amount of stock (fry) provided to communities	Output	Aquaculture records	Each monitoring period	Agriculture department	842 fry provided to supply community ponds
IA4	Increase food security and promote sustainable economic development and agricultural practices	Tilapia farming	# of new tilapia ponds built without direct supervision or materials from Jadora	Outcome	Questionnaire via CLDs	Each monitoring period starting in Phase 2	CLDs	27 community-built ponds (Jadora records); CLDs report 129 ponds

IA5	Increase food security and promote sustainable economic development and agricultural practices	Improved seeds	Weight of seeds provided to farmers by Jadora	Output	Agriculture records	Each monitoring period	Agriculture department	1,044 kg peanuts (287 kg for CLDs, 757 kg for households), 22 kg beans (Nyebe), 10 kg corn
IA6	Increase food security and promote sustainable economic development and agricultural practices	Improved seeds	# of households reporting a sustainable supply of improved seeds	Outcome	Questionnaire via CLDs	Each monitoring period starting in Phase 2	CLDs	92 households (reported by CLDs); 89 households (by Jadora records)
IA7	Improved quality of life and access to adequate health care	Medical supplies/medications	Estimated value and type of medical supplies provided by Jadora	Output	Nurses records	Each monitoring period	Community nurse	USD 2,880 (medicine and bandages at the Yafunga <i>post de sante</i>)
		Medical Supplies/Medications	# of villages receiving medical supplies	Output	Implementation Records	Annually		N/A

IA8	Improved quality of life and access to adequate health care	Medical supplies/medications	% of individuals that report utilizing project supported care or supplies	Outcome	Community questionnaire	Each monitoring period starting in Phase 2	Community department	3% of individuals reported using project health care; 255 patients (Jadora records)
IA9	Increased access to, relevance, and quality of education to communities in the project zone	Radio station	% of individuals that report learning from information provided during radio transmissions	Outcome	Questionnaire via CLDs	Each monitoring period	CLDs	48% of individuals surveyed report learning from Jadora radio emissions
IA10	Increased access to education and poverty alleviating information for girls and women in the project area	Female-centered meetings/workshops/groups	# of women focused workshops or meetings held	Output	Community engagement records	Each monitoring period	Community department	12 workshops; 293 women participated
IA11	Increased access to education and poverty alleviating information for girls and women in the project area	Female-centered meetings/workshops/groups	% of women who have participated in meetings or workshops who report being informed or empowered with actionable poverty-alleviating information	Outcome	Community questionnaire	Each monitoring period	Community department	17% of women surveyed reported "yes"

IA12	Promote sustainable economic development and food security by increasing transportation access in the project zone	Access to trails and paths	# of places with improved access through trail and path maintenance	Output	Questionnaire via CLDs	Each monitoring period	Community department	0 (records show 13 trails and bridges repaired in M=2; however, in the years since, the work has fallen into disrepair)
IA13	Promote sustainable economic development and food security by increasing transportation access in the project zone	Access to trails and paths	# of CLDs that report their community has better access to resources and/or market via trail and bridge maintenance	Outcome	Questionnaire via CLDs	Each monitoring period starting in Phase 2	Community department	0
IA14	Improve health and sanitation in project area	Well repair and maintenance	# of wells improved or maintained by project teams	Output	Community engagement records	Each monitoring period starting in Phase 2	Community department	0

Improved Production (IP) Program Area Monitoring Results

No.	Objective	Project Activity	Indicator	Indicator Type	Methods/ Source	Frequency	Responsibility	M=2 2014-2019
IP1	Improve food security and promote sustainable development and agricultural practices	Tilapia	# of tilapia farms built (total ponds including demonstration)	Outcome	Aquaculture records	Each monitoring period	Agriculture department	48 ponds
IP2	Improve food security and promote sustainable development and agricultural practices	Tilapia	% of individuals with access to fishponds that report consuming an increased volume of fish protein on a regular (weekly) basis	Impact	Community questionnaire	Each monitoring period starting in Phase 2	Community department	48%
	Improve food security and promote sustainable development and agricultural practices	Agricultural Products	Weight of food harvested in demonstration gardens	Early Outcome	Agriculture records	Annually		N/A

IP3	Improve food security and promote sustainable development and agricultural practices	Agricultural products	# of varieties crops planted in demonstration farms and teaching gardens.	Output	Agriculture records	Each monitoring period	Agriculture department	Four varieties (peanuts, corn, beans, Niebe, Vigna)
IP4	Improve food security and promote sustainable development and agricultural practices	Agricultural products	# of agroforestry trees planted	Output	Agriculture records	Each monitoring period	Agriculture department	1,118 Acacia, 1,552 (602 by project and 950 in communities) caterpillar trees (Bomanga, Tali, Thiama, Rikio), 24 Aformosia, 166 Wenge, 27 Eucalyptus, 62 fruit trees, 3,010 cocoa, 5,123 coffee
IP5	Improved sustainable economic development and agricultural practices in the project zone	Agricultural products	Communities report they have increased income from surplus or cash crops	Outcome	CLD questionnaire	Each monitoring period starting in Phase 2	Community department	One CLD reported increased revenue; many reported they had not yet sold the harvest or that they were saving the seeds for next season's crops

IP6	Maintain the value of resources and ecosystem services in the project zone	Fuel wood	# of fuel wood trees planted for community use	Output	Agriculture records	Each monitoring period starting in Phase 2	Agriculture department	1,145 trees (Acacia and Eucalyptus)
IP7	Increased economic sustainability and sustainable development	Nursery baskets	# of nursery baskets produced and bought by Jadora	Output	Implementation records	Each monitoring period	Agriculture department	5,672 baskets
IP8	Improve food security, access to protein, and promote sustainable development and agricultural practices	Caterpillars	% of community members that report harvesting from project caterpillar trees rather than wild trees	Outcome	Community questionnaire	Each monitoring period	Community department	5% (of community surveyed); 175 individuals (Jadora estimated based on observations)

Land Use (LU) Planning Program Area Monitoring Results

No.	Objective	Project Activity	Indicator	Indicator Type	Methods/ Source	Frequency	Responsibility	M=2 2014-2019
LU1	Improve food security and promote sustainable development and agricultural practices	Community agricultural planning	# of CLDs participating in agricultural planning activities	Output	Agriculture records	Each monitoring period	Agriculture department	Five CLDs

