

Regreening Africa Impacts and Lessons

30th March 2023

Niclas Gottmann

Presenting the work of the entire Regreening Team



Landscape restoration provides multiple outcomes for biodiversity, climate adaptation and mitigation and livelihoods



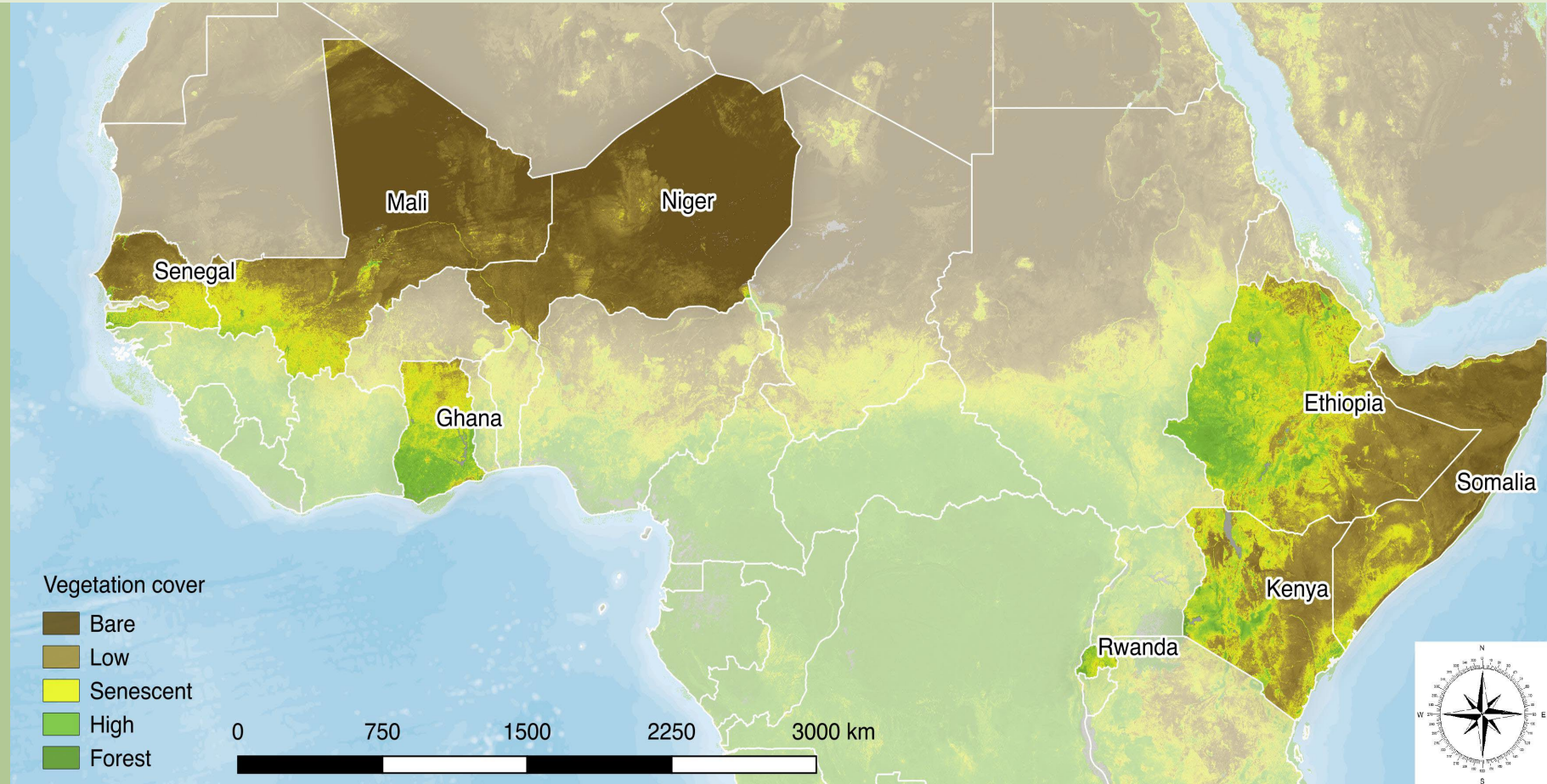
Regreening Africa



Restore 1 million hectares to improve the livelihoods, food security and resilience of 500,000 households



Incorporating trees into croplands, communal lands and pastoral areas with complimentary sustainable land management practices, value chains and policy



Regreening Africa

Achievement



500,000

540,000

207,800

160,600

HHs: target

HHs: reached to date

HHs: through leveraging – to be verified

HHs: uptake verified through surveys

(on average 83% of direct target in 4 years)



