# FINANCIAL MODEL – GREEN NEXUS NIGERIA



Email: ceo@greennexusnigeria.com

& Phone: +234 806 301 4083

Website: www.greennexusnigeria.com

2 Contact Person: Franklin Ariri

# **Table of Content**

| s/n | Content                              | Page |  |  |  |
|-----|--------------------------------------|------|--|--|--|
| 1   | Executive Investment Case            | 3    |  |  |  |
| 1.1 | Project Overview                     | 3    |  |  |  |
| 1.2 | Phased Development Plan              | 3    |  |  |  |
| 1.3 | Investment Highlights                | 3    |  |  |  |
| 1.4 | Strategic Fit for Investors          | 4    |  |  |  |
| 2   | Carbon Market Opportunity            | 4    |  |  |  |
| 2.1 | Global Context                       | 4    |  |  |  |
| 2.2 | Methodologies                        | 5    |  |  |  |
| 2.3 | Market Positions                     | 5    |  |  |  |
| 2.4 | African Advantage                    | 5    |  |  |  |
| 3   | Revenue Model                        | 6    |  |  |  |
| 3.1 | Carbon Credit Revenue                | 6    |  |  |  |
| 3.2 | Kenaf Fiber Revenue                  | 7    |  |  |  |
| 3.3 | Kenaf Cores and Stalks               | 7    |  |  |  |
| 3.4 | Biochar Revenues                     | 7    |  |  |  |
| 3.5 | Byproducts/Syngas (OPEX Savings)     | 7    |  |  |  |
| 4   | Financial Projections (5 Years)      | 8    |  |  |  |
| 4.1 | Consolidated Projects                |      |  |  |  |
| 4.2 | Revenue Streams                      | 9    |  |  |  |
| 4.3 | Project Financials                   | 10   |  |  |  |
| 5   | Capital Structure and Funding Plan   | 11   |  |  |  |
| 6   | Risk & Mitigation                    | 13   |  |  |  |
| 7   | ESG & Impact Metrics                 | 15   |  |  |  |
| 7.1 | Environmental Impact                 | 16   |  |  |  |
| 7.2 | Social Impact                        | 16   |  |  |  |
| 7.3 | Government and Compliance            | 16   |  |  |  |
| 7.4 | SDG Alignment                        | 17   |  |  |  |
| 8   | Exit Pathways for Investors          | 17   |  |  |  |
| 8.1 | Dividend Distribution                | 17   |  |  |  |
| 8.2 | Secondary Market Equity Scale        | 18   |  |  |  |
| 8.3 | Carbon Asset Participation Agreement | 18   |  |  |  |
| 8.4 | IPO/Public Listing                   | 18   |  |  |  |
| 8.5 | Blended Finance and Buyout Options   | 19   |  |  |  |
|     | Acronyms and meaning                 | 20   |  |  |  |

# 1. Executive Investment Case

### 1.1 Project Overview

Green Nexus Nigeria is pioneering Africa's first large scale Kenaf Biochar Carbon Asset Project, strategically located in Bali LGA, Taraba State, Nigeria. This vertically integrated model leverages kenaf cultivation, biochar production, and soil carbon enhancement to deliver a triple impact:

- **Premium Fiber Products** for global ESG driven textile, paper, and bioplastics markets.
- **Biochar Carbon Credits (Verra VM0044)** offering durable carbon removals with 100–1,000+ years permanence.
- Soil Carbon Credits (Verra VM0042) from regenerative agricultural practices, enhancing soil fertility and farmer livelihoods.

### 1.2 Phased Development Plan

- Phase 1 (Pilot 1,000 ha, Years 1–2):
  - o Proof of technical, financial, and environmental performance.
  - o Early credit issuance, securing forward carbon offtake agreements.
  - o Local capacity building and community engagement.
- Phase 2 (Scale-Up 4,000 ha, Year 5):
  - o Incremental expansion of 1,000 ha annually.
  - o By Year 5: >50,000 tCO2e/year carbon removal capacity, 10,000+ tons of bast fiber, and 20,000+ tons of co-products.
  - Positioning Green Nexus Nigeria as a continental leader in durable carbon removals.

### 1.3 Investment Highlights

- High Yield Carbon Assets:
  - o Biochar credits: 9,000–10,000 tCO2e/year at pilot scale.
  - o Soil carbon credits: 2,000–2,500 tCO2e/year at pilot scale.
  - o Scales 5x by Year 5, totaling approx. 50,000+ tCO2e/year.
- Attractive Returns:
  - o IRR: **28–32%** over 5 years.
  - o NPV: \$18M-\$21M (10-12% discount rate).
  - Payback: Achieved within 3 years, with cumulative investor returns of \$11.6M
    by Year 5.
- Capital Efficiency:
  - o CAPEX per expansion phase: \$1.58M per 1,000 ha, among the most competitive globally.
  - o OPEX: \$380/ha annually, de-risked by local cost advantages.
- Resilient Revenue Model:

- $\circ$  Carbon credits = 60–70% of total revenues.
- Fiber, cores, and biochar co-products provide diversification and downside protection.