LU2	Improve food security and promote sustainable development and agricultural practices	Community agricultural planning	# of households/farmers implementing activities outlined in the agricultural plans created together with CLDs	Outcome	Agriculture records	Each monitoring period	Agriculture department	164 households/farmers
LU3	Promote sustainable economic development in the project area	Election and training of CLDs	# of CLDs elected and trained	Output	Community engagement records	Each monitoring period	Community department	29 CLDs

Potential Negative Impacts

No.	Project Activity	Indicator	Indicator Type	Methods/ Source	Frequency	Responsibility	M=2 2014-2019
N1	N/A	Reported conflicts due to unequal benefits distribution	Output	Community consultation manager records complaints/grievance records	Each monitoring period	Project manager	Five conflicts have been reported
N2	N/A	# of workers displaced or affected by project activities	Output	Grievance/complaints records	Each monitoring period	Project manager	0
N3	N/A	# of displaced workers hired by Jadora or trained in another field	Output	Employment records	Each monitoring period	Project manager	0

N4	N/A	Reduced access to new cropland and forest resources	Output	Grievance/complaints records, community	Each monitoring period	Project manager	N/A
N5	N/A	Communities are aware of buffers around communities where farming is allowed	Output	Land-use planning records	Each monitoring period	Project manager	29 villages are aware of the buffers around communities where farming is allowed

Community High Conservation Values 4,5,6 Monitoring Results

No.	Project Activity	Indicator Type	Indicator	Methods/Source	Frequency	M=2 2014-2019	Section Ref.
4	HCV 4 – Ecosystem Services	Response output	See Biodiversity Indicators: LU1, LU2, and IA2 and Community Indicators: IA2, IA6, LU1-LU3			See tables above, as per methods	4.1.3
5	HCV 5 – Fundamental Community Needs	Response output	See Community Indicators E11-E13, IP8-IP9, 158, and Biodiversity Indicators LU1-LU5			See tables above, as per methods	4.1.3
6	HCV 6 – Areas Critical for Traditional Cultural Identity	Response output	See Biodiversity Indicators LU1, LU2, and Community Indicators LU1-LU3			See tables above, as per methods	4.1.3
7	HCVs 4-6	State and response outcome	Effect of project on community HCVs	Community consultation manager interviews village chiefs	Every five years starting in Phase 2	15 chiefs were interviewed on each of the HCVs. HCV4: positive impact; HCV 5: very positive impact; HCV: 6: positive impact	2.2.6 4.1.3

Results and Evaluation of Monitoring

The results collected this monitoring period have been reviewed with CLD and project management. The feedback collected from this review has been analyzed using Jadora's adaptive management procedure outlined in the Monitoring Work Plan (Annex AV). Priorities and modifications established from the adaptive management procedure are detailed in the 2020 Annual Operating Plan (Annex P) and will continue to inform project activities in the next monitoring period and into the future.

4.3.3 Dissemination of Monitoring Plan and Results (CM3.3)

The monitoring plan and results from the 2014-2019 monitoring period is made publicly available for comment on the VERRA project database (<https://www.vcsprojectdatabase.org>).

Summaries of the monitoring plan and monitoring results from this and previous monitoring periods are available to project zone communities in Lingala by the following means:

- displayed on community notice boards in each village;
- available with local animateurs living and working in 28 project area villages;
- distributed to all 29 CLDs;
- available for review in project area offices; and
- depicted in the form of an infographic and displayed on community notice boards.

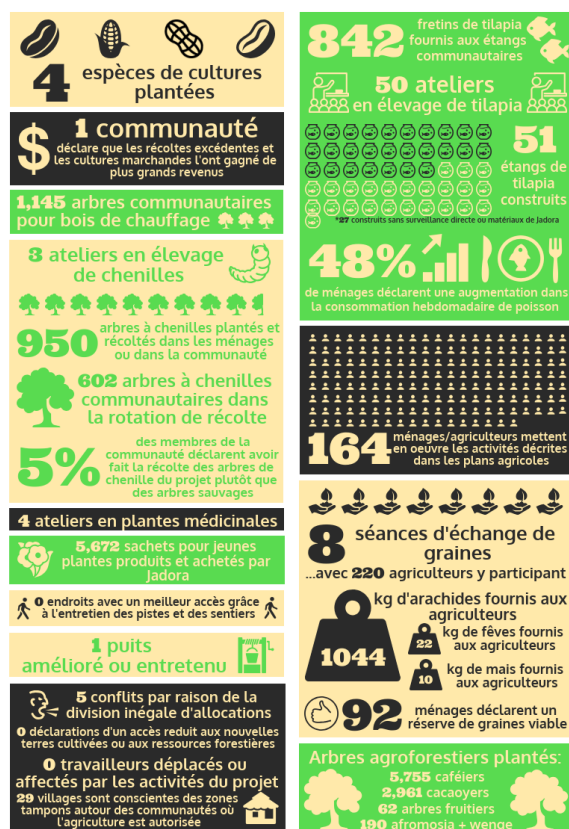


Figure 22: Example of infographic of monitoring results distributed on community notice boards in each village

4.4 Optional Criterion: Exceptional Community Benefits

Safbois is not seeking gold level verification for community benefits.

4.4.1 Barriers to Benefits (GL2.3)

Not available.

4.4.2 Protections for Poorer and More Vulnerable Households and Individuals (GL2.4)

Not available.

5 BIODIVERSITY

5.1 Net Positive Biodiversity Impacts

5.1.1 Biodiversity Changes (B1.1)

A pressure-state-response framework is used to measure the impacts that project activities have had on achieving the project's biodiversity objectives. Changes in and impacts to biodiversity are monitored with state indicators that are established in the monitoring plan. These indicators identify and monitor the state of and changes in biodiversity directly and indirectly as a result of the project.