1,000,000

905,000

467,800

222,400

Ha: target

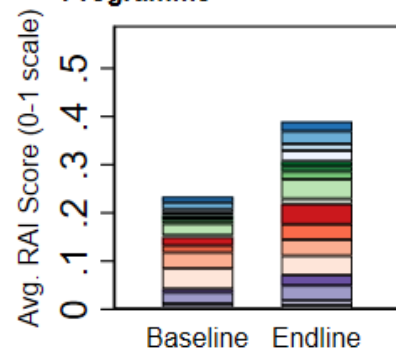
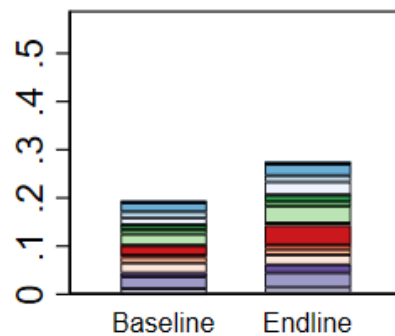
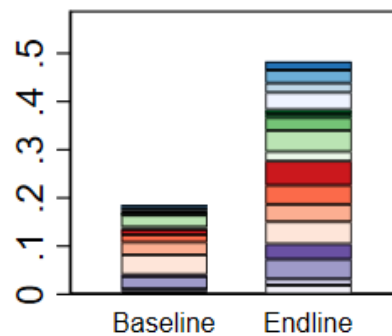
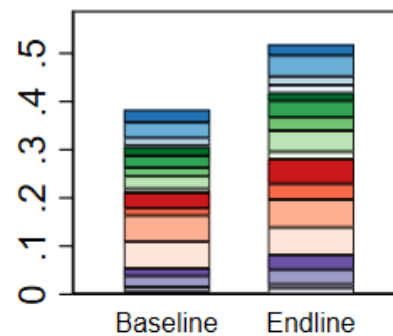
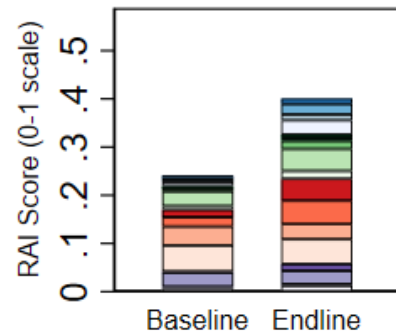
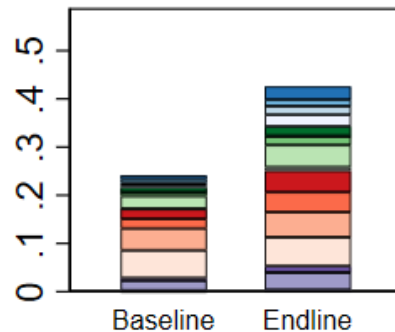
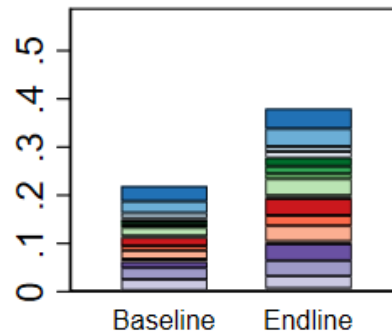
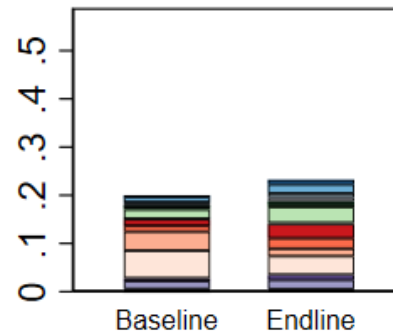
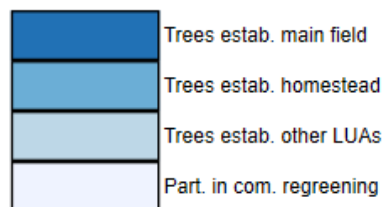
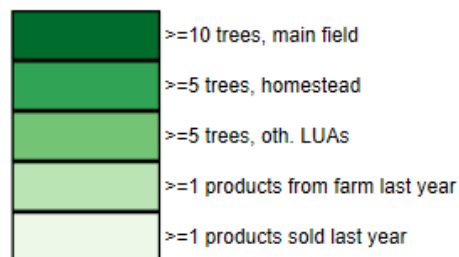
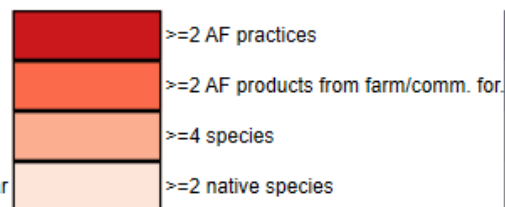
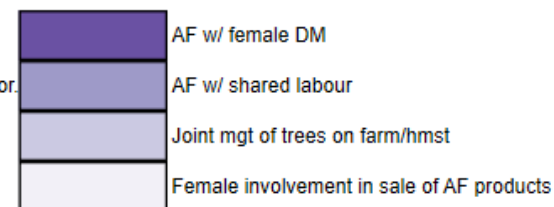
Ha: confirmed reached to date (to increase)

Ha: through leveraging – to be verified

Ha: uptake verified through surveys

(on average 61% of direct target in 4 years)