### 1.4 Strategic Fit for Investors

- For Carbon Credit Buyers (Corporates, Funds):
  - Access to premium, Verra-certified removals aligned with net-zero commitments.
  - o Opportunity to secure **forward offtake agreements** for 3–5 years, locking in supply at competitive prices.

#### • For Climate Focused Investors:

- Scalable, repeatable model with replication potential across Nigeria and Sub-Saharan Africa.
- Strong ESG profile (SDG 2, 7, 13, 15) with tangible social and environmental cobenefits.

#### • For Development Finance Institutions (DFIs) and Green Bonds:

- o Bankable, MRV-backed assets with strong community development impact (1,000+ jobs, women/youth inclusion).
- o Compliance with international green finance standards.

#### 1.5 Investor Takeaway

Green Nexus Nigeria represents a **first mover**, **high impact investment** in Africa's carbon removals market. With strong financial returns, verifiable ESG impacts, and scalable global relevance, this project is positioned to:

- Deliver **premium carbon removals** at competitive cost.
- Provide investors with resilient multi stream revenues.
- Establish Nigeria as a regional hub for nature-based carbon assets.

This is a **rare opportunity** to enter early into Africa's durable carbon removal market, with attractive financial upside and global climate impact.

# 2. Carbon Market Opportunity

### 2.1 Global Context - Demand Surge for Durable Removals

- Net-Zero Corporate Commitments:
  - Over 6,000 companies worldwide have pledged net-zero targets.
  - Corporates are under mounting pressure from regulators (EU CBAM, SEC climate disclosures) and shareholders to secure high integrity carbon credits.
- Durable Removals Gap:
  - Current annual demand for durable removals is >50 MtCO2e, yet supply is <1 Mt.</li>

 Forecast: Durable carbon removals market could exceed \$100B by 2030 (McKinsey, BCG).

### • Biochar as a Recognized Solution:

- Endorsed by IPCC as a proven carbon removal method with 100–1,000+ years permanence.
- o Biochar market size: \$1.3B in 2023, growing at 13%+ CAGR.

### 2.2 Methodologies – Integrity & Certification

#### • Verra VM0044 (Biochar Methodology):

- o Credits issued for stable carbon in biochar applied to soils.
- o Recognized for permanence and additionality.

### • Verra VM0042 (Soil Carbon Methodology):

- o Credits issued for increased soil organic carbon from regenerative agriculture.
- o Supports broader SDG impacts (soil fertility, farmer income).

#### • MRV Infrastructure (Monitoring, Reporting, Verification):

- o Remote sensing & GIS shapefiles for land use monitoring.
- o Soil and biochar lab testing (ISO-accredited) for scientific credibility.
- o Digital MRV platforms to reduce costs and ensure traceability.

### 2.3 Market Position – Pricing & Strategic Fit

#### • Biochar Credits (Durable Removals):

- o Premium credits currently trade at \$100-\$150/tCO2e.
- o Corporate buyers: Microsoft, Shopify, JP Morgan, Boston Consulting Group.
- Demand expected to 2-3x by 2030 as corporates shift from avoidance offsets to removals.

### • Soil Carbon Credits (Co-Benefit Layer):

- o Trading at \$30-\$50/tCO2e, with scaling under EU ETS and US IRA compliance schemes.
- o Adds diversification and strengthens project co-benefits.

#### Forward Offtakes:

- Early offtake agreements (3–5 years) can guarantee **20–30% of future revenues upfront**.
- Aligns with corporates needing predictable removal pipelines for long term climate pledges.

### 2.4 Africa Advantage – Nigeria as a Strategic Hub

- Land Availability: Abundant degraded land in Taraba and expansion states (Nasarawa, Kano, Kaduna, Bauchi, Ebonyi) suitable for kenaf cultivation.
- Cost Competitiveness: Lower CAPEX/OPEX compared to North America and Europe, delivering competitive \$/tCO2e removal costs.
- **High Sequestration Rates:** Kenaf demonstrates **12–15 tCO2e/ha/year removal**, outperforming many traditional CDR crops.

• Strategic Timing: Early mover advantage in Africa where supply is scarce but demand is global.