Given the positive correlation between the extent of uninterrupted forest area with levels of both floral and faunal biodiversity⁴³, our primary indicators of the state and change in biodiversity are based on the extent of forest area protected. Changes and impacts include the following:

- 178,474 hectares of forest cover remaining intact in the project area. This is due to the cessation of logging activities and associated road building which, in the without-project scenario, leads to a subsequent increase in slash and burn agriculture. Without continued road building the area accessible for slash and burn agriculture is reduced;
- given the correlation noted in Pitman (2011), above, we can be reasonably confident that there will be a net positive impact on floral diversity as a result of greater forest area and corresponding ecosystem types in the project area compared to the non-project scenario;
- overall, logging cessation has also stopped the logging of threatened floral species appearing on the IUCN Red-list⁴⁴ such as endangered *Fromosia/African Teak* (*Pericopsis elata*) and vulnerable species such as *Bosse Clair/Scented Guarea* (*Guarea cedrata*) and *Kosipo/Cedar Kokoti* (*Entandrophragma candollei*) as a result of the project. The project has, therefore, provided better protection for these species compared to the forecasted without-project scenario. A flora inventory undertaken in late 2019 found individuals of these and other species that had previously been harvested, particularly young regrowth (see Annex AZ for Flora Inventory Report);
- in logged areas that have not been converted to cropland, we found that young *Afromosia* are regenerating well because this species is a heliophile and grows quickly in direct sunshine. 12 juveniles were recorded (Annex AZ);

⁴³ Rainforest Alliance 2011; Bosque Sustentable 2011, in Pitman, 2011

⁴⁴ <https://www.iucnredlist.org/>

- fauna inventories undertaken between 2014 and 2019 identified the IUCN Red-listed endangered giant ground pangolin (*Smutsia gigantea*) and the vulnerable leopard (*Panthera pardus*) (Annex BC Fauna Inventory Report);
- in recent interviews with 15 project area chiefs, interviewees reported that biodiversity awareness activities and the provision of alternatives to bushmeat and slash and burn agriculture are having a noticeable impact. For example, traditionally-used and rare non-timber forest products that have been historically difficult to find are now more common, and some animal species that had not been seen for years can now be found in the project forest area (Annex AU);
- as awareness raising about conservation continues, project staff have increasingly received reports from communities, particularly land chiefs, regarding sightings of animals not seen in generations in the project area. In early 2020, reports of bonobo (*Pan paniscus*) and African buffalo (*Syncerus caffer*) were received. Species identification has not been confirmed, and, though anecdotal, these reports might be early evidence that some species are returning to the project area. Furthermore, it shows that communities are aware of their importance and are purposefully reporting sightings.

