



USBI • [BIOCHARCONFERENCE.COM](https://biocharconference.com) • FEB. 12–15, 2024



Novel carbon accounting methodology for place-based biochar

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IKHALA IMPACT



AD-TECH
REGENERATIVE SOLUTIONS

- Co-founder of Ikhala Impact and African Data Technologies
- We have a team of engineers, software developers, data scientist, and attorney
- We perform carbon footprint assessments for wine, hemp and biochar
- We developed and managed various projects in South Africa
- Developed, digitized and testing a new biochar methodology
- We've partnered with Wilson Biochar and the Biochar Coalition to refine our approach



The Problem we're looking to address

Collecting consistent, high-quality data for place-based biochar production is tedious and generating reports that align with carbon standards are extremely time-consuming.



The Solution

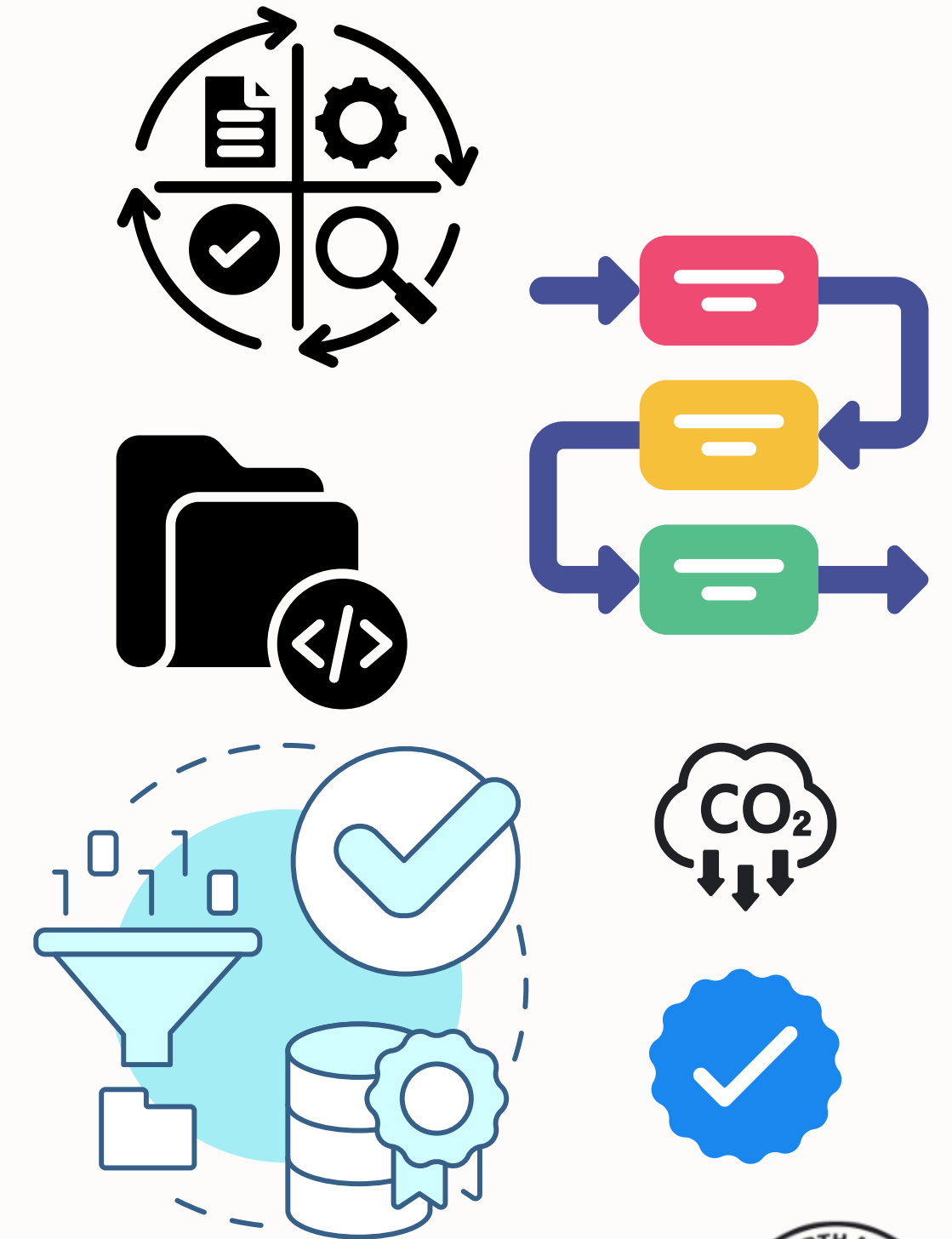
A new biochar methodology focussed specifically on “vegetation and fuel load management activities”

