



# SHABUNDA DRC FOREST CONSERVATION & BIODIVERSITY PROJECT PORTFOLIO TECHNICAL REPORT^^

## “INTO THE GREEN HEART OF AFRICA”

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^ Groupe d'Intervention pour l'Encadrement et la Réhabilitation Intégrale, Bukavu, DRC, Africa  
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^^This document provides the best available information for the project and products offered.  
All information and products are offered “as is” and are subject to change without notice



Groupe d'Intervention pour l'Encadrement et la Réhabilitation Intégrale  
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Planet Alpha Corp. 45 Prospect Street, Cambridge, MA 02139 [www.planetalphaforest.earth](http://www.planetalphaforest.earth) +1.800.777.0859

To register and initiate your project visit: <https://planetalphaforest.earth/register-your-project/>



The Lega  
Indigenous People

- *Protecteurs des forêts*
- *Gardiens de la culture*
- *Préserver la nature*

# SHABUNDA DRC FOREST CONSERVATION AND BIODIVERSITY PROJECT PORTFOLIO TECHNICAL REPORT^^

## *QuantumQarbon (QQ)\**

### Forest Conservation and Biodiversity Biospheric Products to Fulfill Personal, Corporate, City & Governmental Sustainable Development Goals

\*QuantumQarbon is based on a two-step direct measurement process to conserve forests, biodiversity and Indigenous Peoples rights to land and quality of life



- Enable Long-Term Social, Economic and Planetary Impacts
- Create Legacy Forests for People, Biodiversity and the Planet
- Secure Energy and Food Resources, Climate Resilience and Poverty Alleviation

# QUANTUMQARBON™ (QQ)

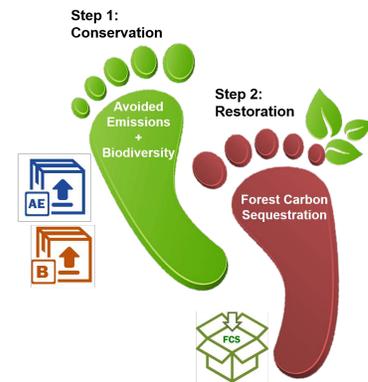
*A Two-Step Approach to Forest and Biodiversity Conservation  
Never buy an unverifiable offset/inset again  
From thin air to ground, QQ ensures accountability*

The Shabunda region is a crucible of Humanity and Nature, a macrocosm of the planet we live on. The lens of the Shabunda project gives us a view of how humanity and nature can coexist as the planet changes. The Lega Indigenous People of the Shabunda region need your support to conserve & restore the rainforest while managing inevitable growth in the region. Alleviation of poverty, access to roads and improvement of health, education, nutrition and quality of life are central goals of the project leading to social, economic & planetary benefits for all involved. Learn more about the Shabunda Project:

<https://planetalphaforest.earth>.

Humanity has transformed and degraded nature, particularly forests and biodiversity, one footstep at a time. In the same way, we can restore and preserve the forests of the planet. It is that simple. The popular concept of a “carbon footprint” is not defined or quantified. A purchase of “offsets/insets” to “zero out” your footprint is also not likely to be valid. Why? Carbon footprints & offsets/insets are not directly measured but are estimated. This is to say that no actual measurements of your “footprint” or of the “offsets/insets” have been made. See a scientific analysis along these lines for forests: <https://peerj.com/articles/7606/>.

The QuantumQarbon (QQ) has two parts, one that quantifies the area of rainforest conservation and one that quantifies the carbon emission reduction from reforestation of deforested areas. QQ is a simple & effective



way to address the urgent need to manage Earth for sustainability of all life now & for future generations. QQ brings uncertain offsets/insets to the ground you cover, step-by-step, hectare by hectare, mile-by-mile, mapping your actual measurement of distance traveled (e.g., air, land, sea) & land area removed from nature (e.g., home, office, industrial site, city) onto intact rainforest protection in the Shabunda region of the DRC. Individuals, corporations, schools, universities, cities & governments across the planet can participate in this unique gamechanging project. Biodiversity and conservation units are recognized and purchased across the planet by voluntary & compliance buyers, however, this project is the first of its kind for the Congo Basin, DRC, Africa, and serves all buyers employing the same methods. This approach can be applied across Africa, and forests located anywhere, now & for future generations. QQ represents verified protective status for each 10 x 10 hectare area (unit) across the project boundaries. All project QQ locations are viewable by corresponding imagery.

## QUANTUMQARBON (QQ), Two-Step Model for Forest Conservation and Reforestation

1) PHASE ONE, STEP ONE. QQ Footprint Area (QQ-FA): determined by the width and length of area to a precision of ~ < 0.1% (e.g., cm, square miles, hectares, kilometers), and,

2) PHASE TWO, STEP TWO QQ Footprint Flux (QQ-FF): determined by actual direct on-site measurement of GHG emission/reduction flux over a defined project area to a precision of ~ 1 parts per million (ppm) by volume.

The Shabunda Forest Project has been initiated with STEP ONE QQ-FA to conserve rainforest, biodiversity, and support for Indigenous Peoples and forest communities. QQ-FA protects the intact forests of the planet. Your data for distance is converted to the number of hectares covered in the Shabunda Forest project area. All you have to do is enter the distance traveled and checkout. The area of your footprint including your home and business is converted to hectares to conserve an equal area of rainforest within the Shabunda project. Buy QQ on [shopify](https://shopify.com).

The Amazon is on fire. Intact rainforests are under threat across the planet despite recognition & sentiment that we must preserve them. Rainforests are the ancestral home of Indigenous People and diverse plants & animals that cannot be replaced, but threats continue. How can we break this destructive pattern? Planet Alpha Corp. is supporting Indigenous People to develop, implement & maintain long-term sustainability lifeways to ensure preservation of rainforest biodiversity and Indigenous Peoples communities. Our approach is simple: directly support communities that live in the forest to protect and conserve their forest homes. We rely on economically viable engagement and community business development for long-term project sustainability, however, NGO and non-profit blended funding is welcome.