Estimated 59 Euro/hectare in first 4 years

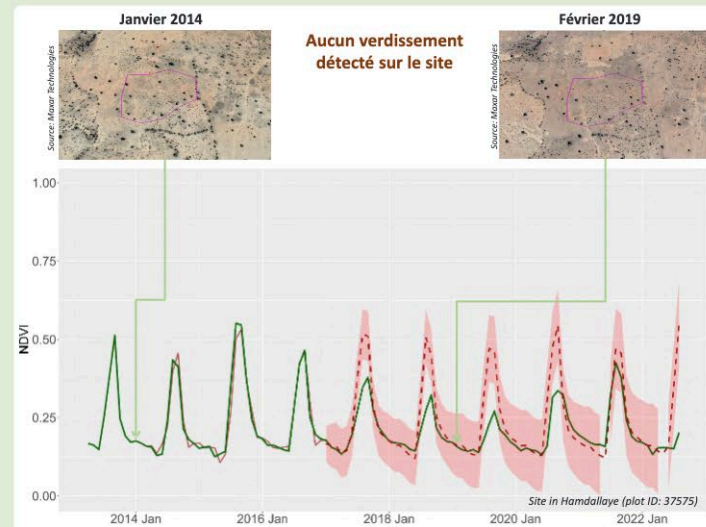
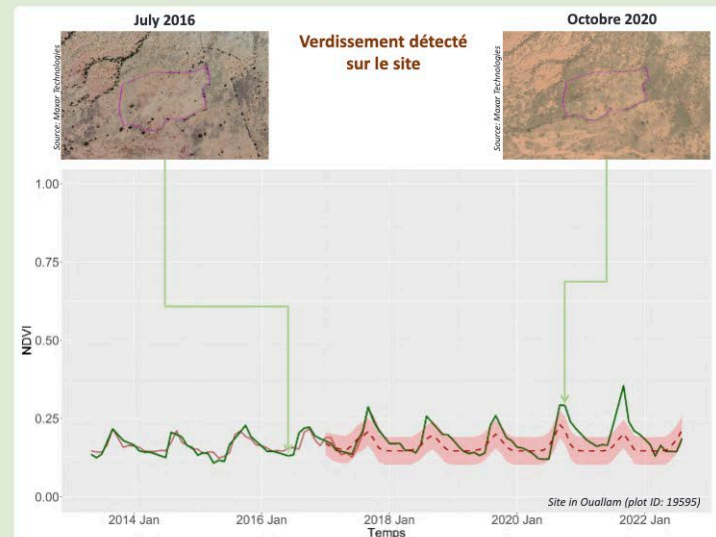
**Programme****Ethiopia****Ghana****Kenya****Mali****Niger****Rwanda****Senegal****Extent of Practice****Intensity of Practice****Diversity of Practice****Intra-household Equity**

AF = Agroforestry
DM = Decision Making
LUA = Land Use Area

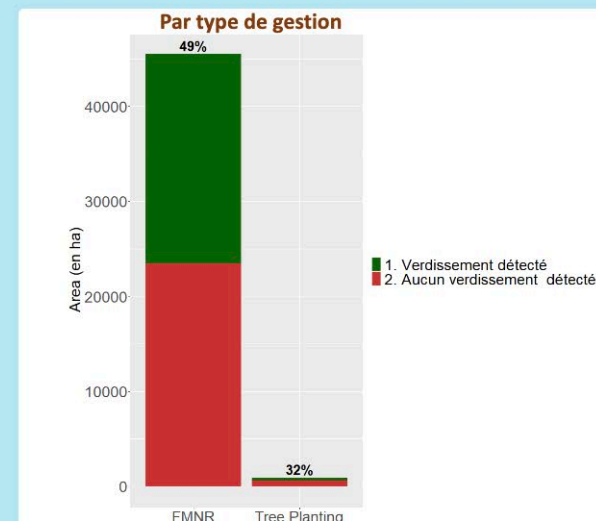
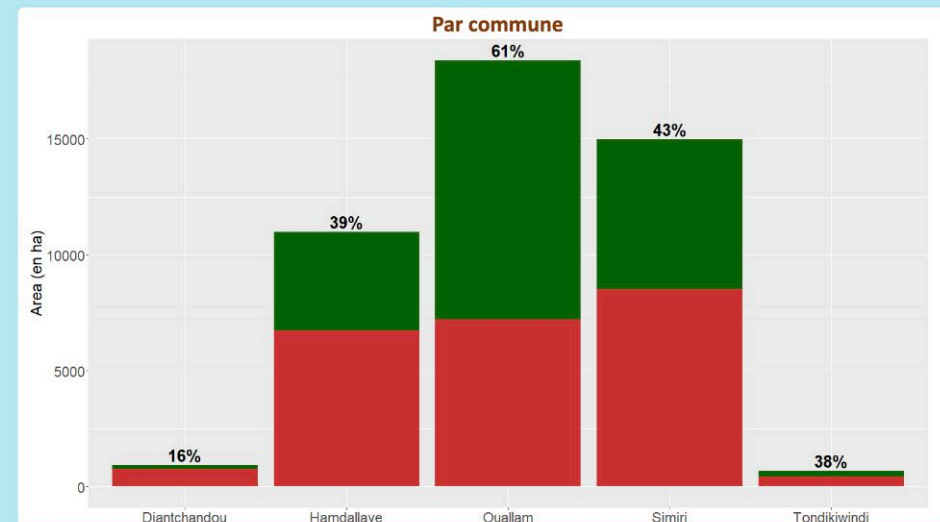