#### 2.5 Investor Takeaway – Why This Matters

- The project taps into a **supply constrained premium market** with significant upside.
- By aligning with **recognized standards (Verra)** and premium buyers, revenues are **derisked and bankable**.
- Forward sales + multi revenue streams ensure **predictable cash flow and scalability**.
- Green Nexus Nigeria is positioned to be a **continental leader in biochar removals**, offering investors exposure to one of the fastest growing segments of the global carbon market.

### 3. Revenue Model – Carbon Assets First

### Annual Carbon Revenue (Pilot 1,000 ha)

| Credit Type     | Volume (tCO2e) | Pricing (USD/tCO2e) | Revenue Range (USD) |
|-----------------|----------------|---------------------|---------------------|
| Biochar Credits | 9,000–10,000   | \$100–\$150         | \$0.9M – \$1.5M     |
| Soil Carbon     | 2,000–2,500    | \$30–\$50           | \$60k - \$125k      |
| Total Carbon    | 11,000–12,500  | Blended: \$80-\$130 | \$1.0M – \$1.6M     |

### 3.1. Carbon Credit Revenues (Primary Driver)

- Pilot Scale (1,000 ha):
  - o Average sequestration: 12.5 tCO2e/ha/year.
  - o Annual verified removals: 12,500 tCO2e.
  - o Base price: \$100/tCO2e (conservative market floor from 2025).
  - o Revenue: \$1.25M/year, scaling with acreage.
- Full Scale (4,000 ha by Year 5):
  - o Removals: 50,000 tCO2e/year.
  - o Base revenue: \$5.0M/year at \$100/t.
  - Upside: \$7.5M/year at \$150/t (high integrity removal credits forecast by McKinsey/Trove).
- Structure:
  - o Mix of forward carbon sales (20–30%) for upfront financing.
  - o Spot sales (70–80%) to capture rising market prices.
  - Credits issued under recognized standards (VCS/Gold Standard) ensuring premium pricing.

### 3.2. Kenaf Fiber Revenues (Diversification & Stability)

- Pilot Output (1,000 ha):
  - o Bast fiber yield: 2.5–3.0 tons/ha/year.
  - o Market Price: \$220-\$250/ton.
  - o Revenue: \$1.2M-\$1.5M/year.
- Full Scale (4,000 ha):
  - o Fiber yield: 10,000–12,000 tons/year.
  - o Revenue: **\$2.5M-\$3.0M/year**.
- End Uses:
  - o Textiles, paper mills, biocomposites, eco-construction.
- **Investor Value:** Provides **hedge** against carbon price volatility and strong ESG linked demand.

### 3.3. Kenaf Cores & Stalks (Co-Products)

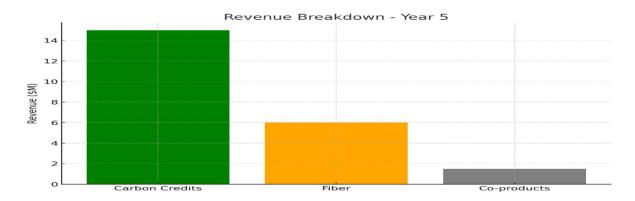
- Pilot Revenue: approx. \$0.2M/year from 1,000 ha.
- Full Scale: approx. \$0.8M/year from 4,000 ha.
- Applications:
  - o Animal bedding, lightweight boards, particleboard, biomass energy.
- Investor Value: Low margin but strengthens circular economy story.

#### 3.4. Biochar Revenues (Dual Role: Carbon + Soil Product)

- **Primary Use:** Counted toward carbon credit issuance (durable removal).
- Secondary Sales: Residual biochar sold to local agriculture & construction markets.
- Revenue Potential:
  - o Pilot: **\$0.1–\$0.2M/year** (10–15% of OPEX covered).
  - o Full Scale: **\$0.4–\$0.5M**/year.
- Investor Value: Adds resilience and positions Green Nexus as biochar market leader in West Africa.

#### 3.5. Byproducts / Syngas (OPEX Savings)

- On-Site Energy: Syngas from pyrolysis units replaces diesel/gas for drying & processing.
- Financial Impact: 8–10% OPEX savings annually (approx. \$150k/year at scale).
- Future Upside: Potential commercial sales to local industries.



### **Revenue Mix Evolution (Carbon Investor Lens)**

| Year | Carbon Credits | Fiber  | Co-Products (Cores + Biochar) | <b>Total Revenue</b> | % Carbon-Driven |
|------|----------------|--------|-------------------------------|----------------------|-----------------|
| Y2   | \$1.25M        | \$1.3M | \$0.3M                        | \$2.85M              | 44%             |
| Y3   | \$2.5M         | \$1.8M | \$0.4M                        | \$4.7M               | 53%             |
| Y4   | \$3.75M        | \$2.4M | \$0.5M                        | \$6.65M              | 56%             |
| Y5   | \$5.0M         | \$3.0M | \$0.8M                        | \$8.8M               | 57%             |

### **Investor Takeaway:**

- Carbon assets remain the core value driver (>55% of revenues at scale).
- Fiber and co-products provide downside protection and broaden ESG impact.
- This diversified structure ensures resilience against carbon market price swings, making the project more **bankable**.