- This document describes a first-of-its-kind directly measured **QuantumQarbon** developed with the Lega Indigenous People and Tribal leaders living in the Congo Basin, Shabunda region, Democratic Republic of Congo, Africa. Our partner, GIERI, is an established and nationally recognized NGO, based in the DRC, and experienced in the region. We introduce **QuantumQarbon** products as a building block for long term projects of 30+ years. **QuantumQarbon** recognizes that an offset or inset is not only a temporary “throw-away” credit but doesn’t connect to a specific location or make a commitment to conserve quantified land area for legacy. Offsets and insets are typically not quantified or linked to long-term legacy forests.
- The Shabunda rainforest is intact, now, but faces challenges to conserve its ancestral forests while communities continue to grow and seek quality of life in the region. The area is virtually unknown, isolated, and has no roads. GIERI, the in-country implementer of programs has conducted a motorbike survey defining the project area as shown in the accompanying maps (Sheet 3). The project boundary encloses a Green Ring of Fire, symbolizing the pressure of human activity within the intact rainforest area.
- We are supporting the Lega Indigenous People to implement forest conservation and biodiversity programs now, according to their own plan for Shabunda (Sheet 6), and to plan for the next 30+ years of positive social, ecological and planetary progress in the region. We implement the program with simple online financial transactions including common fiat & cryptocurrency payment platforms.
- This document describes Phase I of the project focused on placing a price on the actions that need to be taken to ensure survival of the priceless intact rainforest and Indigenous People’s communities that live within and protect the forest. The intact forest binds people, biodiversity and the forest-soil ecosystem together as an eco-cultural avoided emissions project concept.
- What you are buying? A forest conservation and biodiversity **QuantumQarbon** is based on project hectares starting at \$5.00 USD. This is not an investment but a verified participation in preserving the legacy of forest, biodiversity and Indigenous Peoples for a period of up to 30 years. **Purchase QuantumQarbon here** & receive a certificate of purchase and link to the project blog. The **QuantumQarbon** defines a specific area viewable on a high resolution map that remains intact with no-new-net-loss of forest.
- What can you do with the **QuantumQarbon**? Compensate nature for your own footprint, **by area (e.g., square feet, acres), or miles traveled**, to fulfill personal, corporate or governmental goals to support the Sustainable Development Goals and preserve Indigenous communities and biodiversity. Hold your **QuantumQarbon** as a reminder of your support for communities and the planet.
- Shabunda Biodiversity **QuantumQarbon** focuses on “no-new-net-loss” of forest and biodiversity in PHASE I, STEP I, of the project. PHASE II, STEP II, will focus on “net-forest-gain” through reforestation of forest cover & biodiversity combined with directly measured carbon sequestration. Our goal is to set new standards and operations that protect biodiversity while supporting communities that live in the forest. Conservation of intact rainforest means that forest and soil carbon are retained, avoiding emissions from development, thus your purchase is also an avoided emissions benefit to society and the planet.
- Individuals, corporations, schools, universities, cities & governments across the planet can participate in this unique gamechanging project. Biodiversity and conservation units are recognized and purchased across the planet by voluntary and compliance buyers, however, this project is the first of its kind for the Congo Basin, DRC, Africa. This approach can be applied across Africa now and for future generations.
- One way to make sense out of your participation is to map your real estate footprint (personal, corporation, municipal, etc.) onto the project area and your land surface by protection of an equal area of rainforest and biodiversity. For example, if you live on 0.5 acres, compensate your area footprint by that amount (1 hectare = 2.54 acres). Assemble additional **QuantumQarbon** for other aspects of your life. Corporations, cities, states, and nations can use this same approach. Travel **QuantumQarbon** works in a similar way based on miles traveled by air, land and sea for personal and corporate affairs.

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Sheet 1. Introduction to QuantumQarbon (QQ)

Sheet 2. Shabunda Project Summary Page

Sheet 3: Profile Charts and Graphs Describing the Project Status, Goals, Methods, Locations and Products

Sheet 4. Biospheric Strata, Background Information and How It Works

Sheet 5. Grid Map of the Project Area and Online Shopping Cart for Shabunda Project QuantumQarbon.

Sheet 6. Summary Shabunda Development Plan & Alignment with the Sustainable Development Goals

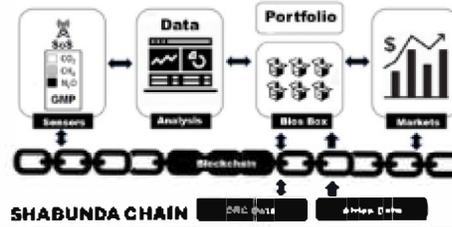
Sheet 7. Biodiversity Mitigation Hierarchy Concept and IUCN Library References

Sheet 8: Q&A

PARIS COMPLIANT: DEVELOPMENT PHASE  
 Country of Origin: DRC, Africa  
 CDM Sectoral Scope # 14  
 Paris Agreement: 6.2 & 6.4 Mechanisms  
 Project Name: GIERI Shabunda Project  
 Project Number: DRC\_DRC-04-pk  
 Vintage: 2019-2049  
 Token ID: PAC\_GIERI QUANTUMQARBON  
 Off-Chain Audit Documents: www.planetalphaforest.earth



**Patents**  
 Worldwide applications  
 2010 KR CA US  
 CN CN JP WO MX  
 EP AU KR 2013  
 US 2014 JP



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**Shabunda Portfolio Snapshot: 06-17-2020 Gross Portfolio Value (Est. USD) \$136,650,000 (30 Year) QUANTUMQARBON**

Carbon Price			Duration			Energy & Health			Land Area			Biosphere Category			
Growth	Blend	Value	Growth	Blend	Value	Solar	Wind	WASH	Growth	Blend	Value	Terr	Coast	Ocean	
< \$5 - 10	0	0	10 YRS	0	0	1-5 Yrs	✓	-	✓	L	0	0	0	0	0
\$11-50	0	100%	11 - 30 YRS	0	100%	6-15 Yrs	✓	-	✓	M	0	0	100%	0	0
\$51+	0	0	31 - 50 yrs	0	0	16-30 Yrs	✓	✓	✓	S	0	0	0	0	0

Large > 1M Medium >500k Small <500k (Hectares)  
 Terr (Lakes, Rivers) Coast (Mangroves, Estuaries)