ÉVALUATION DE REVERDISSEMENT DE "REGREENING AFRICA" AU NIGER

VÉGÉTATION RÉELLE (VERTE) VS PRÉVUE (ROUGE) AU NIVEAU DU SITE



RÉSUMÉ: SUPERFICIE TOTALE SURVEILLÉE PAR RAPPORT À LA ZONE OÙ LE VERDISSEMENT EST DÉTECTÉ

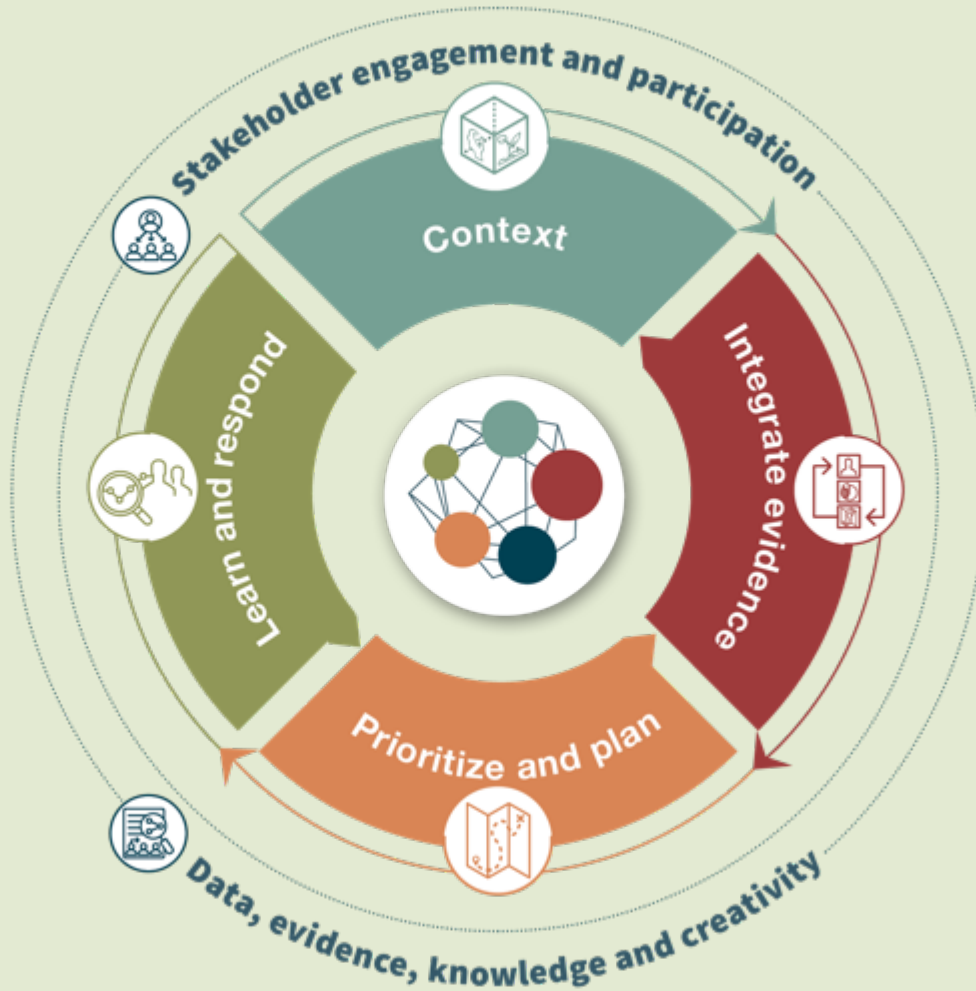




MATCHING PRACTICES TO CURRENT AND FUTURE LOCAL CONTEXTS



SHARED framework



- The SHARED Decision Hub is a collective of stakeholder engagement, behavioural specialists and transdisciplinary scientists
- SHARED works within Regreening Africa to strengthen the linkages across science, practice and policy and across countries.
- Focuses on **relationships, tailored engagement** and breaks down the complexity within the programme to **sequence these engagements and access to evidence** to technically backstop both the implementation learning and policy entry points.





Viabale and promising regreening options identified for targeted scaling sites

1. Farmer Managed Natural Regeneration/Assisted NR:

- Farmlands, pastoral areas (PMNR),
- Communal areas exclosures/ enclosures

2. Tree planting and growing:

- Enrichment planting in FMNR plots + High value trees (FMNR++)
- On farm boundaries, contour plans, homesteads, fodder banks, woodlots, fruit orchards
- Planting in public spaces: road sides, communal hills, parks, schools
- Direct seed sowing
- Grafting in nurseries or in the field

3. Home gardening: leafy vegetable like moringa and baobab; fruits

4. Soil and water conservation

5. Fire and grazing management





WORKING THROUGH LOCAL STRUCTURES AND PROCESSES

Project stakeholders equipped with new knowledge, skills, tools and resources to promote regreening options

Advisory models

- Transfer of Technology (ToT) e.g., direct farmer trainings
- Leader-farmer-trainer or farmer-to-farmer approach
- CBOs or community networks-based scaling approach e.g., Saving groups, Church groups, youth soccer tournaments, community forest associations





ADDRESSING DRIVERS AND INCENTIVES FOR RESTORATION



Targeted agroforestry value chains assessed and provided with relevant regreening support

Ghana – Fuel wood/charcoal and shea

Rwanda – Fruit trees, timber, beekeeping, nurseries

Kenya – Fruit (avocado/mango/pawpaw),
beekeeping, moringa

Ethiopia – Honey, gesho leaves, bamboo furniture,
seedlings and wood (poles/firewood)

Mali – Shea, soumbala (nééré), baobab leaf, honey,
tamarind, balenites

Senegal – Baobab fruit

Niger – *Ziziphus mauritiana*, moringa, *Balenites
aegyptiaca*

Somaliland – fodder, fruits

Puntlands – agroforestry, pasture and fodder, fruit

Value Chain Strengthening

- Value chain scoping assessments
- Product bussiness plans preparation
- Technical Guides
- Improving resource base for primary producers
- Processing equipment, packaging & shops
- 18 enteprise types in countries supported
- National linkage forums, local fairs, links with MFI, Saving4change



Addressing key bottlenecks and challenges

- Aging parkland & resource degradation
- Technical support: germplasm, varieties
- Processing, quality standards, equipment & tools
- Infrastructure, energy, transport
- Finance access, **local regulations**



