



# Gazelle

ECOSOLUTIONS

NON-CONFIDENTIAL

B L O O M B E R G F O R N B S

# Building the tools to create transparency in carbon markets

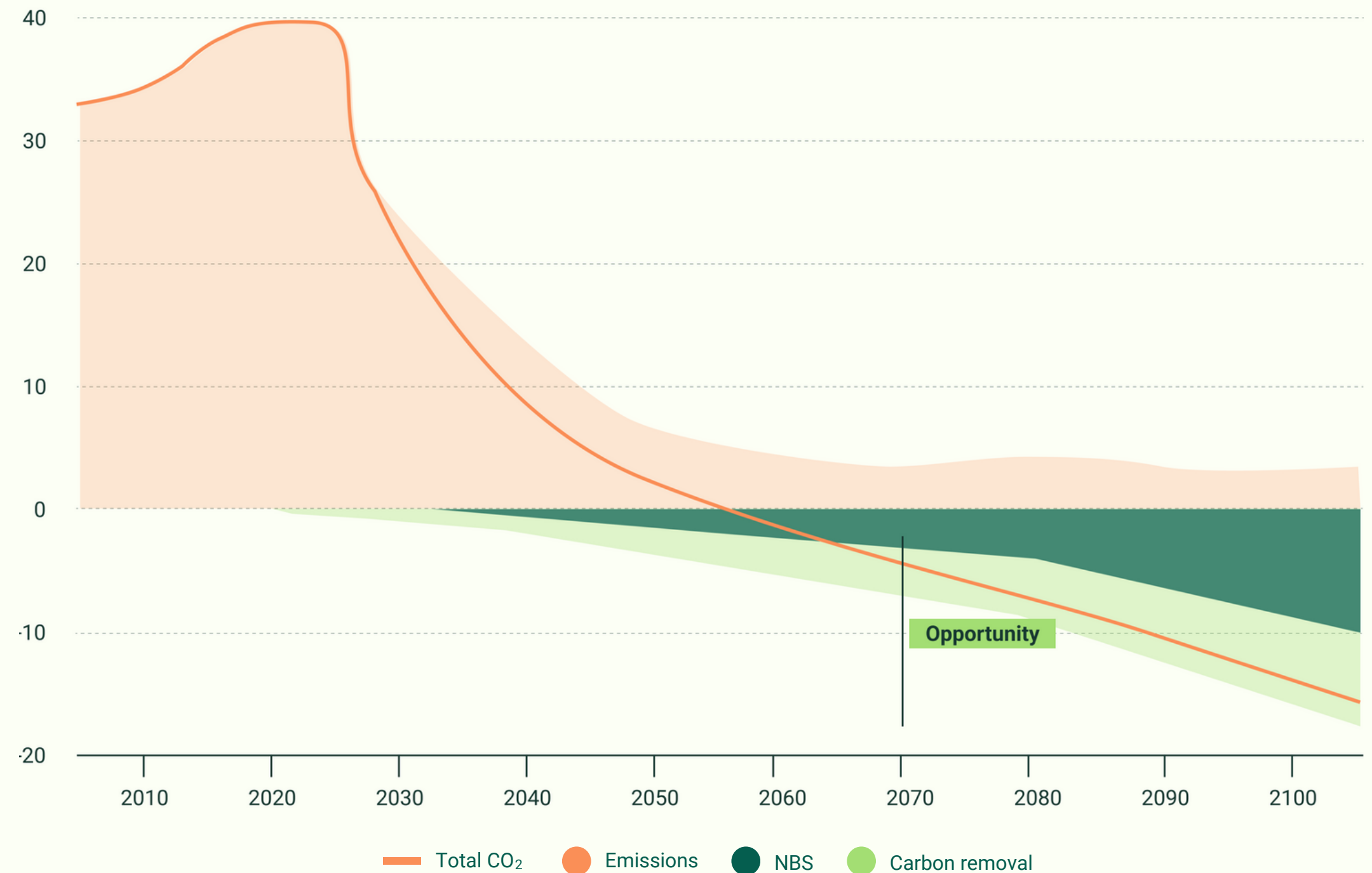
Gazelle's ecosystem intelligence platform helps corporates, brokers, insurance companies, and landowners assess the value of and monitor their natural assets

