

# Introduction to TerraMatch Monitoring, Reporting, and Verification



# Historical Background

- Monitoring, Reporting, and Verification (MRV) has its roots in international climate agreements.
- It was first introduced during the UNFCCC meetings in the 1990s as a framework for countries to address climate change and develop a way to track greenhouse gas emissions and restoration impacts.
- Over the years, it evolved into a robust framework for ensuring transparency, accountability, and learning—especially in land restoration projects.
- Today, advancement in technology such as satellite remote sensing, drones, mobile apps, and cloud-based data platforms have revolutionized MRV by making near-real-time monitoring of land use and restoration activities possible, reducing costs and increasing scalability of MRV systems.
- Since 2022, WRI and partners have built and refined the TerraMatch MRV framework using established research, field-based trials and pilots, and user-feedback sessions.



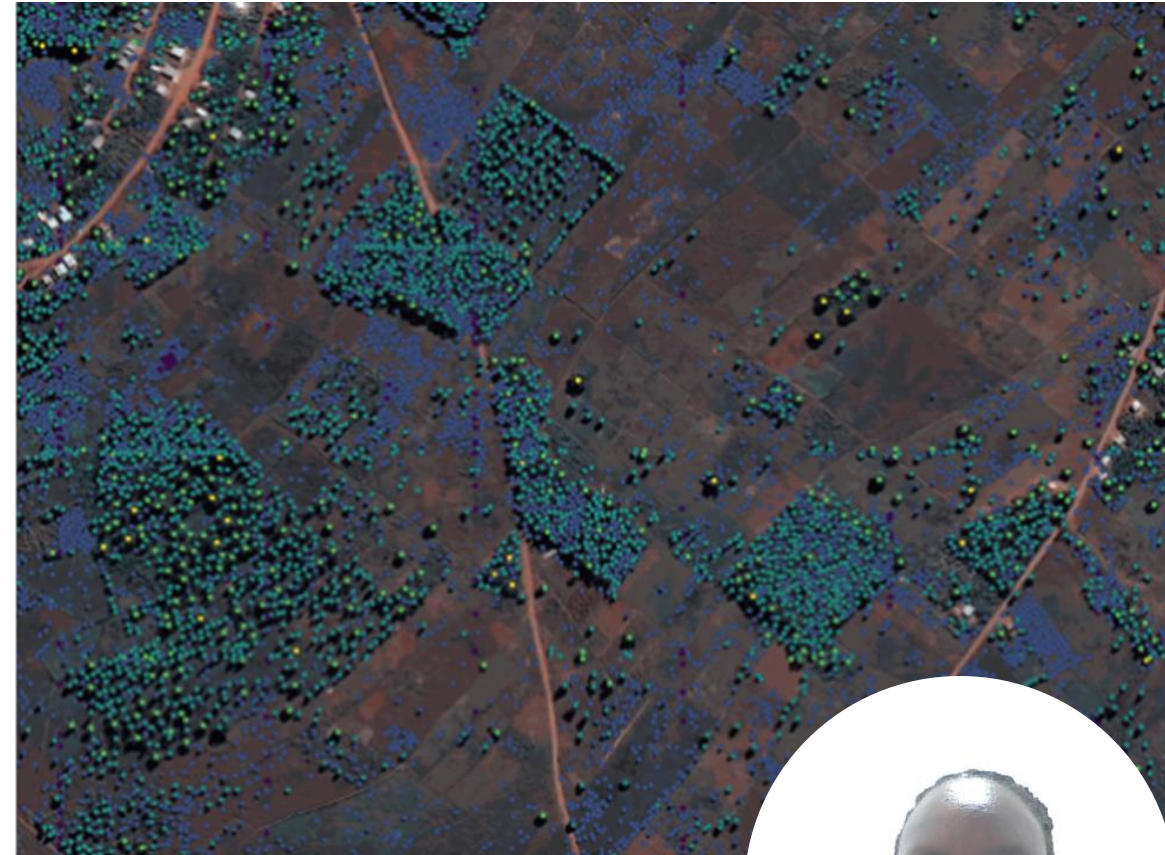
# What is Monitoring, Reporting, and Verification?