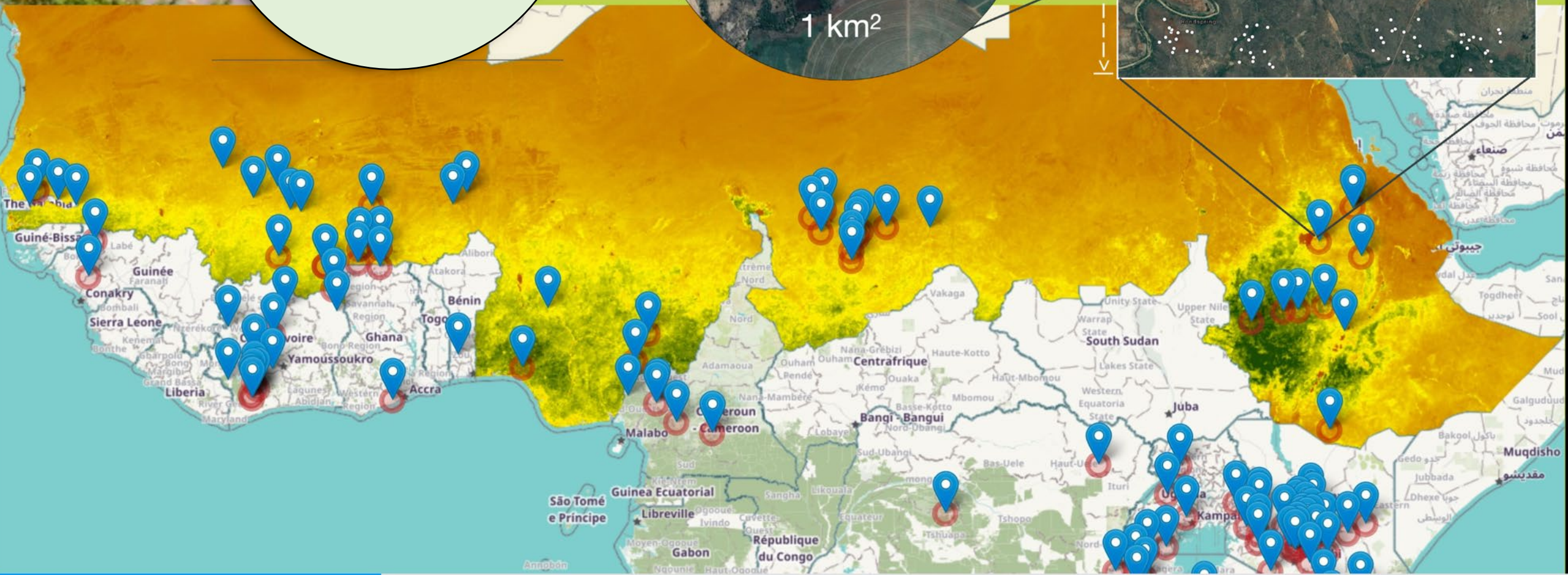
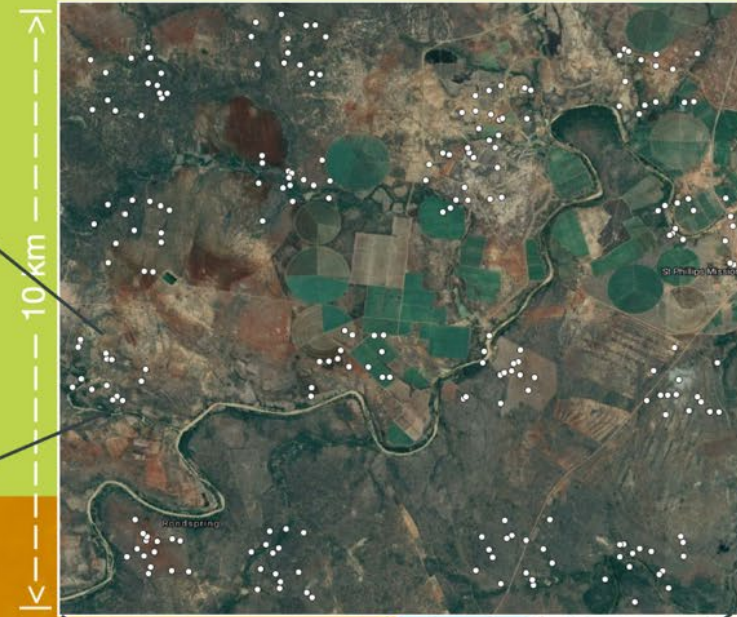






**INTEGRATING SCIENCE AND
EVIDENCE TO MAGNIFY IMPACT**

**Land Degradation
Surveillance
Framework (LDSF)**
Land health data
and at high
accuracy



COMBINING MULTIPLE METHODOLOGIES TO ASSESS LAND DEGRADATION AND TARGET RESTORATION INTERVENTIONS

Remote sensing



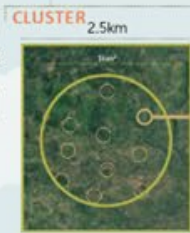
Remote sensing data, coupled with on-the-ground measurements, enables robust spatially explicit assessments of key indicators.

Systematic field sampling - using the LDSF



Assessing soil and ecosystem health using data collected using the Land Degradation Surveillance Framework (LDSF)

The LDSF uses a nested sampling design to monitor key soil and land health indicators. Each site is 100 km², with 160-1000m² sampling plots.



Each plot consists of four sub-plots [100m²].

Citizen science using the Regreening App



Geo-referenced data tracking implementation of land restoration activities on the ground using the Regreening App.

Engaging stakeholders in data collection - to track interventions and their impact

Interactive dashboards to review multiple sources of evidence for decision making



THE REGREENING AFRICA APP



The **Regreening Africa App** is a mobile-based android application that allows users to collect data at farm level on a range of land restoration practices that allows for robust landscape level monitoring.