# Net-zero requires carbon removal

- According to the IPCC, **reducing** emissions alone is not enough to limit global warming to 1.5° C.<sup>1</sup>
- All pathways require investment in **planetary-scale** carbon removal technologies.
- **Nature-based solutions** (NBS) are a key opportunity to deliver 37% of mitigations.<sup>2</sup>

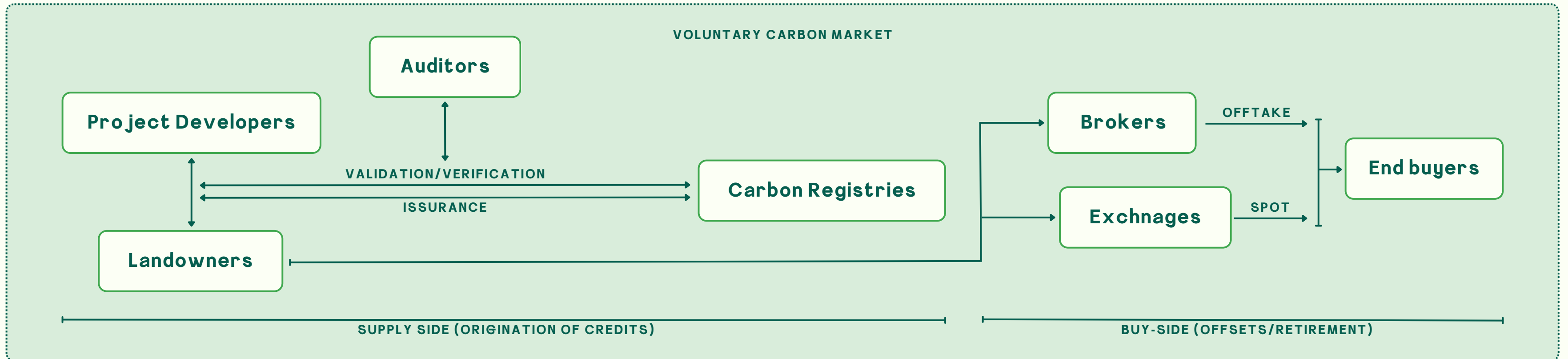
## Direct carbon removal is required in even the most optimistic scenarios

CO2 emissions (gigatonnes) outlined in SSP1.1-9<sup>3</sup>



# Upstream inefficiencies hold back a \$978B Market

Gazelle is the embedded data layer across a complex supply chain- we're building a solution that works for everyone



## CRITICAL PAIN POINTS



### Additionality

Proving GHG mitigations would not have taken place in the absence of financing



### Baselining

Modeling GHG emission in the business-as-usual scenario absent the project



### Quantification

Audit-ready carbon accounting in line with methodology mandated processes



### Monitoring

Tracking land-use/land-cover and environmental parameters on projects over time



### Permanence

Amount of time carbon will remain sequestered than being released back



# Lack of transparency hurts projects

Failed projects cause reputational harm to buyers and hurt communities in need for carbon finance

Blood Carbon: how a carbon offset scheme makes millions from Indigenous land in Northern Kenya

## These people have sold our air

Emanuel, Rendille people, Northern Kenya

## REDD+: A Scheme Rotten at the Core

WRM Bulletin 245 30 September 2019

REDD+ has shown to be a big failure for the climate, the forests and forest peoples, but many international agencies and governments continue to support it. This article takes a look at its inability to halt deforestation and the fundamental flaws of its main initiatives.

Issues: The Green Economy / Biodiversity Offsetting / Legal Land Theft / The Green Economy / Pricing Nature / The Green Economy / REDD and other Nature Based Solutions / International Forest Policies

Languages: English / Español / Français / Português

The age of extinction

## 'Nowhere else to go': forest communities of Alto Mayo, Peru, at centre of offsetting row

## Carbon capture: a decarbonisation pipe dream

September 01, 2022



### Carbon Capture Efforts Are in Service to Big Oil

Nearly three quarters of CO<sub>2</sub> captured annually is reinjected into oil fields to push more oil and gas out of the ground