- **Monitoring:** The process of collecting and analyzing data and information to measure progress toward specific goals that the restoration effort aims to achieve.
- **Reporting:** Data collected from Champions through project, nursery, and site reports, which are submitted on TerraMatch in a standardized format every six months.
- **Verification:** Periodically subjecting reported information to some form of review, analysis or independent assessment to establish completeness and reliability.



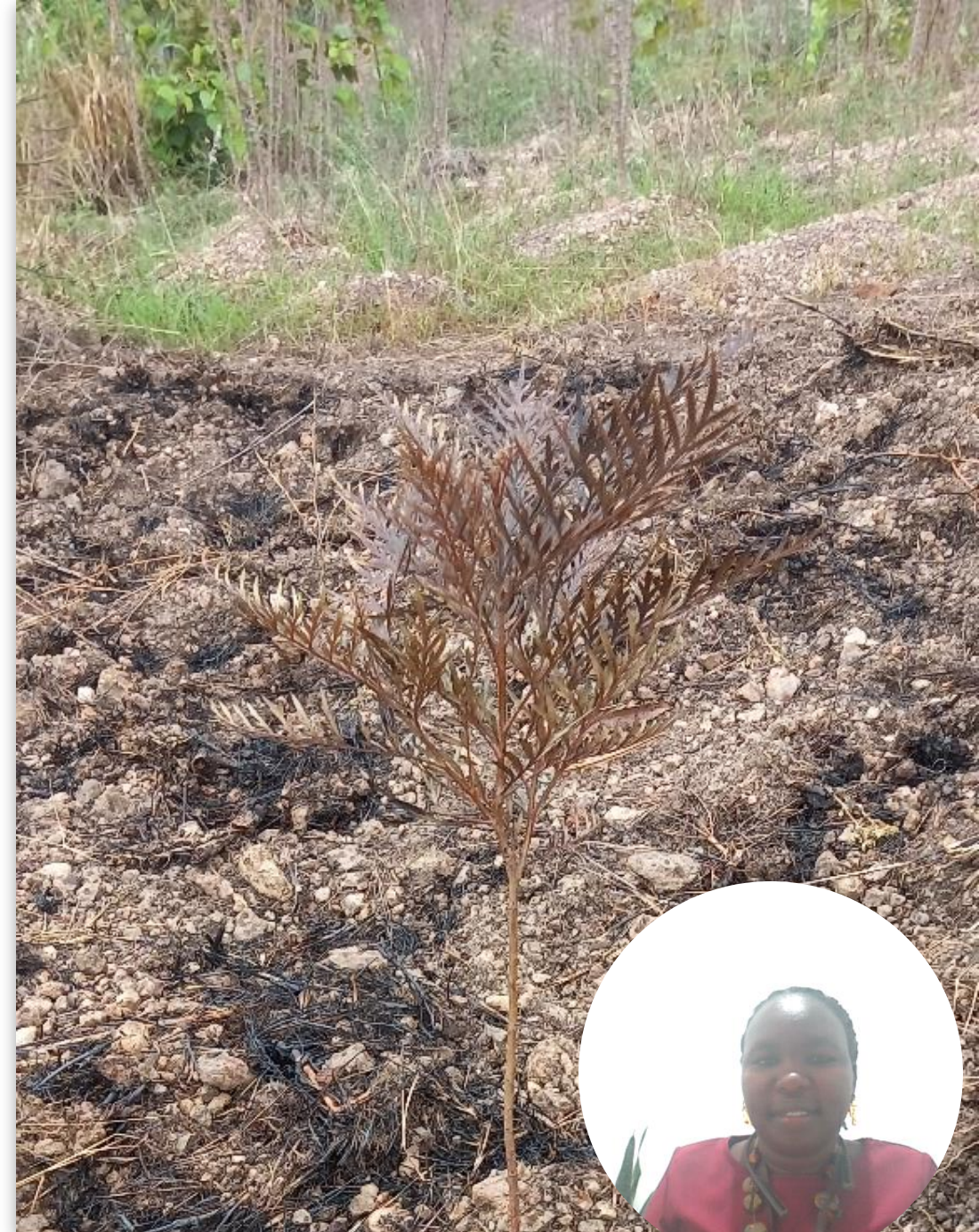
# Why We Monitor, Report, and Verify

1. Ensure that restoration activities meet their objectives
2. Identify and address challenges that may slow progress
3. Provide valuable information on progress and impacts to support individual projects and restoration efforts more broadly



# Why Does MRV Matter?

- It helps us answer key questions, like:
  - Are trees being planted?
  - Are they surviving?
  - Are local communities benefitting?
- Without MRV, TerraFund and restoration champions would be flying blind.



