

Environmental & GIS Consultancy Services

GAB Climate Smart Investments Ltd

Ashanti Region, Ghana

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Tier 3 scientific accuracy for environmental monitoring, carbon projects, and sustainable land management.

About GAB Climate Smart

GAB Climate Smart Investments Ltd is a Ghanaian climate and sustainability company advancing Sustainability, Inclusion and Climate-smart solutions across agriculture, environment, and natural resource management sectors. We combine spatial intelligence and carefully governed Human-in-the-Loop AI systems with field-grade operational experience.

Our consultancy division specialises in environmental intelligence, carbon measurement, and GIS-based analysis for organisations managing natural resources, carbon projects, and agricultural operations across West Africa.

Core Capabilities

- Remote sensing & satellite imagery analysis (Sentinel-2, Landsat)
- NDVI vegetation health monitoring and time-series analysis
- Drone survey planning, execution, and orthomosaic processing
- Carbon stock estimation and MRV (Measurement, Reporting, Verification)
- Environmental Impact Assessments (EIA)
- Land use / land cover (LULC) change detection
- Precision agriculture mapping and soil analysis
- Boundary survey and GIS database development
- Mangrove and wetland ecosystem monitoring
- Climate risk assessment and adaptation planning

Service Packages & Pricing

GIS Monitoring: Basic

GHS 5,000 to 15,000

Scope: Up to 500 hectares | Ideal for: Farms, plantations, community forest reserves

- Bi-weekly NDVI vegetation analysis from satellite
- Monthly summary report with change detection
- Alert system for anomalous vegetation loss
- Online dashboard access for 12 months
- Quarterly review meeting

GIS Monitoring: Advanced

GHS 20,000 to 50,000

Scope: Up to 5,000 hectares | Ideal for: Large estates, carbon projects, government agencies

- Weekly multi-spectral analysis (NDVI, NDWI, EVI)
- Soil moisture and water stress monitoring
- Drone survey integration (2 flights/year)
- Custom GIS database with block-level data
- Monthly reporting + real-time alert dashboard
- Dedicated account manager

Environmental Assessment

GHS 30,000 to 80,000

Scope: Project-specific | Ideal for: Infrastructure projects, mining, land development

- Full Environmental Impact Assessment (EIA)
- Baseline vegetation and biodiversity survey
- Carbon stock estimation (above/below ground)
- LULC change analysis (10-year historical)
- Stakeholder consultation and report
- Regulatory compliance documentation (EPA Ghana)

Carbon MRV

GHS 50,000 to 150,000+

Scope: Per carbon project area | Ideal for: Mangrove restoration, REDD+, blue carbon, afforestation

- Tier 3 carbon measurement methodology
- Permanent sample plot establishment
- Allometric biomass modelling
- Remote sensing + ground-truth validation
- Annual monitoring and verification reports
- VCS/Gold Standard alignment support
- MRV platform development (Blue Carbon MRV)

Project Highlights

Keta Lagoon Mangrove MRV

Client: Conservation NGO

Establishing permanent monitoring plots across 2,000+ hectares of mangrove and wetland in the Keta Lagoon Ramsar site, Volta Region. Developing Tier 3 carbon measurement methodology for blue carbon credits.

Technologies: Sentinel-2, drone surveys, allometric modelling, Blue Carbon MRV platform

Aframso Commercial Cassava Farm

Client: Internal

533-acre farm with 53 precision-mapped blocks (part of a 1,078-acre, 4-parcel portfolio). NDVI monitoring, soil analysis, and yield forecasting using satellite and drone data integrated into custom ERP system.

Technologies: NDVI analysis, block-level GIS, precision agriculture dashboard

Technology Platform

Layer	Technology	Purpose
Satellite	Sentinel-2, Landsat 8/9	Multi-spectral imagery, NDVI, change detection
Drone	DJI Phantom/Mavic	High-res orthomosaic, DSM, point clouds
GIS Platform	QGIS, PostGIS, Mapbox	Spatial analysis, mapping, visualisation
Cloud	Supabase, Vercel, Next.js	Data platform, dashboards, real-time monitoring
MRV	Blue Carbon MRV (custom)	Carbon measurement, verification, reporting
AI/ML	Anthropic Claude, custom models	Automated analysis, anomaly detection, forecasting

Get in Touch

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Available for projects across West Africa