39 million tons of CO<sub>2</sub> are captured annually

69% Processing natural gas

25% Industrial applications

6% Power generation



# Firsthand experience as a developer

In 2022 our team built the 1st nature-based carbon project in Africa's Kalahari





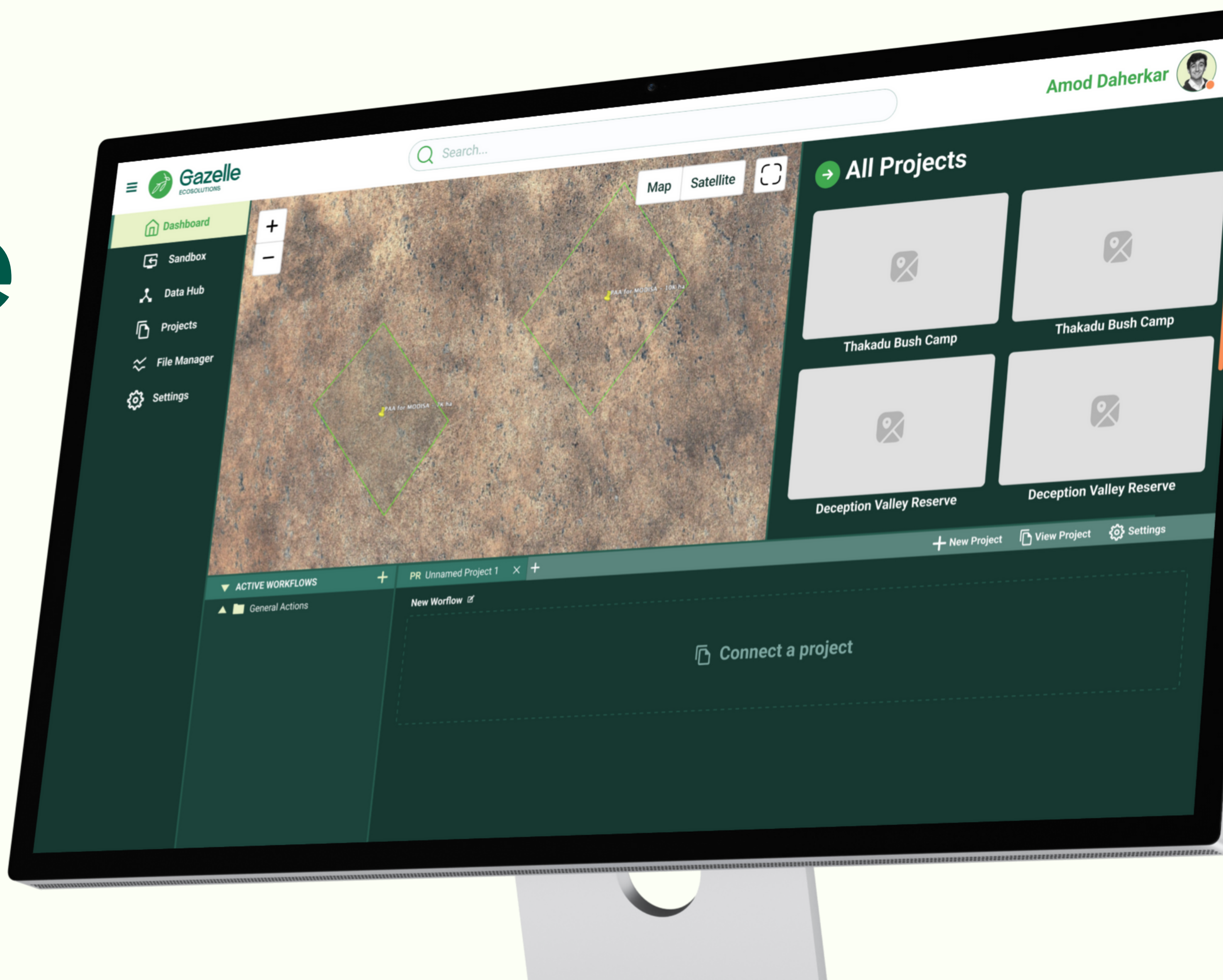
BUILDING TRANSPARENCY

# Gazelle

## HUB

Seamlessly build and manage projects with GHG forecasts, PDDs, and AI-powered MRV generation at scale