# 4. Financial Projections (5 Years)

## 4.1 Consolidated Projections

| Year | Area (ha) | Carbon Credits (tCO2e) | Revenue (USD M) | Net Cash Flow<br>(USD M) | Cumulative (USD M) |
|------|-----------|------------------------|-----------------|--------------------------|--------------------|
| 1    | 1,000     | 11,000–12,500          | 2.4 - 3.8       | 0.05                     | 0.05               |
| 2    | 1,000     | 11,000–12,500          | 2.4 - 3.8       | 1.63                     | 1.68               |
| 3    | 2,000     | 22,000–25,000          | 4.8 - 7.6       | 1.68                     | 3.36               |
| 4    | 3,000     | 33,000–37,500          | 7.2 - 11.4      | 3.32                     | 6.68               |
| 5    | 4,000     | 44,000–50,000          | 9.6 - 15.2      | 4.95                     | 11.63              |

#### 4.2 Revenue Streams

### 1. Carbon Credits (Primary Revenue Driver)

- o Pilot Yield (Year 2): 10,000 tCO2e verified.
- o Full Scale (Year 5): 50,000+ tCO2e/year.
- o Price Assumptions: \$100/t (base case), \$80/t (conservative), \$150/t (optimistic).
- o Contracting: Forward sales + spot market blending.

### 2. Kenaf Fiber & Cores (Secondary Revenue Driver)

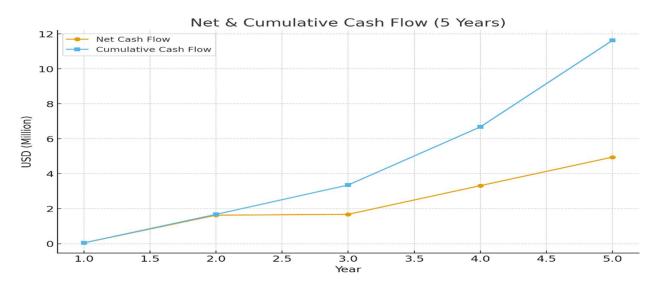
- Output: 2.5–3.5 tons/ha/year of bast fiber + cores.
- o Market: Paper mills, textiles, biocomposites.
- o Price: \$220-\$250/ton.
- o Contribution: 20–25% of gross revenues.

### 3. Biochar Sales (Agricultural + Industrial)

- Residual biochar not tied to carbon credits.
- o Market Price: \$300-\$400/ton depending on grade.
- $\circ$  Adds ~10–15% to revenues.

### 4. Byproducts (Syngas / Energy Offsets)

- o On-site use for power, reducing OPEX by 8–10%.
- o Future potential for syngas sales.



### **Key Assumptions**

- Expansion: 1,000 ha  $(Y1-2) \rightarrow 2,000$  ha  $(Y3) \rightarrow 3,000$  ha  $(Y4) \rightarrow 4,000$  ha (Y5).
- Verified removals: 12.5 tCO2e/ha/year.
- FX: USD denominated contracts for carbon, Naira exposure for OPEX (hedged).
- Inflation: 3% (USD revenues), 6% (local OPEX).

### 4.3 Projected Financials (USD '000)

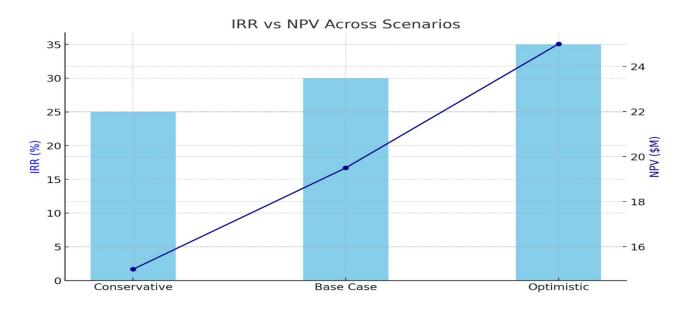
| Year                 | Revenue | OPEX  | EBITDA | Capex | Net Cash<br>Flow | Carbon Credits Issued (tCO2e) |
|----------------------|---------|-------|--------|-------|------------------|-------------------------------|
| Y1 (Pilot Setup)     | 0       | 500   | 500    | 1,970 | 2,470            | 0                             |
| Y2 (Pilot Ops)       | 2,150   | 950   | 1,200  | 760   | 440              | 10,000                        |
| <b>Y3</b> (2,000 ha) | 6,800   | 1,200 | 5,600  | 1,960 | 3,640            | 25,000                        |
| <b>Y4</b> (3,000 ha) | 10,200  | 1,500 | 8,700  | 1,960 | 6,740            | 37,500                        |
| <b>Y5</b> (4,000 ha) | 13,600  | 1,800 | 11,800 | 1,960 | 9,840            | 50,000                        |