- a. Digitised on a mobile and web app to guide those planning the projects and those doing the work on the ground
- b. A standardized set of instructions to guide in-field data collection
- c. Automated calculations and reporting for projects
- d. Creating a digital audit trail with locations, time stamps, images, videos and various other data points



CARBON ACCOUNTING - WHAT DO WE NEED?

- A methodology against which we verify claims
- Evidence of the on-site processes
- Source documentation where available
- Standardized data collection framework
- GHG emission and storage quantification
- High-quality data via
 - Quantitative and Qualitative evidence to support claims
- Data validation
- Independent Verification



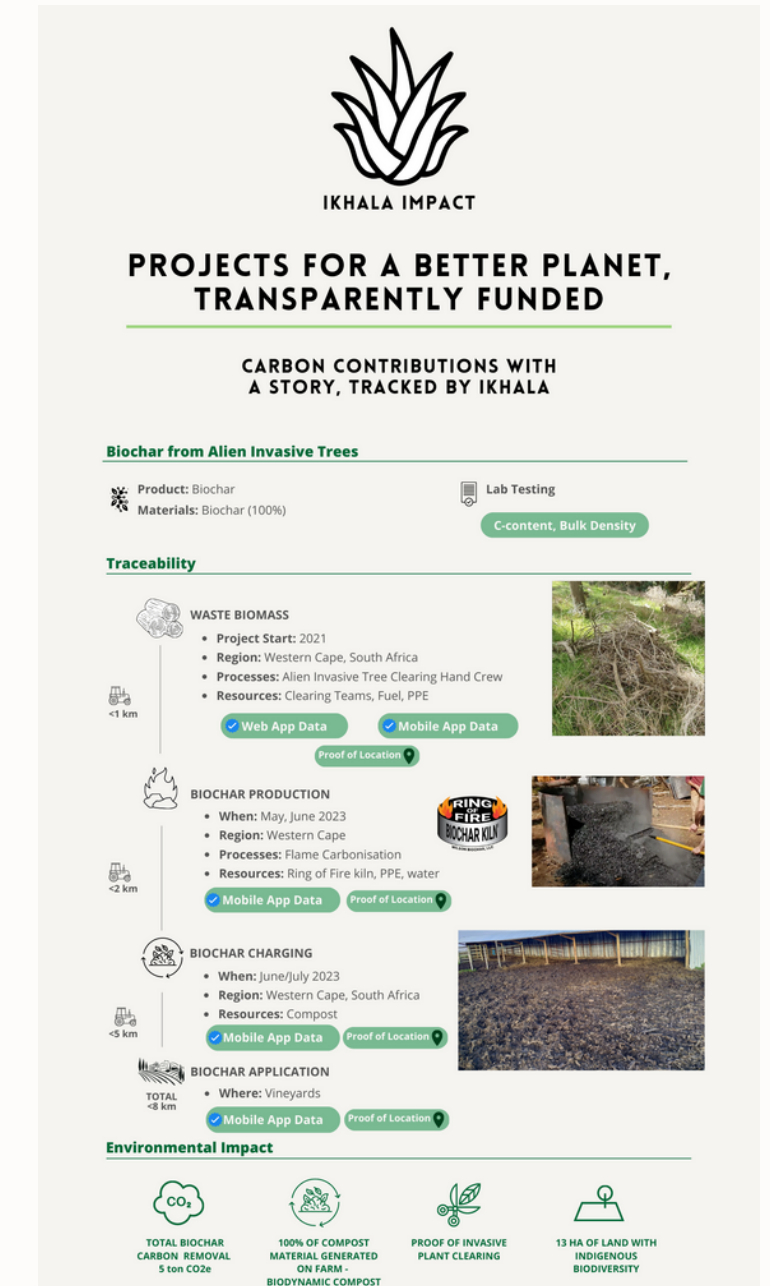
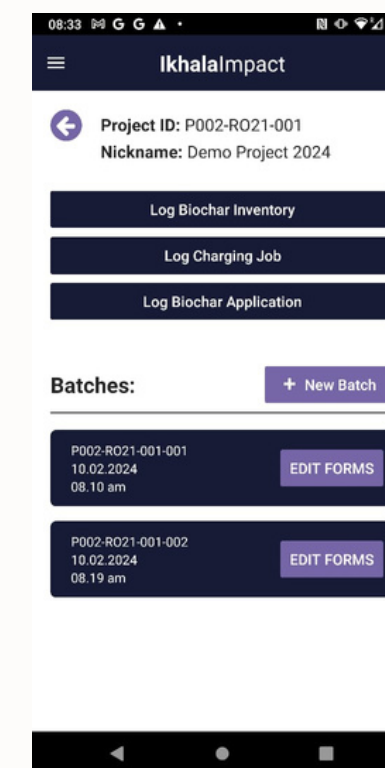
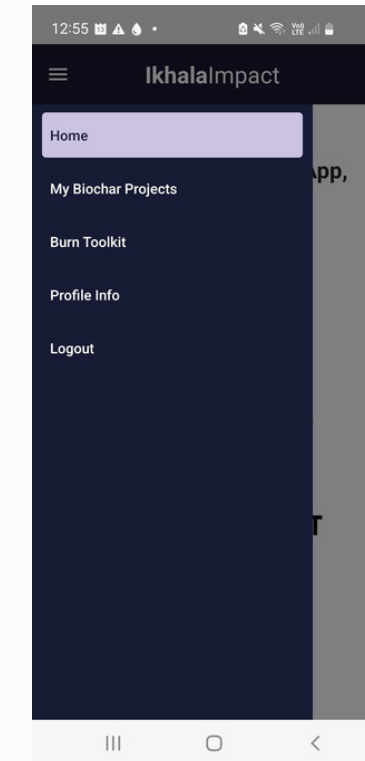
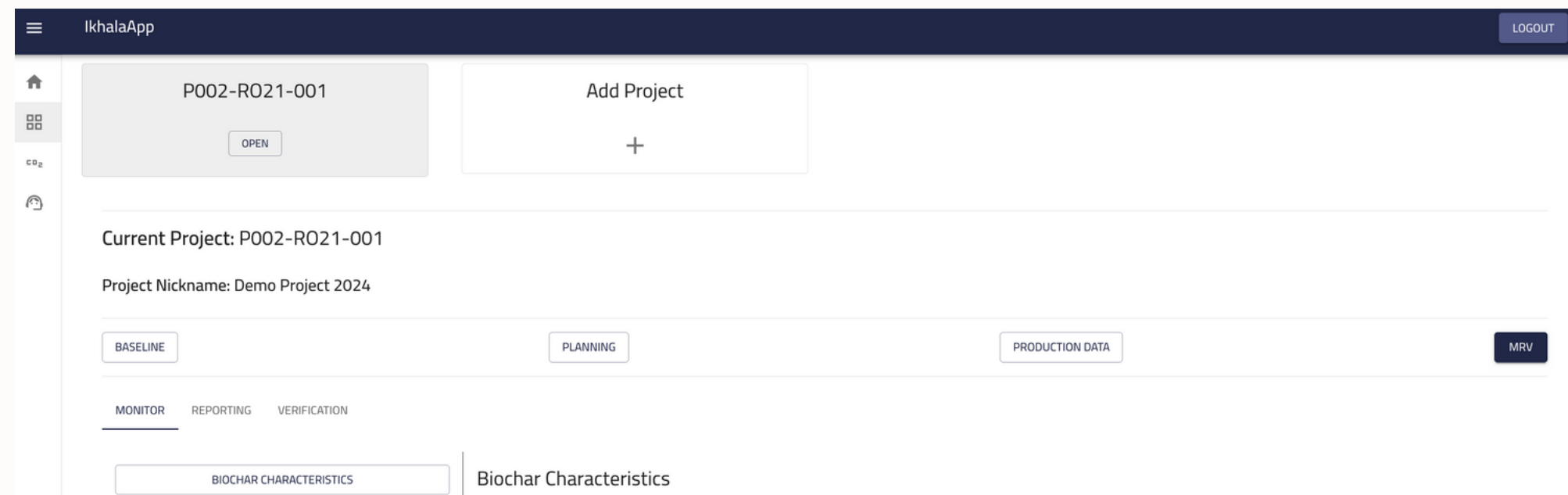
WHY DID WE DEVELOP A NEW METHODOLOGY