- Develop and monitor projects
- AI-based report generation
- Call 3rd party data via API





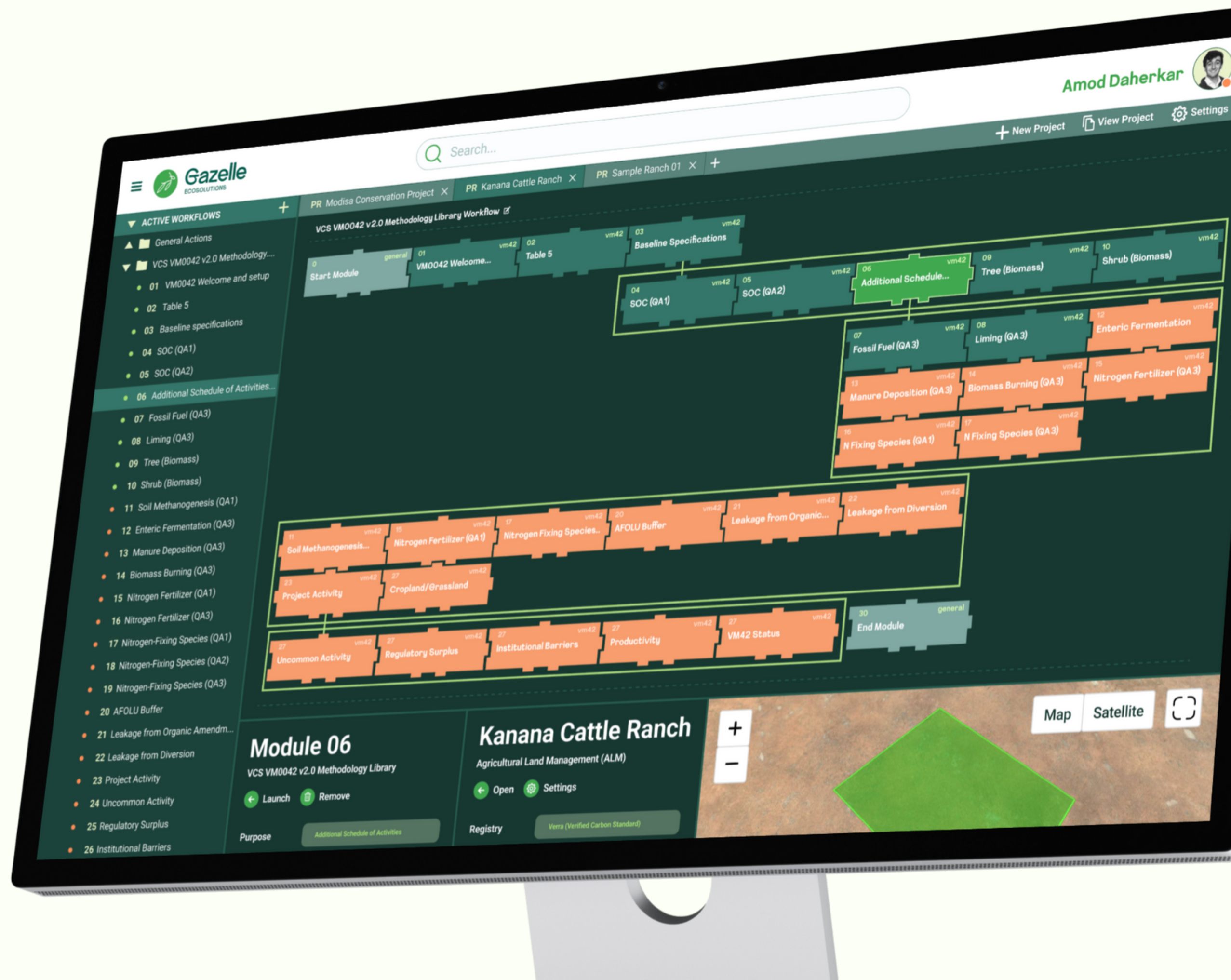
# Powerful plug and play sandbox

Fully digitized registry-compliant tools, methodologies, and datasets:

- CDM Quantification Tools
- VCS Quantification Tools
- Import Methodology Libraries
- ✓ Call 3rd party data via API