Features of the Regreening Africa App



TREE PLANTING MODULE

- Record details of farmers and regreened plot
- Characterise species composition and assess tree planting practices
- Track tree growth
- Field boundary recorded
- Number of trees planted
- Date(s) planted
- Location of trees planted
- Survival of trees



FARMER MANAGED NATURAL REGENERATION (FMNR) MODULE

- Record details of farmers and regreened plots
- Characterise dominant species composition
- Assess FMNR practices



NURSERY MODULE

- Ensuring that farmers have access to quality planting materials and a wide range of species for tree planting
- Record nursery information and location
- Record nursery practices
- Record nursery production

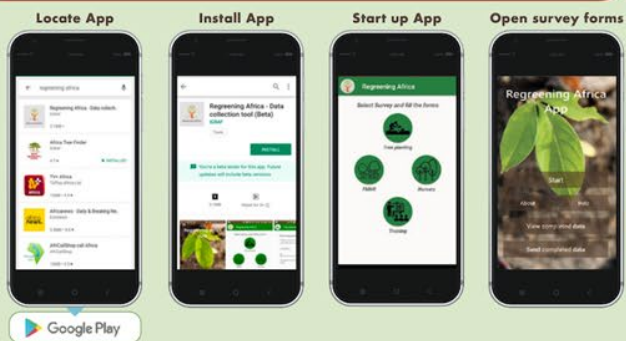


TRAINING MODULE

- Record training details
- Record gender participation in training sessions

Why do we need it?

The Regreening Africa App links land restoration activities implemented by farmers and pastoralists to large global initiatives, providing evidence that can positively inform these efforts, whilst simultaneously assessing their effectiveness on the ground.



What is unique about the Regreening Africa app?



The App is a data collection and monitoring tool. The information collected can be integrated into various types of analytics and combined with information on land health and other thematic data.



The App enables stakeholders including farmers to record and track their land restoration practices. The locations of their activities are geo-referenced and species diversity and growth are recorded in real-time.



Data collected through the App is freely and instantly available to the users and various outputs from the synthesis of the data, such as critical land health indicators, are then shared with the public through the Regreening Africa Dashboard.



The App is continually updated and the design and interface amended, based on farmers, extension agents and project implementing teams to add requested data and ensure the design and functionality match the user needs.



The Regreening App was developed in close consultation with stakeholders, with continual interaction between the World Agroforestry development team and users.



Project implementers are able to use the data for real-time decision support in project implementation and monitoring.

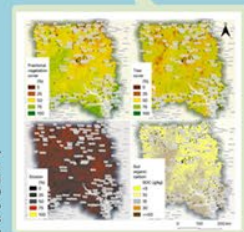


Data collected using the App is combined with spatial assessment of land health and can be applied in soil carbon monitoring, relating directly to climate neutrality goals or restoration targets.

Regreening Africa app process



Examples of indicator maps for northern Ghana, the maps are generated for each country at 30 m spatial resolution to assess spatial variations and changes over time