- To add more context to existing methodologies
- We saw that fuels from vegetation management projects are being burned as there is no other use for it
- We want to remove friction for projects - simplifying the process
- We want to make it as easy as possible to verify claims
- Existing low-tech biochar production methodologies are either
 - Complex to understand and expensive, or,
 - Excludes the feedstock we want to target
- We want to empower smaller projects that won't be able to reach the scale required to work through a Verra VM0044 for instance



THE CHARR APP

- Empowering teams on the ground
- Guiding users through every step of data submission
- Automated reporting
 - Batch Reports
 - Project Reports
 - Biochar Carbon Removal Reports
- Biochar Impact Labels
- Digital audit trails for verifiers
- Can be used for various certifications/standards



Batch ID	Production Date	Reporter	Final Release (t)
P002-NA16-001-002	2023-02-20	John Smith	3.15
P002-NA16-001-004	2023-02-20	John Smith	4.25
P002-NA16-001-003	2023-02-20	John Smith	4.28
P002-NA16-001-006	2023-03-05	John Smith	3.22
P002-NA16-001-005	2023-03-05	John Smith	4.33



KILNS LISTED ON CHARR APP

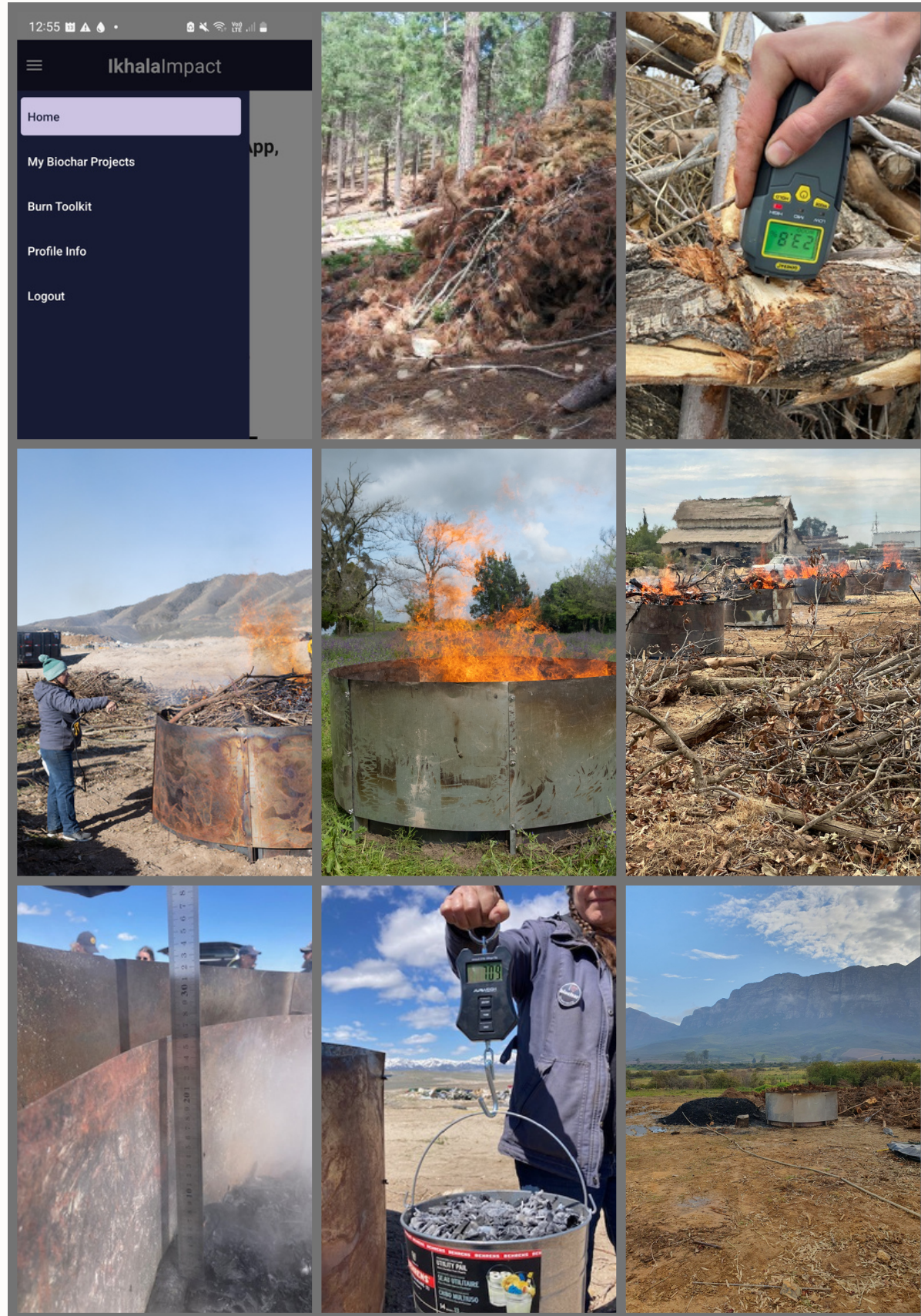
- Ring of Fire
- Big Box
- Pit Kilns



Coming soon:

- Air Curtain Burners
- Conservation Burns





PRACTICALLY, HOW DO WE DO THIS?