- Call MRV Libraries

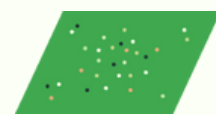




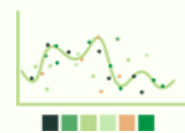
# Deep monitoring insights

Monitor wildfire, grazing, and commercial activity on project sites

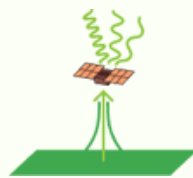
- Continuous Change Detection and Classification (CCDC)
- Spectral Mixture Analysis (SMA)
- ✓ Landtrendr (LTR)



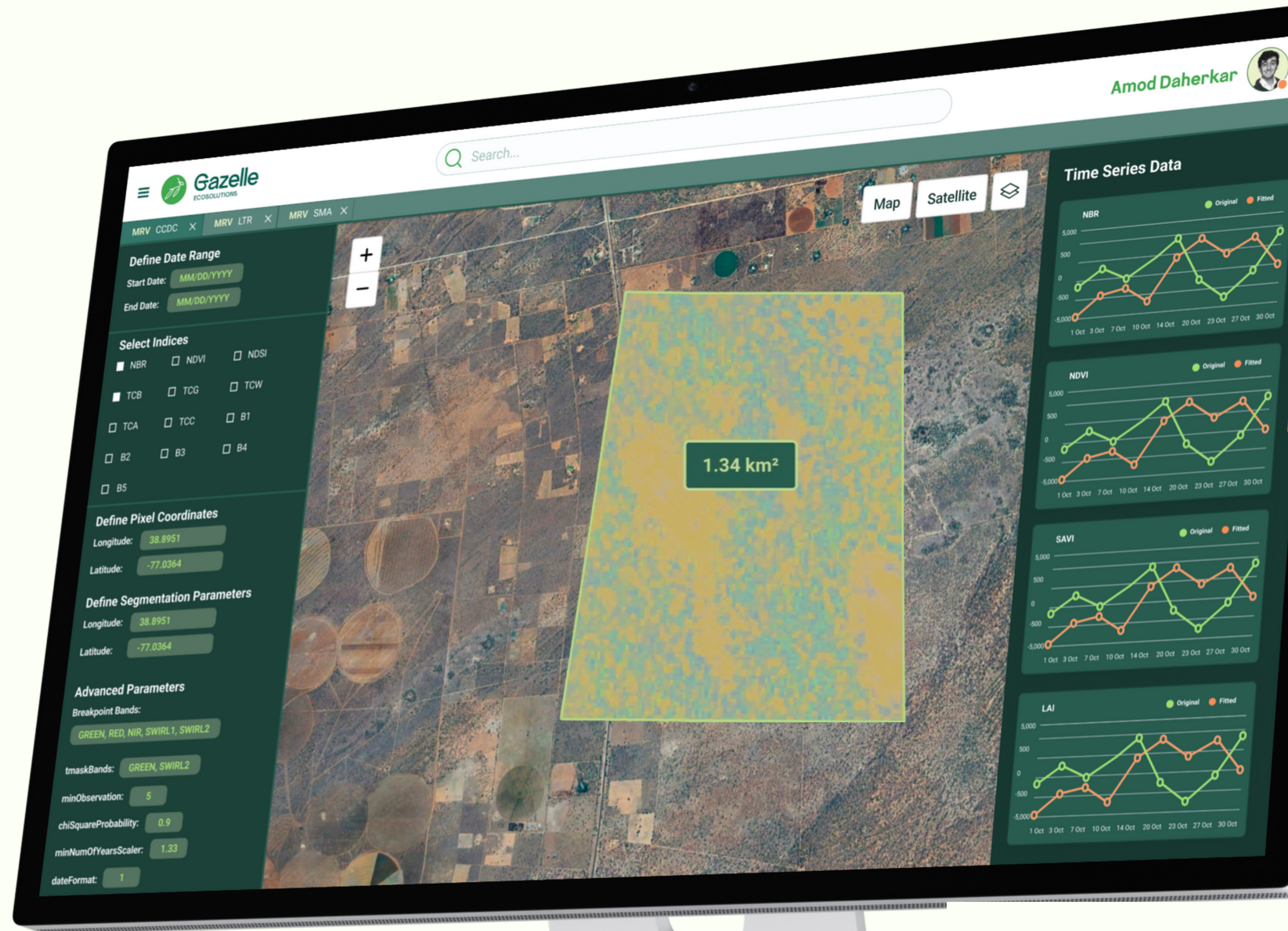
Spectral-temporal segmentation algorithms (regression based and point-to-point fitting)