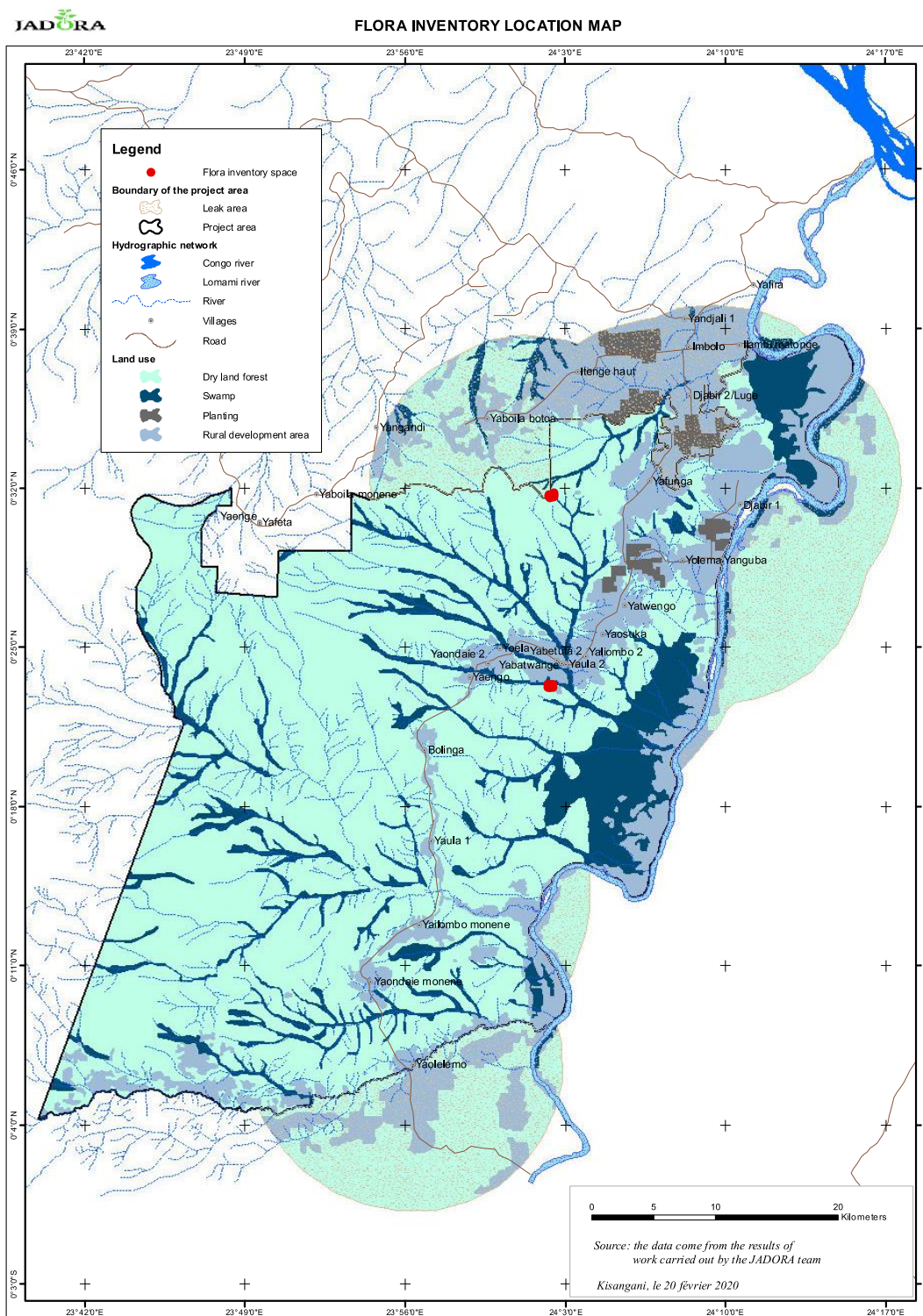


Figure 23: 2014-2019 flora inventory locations

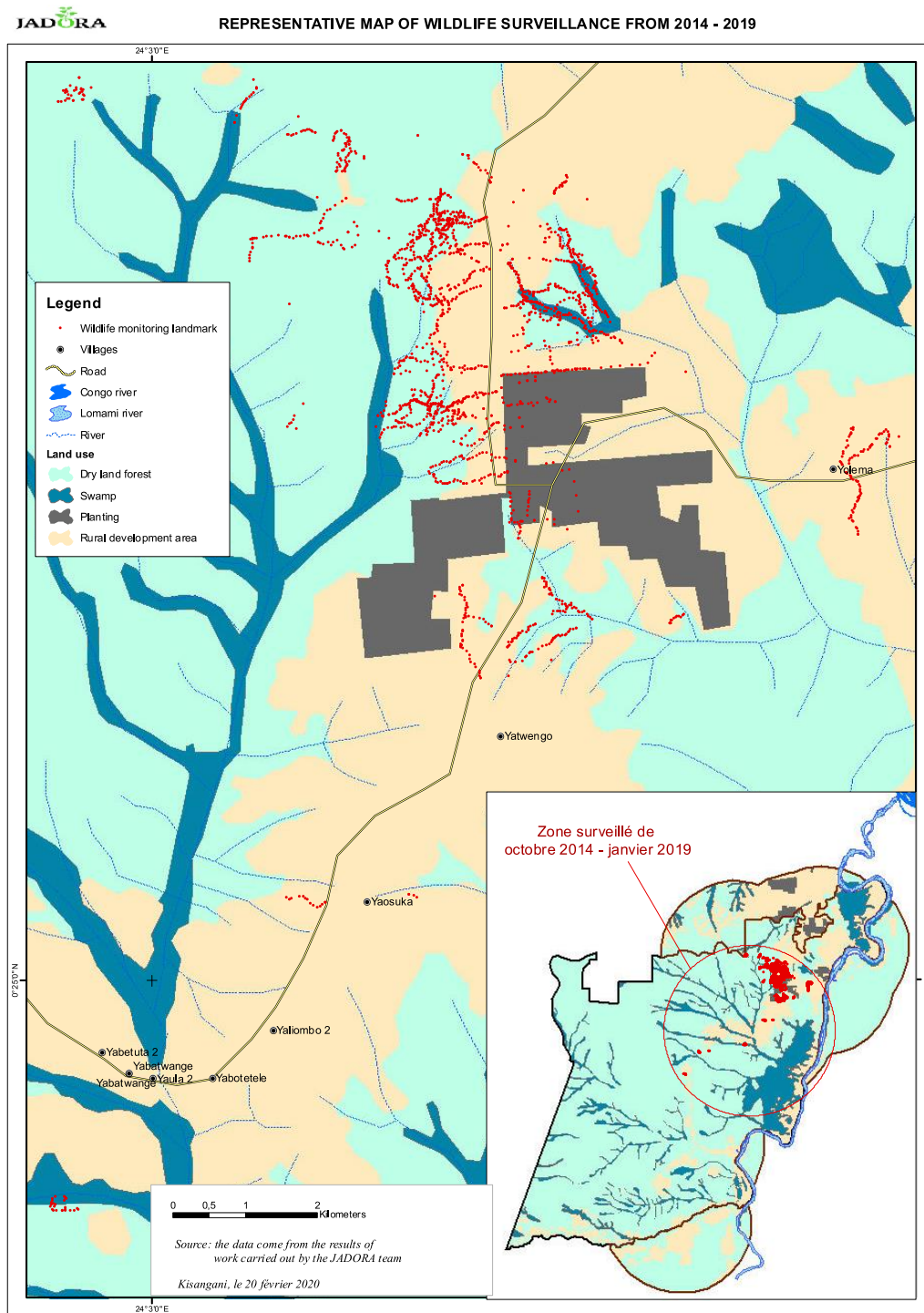


Figure 24: 2014-2019 fauna inventory locations and sightings

5.1.2 High Conservation Value Protection (B1.2)

As HCVs are intrinsically linked to the continued protection of forest habitat, the project activity of converting the concession from logging to conservation is a significant positive impact on project HCVs, particularly in comparison to the baseline scenario of continued selective logging and road

building over the last 10 years. Activities undertaken this monitoring period to mitigate impact on biodiversity HCVs are discussed in section 2.2.6. Demonstrations of the net-positive impact of the HCVs are as follows.

HCV 1: Globally, Regionally or Nationally Significant Concentrations of Biodiversity Values

Jadora project objectives include protecting habitat to maintain and enhance species diversity as well as reduce threats to these species. Section 1.3.7.1.1 of the PD has identified globally significant species found or known to exist in the project area. While there continues to be limited knowledge on species diversity in the region, the vast, contiguous, intact forested area in the project creates a high probability for both known and undiscovered species both at risk and/or endemic to the project area. Demonstration of net-positive impact on this HCV is as follows:

- reduced deforestation rates due to cessation of logging activities. 178,474 hectares of forest are preserved in the project area;
- reduced loss of forest from agricultural conversion;
- decreased loss of primary forest as a result of amended and improved land use agreements which will result in improved land use management (sections 2.5.2 and 4.1.1 and Annex H);
- protection of IUCN Red-listed threatened HCV floral species, such as Afromosia/African Teak (*Pericopsis elata*), Bosse Clair/Scented Guarea (*Guarea cedrata*), and Kosipo/Cedar Kokoti (*Entandrophragma candollei*, which would otherwise have been logged by Safbois. Identified in the flora inventory (Annex X);
- reduced demand for protein due to the provision of alternatives to forest-sourced protein through tilapia and caterpillar programs (Section 4.1.1);
- fauna inventories undertaken between 2014 and 2019 identified the IUCN Red-listed endangered giant ground pangolin (*Manis gigantea*) and the vulnerable leopard (*Panthera pardus*) (Annex BC Fauna Inventory Report); and
- as noted above, recent interviews with project area chiefs found early indications of an increase in difficult to find non-timber forest products that were previously more common in the project area, as well as some animal species that hadn't been seen for years (Annex AU).