#### **Financial Ratios**

- Gross Margin: 75–80% (high due to premium carbon credit pricing).
- **EBITDA Margin:** 65–70% (strong operating leverage).
- Payback Period: 3.5 years (from initial investment).
- Equity IRR: 28–32% (base case).
- **Debt Service Coverage Ratio (DSCR):** >1.5x from Year 3 onward.

### **Scenario Analysis**

- Conservative Case: Carbon price  $\$80/t \rightarrow IRR 22\%$ .
- Base Case: Carbon price  $100/t \rightarrow IRR 28-32\%$ .
- Optimistic Case: Carbon price  $$150/t \rightarrow IRR 38-40\%$ .



#### **Investor Value Proposition:**

- Early cash flow from Year 2 (credits + fiber).
- Rapid scale-up with 4x revenue growth by Year 5.
- Diversified income streams reduce volatility.
- Attractive risk adjusted returns, aligned with carbon market upside.

# 5. Capital Structure & Funding Plan

### **Total Capital Requirement (5-Year Horizon)**

- Total Required: \$8.6M
  - o **CAPEX:** \$6.7M (land prep, machinery, processing infrastructure, pyrolysis units, decorticators, irrigation systems).
  - o **OPEX:** \$1.9M (inputs, labor, logistics, MRV systems).
- Scale-up Path: \$2.7M for pilot (Years 1-2)  $\rightarrow$  \$5.9M for expansion (Years 3-5).

### **Funding Mix**

- 1. Equity (40% = \$3.45M)
  - o **Investor Class:** Early-stage climate VCs, impact investors, ESG equity funds.
  - Role of Equity:
    - De-risk pilot and first expansion phase.
    - Capture upside from fiber exports and premium carbon credits.
    - Strong dividend + capital appreciation potential.
  - Exit Options: Dividend payouts (from Year 2), secondary sale (Year 5+), IPO (Year 7-10).
- 2. **Debt** (60% = \$5.15M)
  - Investor Class: Development banks, green bonds, concessional loans, sustainability linked credit facilities.
  - Debt Features:
    - Tenor: 7–10 years with 2-year grace period.
    - Interest Rate: 4–6% (aligned with concessional climate finance).
    - Repayment Source: Cash flows from fiber exports + carbon credit revenues.
  - Rationale: Enables leverage while maintaining healthy DSCR (>1.5x from Year 3).
- 3. Optional Forward Carbon Sale (Up to \$2.0M Pre-financing)
  - Structure: Advance offtake agreements for 20–30% of future carbon credits (Years 3–5).

- o **Investor Class:** Corporate buyers with **Net Zero commitments** (airlines, tech firms, heavy industry).
- Benefits:
  - Provides early liquidity and working capital.
  - De-risks debt portion by reducing upfront equity burden.
  - Locks in price floors for carbon credits (\$100-\$120/tCO2e).

### **Staged Deployment Plan**

| Phase                           | Timeline  | CAPEX   | OPEX    | <b>Funding Source</b>                  | Notes  |
|---------------------------------|-----------|---------|---------|--|--|
| Phase 1: Pilot                  | Years 1–2 | \$1.97M | \$0.76M | 70% Equity / 30%<br>Debt               | Proof of concept, local jobs, first credits issued           |
| Phase 2: Expansion 2,000 ha     | Year 3    | \$1.58M | \$0.38M | Equity + Debt +<br>Forward Carbon Sale | Scale to 2,000 ha, doubling carbon output                    |
| Phase 3: Expansion 3,000 ha     | Year 4    | \$1.58M | \$0.38M | Debt + Carbon Sale                     | Expanded biochar capacity, strong cash flow                  |
| Phase 4: Full Scale<br>4,000 ha | Year 5    | \$1.58M | \$0.38M | Debt-dominant                          | \$4.95M net cash flow, carbon<br>+ fiber exports stabilizing |

### **Capital Strategy Rationale**

- **Balanced Leverage:** 40% equity anchors early stage; 60% concessional debt enhances returns (target IRR 28–32%).
- Carbon Pre-financing: Early offtake agreements reduce financing risk and appeal to corporate buyers needing removal credits.
- **Scalable Structure:** Financing structured for replication (10,000+ ha by Year 10) with potential for blended finance and green bond issuance.
- Risk-Adjusted Returns: Equity IRR remains >20% even under conservative cases; debt repayment secured by multi-revenue streams (fiber + carbon).