Pixel time-series data adjusted to reduce inter-annual noise via radiometric normalization



ID of slowly-evolving processes like recovery or encroachment, and abrupt events, such as fire







# AI-powered audit-ready reports

Leveraging LLMs to rapidly generate reports from field & remotely sensed data


- Project Design/Monitoring Reports (PDMRs) for join validation-verification audits
- Monitoring Reports (MRs) for verification audit + every issuance event for credits
- ✔ Project Design Documents (PDDs) for validation audit + registry listing

Project details
Safeguards
Application of methodology
Quantification of GHGs
Monitoring
Appendix

## KALAHARI GRASSLANDS PROJECT

### GROUPED AVOIDED CONVERSION



<b>Project Title</b>	Kalahari Grasslands Project
<b>Version</b>	v1.0
<b>Date of Issue</b>	18/04/2023
<b>Prepared By</b>	Gazelle Ecosolutions LLC
<b>Contact</b>	Mihir Bendre, Chief Sustainability Officer 15716 Jeffs Lane Austin, TX 78717 United States of America +1 (309) 831-9238 team@thegazelle.co

VCS

$$BEM_{P2}(C_P, C_B, t, x) = \frac{(C_P - C_B)}{1 + e^{-\alpha - \beta(t-x)}}$$

where

$$HA_{P2}(C_P, C_B) = \frac{1}{1 + e^{-\alpha - \beta(t-x)}}$$

The Biomass Emissions Model emissions from biomass form

$$DEM_{DW,BGB}(E_{B\Delta}^{[m]}, t, t^{[m-1]})$$

The Decay Emissions Model carbon pools.

$$DEM_{SOC}(E_{B\Delta}^{[m]}, t, t^{[m-1]}) = E_{B\Delta}^{[m]} - \frac{3}{\lambda_{SOC}}$$

This is a modified Decay Emissions from Biomass

$$E_{B\Delta}^{[m]} = SEM_P(C_P)$$

The above form model.

Carbon not Dec

$$C_{B\Delta}^{[m]} = \sum_{i \in M}$$

Calculating C

Project Description: VCS Ve

largely agrarian society: livestwo-thirds of rural householdgrowing, increasing demandandem with threats to naturals of grazing habitat, and th

ed project located in the heartland ecosystem. Since 2016, management Areas (GH10, GH11, gradation and encroachmenting designated land use onational Parks Act of 1992, s/MAs.

ranch of 5 hectares with aing capacity resulting inent encroachment pastture interests convertingthe degradation of over