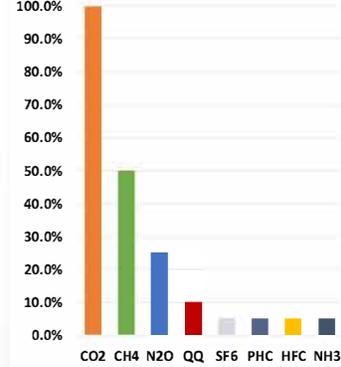
**Biosphere Box Sectors QUANTUMQARBON**

Active Sequestration	Sector (%)	Price (tCO2e)	Hectares	Tons	Growth (%)	Blend (%)	Value (%)	Legacy	REVENUE ESTIMATED
Reforestation	0	NA	NA	NA	0	0	0	NA	0
Afforestation	0	NA	NA	NA	0	0	0	NA	0
Agroforestry	0	NA	NA	NA	0	0	0	NA	0
Working Forest	0	NA	NA	NA	0	0	0	NA	0
Forest Management	0	NA	NA	NA	0	0	0	NA	0
<b>TOTAL Active Sequestration</b>	<b>0</b>								<b>0</b>

Avoided Eco-Cultural Emissions*	Price (Hectares)	Price (tCO2e)	Hectares	Tons	Growth (%)	Blend (%)	Value (%)	Legacy	REVENUE ESTIMATED
Pure Conservation	0	NA	NA	NA	0	0	0	NA	0
1. Private Land - YES	\$80/100	\$80.00	\$1,100	30	0	0	100	YES	\$128,650,000
2. Protected Land	0	NA	NA	NA	0	0	0	NA	0
Biodiversity	TBD	NA	NA	NA	0	0	0	YES	0
All Life Forms	\$200/100	NA	NA	NA	0	0	0	YES	0
Endangered species	TBD	NA	NA	NA	0	0	0	TBD	0
1.	TBD	NA	NA	NA	0	0	0	TBD	0
2.	TBD	NA	NA	NA	0	0	0	TBD	0
3.	TBD	NA	NA	NA	0	0	0	TBD	0
Indigenous Peoples	TBD	NA	NA	NA	0	0	0	YES	0
LEGA - Shabunda, BRC	\$80.00	NA	NA	NA	0	0	0	YES	0
NA	NA	NA	NA	NA	0	0	0	0	0
NA	NA	NA	NA	NA	0	0	0	0	0
<b>TOTAL Multiple Categories (% / %)</b>	<b>100</b>	<b>\$80.00</b>	<b>\$1,100</b>	<b>30</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>YES</b>	<b>\$136,650,000</b>
<b>TOTAL REVENUE ALL SECTORS</b>									<b>\$136,650,000</b>

**GHG Asset Allocation\* (Phase II)**



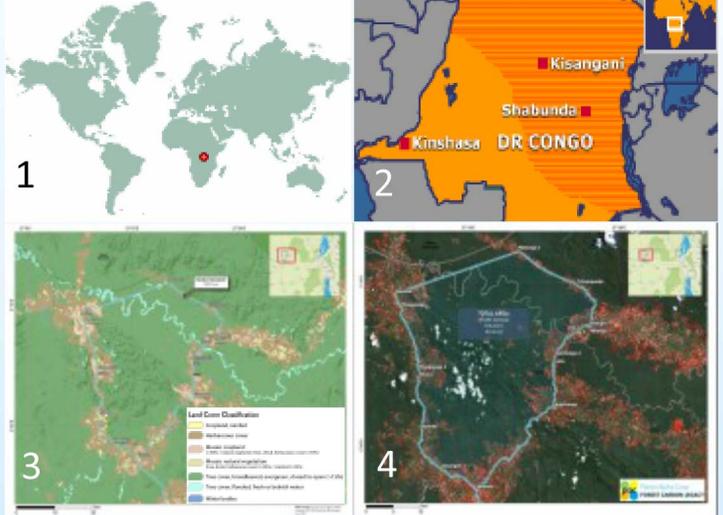
**Methods (All Phases)**

<b>EC</b> Eddy Covariance	<b>SAC</b> Soil Respiration Chamber	<b>SoS</b> System of Systems	<b>IA</b> Isotopic Analysis
<b>EX</b> Eddy Flux	<b>RS</b> Remote Sensing	<b>UAS</b> Unmanned Aerial Systems	<b>VM</b> Vehicle Mounted

**Status**

<b>A</b> (Agent)	<b>MoU</b> (Memorandum of Understanding)	<b>PLA</b> (Project Listing Application)	<b>PMA</b> (Project Management Agreement)
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**Project Location**



**Notes Sheet 2**  
 Paris Compliant: The project intends to meet upcoming compliance measures  
 Blockchain Status: The project intends to employ low-energy consumption blockchain  
 Carbon Price: Price is set according to in-country mitigation cost for Phase I and II  
 Land Area Definition: Large > 1M, Medium > 500k, Small < 500k hectares  
 Duration of Project Interval: Project duration assigned by contract  
 Biosphere Category: Terrestrial zones include lakes and rivers, coastal zones include mangroves and estuaries  
 GHG Asset Allocation: Each GHG is defined as an independent asset class, % equals approx. project area monitored directly by eddy covariance (no estimation protocols are employed); applies to all active sequestration project activity. Avoided emissions projects are based upon project area verified by project boundaries (no carbon credit estimation protocols are employed). Methods: GHG and related quantification methods are identified as active or planned with a checkmark.  
 Status: Project status is identified with checkmark (A = agent, MoU = Memorandum of Understanding, PLA = Project Listing Application, PMA = Project Management Agreement (<https://planetalphaforest.earth/about/how-it-works/>))  
 Project Location: 1) Global, 2) DRC perspective, 3) Green Shading IGB = Tree cover, broadleaved, evergreen, closed to open >15%, 4) Red shading represents deforestation (2000-2012), the boundary is designated as the Green Ring of Fire.  
 Additional information can be found at [www.planetalphaforest.earth](http://www.planetalphaforest.earth)  
 Energy and Health: Renewable energy resources and improved food production will be deployed within the project area in collaboration with external partners.  
 WASH acronym stands for *water, sanitation and hygiene*. Universal, affordable and sustainable access to WASH is a key public health issue within the project area and will be addressed as a project goal.