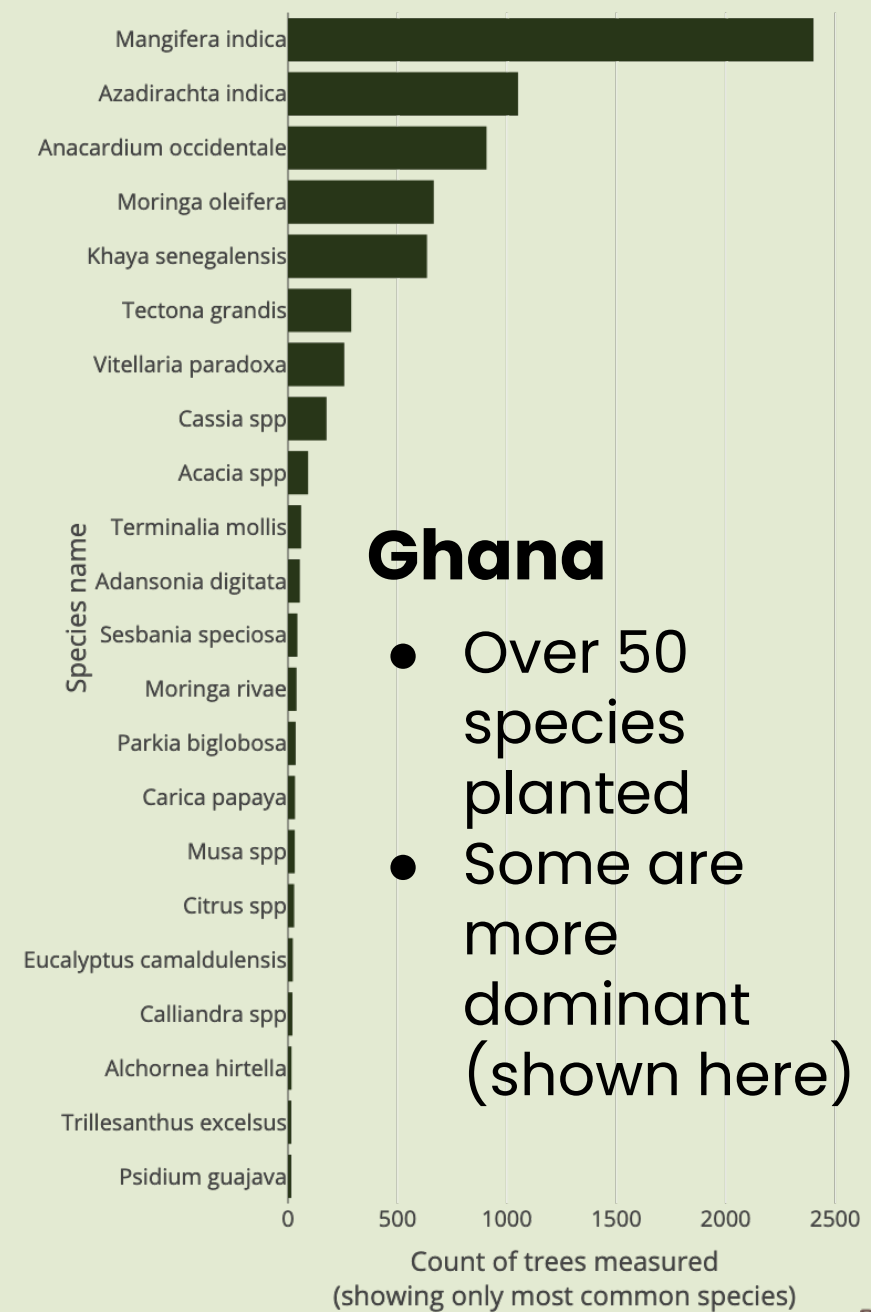
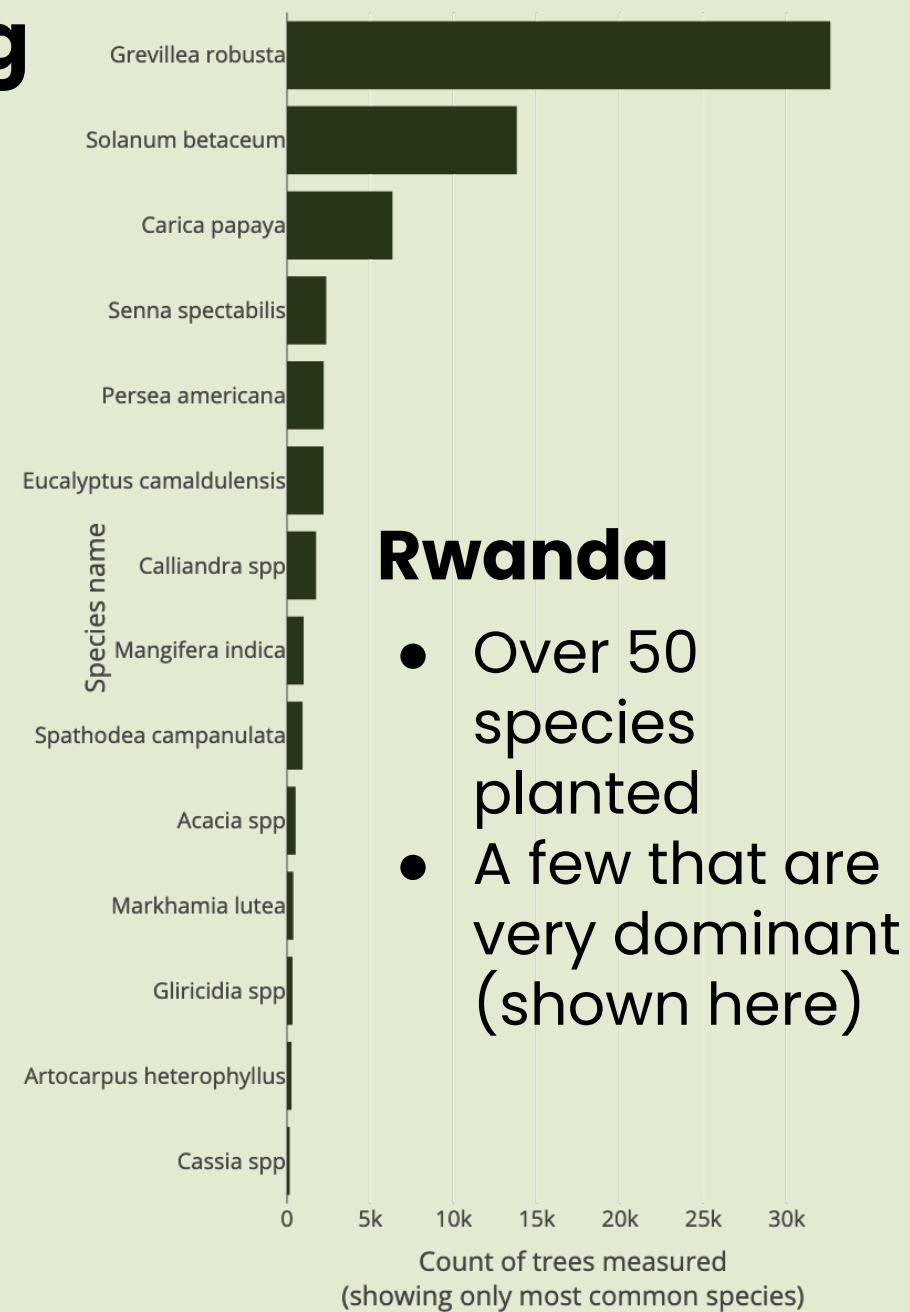
Regreening App

Citizen science data collection using the Regreening Africa App has allowed us to scale data collection to over 200,000 farmers.