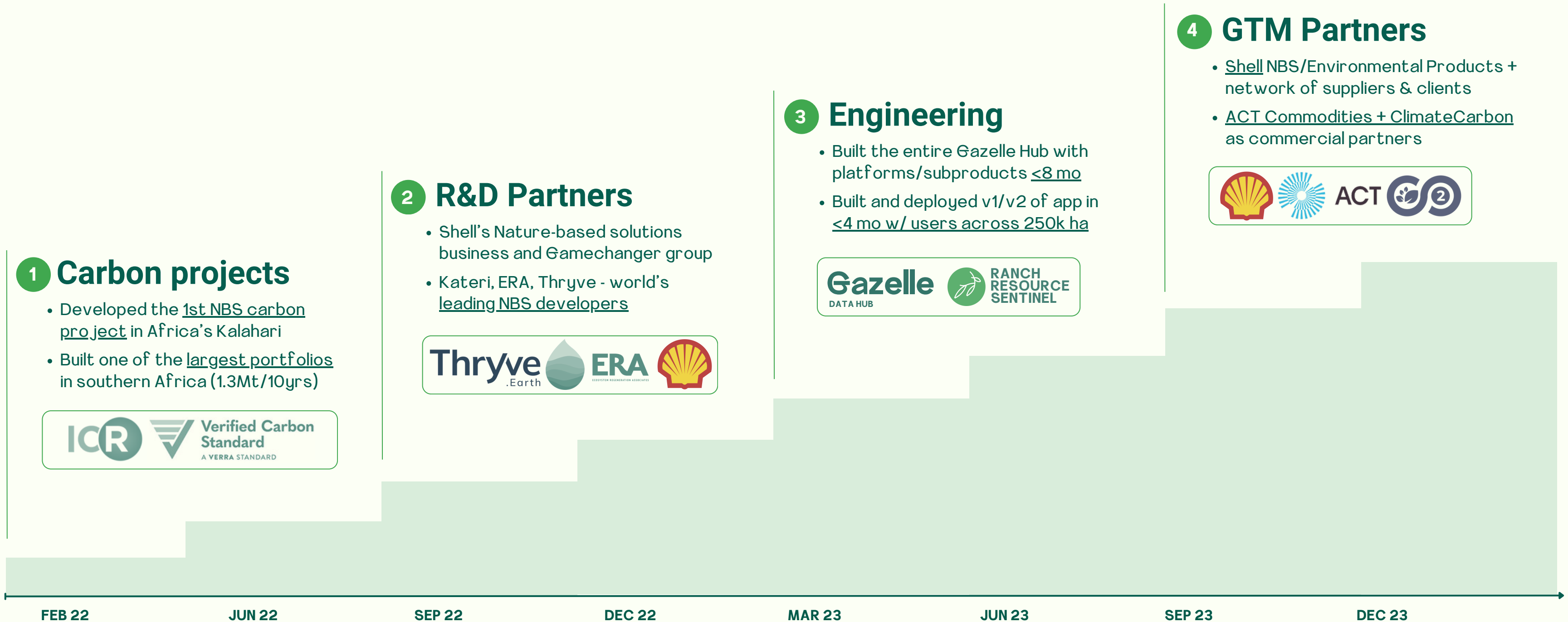
o land conversion fornt to WMAs and other(GP protects both theThe main agents ofative grasslands, androperties in the initiala (PAA) of 106,809or the first crediting

%20PARKS%20ACT,%2tion%20or%20desertifi

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# Early traction and growth

Backed by leading companies, registries, and brokers in the VCM in 24 months



# Who we deliver value for

An overview of our data products, services, and *who* we are selling to/creating value for post-launch

## Platform Solutions

### For landowners

- + Assess the carbon value of your natural assets
- + Free monitoring and reporting in near real-time
- + Free AI-powered audit-ready report generation

### For corporates

- + Access jurisdictional carbon + transaction intel
- + Analyze ex-ante and ex-post portfolio data
- + Assess feasibility on prospective investments









### For traders

- + Accessing \$/ton transaction data by project
- + Risk assessment and pattern-based predictions
- + Comparative analytics by project and geography

### For insurance

- + Validating claims against monitoring data
- + Ongoing reporting of natural and human risks
- + Jurisdictional + project data to price premiums