HCV 2: Viable Populations at the Landscape Level

Section 1.3.7.1.1 in the PD determined that the project area and even larger project zone more than meet the threshold of 50,000 ha that is widely considered to as necessary for maintaining natural populations (Brown et al., 2013). In addition, landscapes in the project area and zone are generally composed of continuous, primary forest with a relatively intact habitat structure and condition. Demonstration of net-positive impact on this HCV is as follows:

- 178,474 hectares of forests protected;
- amended and improved land use agreements (Section 2.5.2, 4.1.1 and Annex H); and
- agricultural intensification and diversification activities are exhibiting increasingly positive results that align with the project's theory of change to achieve project objectives and reduce the conversion of primary forests (further discussed in sections 4.1.1 and 4.1.2).

HCV 3: Threatened or Rare Ecosystems

At the time of development, the project did not have data to confirm that threatened or rare ecosystems were present in the project area. However, the conservation-oriented nature of this project does not present increased risk to this HCV.

5.1.3 Invasive Species (B1.3)

As originally stated in section 7.1.3 of the PD, the agricultural program does not introduce invasive plant or animal species to the area. The agricultural program aims to increase productivity through “no burn” techniques, cross cropping, and crop rotation. Crops will include *Zea mays* (corn), *Oryza glaberrima* (African rice), *Glycine max* (soy beans), *Vigna unguiculata* (Niebe), *Ipomoea batatas* (sweet potatoes), *Arachis hypogaea* (peanuts/ground nuts), and *Manihot esculenta* (casava). All of these species are globally widespread and are not invasive.

5.1.4 Impacts of Non-native Species (B1.4)

As noted above in section 7.1.5 of the PD, Jadora strives to use native species in all project activities to minimize risk of introducing an unknown invasive or genetically modified organism to the project zone. The only non-native species used the by the project are those that are traditionally cultivated by communities in the project zone.

5.1.5 GMO Exclusion (B1.5)

The project guarantees that no GMOs are used to in project activities, nor to generate GHG emissions reductions or removals.

5.2 Offsite Biodiversity Impacts

5.2.1 Negative Offsite Biodiversity Impact Mitigation (B2.2)

Jadora mitigates leakage risks by working in partnership with offsite communities located near the project area. CLDs are being established in project zone communities – the activities and objectives of the project are brought to these communities too. These are described in more detail in the following paragraphs and can be seen geographically on maps in Annex BD and the meeting minutes in Annex AH.

Availability of fuelwood and construction materials within the project area

This risk of deforestation activities shifting outside the project area has been mitigated by two project measures. Jadora does not limit the community’s use of the forest in the project area, including the collection of fuel wood and construction materials. Also, trees intended as alternate supplies for fuel wood and building materials have been planted by the project and are being utilized by community members. See section 2.5.4 for discussion of legal extraction activities, and 4.1 for further discussion of this activity.

Mitigation of Hunting Leakage

The PD (section 2.3.1) identifies the potential that conservation activities in the project area could lead to increased hunting outside of the project area. Key project activities to mitigate this offsite risk include increased protein provided from the tilapia and caterpillar tree programs that are expected to reduce the need for hunting by project area communities. These new protein sources can be sold in surrounding areas, reducing hunting pressure in both the project area and the leakage area. The need for project area communities to hunt offsite is further reduced given that the project does not prohibit hunting within the project area itself. In future monitoring periods, the project anticipates introducing caterpillar and tilapia program activities to communities outside the projects area, further reducing the risk of hunting leakage in surrounding area. More discussion on these activities can be found in sections 4.1 and 5.3.2.

Generating awareness on the importance of biodiversity conservation is key element of hunting leakage mitigation. Jadora has held 20 workshops with 300 participants on the subjects of protected species and flora and fauna conservation. These workshops were held in 2019 in project zone communities and with regional government officials. These benefits are expected to greatly outweigh any negative biodiversity impacts from hunting leakage, which is anticipated to be minimal. See Annex BD for the locations of these workshops.

Agricultural and Agroforestry Intensification and Diversification Activities

The PD (Section 2.3.1) identifies the potential for activity shifting leakage if deforestation activities move outside the project area. To mitigate this, the agricultural program increases agricultural productivity in fallow land and secondary forests such that it does not reduce total available farmland within the project area. Further, anticipating a degree of local agricultural expansion, we have calculated a buffer around each village. Also, the project is providing similar agricultural assistance and awareness-raising activities to communities outside the project area in the project zone, reducing leakage risk by establishing a widespread value for intact forest at the same time as providing alternatives to forest converting activities. See Annex BD for the location of these activities.

5.2.2 Net Offsite Biodiversity Benefits (B2.3)

The extent of forest land over which deforestation and forest degradation has been avoided in the project area is qualitatively assessed to outweigh the extent and impact of forest that is affected by offsite leakage; therefore, the net biodiversity benefit from the project is positive. In addition, activities described in section 5.2.1 above have mitigated the potential and the impact of offsite leakage activities.

5.3 Biodiversity Impact Monitoring

5.3.1 Biodiversity Monitoring Plan Development (B3.3)

Not applicable.

5.3.2 Biodiversity Monitoring Results (B3.1, B3.2)

Data collection for Phase 2 monitoring includes both quantitative and qualitative sources: remote sensing, document review from project records, flora and fauna rapid appraisal inventories based on that used by the Conservation International Rapid Assessment Program (Conservation International

2011), these SOPs are located in Annex X and Annex Y, 2019 Social and Biodiversity Impact Assessment workshop (Annex I and section 2.3.1), interviews with project area chiefs and onsite observations by key personnel. Triangulation of results across distinct data sources has been done where possible. Minor instances where we have elected not to measure previous indicators or added new or revised indicators, or supplement existing baseline data are explained in sections 2.2.4 and 4.3.2, and in detail in the Monitoring Plan, Biodiversity Adaptive Management Notes (Annex K).

Effectiveness of measures used to maintain or enhance HCVs are discussed in section 5.1.3, above, and results from HCV monitoring are presented in the HCV monitoring results table below.

Project biodiversity activities and monitoring indicators correspond to the biodiversity objectives identified in the PD:

1. maintain habitat for viable, abundant, and diverse natural populations;
2. reduce threats to rare, threatened, and endangered species;
3. maintain the function of the natural ecosystem; and
4. increase local and global understanding of biodiversity in the project zone and Congo River Basin.