**QuantumQarbon and Project Phases**  
 Phase I (Step One): **Product definition**. Intact forest areas (Legacy Conservation based on area, remote sensing & ground survey), No-Net-Loss of biodiversity, no new CO2 emissions from development.  
 Phase II (Step Two): **Buffer zone definition**, Reforestation, agroforestry and afforestation (requires active direct GHG flux measurement for product offering), Net-Gain in biodiversity, enhanced CO2 forest capture.

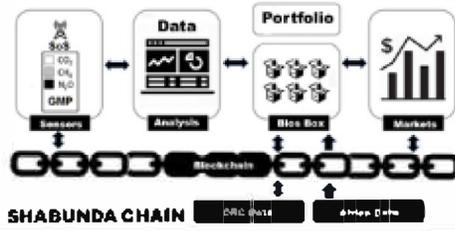
**Biosphere Box Sector Definitions**  
**Active Sequestration—Active management to enhance net forest carbon sequestration; Ex-Post Compliance: Measurement of in-situ Project GHG Molecular Emissions is Required for Sale of Forest Carbon QuantumQarbon**  
 Reforestation: Regenerating trees after disturbance or harvesting where no land-use change occurs  
 Afforestation: Establishment of forest on land without forest for a period of time (e.g., 20-50 years)  
 Agroforestry: Management system integrating trees on farms and agricultural landscapes  
 Working Forest: Management system for removal of forest products from forests of any type  
 Forest Management: Management system to enhance forest carbon sequestration (no removals)

**Avoided Eco-Cultural Emissions—Indigenous Peoples whole ecosystem management, and/or, conservation areas that while intact, prevent release of historic forest carbon emissions & loss of biodiversity; Ex Post Compliance: Verification of Indigenous Peoples habitation & biodiversity status, subject to annual updates by in-country audit and remote sensing imagery and data**  
 Pure Conservation: Private and protected land that is conserved as historically intact forest/landcover  
 Biodiversity: Private and protected land that is conserved to protect intact ecological biodiversity

**PARIS COMPLIANT: DEVELOPMENT PHASE**

Country of Origin: DRC, Africa  
 CDM Sectoral Scope # 14  
 Paris Agreement: 6.2 & 6.4 Mechanisms  
 Project Name: GIERI Shabunda Project  
 Project Number: DRC\_DRC-04-pk  
 Vintage: 2019-2049  
 Token ID: PAC\_GIERI QUANTUMQARBON  
 Off-Chain Audit Documents: www.planetalphaforest.earth

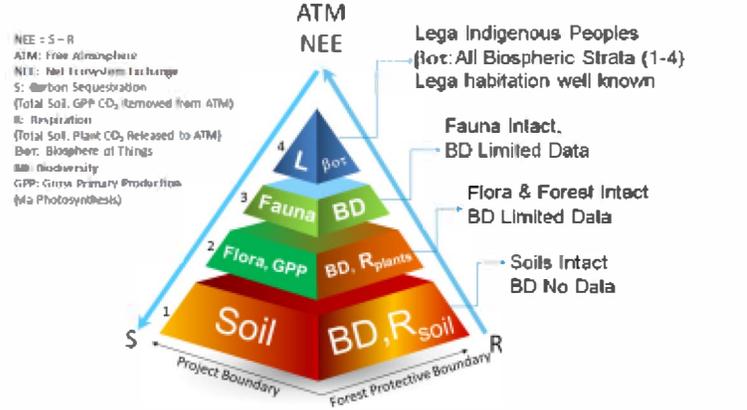
**Patents**  
 Worldwide applications  
 2010 KR CA US  
 CN CN JP WO MX  
 EP AU KR 2013  
 US 2014 JP



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**Shabunda Portfolio Snapshot: 06-17-2020 Gross Portfolio Value (Est. USD) \$136,650,000 (30 Year) QUANTUMQARBON**

**Biospheric Strata (Biosphere of Things Bot)™**



The Biosphere of Things is Planet Alpha's recognition that the planet we live on now is impacted by human actions reaching from the atmosphere to the soils and oceans. The promise and peril of technological innovation reaches across every square meter of the planet enabling human activity to both preserve and consume nature. The **Bot** provides definition of the biological and natural features of the biosphere and human impacts imparted by the tools and technologies of humanity, the things we use to fractionalize the landscape humans encounter. The **Bot** is distinguished from the Internet of Things (IoT) by all biological processes that touch and respond to the biosphere through a life form in vivo (e.g., not in silico). The **Bot** defines the layers or strata that are present within a project region, emphasizing the natural and human elements of the project boundaries. The Biospheric Strata™ are comprised of the soils (source of CO<sub>2</sub> via respiration, R<sub>soil</sub>), flora (sink of CO<sub>2</sub> via photosynthesis, GPP, and source of CO<sub>2</sub> via respiration), fauna and inhabitants. The Lega Indigenous Peoples are situated at the top of the Biospheric Strata and represent the protectors of the forest who engender and amplify a Virtuous Cycle across the project time domain of 30 years. As the primary drivers of change within the project, the Lega are the stewards of the project area but as pressures from climate change & population growth increase, the forest is coming under pressure for increased harvesting and slowly but surely is yielding its green treasure to development. P&C recognizes the priceless existence & culture of the Lega. Our effort places value not on the priceless Lega People, but on the cost of mitigating forest consumption. The P&C QuantumQarbon purchased by consumers provide community support & tools for livelihood, in lieu of deforestation. The project is managed on the ground by the non-profit NGO GIERI, a long established and recognized entity for conservation. The project has been approved by the Tribal Chief; all in-country permits have been obtained to conduct the project. This project is intended to benefit Lega Indigenous Peoples communities, forests & the planet.