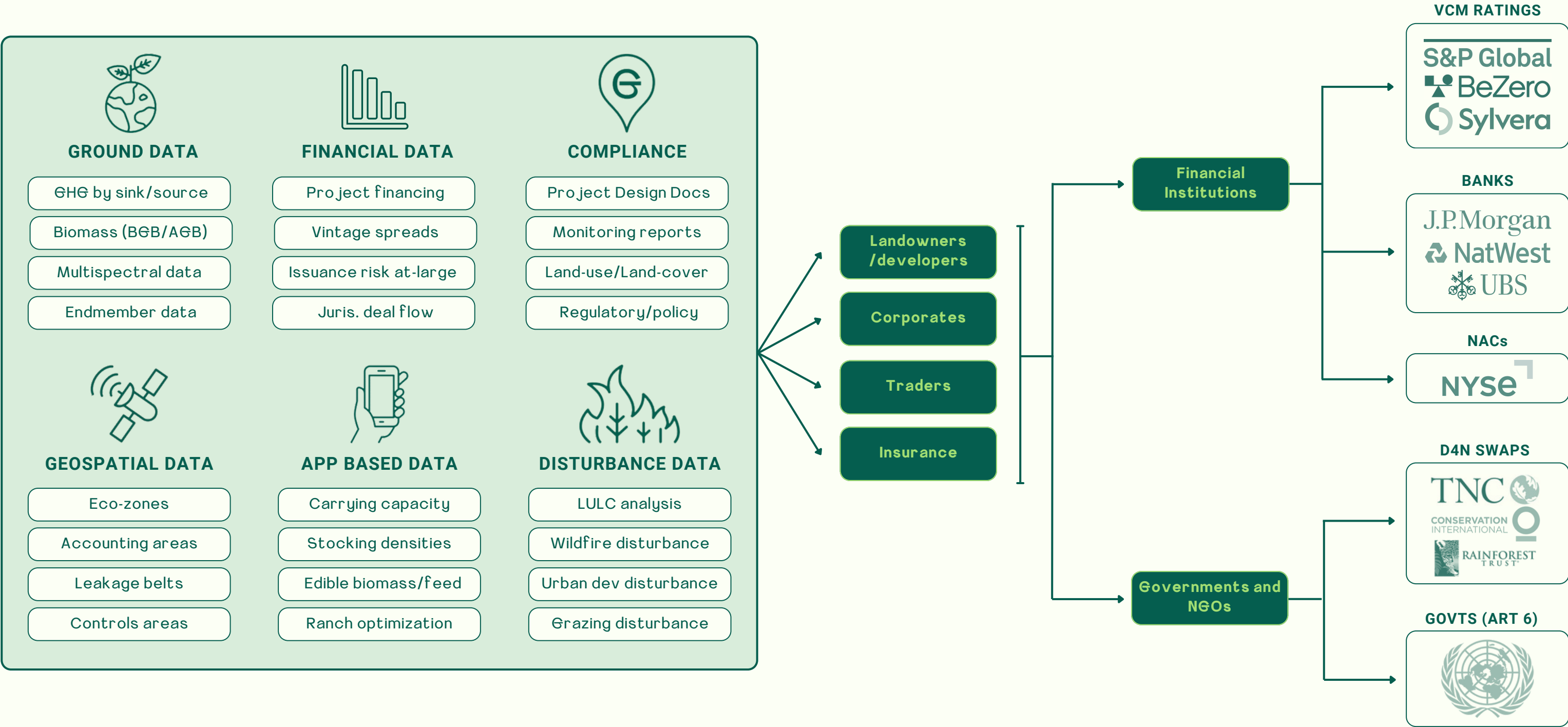
## Data Products/Services

Product	Type
 <b>Jurisdictional</b>	Core Product
 <b>Projects</b>	Core Product
 <b>Remote Sensing</b>	MRV Tool
 <b>AI Documents</b>	Core Product
 <b>Data Hub</b>	Insights
 <b>Feasibility</b>	MRV Tool
 <b>Feasibility +</b>	Bespoke MRV
 <b>Remote Sensing +</b>	Bespoke MRV



# Our data opens new markets

High-fidelity environmental data is in demand to unlock institutional financing for carbon markets



# Experienced founders, engineers, and academics



**AMOD DAHERKAR**

Co-founder & CEO

2x founder, VR/AR space, tech  
M&A at Scaleview Partners



**SIDDHARTH THAKUR**

Co-founder & CTO

2x founder, roboticist, 6  
patents, ex-Lockheed



**MIHIR BENDRE**

Co-founder & VP Science

Built 1st Biomass Emission  
Models for the Kalahari



**DR. THORALF MEYER**

Co-founder & Chief Scientist

20+ years in dryland ecology and  
cutting-edge remote sensing



**DR. KELLEY CREWS**

Lead Scientific Advisor

20+ years in remote sensing and  
human-environment interactions



**ALEX MARDEN PhD(c)**

Remote Sensing Scientist

6 years of field experience and  
expertise in remote sensing



**DR. KEBONYE DINTWE**

Biogeochemical Scientist

20+ years in ecology specializing  
in soil carbon flux dynamics



**SRIRAM HARIHARAN**

Software Lead

Serial SaaS founder (2x  
acquisitions), ex-JP Morgan



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