- 01

Feedstock type
- 02

Feedstock size
- 03

Feedstock moisture
- 04

Ignition
- 05

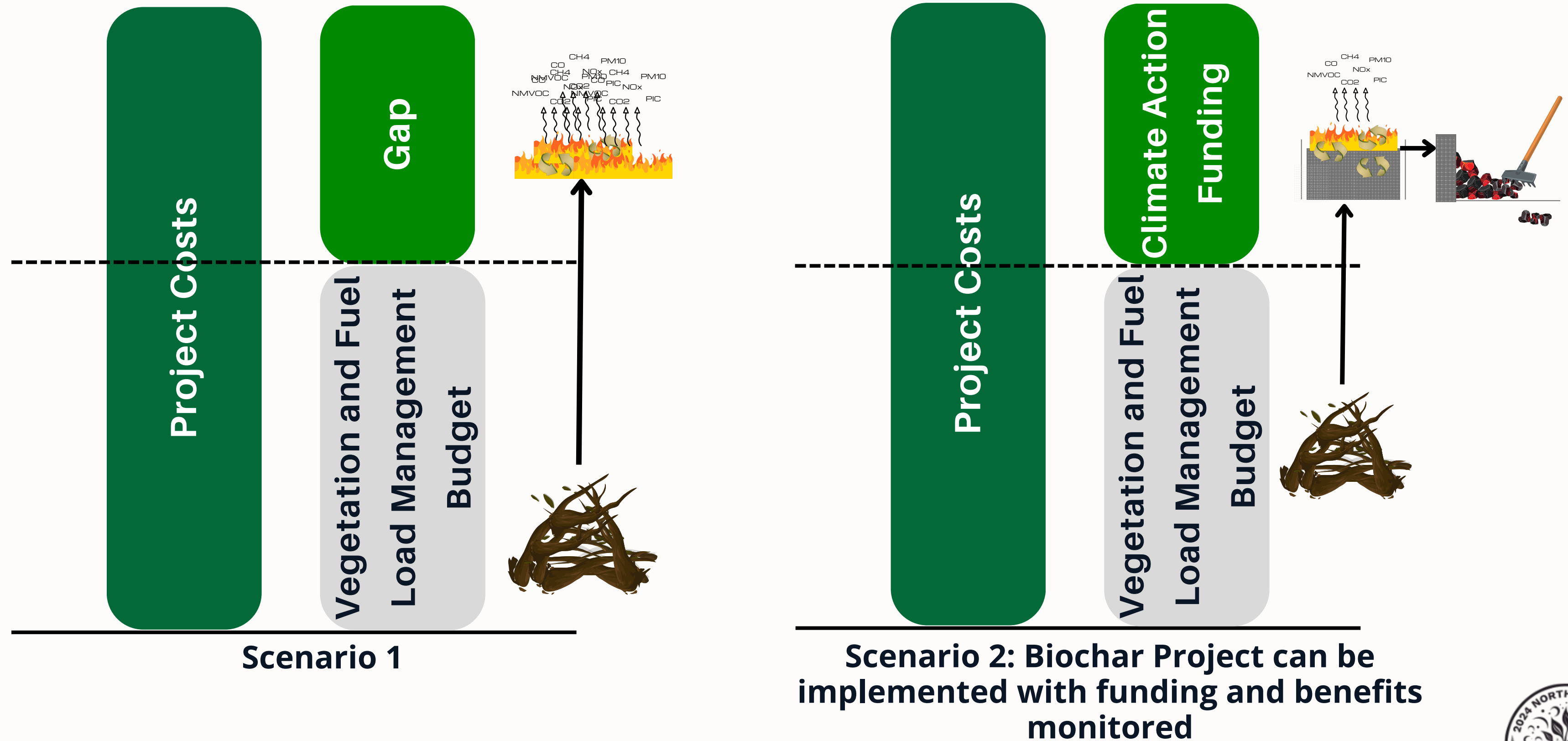
Flame presence
- 06

Biochar volume
- 07

Bulk density

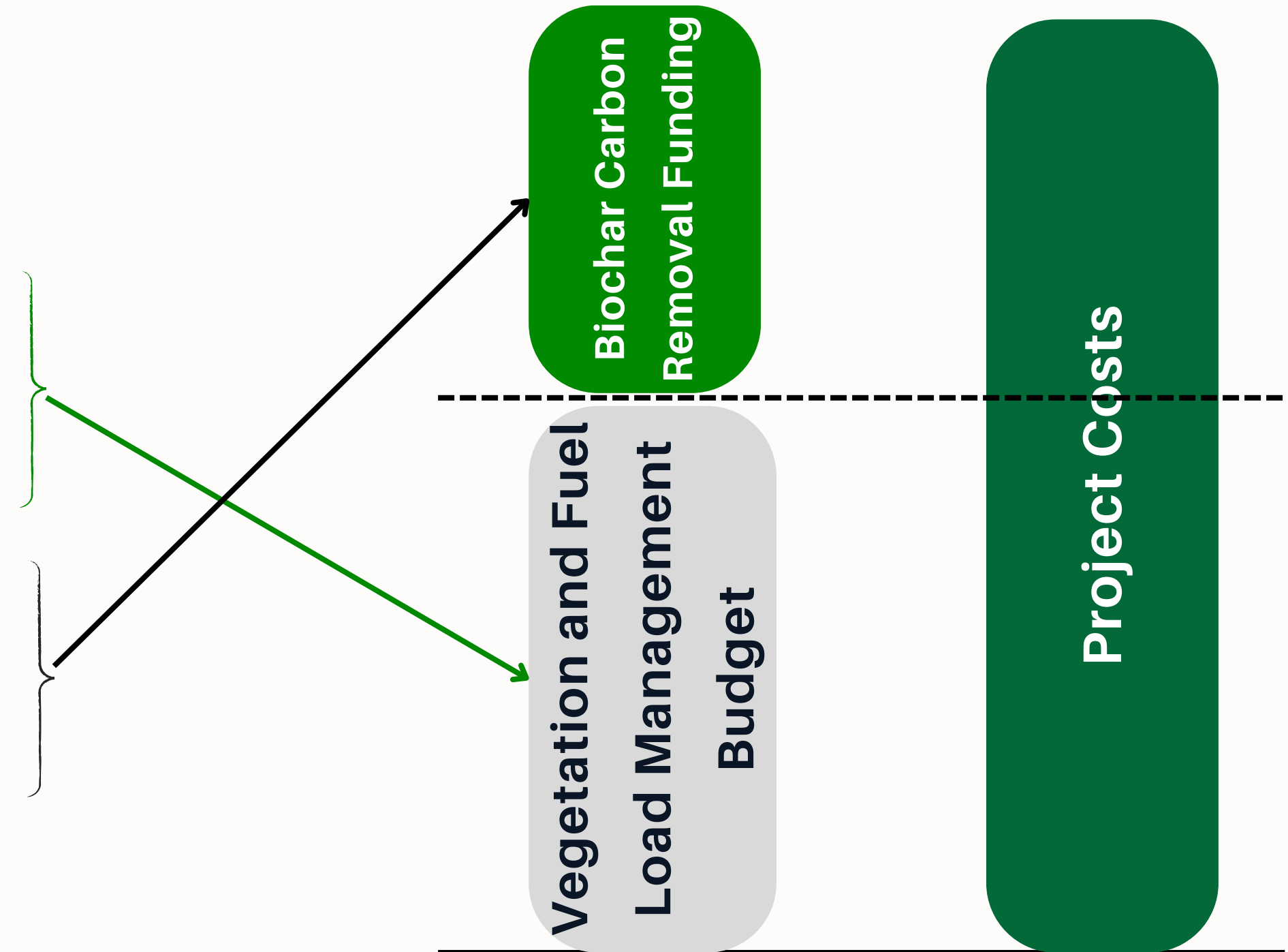


FUNDING BIOCHAR PROJECTS - THE "FUNDING GAP"



WHAT ARE WE DOING IN SOUTH AFICA?

1. Blended Funding for a flagship biochar and fuel load management project
2. We've obtained funding from a Social Employment Fund where ground teams are cutting **firebreaks** around public and private land
3. We obtained **carbon removal funding** from a multinational company that has been allocated to produce biochar from the piled fuel loads



OUR OBJECTIVES

1. Unlock funding beyond “carbon credits”
2. Create a model where we enable
 - 1000x 10tonCO2 removal projects , instead of,
 - 10x 1000tonCO2 removal projects every 5-10 years
3. Empower the people on the ground, and maximize the capital flowing to these teams or groups
4. Help restore our planet’s forest and ecosystems by returning carbon to the soil

Fall in love with your **PROBLEM**
not your **SOLUTION**

THANK YOU



IKHALA IMPACT

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