- Project Documents on file:
- 1) Planet Alpha Corp & GIERI are registered entities in the US & DRC
  - 2) MoU, Project Listing Application, Project Management Agreement
  - 3) Procurator, Tribal Chief, Mwami Mopipi Mukulumany, Chef de la Chefferie des Bakisi, Representant des leaders communautaires Et de la Population Locale
  - 4) Note Explicative Sure La Biodiversite Du Territoire de Shabunda (2017)
  - 5) Manuel des Procdures Administratives et Financieres (2011)
  - 6) Expression d'Interet d'Investissement, Ministere de L'Environnement, Conservation de la Nature, Bukavu 2016
  - 7) Code Forestier, Cabinet du President de la Republique, 2002
  - 8) Gouvernance forestiere en Republique democratique du Congo (2006)
  - 9) Cadre legal et reglementaire de la conservation Communautaire en R.D. Congo
  - 10) Extrait Monographique de Shabunda, Cellule d'Analyses des Indicateurs de Développement (2015)
  - 11) PLAN DE DEVELOPPEMENT LOCAL (POL) DE LA CHEFFERIE DES BAKISI 2018-2022
  - 12) Environmental & Social Safeguards for the Shabunda Project, DR Congo (2019)

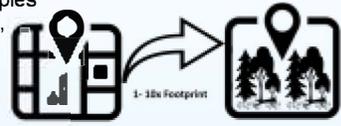
**Legia Indigenous Peoples— Guardians of the Forest**

**The Lega Indigenous People**

The Lega Indigenous People (or Warega) are an ethnic group of the Democratic Republic of the Congo. The Lega are the guardians of the forest across the project region (see maps, Page 1). The Lega have been stewards of the forest since the 16th century, originating in what is today Uganda. In 1998 their population was about 250,000. By the 1970s the Lega people were mostly living in the middle and upper Elista valley and the upper Ulindi River valley. These rivers both rise in the east of South Kivu & flow in a northwesterly direction through Maniema, joining the Lualaba downstream from Kindu. The upper Ulindi valley has a richly diverse fauna, including many monkey species, chimpanzees, leopards, buffaloes, elephants & antelopes. The valley is administratively divided into the Mwenga and Shabunda territories of South Kivu Province and the Pangi Territory of Maniema Province. The territory is covered by deep rain forest and, in the east, rugged mountains rising to 6,000 feet (1,800 m) or more. The climate is hot and humid year round. Average temperature is 75 °F (24 °C) to 80 °F (27 °C). Annual rainfall is 60 inches (1,500 mm) to 80 inches (2,000 mm). The mountains hold areas of moist woodlands as well as montane forest and grasslands. To the north and west the forest is denser and deeper. The south of the region holds mosaics of forest savannah and woodlands. This forest area has long been sparsely inhabited by humans. The forest has many plants and trees that provide food and are used for other purposes, and has abundant wildlife. Lega is a Bantu language, or dialect cluster, of the Democratic Republic of the Congo.

**How it Works — Beyond the Offset to Legacy Recognition**

The #CITIEStoLEGACYFORESTS initiative recognizes that cities are centers of positive GHG emissions & permanent loss of natural ecosystems. It is also recognized that deforestation and destruction of natural landscapes continue relentlessly across the planet. The initiative is simple: all cities can mirror their city footprint (1 to 10x) across intact forest. This action supports Indigenous Peoples sustainable forest community activities. Indigenous Peoples ensure preservation of the last, whole intact, or Legacy forests. Legacy forests are conserved as a vital component in reducing atmospheric CO<sub>2</sub>, are required to cap stored carbon in centuries old ecosystems, and ensures Indigenous Peoples way of life in harmony with the Earth.



**The Project Products: Conservation & Biodiversity QuantumQarbon**

The products purchased represent verified protective status for each 10 x 10 hectare area (unit) across the project boundaries. All project QuantumQarbon locations are viewable by corresponding imagery available on page 4 of this report. Project products can be purchased across the landscape representing 10, 20 or 30 years (e.g., 30 years is the project lifetime). The product prices are fractionalized allowing purchase of from \$5.00 to \$1,000,000+ USD for any combination of units. Purchased QuantumQarbon can be used to fulfill personal, corporate & municipal Sustainability & Development Goals (SDG's). All purchased QuantumQarbon products are accompanied by a Forest Legacy certificate suitable for gifting and a link to the project area and updates. Purchase QuantumQarbon here.

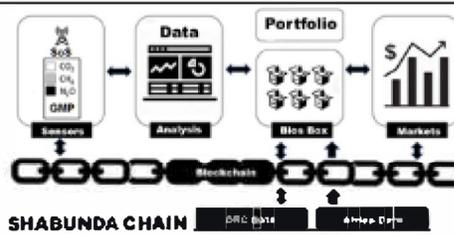
**Compliance and Reporting:**

- 1) The intact forest will be monitored biannually by remote sensing at high resolution (5-10 meters) computing differences between images. The initial survey employed and shown in maps (sheets 1 and 3) was obtained from data for Global Forest Change 2000–2018 Data Download (<http://earthenginepartners.appspot.com/science-2013-global-forest>) (see also: <https://www.planet.com/markets/forestry/>).
- 2) GIERI will conduct field surveys of the villages surrounding the forest zone once per year, principally by motorbike, plane or helicopter since there are no roads to these areas.
- 3) GIERI will provide audited accounts of all transfers and of all expenditures made for the project, in addition GIERI will work with the Congolese Government to achieve the objectives of the project.
- 4) The project will migrate to a blockchain Hyperledger where relevant transactions will be verified and accessible to the public. This approach does not involve mining bitcoins and has very low and electrical usage.
- 5) Planet Alpha Corp. adheres to national and international laws and supports the UN Declaration on the Rights of Indigenous Peoples.