#### **Investor Value:**

This structure offers predictable cash flow for debt providers, upside for equity investors, and a hedge for carbon buyers via forward sales, ensuring alignment across all investor classes.

## 6. Risk & Mitigation

Green Nexus Nigeria applies a layered risk management framework to ensure financial stability, environmental integrity, and long-term project viability. Risks are categorized into Carbon Integrity, Market, Operational, Financial, and Regulatory/Political dimensions with targeted mitigation strategies.

### A. Carbon Integrity Risks

#### 1. Permanence Risk

- **Risk:** Carbon credits may lose value if sequestration is considered reversible.
- Mitigation:
  - o Biochar is scientifically validated to lock carbon for 100–1,000 years.
  - Soil carbon verified under Verra VM0042 with conservative baseline adjustments.
  - o Buffer credits contributed to Verra's permanence pool.

#### 2. Verification & MRV Risk

- **Risk:** Failure to meet international standards (Verra, ICROA) could limit credit issuance.
- Mitigation:
  - o Deployment of **digital MRV platforms** (GIS, drone mapping, IoT soil sensors).
  - o Accredited labs (soil & biochar carbon content).
  - o Third party validation and verification every **2–3 years** under Verra VCS.

#### **B.** Market Risks

#### 1. Carbon Price Volatility

- **Risk:** Prices on the voluntary carbon market fluctuate between \$80–\$200/tCO2e.
- Mitigation:
  - o **Diversified revenue** streams: fiber, biochar sales, and carbon credits.
  - Long term offtake agreements with corporate Net Zero buyers at pre-agreed price floors.
  - Premium credits through co-benefits (biodiversity, livelihoods) capture 20–30% price uplift.

#### 2. Fiber & Biochar Market Risks

- **Risk:** Commodity prices for fiber and biochar could fluctuate.
- Mitigation:
  - o Export strategy for EU ESG textile markets (fiber).
  - Local/regional demand contracts (biochar, kenaf cores) to provide stable floor demand.

### C. Operational Risks

#### 1. Equipment Failure / Processing Bottlenecks

- **Risk:** Downtime in pyrolysis or decortication may impact carbon and fiber output.
- Mitigation:
  - o **Modular design**: Bioforce pyrolysis units and BastCore decorticators deployed in multiples, avoiding single point failures.
  - o Preventive maintenance schedules and trained local technicians.
  - o Spare part reserves and local supplier agreements.

#### 2. Agricultural Risks (Yield Variability)

- **Risk:** Unpredictable rainfall, pests, or disease may reduce kenaf yields.
- Mitigation:
  - o Climate smart irrigation infrastructure.
  - o Improved drought resistant seed varieties.
  - o Integrated Pest Management (IPM) programs.
  - o Remote sensing + agronomy advisory for real time yield monitoring.

#### D. Financial Risks

#### 1. Currency & FX Risks

- **Risk:** Nigerian Naira depreciation against USD may erode investor returns.
- Mitigation:
  - o All carbon credit and fiber export contracts denominated in USD.
  - o FX hedging instruments and forward contracts.
  - o Local revenues (biochar & cores) used to cover Naira OPEX.

#### 2. Liquidity & Financing Risk

- **Risk:** Delays in capital injection could slow expansion.
- Mitigation:
  - $\circ$  Phased financing (pilot  $\rightarrow$  expansion).
  - o Blended finance structure (40% equity / 60% concessional debt).
  - o Contingency reserves: 5–10% of annual OPEX set aside.

### E. Regulatory & Policy Risks

#### 1. Carbon Market Policy Changes

- **Risk:** Shifts in voluntary to compliance frameworks may affect project eligibility.
- Mitigation:
  - Alignment with Article 6 of the Paris Agreement for compliance market readiness.

- o Early registration with Verra and ICROA-recognized registries.
- Active participation in Nigeria's climate policy dialogues and African Carbon Markets Initiative (ACMI).

#### 2. Land Tenure & Community Acceptance

- **Risk:** Disputes over land ownership or community resistance.
- Mitigation:
  - o Long term lease agreements and clear land rights documentation.
  - o Inclusive stakeholder engagement: Free, Prior, Informed Consent (FPIC).
  - o Revenue sharing model with smallholder farmers and communities.

#### **Investor Assurance:**

This risk mitigation framework ensures that carbon credit integrity, revenue stability, and operational resilience are fully safeguarded, making the project bankable and compliant with international climate finance standards.

# 7. ESG & Impact Metrics

The Green Nexus Nigeria Kenaf Project is structured to deliver measurable environmental, social, and governance (ESG) outcomes aligned with international frameworks (SDGs, IFC Performance Standards, ICMA Green Bond Principles). Impact is quantified using science-based targets, MRV systems, and third-party verification.