A pressure-state-response framework is used to measure the impacts that project activities have had on achieving the above biodiversity objectives. Changes in and impacts to biodiversity using this framework are summarized broadly here, with specific indicator results included in tables below.

Pressure: These indicators identify and monitor pressures and threats to biodiversity in the project zone including hunting and habitat loss. Changes and impacts include the following:

- agriculture continue to be a pressure, as shown by 7,927.92 hectares of forest converted to cropland from 2014-2019 (refer to section 3.2.2.2), but is progressively abated by agricultural diversification activities discussed in the response section below;
- hunting continues to be a pressure, with 373 instances of hunting evidence (traps, trails, camps, etc.) collected during fauna monitoring (Annex BC), but this pressure is progressively being abated by education and protein alternatives discussed in the response below and section 4.1.1. It should be noted that the biodiversity team observed that the four-month hunting closure was well respected in this monitoring period;
- Habitat loss has been decreased in the with-project scenario due to cessation of logging and road building and avoidance of the subsequent cascade of deforestation.

State: These indicators identify and monitor the state of and changes in biodiversity directly and indirectly as a result of the project. Given the positive correlation between extent and connectivity of forest area with biodiversity (Pitman 2011) our primary indicators of the state of and change in biodiversity are based on extent of forest area conserved. Changes and impacts include the following:

Flora

- 178,474 hectares of forests protected
- 17 Afromosia/African Teak (*Pericopsis elata*), that were previously logged by Safbois were found in the 2019 flora inventory as noted above (see Annex AZ for Flora Inventory Report);
- Additional threatened species were found, including the IUCN Red-listed endangered Tola/Tola-blanc (*Gossweilerodendron balsamiferum*) -22 individuals- and Douka (*Tieghemella africana*) -51 individuals- as well as seven additional vulnerable species (see Annex AZ);
- Dedicated flora monitoring started in late 2019. Since then the biodiversity team has identified 19 tree species, 10 of which are threatened and 15 non-timber forest products; and
- Non-timber forest products fundamental for community needs were surveyed. Fifteen species were found, including the Makongo (several species of arrowroot) which is used on a daily basis for food packaging, African Corkwood (*Musanga cecropioides*) used for roofing materials and the fabrication of traps, and Tondolo (*Zingiberaeae*) used medicinally. More information on these and additional species can be found in the Flora Inventory Report in Annex AZ.

Fauna

- Fauna inventories (118) undertaken between 2014 and 2019 identified the IUCN Red-listed endangered giant ground pangolin (*Smutsia gigantea*) and the vulnerable leopard (*Panthera pardus*) and near-threatened African clawless otter (*Aonyx capensis*). Forty-six species were found in total.
- During the 2014 to 2019 monitoring period, 45 individual fauna species were recorded in surveys (Annex BC).
- While these results are noteworthy, we recognize that, given the size of the project area, the large diversity of species and the difficult complexities (e.g., including seasonal factors, animal migration, and other factors) with demonstrating cause and effect relationships between project activities and the state of individual or groups of species. Similarly, the 2019 transect locations near the project base camp and the most densely populated area of the project, likely underestimated species richness in the overall project area (see Annex BC for map of inventory locations).
- As above, interviews with project area chiefs indicate that conservation-focused workshops and alternative generating activities are already having noticeable changes on animals and some non-timber forest products (Annex AU).

Response: These indicators monitor the implementation (outputs), outcomes, and impacts of project activities that are designed to reduce threats to biodiversity.

- The area of forest protected from logging and road building is 187,571 hectares.

- Land Use Agreements signify and facilitate commitment to protecting primary forest. Further information can be found in section 2.3.1, 2.5.2, 4.1.1, and 4.1.2.

Jadora project outputs in response to hunting pressure, with the intention of reducing or providing alternatives for communities include:

- 48 Tilapia ponds with 50 support workshops and 48% of community members with access to fishponds reporting an increase in fish consumed. Section 4.1.1 and net-positive community results of these activities can be found in section 4.1.2;
- 602 project planted caterpillar trees, 950 community-planted trees, and over 1,000 seedlings in nursery. These trees, in addition to being a source of protein for project area communities during the season, have a reported impact on faunal species in the primary forest during this time (they normally hide) as less individuals are entering the primary forest (Fauna Inventory Report Annex BC). Further details in section 4.1.1 and impact analysis on communities in section 4.1.2;
- 20 workshops with 300 participants covering subjects of protected species and flora and fauna conservation. Many of these meetings focused on speaking with hunters regarding the importance of respecting the closed hunting season (Annex AH). Hunters showed significant interest in transitioning to animal farming activities, a project activity planned for late 2020;
- between 2014 and 2019, 122 faunal transacts were completed;
- in 2019, 19 hours of flora inventory was completed; and
- camera traps were not installed this monitoring period due to technical problems with the devices and lack of funding for them to be replaced. New camera traps were installed in early 2020.