PARIS COMPLIANT: DEVELOPMENT PHASE  
 Country of Origin: DRC, Africa  
 CDM Sectoral Scope # 14  
 Paris Agreement: 6.2 & 6.4 Mechanisms  
 Project Name: GIERI Shabunda Project  
 Project Number: DRC\_04-pk  
 Vintage: 2019-2049  
 Token ID: PAC\_GIERI QUANTUMQARBON  
 Off-Chain Audit Documents: [www.planetalphaforest.earth](http://www.planetalphaforest.earth)

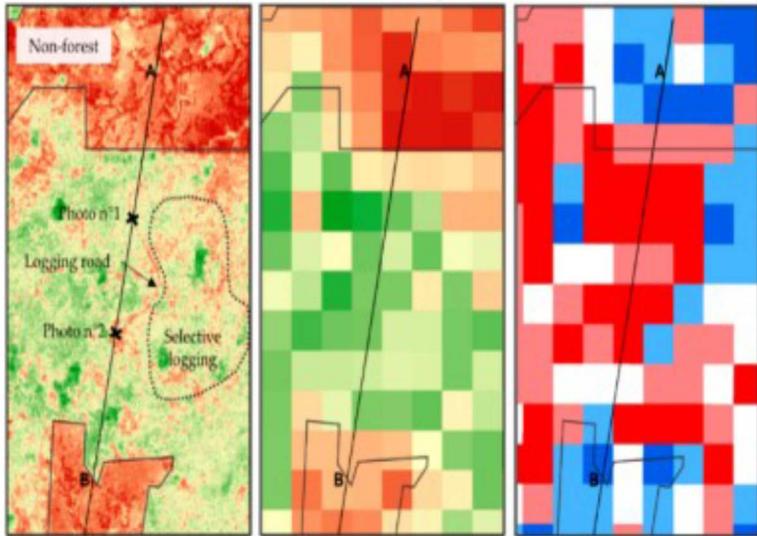


**Patents**  
 Worldwide applications  
 2010 KR CA US  
 CN CN JP WO MX  
 EP AU KR 2013  
 US 2014 JP

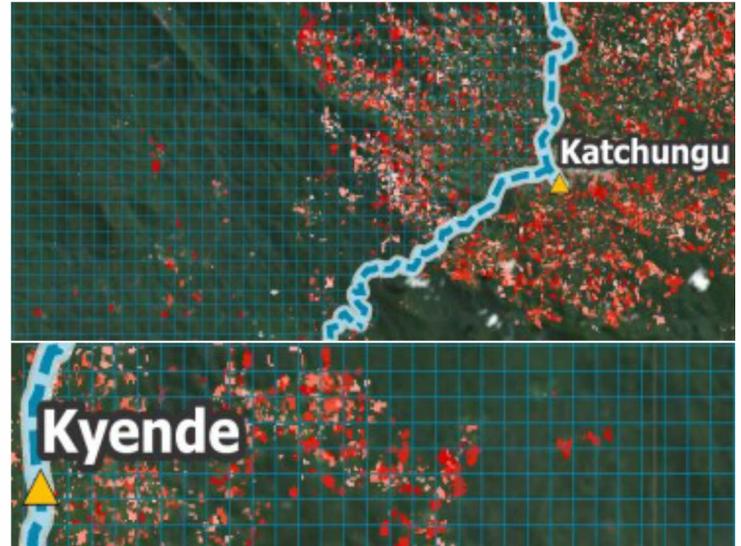


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**Shabunda Portfolio Snapshot: 06-17-2020**      **Gross Portfolio Value (Est. USD) \$136,650,000 (30 Year)**      **QUANTUMQARBON**



High resolution remote sensing detects deforestation (red areas)



One square grid equals 10 x 10 hectares (total 100 hectares)

**How To Buy Legacy Forest Avoided Emissions *QuantumQarbon*** (<https://shabunda.myshopify.com/>)

Shabunda Intact Rainforest & Biodiversity Conservation - 1 Year \$5.00	Shabunda Intact Rainforest & Conservation - 5 Years \$25.00	Shabunda Intact Rainforest & Biodiversity Conservation - 10 Years \$50.00	Shabunda Intact Rainforest & Biodiversity Conservation - 1 Hectare \$50.00
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**Guaranteed SAFE Checkout**

Shabunda - PAC S...  
 Purchased through Coinbase Commerce

Select a cryptocurrency

- Bitcoin
- Bitcoin Cash
- Ethereum
- Litecoin
- USD Coin

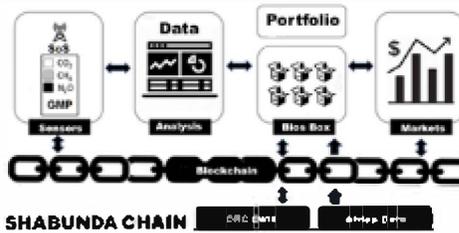
coinbase Commerce  
 We Now Accept Crypto Payments!

- 5 Steps**
- ⇒ Select grids) Click on a square
  - ⇒ Select Link Hectares or Year
  - ⇒ Select # of Hectares or Years
  - ⇒ Checkout Cash, card, bitcoin
  - ⇒ Certificate Receive a customizable certificate by email

PARIS COMPLIANT: DEVELOPMENT PHASE  
 Country of Origin: DRC, Africa  
 CDM Sectoral Scope # 14  
 Paris Agreement: 6.2 & 6.4 Mechanisms  
 Project Name: GIERI Shabunda Project  
 Project Number: DRC\_DRC-04-pk  
 Vintage: 2019-2049  
 Token ID: PAC\_GIERI QUANTUMQARBON  
 Off-Chain Audit Documents: www.planetalphaforest.earth