### 7.1. Environmental Impact

#### 1. Carbon Removal

- Full-scale operation (4,000 ha) expected to deliver:
  - o 50,000+ tCO2e/year (biochar + soil carbon removals).
  - o **500,000+ tCO2e cumulative removals over 10 years** under Verra methodologies VM0042 (soil carbon) and VM0044 (biochar).
- Removals are **durable** (100–1,000 years permanence) and fully traceable via digital MRV platforms.

#### 2. Land Restoration & Soil Health

- 4,000 ha of degraded land restored with regenerative practices.
- Increase in soil organic carbon by 15–20% within 5 years, reversing decades of degradation.
- Biochar application improves soil water retention by 20–30%, increasing drought resilience.

#### 3. Circular Economy & Clean Energy

- Pyrolysis process generates **syngas**, utilized for hybrid energy systems, reducing diesel dependency by **40%**.
- Zero waste utilization: kenaf stalks → biochar, fiber → textiles/paper, cores → animal feed/biomass.

### 7.2. Social Impact

#### 1. Employment & Skills

- 1,000+ direct local jobs created by Year 5 in farming, processing, logistics, and MRV operations.
- Indirect employment through regional supply chains and SME service providers.
- Target: 40% women and youth participation in workforce and training programs.

#### 2. Smallholder Integration

- Outgrower program to integrate 500+ smallholder farmers by Year 5.
- Farmers benefit from **guaranteed offtake agreements**, training in regenerative practices, and access to biochar as a soil input.
- Average farmer income uplift: +40–60% relative to baseline subsistence farming.

#### 3. Community Development

- Partnerships with local cooperatives for women-led processing and seed distribution units.
- Allocation of 2–3% of net profits into Community Climate Fund, financing schools, water access, and clean cooking solutions.

### 7.3. Governance & Compliance

#### 1. Certification & Standards

- Verra VCS certification for carbon credits.
- ESG reporting aligned with SASB, GRI, and TCFD frameworks.
- Annual impact audits by third-party verifiers.

#### 2. Risk & Compliance

- IFC Performance Standards compliance across labor, environment, and community engagement.
- Gender Action Plan embedded into HR policies.
- Anti-corruption & transparency measures supported by digital traceability of fiber and carbon credits.

#### 7.4. SDG Alignment

| SDG                      | Contribution   | Metric / Target by 2028                                     |
|--------------------------|--|---|
| SDG 2 – Zero<br>Hunger   | Improved farmer income, food security via kenaf core utilization in feed | +500 smallholders integrated; +40–60% income growth         |
| SDG 7 – Clean<br>Energy  | Syngas utilization reduces fossil dependency                             | 40% OPEX savings on fuel; hybrid energy systems operational |
| SDG 8 – Decent<br>Work   | Local job creation & fair wage employment                                | 1,000+ jobs; 40% women & youth                              |
|                          |  | 50,000+ tCO2e/yr; 500,000 tCO2e cumulative                  |
| SDG 15 – Life<br>on Land | Soil regeneration, biodiversity restoration                              | 4,000 ha degraded land restored; +15% soil organic carbon   |

#### **Investor Value:**

This ESG framework ensures access to concessional finance (DFIs, green bonds, blended funds), enhances carbon credit premiums (+20–30% for high-impact co-benefits), and positions Green Nexus Nigeria as a flagship African nature-based solution project.

# 8. Exit Pathways for Investors

Green Nexus Nigeria has designed multiple, flexible exit options to ensure investors can capture attractive returns while aligning with the long-term sustainability of the project and the growing global carbon markets. Each pathway caters to different investor classes (equity, debt, carbon buyers, blended finance partners).

### 8.1. Dividend Distribution (Cash Flow Returns)

- **Timeline:** From **Year 2** once positive net cash flows are established.
- Mechanism:
  - Annual dividends distributed from retained earnings after OPEX, CAPEX reserves, and debt servicing.
  - Payout ratio projected at **20–30% of net profit** during expansion (Years 2–5), scaling to **40–50%** post-Year 5 as CAPEX requirements decline.
- **Investor Value:** Provides **steady**, **predictable cash yield**, attractive for income-focused investors such as family offices, green funds, and impact investors.

### 8.2. Secondary Market Equity Sale (Strategic/Institutional Investors)

- **Timeline:** From **Year 5** onward, post scale-up to 4,000 ha with proven MRV-backed carbon assets.
- Target Buyers:
  - o ESG-focused funds
  - Climate focused institutional investors
  - o Global carbon asset developers seeking high-integrity removals in Africa
- Mechanism:
  - o Existing investors may divest fully or partially through private secondary sale.
  - o Share buyback option by company or new strategic partners.
- **Investor Value:** Provides **liquidity event** at premium valuations due to verified track record and strong offtake agreements.