# Key Principles That Guide TerraMatch MRV

**Accuracy and Reliability:** TerraFund invests in robust technologies like GIS and remote sensing to ensure data is precise and trustworthy.

**Transparency:** Using TerraMatch champions share progress reports, structured data, and even challenges with implementation, building trust and accountability with their partners.

**Consistency:** TerraFund has standardized its data collection and reporting methods across its portfolio of projects, helping us identify trends.

**Inclusivity:** Champions engage local communities, women, and youth in MRV, ensuring that diverse voices shape restoration outcomes.



# TerraMatch MRV Framework



# TerraMatch Core Indicators

## Tier 1: All Projects

### **Trees grown**

The total number of trees planted and grown

### **Hectares under restoration**

Total hectares with active restoration intervention

### **Jobs created**

Number of newly employed people and volunteer opportunities created

### **Livelihoods benefitted**

Number of local community members supported or receiving benefits from restoration

### **Community engagement and leadership**

Percentage of projects that are locally-led and/or empowering marginalized communities in decision making

### **Financial performance**

Tracks financial performance and demonstrates the ability for both nonprofits and enterprises to manage investments and grow as institutions

## Tier 2: Selected, relevant projects

### **Carbon sequestered**

Metric tons of CO2 stored by project after 6 years.

### **Inclusive finance**

Percentage of projects and finance allocated to projects that are led by local people, women, and youth.

### **Market access**

Percentage of projects accessing market-based finance



# Trees and Land Indicators

## Trees Grown

Total number of trees restored across all sites, across the entire project after 6 years

- Self-Reported Planting #s:
  - # seedlings grown in nurseries by species
  - # trees planted on each site by species
  - % survival rate of planted trees
- Remote Sensing and Field Verification: Baseline, year 3, and year 6
  - # trees field verification
  - # trees remote sensing sampling
  - % Tree cover

## Land restoration

- Hectares under restoration (polygons)
  - # hectares by target land use
  - # hectares by restoration practice
- Percentage tree cover change



# Jobs Indicators

## Jobs created

Number of people who have been newly, directly employed by the project during the reporting period

- # people working full-time jobs (35+ hours) on the project per week
  - # women, # men, # youth
- # people working part-time jobs (<35 hours) on the project per week
  - # women, # men, # youth
  - Includes temporary, casual, and seasonal employees
- # newly engaged volunteers
  - # women, # men, # youth



# Financial Indicators

## Financial performance (over time)

Tracks financial performance and demonstrates the ability for both nonprofits and enterprises to manage investments and grow as institutions

All Organizations: External Finance Catalyzed- New additional funds leveraged

- Not-for profit:
  - Budget execution rate
  - Change in organization operating budget
- Enterprises:
  - Annual audited financials
    - Net Profit Margin
    - Gross & Percent change in Revenue
    - Current Ratio
  - Online repayment tracker, updated weekly
    - % enterprises repaying loans on time
    - % finance repaid by borrowers

## Inclusive finance (once beginning of project)

Percentage of projects and finance allocated to projects that are led by local people, women, and youth.

- % finance allocated to women-led organizations
- % finance allocated to youth-led organizations
- % finance allocated to local organizations

## Market access (once)

Percentage of projects accessing market-based finance.

- % projects accessing market-based finance.
- % total finance allocated as debt or equity
- \$ external finance catalyzed for
- # external investments catalyzed



# Livelihoods Indicators and Narratives

## Livelihoods benefitted

Number of local community members directly supported or directly benefitting/receiving benefits from restoration, broken down by age, sex, and smallholder farmers and narratives

- # local community members supported or receiving direct benefits from restoration
  - # women, men, youth, smallholder farmers
- # local community members indirectly supported or receiving indirect benefits from restoration
- # people who received training or mentorship from the project



# Community Engagement & Leadership Indicators

## Community engagement and leadership

- % projects that are providing equitable opportunities for local women and youth to influence restoration activities and decisions
- % projects meeting minimum standards for community engagement
  - Based on efforts to support local community priorities



# Carbon Indicator: Selected Projects

## Carbon Sequestered

- Metric tons of CO<sub>2</sub> stored by project after 6 years.