**Patents**  
 Worldwide applications  
 2010 KR CA US  
 CN CN JP WO MX  
 EP AU KR 2013  
 US 2014 JP

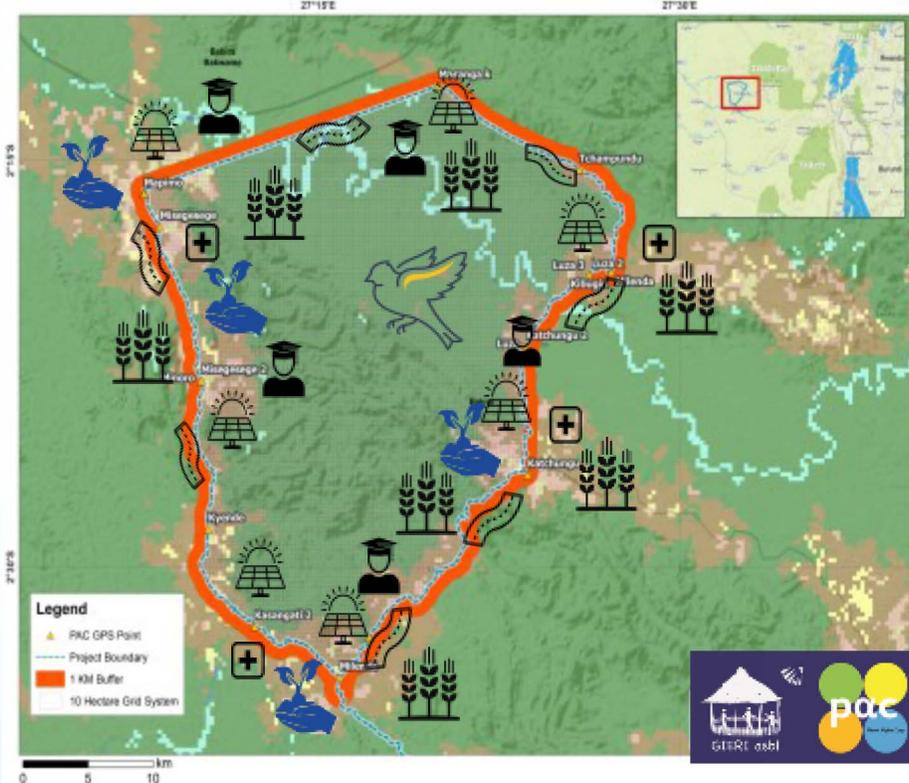


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**Shabunda Portfolio Snapshot: 07-17-2020 Gross Portfolio Value (Est. USD) \$136,650,000 (30 Year) QUANTUMQARBON**

Shabunda DRC Project Alignment With Social Development Goals (SDGs) Directed by Tribal Leaders and Village Inhabitants

**GIERI & PLANET ALPHA CORP SHABUNDA PROJECT: INTO THE GREEN HEART OF AFRICA**



- Employment
- Agriculture
- Healthcare
- Education
- Energy
- Ecotourism
- Roads
- Reforestation

Sustainable Development Goals

CHIEFDOM OF BAKISI, DEMOCRATIC OF CONGO, SHABUNDA REGION

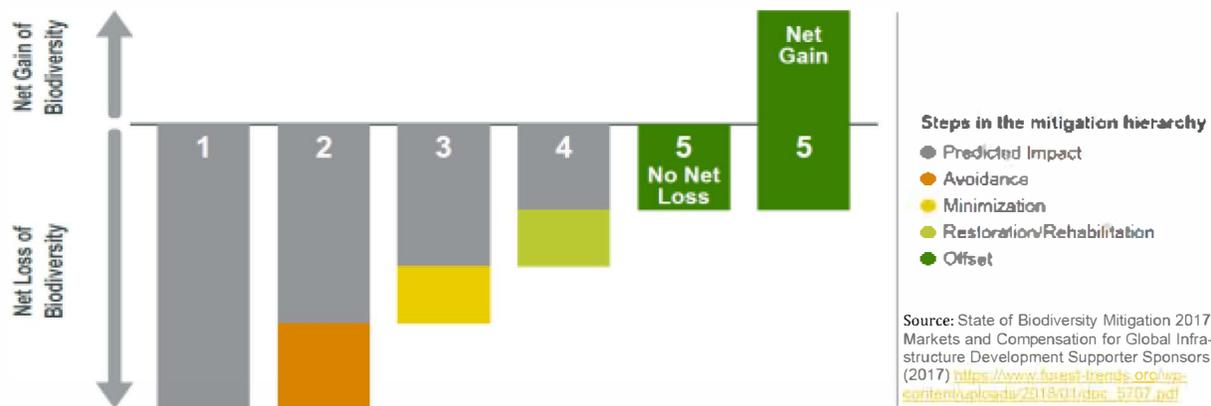
REPUBLIQUE DEMOCRATIQUE OUCONGO PROVINCE DU SUD-KIVU, TERRITOIRE DE SHABUNDA, CHEFFERIE DES BAKISI

SUMMARY: PLAN DE DEVELOPPEMENT LOCAL (POL) DE LA CHEFFERIE DES BAKISI PROGRAMMED' APPUI AUX INITIATIVES DE REDUCTION DE LA PAUVRETE DES DANS LA CHEFFERIE DES BAKISI 2018-2022

Strategy	Objectives	Result	Actions & RFP's	Overarching Chiefdom Project Goals
Open up the Chiefdom of Bakisi	Road construction to promote internal and external commercial exchange	100 % of the agricultural roads to be used (403 km)	Request for Proposals to construct roads	Solar energy for households, Road construction to connect villages
Promote silvopastoral & agroforestry practices	Food self-sufficiency, environmental sustainability	The agricultural production is increased by 60 % per household	Request for Proposals to improve agroforestry at the village level	Assist with agroforestry development
Access to social services to improve well being	Enensure food security and nutrition and sanitation	80 % of the children at the early age are well fed (have food)	Request for Proposals to identify social services to collect data on nutrition and sanitation and develop solutions	Build hospitals, clinics & schools with sanitation and nutrition programs
Environmental restoration and conservation with revenue to villages	Promote the environmental protection and its biodiversity	60 % of the population adopt the good practices towards the biodiversity	Develop project detail for each activity to fit with specific village	Identify endemic food products for export to fine restaurants worldwide as sustainable products, Provide first blockchain artisanal gold with sustainable methods, Practice forest conservation, reforestation

The challenge facing the Shabunda region is how new infrastructure development can preserve natural intact rainforest and meet the needs of the Shabunda Indigenous People at the same time. The area of intact forest is likely to diminish as human activity increases. In this project, biodiversity & forest conservation are a prerequisite and center piece of the project. Key planning and design stages of projects, including the explicit consideration of alternative approaches to avoid, minimize, rehabilitate & offset negative impacts at each phase of the project will be documented. We follow the process known as mitigation hierarchy (Figure below)—to guide the project such that there is no-net-loss (NNL) of biodiversity & forest conservation in Phase I (Steps 1 –5). In Phase II the goal is a net gain (Step 5). Our approach is consistent with biodiversity conservation priorities in the Convention on Biological Diversity (CBD) Aichi Targets & United Nations Sustainable.