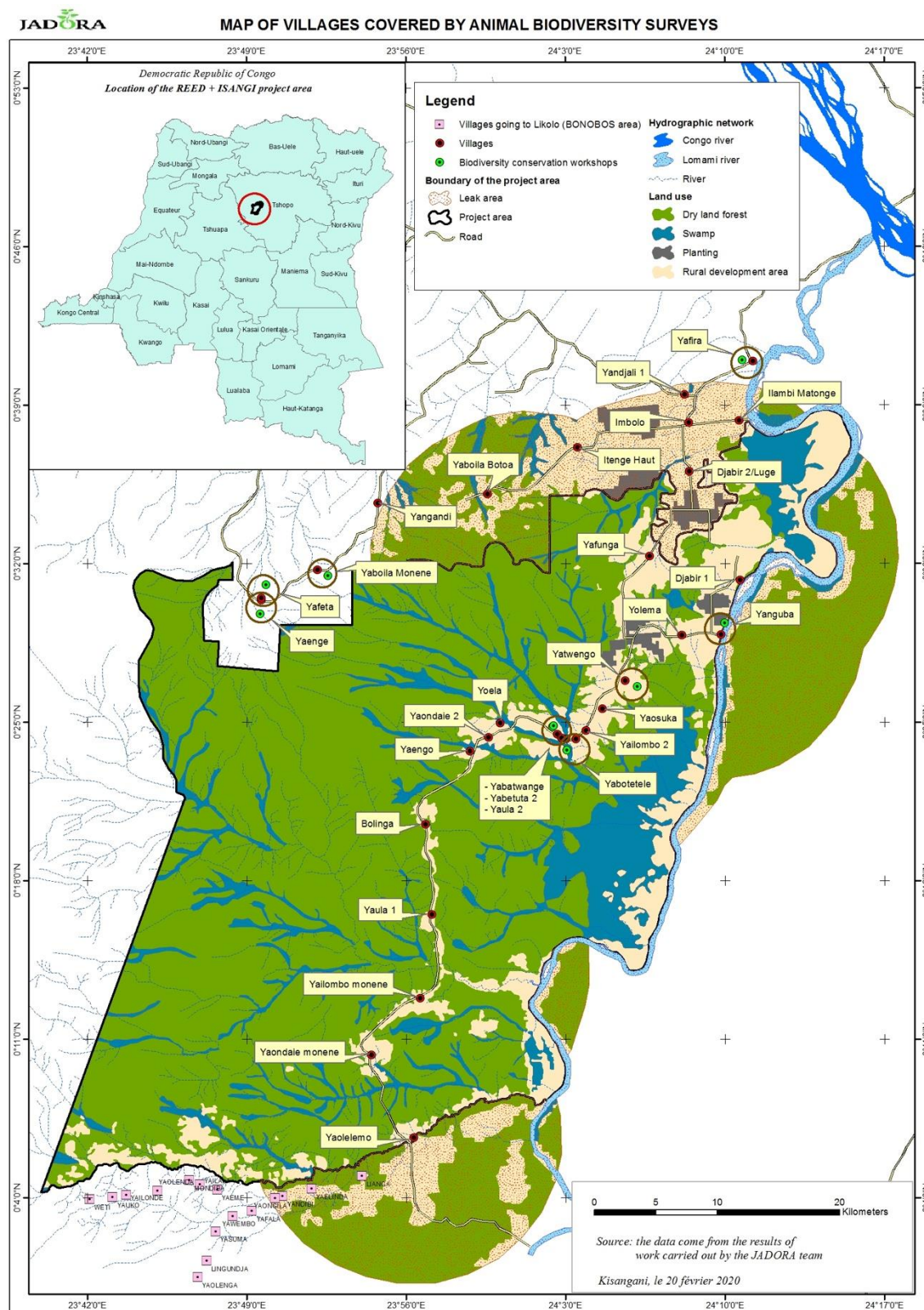


Figure 25: Biodiversity activities in the project zone

Monitoring Results Land Use (LU) Planning Program Area

No.	Objective	Project Activity	Indicator Type	Indicator	Methods/Source	Frequency	2nd MR 2014-2019
LU2	Maintain habitat for viable, abundant, and diverse natural populations	Forest protection	Response output	Area of project area protected from logging or road building		Implementation records	Signed agreement with Safbois to stop logging and road building in all 187,571 hectares of forest in the project area
LU2	Maintain habitat for viable, abundant, and diverse natural populations	Forest protection	Response output	# of community land-use agreements signed to prevent forest conversion to agriculture	Community consultation records	Annually	33 agreements signed with villages in the project zone. See Community Agreements (Annex H)
LU3	Maintain habitat for viable, abundant, and diverse natural populations	Forest protection	Response outcome	Area of forest in project area undergoing transition		See climate monitoring parameter MN2	Data not available
LU4	Maintain habitat for viable, abundant, and diverse natural populations	Forest protection	State outcome	Area forest cover in project area	Remote sensing	Every five years starting in Phase 2	178,474 ha
LU5	Maintain habitat for viable, abundant, and diverse natural populations and function of the natural ecosystem.	Forest protection	State impact	Ecosystem fragmentation	Remote sensing	Every five years starting in Phase 2	Data not available

Monitoring Results Education (E) Program Area

No.	Objective	Project Activity	Indicator Type	Indicator	Methods/Source	Frequency	2nd MR 2014-2019
E1	Reduce threats to rare, threatened, and endangered species	Tilapia farming workshops	Response output	# of workshops held	Agriculture records	Annually	50 workshops
E2	Reduce threats to rare, threatened, and endangered species	Caterpillar farming workshops	Response output	# of workshops held	Workshop records	Annually	Three workshops held
E3	Increase local and global understanding of the biodiversity in the project zone and Congo River Basin	Biodiversity awareness	Response output	# of biodiversity workshops/trainings	Workshop records	Annually	20 biodiversity workshops held
E4	Increase local and global understanding of the biodiversity in the project zone and Congo River Basin	Biodiversity awareness	Response output	Attendance of workshops	Workshop records	Annually	300 participants in biodiversity awareness workshops
E5	Increase local and global understanding of the biodiversity in the project zone and Congo River Basin	Biodiversity awareness	Response outcome	Community knowledge of important species in project zone	Questionnaire	Every five years starting in Phase 3	300 individuals

E6	Reduce threats to rare, threatened, and endangered species	Biodiversity awareness	Response impact	Community willingness to reduce threats to important species in the project zone (Biodiversity Objective 2)	Land-use agreements and adherence to hunting restrictions	Every five years starting in Phase 3	300 individuals expressed willingness
----	--	------------------------	-----------------	---	---	--------------------------------------	---------------------------------------

Monitoring Results Improved Access (IA) Program Area

No.	Objective	Project Activity	Indicator Type	Indicator	Methods/Source	Frequency	2nd MR 2014-2019
IA1	Reduce threats to rare, threatened, and endangered species	Tilapia farming supplies	Response output	Amount of stock (fry) provided to communities	Aquaculture records	Annually	852 fry provided, 48 ponds
IA2	Reduce threats to rare, threatened, and endangered species	Tilapia farming	Response outcome	# of new tilapia ponds built without direct supervision or materials from Jadora	Self-reported by CLDs	Every five years starting in Phase 2	27 community-built ponds

Monitoring Results Improved Production (IP) Program Area

No.	Objective	Project Activity	Indicator Type	Indicator	Methods/Source	Frequency	2nd MR 2014-2019
IP1	Reduce threats to rare, threatened, and endangered species	Tilapia	Response output	# of tilapia farms built (total ponds including demonstration)	Aquaculture records	Annually	48 ponds