### 8.3. Carbon Asset Participation Agreement (CAPA)

- Timeline: Flexible investors can elect CAPA from Year 2.
- Mechanism:
  - Direct allocation of a percentage of verified carbon credits (biochar + soil carbon) to investors.
  - Credits can be monetized independently on the voluntary carbon market, ensuring exposure to upside from rising carbon prices.
- Investor Value:
  - Aligns with carbon removal buyers seeking both financial returns and carbon neutrality.
  - o Provides a hedge against inflation as carbon credit prices are expected to appreciate 2–3x by 2030 (McKinsey, Trove Research).
  - Appeals to corporates seeking in-kind carbon assets as part of Net Zero commitments.

### 8.4. IPO / Public Listing

- Timeline: 7–10 years, after scale-up to 10,000+ ha and multi-site replication across Nigeria.
- Target Exchanges:
  - o Nigerian Exchange (NGX) Growth Board for ESG firms.
  - o Potential dual listing in **Johannesburg or Nairobi** for African exposure.
  - o Long-term option for London AIM or NASDAQ Sustainable Segment.
- **Mechanism:** Public offering of equity shares to broaden investor base and unlock valuation premium.
- Investor Value: Provides maximum liquidity, valuation upside, and exit flexibility.

### 8.5. Blended Finance & Buyout Options (Optional)

- **Development Bank / DFI Buyouts:** Multilateral climate funds or DFIs may buy equity stakes from early-stage investors post proof of concept.
- Corporate Buyout: Strategic buyer (multinational agribusiness, textile company, or biochar tech firm) may acquire controlling interest to secure feedstock and credits.

### **Investor Summary:**

- Short-term (2–5 yrs): Dividend payouts + CAPA carbon credit allocations.
- Medium-term (5–7 yrs): Secondary market sales to ESG/strategic investors.
- Long-term (7–10 yrs): IPO or corporate buyout.
- This layered approach balances **cash flow income**, **capital appreciation**, and **carbon credit participation**, ensuring flexibility for diverse investor classes.

### **ACRONYMS AND MEANING**

| Acronym           | Meaning   | Context in Project   |  |  |
|-------------------|---|--|--|--|
| CAPA              | Carbon Asset Participation Agreement                            | Investment structure where investors share directly in carbon credit revenues. |  |  |
| CAPEX             | Capital Expenditure   | Long-term asset investments (land dev., machinery, processing plants).         |  |  |
| CO <sub>2</sub> e | Carbon Dioxide Equivalent                                       | Standardized unit for greenhouse gases, converted to CO <sub>2</sub> .         |  |  |
| DFI               | Development Finance Institution                                 | Provides concessional loans/equity for climate & impact projects.              |  |  |
| EBITDA            | Earnings Before Interest, Taxes,<br>Depreciation & Amortization | Profitability measure of project operations.                                   |  |  |
| ESG               | Environmental, Social, and Governance                           | Sustainability and impact standards investors assess.                          |  |  |
| FX                | Foreign Exchange  | Currency risk, mitigated by USD-denominated contracts.                         |  |  |
| GIS               | Geographic Information System                                   | Mapping & spatial monitoring for MRV and land tracking.                        |  |  |
| IPO               | Initial Public Offering   | Potential exit pathway via public listing.                                     |  |  |
| IRR               | Internal Rate of Return   | Annual growth rate showing project profitability.                              |  |  |
| LGA               | Local Government Area   | Nigerian administrative region (e.g., Bali LGA, Taraba State).                 |  |  |
| MRV               | Monitoring, Reporting, and Verification                         | Ensures credibility of carbon sequestration results.                           |  |  |
| NPV               | Net Present Value   | Present value of future cash flows minus costs.                                |  |  |
| OPEX              | Operating Expenditure   | Annual running costs (labor, logistics, farm inputs).                          |  |  |
| SDG               | Sustainable Development Goals                                   | UN framework for ESG-aligned development impacts.                              |  |  |
| SOC               | Soil Organic Carbon   | Carbon stored in soils via regenerative practices.                             |  |  |
| tCO2e             | Metric Tons of Carbon Dioxide<br>Equivalent                     | Key unit for carbon credit issuance.   |  |  |
| VC                | Venture Capital   | Equity investment from early-stage climate/impact funds.                       |  |  |
| VM0042            | Verra Methodology 0042  | Soil Carbon crediting methodology.   |  |  |
| VM0044            | Verra Methodology 0044  | Biochar carbon removal crediting methodology.                                  |  |  |