Figure 1. The Mitigation Hierarchy Concept



Development Goals. Our approach of providing rigorous verification of project status should appeal to private investors who emphasize that policy and regulatory uncertainty is the greatest barrier to investing in biodiversity and forest conservation projects. We provide for the first time a considerable pipeline of “green investments” to implement a standardized approach for evaluating biodiversity risks and opportunities. An estimated \$4.8 Billion USD in mitigation bank credits and financial compensation was transacted in 2016, attesting to the attractive nature of our project, a doubling of annual transaction value compared to 2011 data. Remarkably amongst the 99 biodiversity projects across 33 countries, only two took place in Africa (Uganda & South Africa). Our project will lead the way for many similar projects in Africa. The DRC, to our knowledge, does not currently have policies that implement “No-Net-Loss/Net-Gain” frameworks through the mitigation hierarchy in place. To our knowledge, biodiversity and forest conservation offsets in the DRC appear to occur voluntarily. In some cases, such as for the International Finance Corporation, lending is contingent on developers following the mitigation hierarchy. We intend to participate in developing such a framework for the DRC with Shabunda as an example. However, establishing a new framework may emerge as stakeholders are informed about the approach over time.

Library from the International Union for Conservation of Nature (IUCN) <https://www.iucn.org/>

- 1) Biodiversity Offset Brief [https://www.iucn.org/sites/dev/files/biodiversity\\_offset\\_issues\\_briefs\\_final\\_0.pdf](https://www.iucn.org/sites/dev/files/biodiversity_offset_issues_briefs_final_0.pdf)
- 2) Biodiversity Offset Portal <https://portals.iucn.org/offsetpolicy/>
- 3) Forests <https://www.iucn.org/theme/forests/our-work/primary-and-intact-forest-landscapes/raising-profile-primaryforests-including-intact-forest-landscapes>
- 4) Species and climate change: [https://www.iucn.org/sites/dev/files/import/downloads/species\\_and\\_climate\\_change\\_issues\\_brief\\_cop21\\_041215.pdf](https://www.iucn.org/sites/dev/files/import/downloads/species_and_climate_change_issues_brief_cop21_041215.pdf)



- 1) What is the purpose of this document? To explain the project and how QuantumCarbon can help conserve forests.
- 2) What Indigenous People are involved? The Lega People & Tribal Leader of Shabunda, DR Congo, Africa, are involved.
- 3) Where is the project located? Shabunda rainforest territory, the Democratic Republic of Congo, Africa.
- 4) What is the threat to the rainforest? Encroachment by human activity & development in part due to population growth.
- 5) What is a QuantumCarbon? A “quantum” is a measured quantity, in this case, miles traveled or area developed.
- 6) What is being sold? QuantumCarbon when purchased conserves rainforests & biodiversity also avoiding emissions.
- 7) How is biodiversity involved? Biodiversity is protected when intact forest is conserved and forests are restored.
- 8) What are avoided emissions? Protected, undeveloped forests retain carbon that otherwise is lost if developed.
- 9) Why are avoided emissions important? They also protect Indigenous Peoples land & biodiversity & slow global warming.
- 10) How much does the product cost? One hectare of conserved biodiversity, rainforest & avoided emissions costs \$50.
- 11) What is the minimum purchase price? \$5.00 USD, payable online by diverse fiat and cryptocurrencies.
- 12) Can I use a credit card, bitcoin and other forms of payment? Yes. All payments are made online.
- 13) Where do I purchase products? Purchase QuantumCarbon products here: <https://shabunda.myshopify.com/>.
- 14) How are products verified? Intact forest is verified by high resolution remote sensing to detect deforestation at small scale.
- 15) What is the project benchmark for deforestation verification? The project must show No-Net-Loss of forest canopy per year.
- 16) What happens if the forest is not conserved? Sales and proceeds are halted, the project is evaluated & corrected.
- 17) What do I receive after purchase? A numbered certificate of QuantumCarbon purchased, link to project map & blog.
- 18) Is this an investment product? No. This is a consumer, non-investment, product.
- 19) Can the products be traded? QuantumCarbon certificates can be informally exchanged as gifts or traded among friends.
- 20) Will the value of the product increase over time? This is a buy-and-hold product whose future value is unknown.
- 21) Who should buy the products? Individuals, corporations, cities, governments or any entity needing QuantumCarbon.
- 22) What connection to the project will I have? We will connect you directly to the project with updates from the field.
- 23) How long does the product last? Each hectare is pledged to be conserved for up to 30 years, purchased by year.
- 24) Who determines the project land rights and project goals? The Lega People and Tribal Leader of the region.
- 25) Are environmental and social safeguards in place? Yes. We have safeguards in place for the project.
- 26) Is this the initial part of the project? Yes. This is Phase I of a two Phase project.
- 27) How long will Phase I last? Phase I will be completed within 2 years but is subject to success of initial operations.
- 28) What does No-Net-Loss (NNL) mean? NNL means that there is no loss of forest and biodiversity during the project in Phase I.
- 29) Why buy the products offered? It will prevent deforestation and support Indigenous communities who protect the intact forest.
- 30) Are the products linked to Social Development Goals (SDG's)? Yes, they are linked directly to Shabunda SDG's.
- 31) What benefits result? Indigenous People receive economic, health and social benefits while protecting the forest.
- 32) How will the proceeds be used? Proceeds are used according to a community development plan for Shabunda.
- 33) Does the plan include healthcare, nutrition and sanitation for communities? Yes.
- 34) Will my purchase help delay global warming? Yes, indirectly. Trees absorb CO2 partially offsetting global warming.
- 35) Is the project part of the Paris Agreement (PA)? No, but PaC is seeking PA compliance for project QQ.
- 36) Is there further project development planned? Yes, we plan to monitor forest CO2 uptake in Phase II.
- 37) What is the goal in Phase II? The goal is to increase forest cover, biodiversity and conservation as Net-Gain in Phase II.
- 38) Is reforestation planned? Yes, Phase II also involves reforestation along a buffer zone and in deforested areas.
- 39) When will Phase II begin? The estimated start of Phase II is in June, 2022, pending success of Phase I.

**DISCLAIMER:** This document provides the best available information for the project and products offered. All products are offered “as is” and are subject to change without notice. Planet Alpha Corp. assumes no liability for loss or damage of any kind incurred as a result of purchase of products. This document may contain links to websites belonging to third parties, Planet Alpha assumes no liability for claims or content of such websites. All buyers should carefully review the supporting information provided prior to purchase. The project area itself is subject to uncertain geopolitical and economic circumstances beyond PaC's control.