IP2	Reduce threats to rare, threatened, and endangered species	Tilapia	Response outcome	% of individuals with access to fish ponds that report consuming an increased volume of fish protein on a regular (weekly) basis	Questionnaire	Every five years starting in Phase 2	48% (out of 264 respondents)
IP3	Reduce threats to rare, threatened, and endangered species	Caterpillars	Response outcome	% of community members that report harvesting from project trees rather than wild trees	Agriculture records	Annually	5%

Monitoring Results from Biodiversity Surveys

No.	Objective	Project Activity	Indicator Type	Indicator	Methods/Source	Frequency	2nd MR 2014-2019
S1	Increase local and global understanding of the biodiversity in the project zone and Congo River Basin	Faunal transects and quadrats	Response and state output	Surveys to identify of faunal species in project zone	Biodiversity team notes	Annually	45 faunal species Identified
S2	Increase local and global understanding of the biodiversity in the project zone and Congo River Basin	Trap cameras	Response and state output	# of cameras installed and species identified using trap cameras	Biodiversity team notes	Annually	0
S3	Reduce threats to rare, threatened, and endangered species	Hunting pressure	Pressure output	Evidence of hunting recorded during quadrat and transect surveys	Biodiversity team notes	Annually	373 approximate signs of hunting (traps, camps, tracks) (Annex BC)

S4	Reduce threats to rare, threatened, and endangered species	Bushmeat market pressure	Pressure output	Species of animals available in market, number of vendors at market	Biodiversity team notes	Annually	Data not available
S5	Increase local and global understanding of the biodiversity in the project zone and Congo River Basin	Local knowledge of biodiversity	State outcome	Greater understanding of faunal species and threats to biodiversity	Questionnaire	Every five years starting Phase 2	Yes, chiefs are now reporting animal sightings and hunters are indicating desire to convert. See section 5.1.3

Biodiversity High Conservation Value (HCV) Monitoring Results

No.	Project Activity	Indicator Type	Indicator	Methods/Source	Frequency	M=2 2014-2019	Section Ref.
1	HCV 1 – Endangered and Vulnerable Species and Endemic Species; HCV 2 – Landscape-level biodiversity (intact forest cover)	State and response output	See biodiversity indicators LU1-LU5			See biodiversity indicators LU1-LU5	5.1.2, 5.3.5
2	HCV 1 Endangered and Vulnerable Floral Species	State and response output	State of protected, endangered, and vulnerable tree species monitored by re-visiting forest plots	Plot data	Every 10 years	Flora monitoring has begun as a separate activity. Endangered and vulnerable tree species have been confirmed	5.1.2, 5.3.5
3	HCV 4 – Ecosystem Services	State and response output	See biodiversity indicators LU1-LU5			See biodiversity indicators LU1-LU5	5.1.2, 5.3.5



Figure 26: From left to right: Calabar python (Calabar SP); tracks of the African civette (*Civettictis civetta*); Speke's hinge-back tortoise (*Kinixys spekii*).

Results and Evaluation of Monitoring

The results collected this monitoring period have been reviewed with Local Development Committees and project management. The feedback collected from this review has been analyzed using Jadora's adaptive management procedure outlined in the Monitoring Work Plan (Annex AO). Priorities and modifications established from the adaptive management procedure are detailed in the 2020 Annual Operating Plan (Annex P) and will continue to inform project activities in the next monitoring period and into the future.

5.3.3 Monitoring Plan and Results Dissemination (B3.3)

The monitoring plan and results from the 2014-2019 monitoring period is made publicly available for comment on the VERRA project database (<https://www.vcsprojectdatabase.org>).

Summaries of the monitoring plan and monitoring results from this and previous monitoring periods are available to project zone communities in Lingala by the following means:

- displayed on community notice boards in each village;
- infographics visualizing monitoring results displayed on community boards in each village;
- available with local animateurs living and working in 28 project area villages;
- distributed to all 29 CLDs; and
- available for review in project area offices.

5.3.4 Optional Criterion: Exceptional Biodiversity Benefits

Using the Key Biodiversity Area framework for vulnerability and irreplaceability Jadora has assessed the following IUCN RED-listed⁴⁵ endangered and vulnerable flora and fauna species exist in the project area in globally significant numbers. Inventory results to support this can be found in Annex AZ and Annex BC.

Endangered Fauna species

⁴⁵ <https://www.iucnredlist.org/species/15932/102331567>

The Jadora-Isangi REDD+ project is within the bonobo (*Pan Paniscus*) habitat⁴⁶, an IUCN Red-listed species. While there is no inventory evidence of bonobos in the area, village wise men and communities began reporting the return of bonobos to the project area to project biodiversity staff in late 2019. These reports indicate that this species may be returning to project area forests.

Project staff twice encountered the tracks of the endangered giant ground pangolin (*Smutsia gigantea*) in 2017 and 2018. Evidence of the leopard (*Panthera pardus*), both tracks and claw marks on a tree, were found in 2015, 2017, and 2018.

Endangered floral species

The following floral species were identified within the project area and are listed as vulnerable on the IUCN's Red List:

- Afromosia/African Teak (*Pericopsis elata*): 17 individuals identified in flora inventory;
- Tola/Tola-blanc (*Gossweilerodendron balsamiferum*): 22 individuals identified in flora inventory; and
- Douka (*Tieghemella africana*): 51 individuals identified in flora inventory.

Vulnerable floral species

The following floral species were identified within the project area and are listed as vulnerable on the IUCN's Red List:

- Bosse Clair/Scented Guarea (*Guarea cedrata*): 82 individuals identified in flora inventory; and
- Bosse Fonce/Black Guarea (*Guarea thompsonii*): 83 individuals identified in flora inventory.

By ceasing logging in the project area and implementing mitigation and response activities, as described in sections 5.1.2 and 5.1.3, the project proponent has contributed to the protection of this Key Biodiversity Area during this monitoring period.

6 ADDITIONAL PROJECT IMPLEMENTATION INFORMATION

There is no additional implementation information.

7 ADDITIONAL PROJECT IMPACT INFORMATION

There is no additional information.

⁴⁶ <https://www.iucnredlist.org/species/15932/102331567>