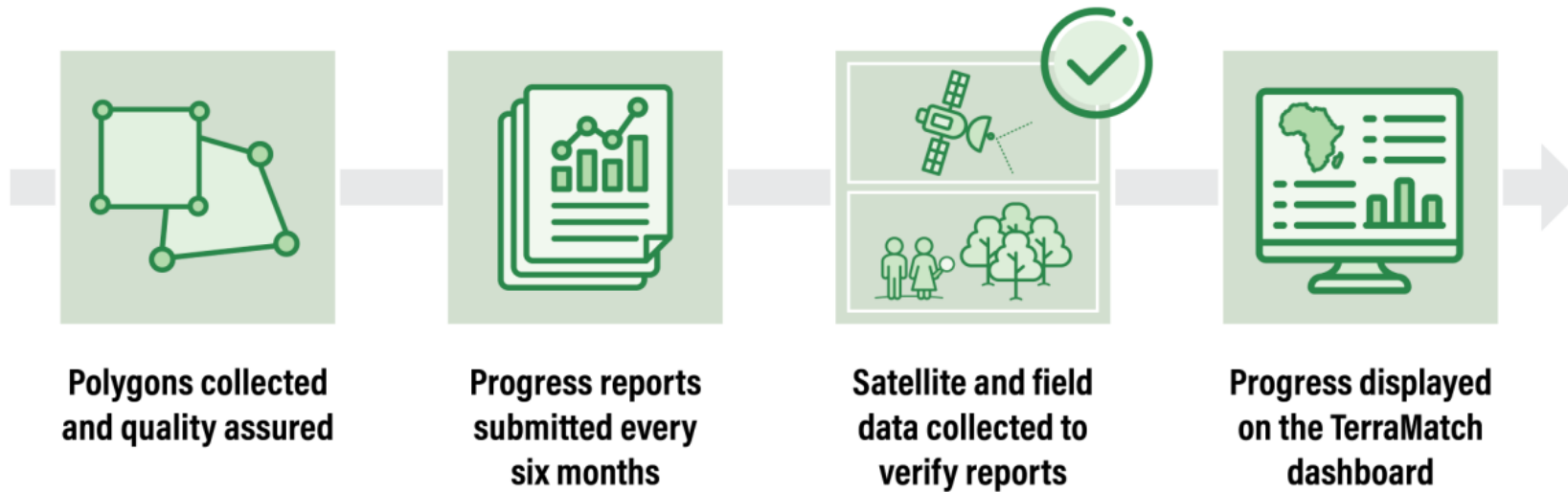




# MRV Drives the TerraFund Process



# TerraFund Monitors Every Project for 6 Years

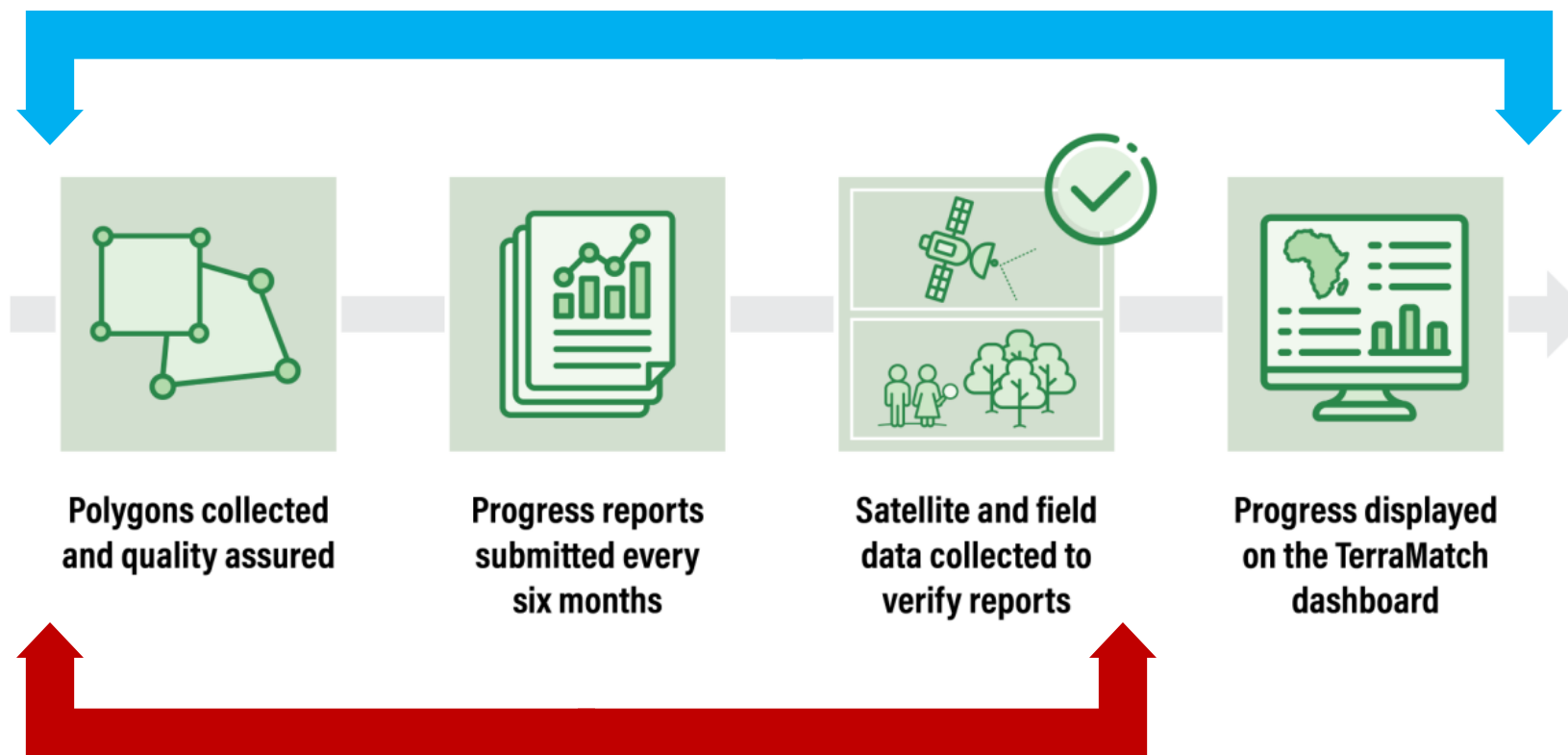


TerraFund monitoring runs through:



# TerraFund Monitors Every Project for 6 Years

The TerraFund Project Management & MRV team support this process



All Champions play a key role in this process

Submitting project information through:



# TerraMatch Dashboard: The World Can See Your Impact!

**TerraMatch Dashboards** BETA Last Updated on 2025-03-03

Landscape: All Data | Country: Kenya | Organization Type: All Data | Cohort: All Data | Clear Filters

TerraFund Top 100 > Kenya > Drylands Agroforestry Tree Planting Project - DNRC

Trees Planted <b>162,721</b>	Hectares Under Restoration <b>392 ha</b>	Jobs Created <b>159</b>
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### Drylands Agroforestry Tree Planting Project - DNRC

Operations: Kenya • Registration: Kenya • Organization: Non-Profit • Programme: TerraFund Top 100

#### Objective

Drylands Natural Resources Centre's primary goal is to promote sustainable, resilient communities in the drylands of Kenya. DNRC equips smallholder farmers with skills to restore their degraded land, secure their way of life and make sure they have enough to eat. In the last 11 years, the group has expanded from 27 to 800 farmer households, and from engaging one school to 12.

Map: Mbumbuni

- Non-Profit Projects (1)
- Enterprise Projects (0)

Navigation: DASHBOARDS, PROJECT LIST, PROJECT INSIGHTS, IMPACT STORY, LEARN MORE, EN

Inset: Woman speaking

Visit: [www.terramatch.org/dashboard](http://www.terramatch.org/dashboard)

## In summary, MRV ensures projects:

- Make progress and that progress is tracked
- Learn as they go, and
- Show their impact to funders and communities

**MRV is the backbone of TerraFund.**





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