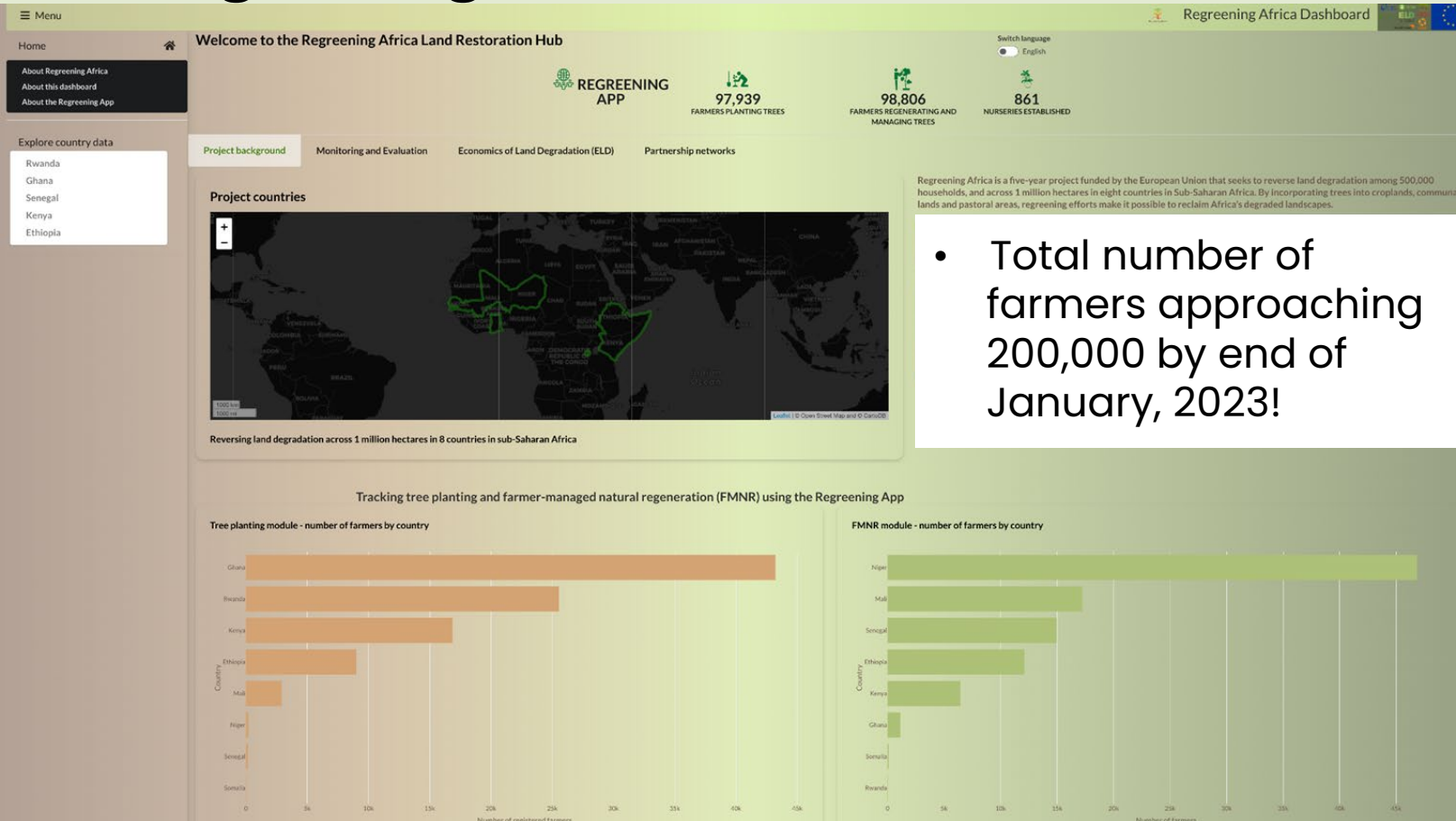
<https://play.google.com/store/apps/details?id=org.icraf.regreeningafrica&hl=en&gl=US>

<https://regreeningafrica.org/in-the-news/the-regreening-africa-app/>

Tree planting data from the Regreening App: tree species

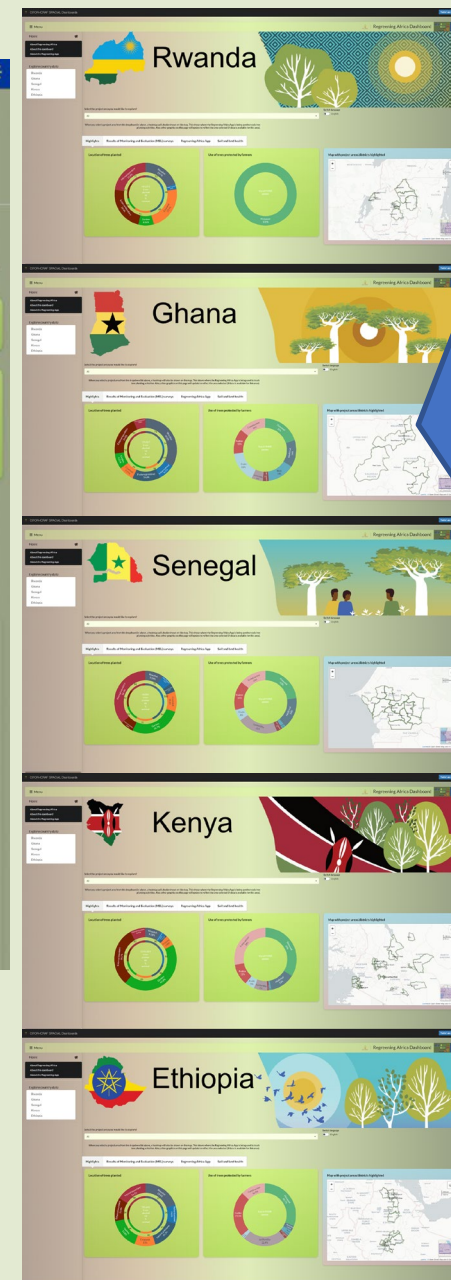


The Regreening Africa Dashboard



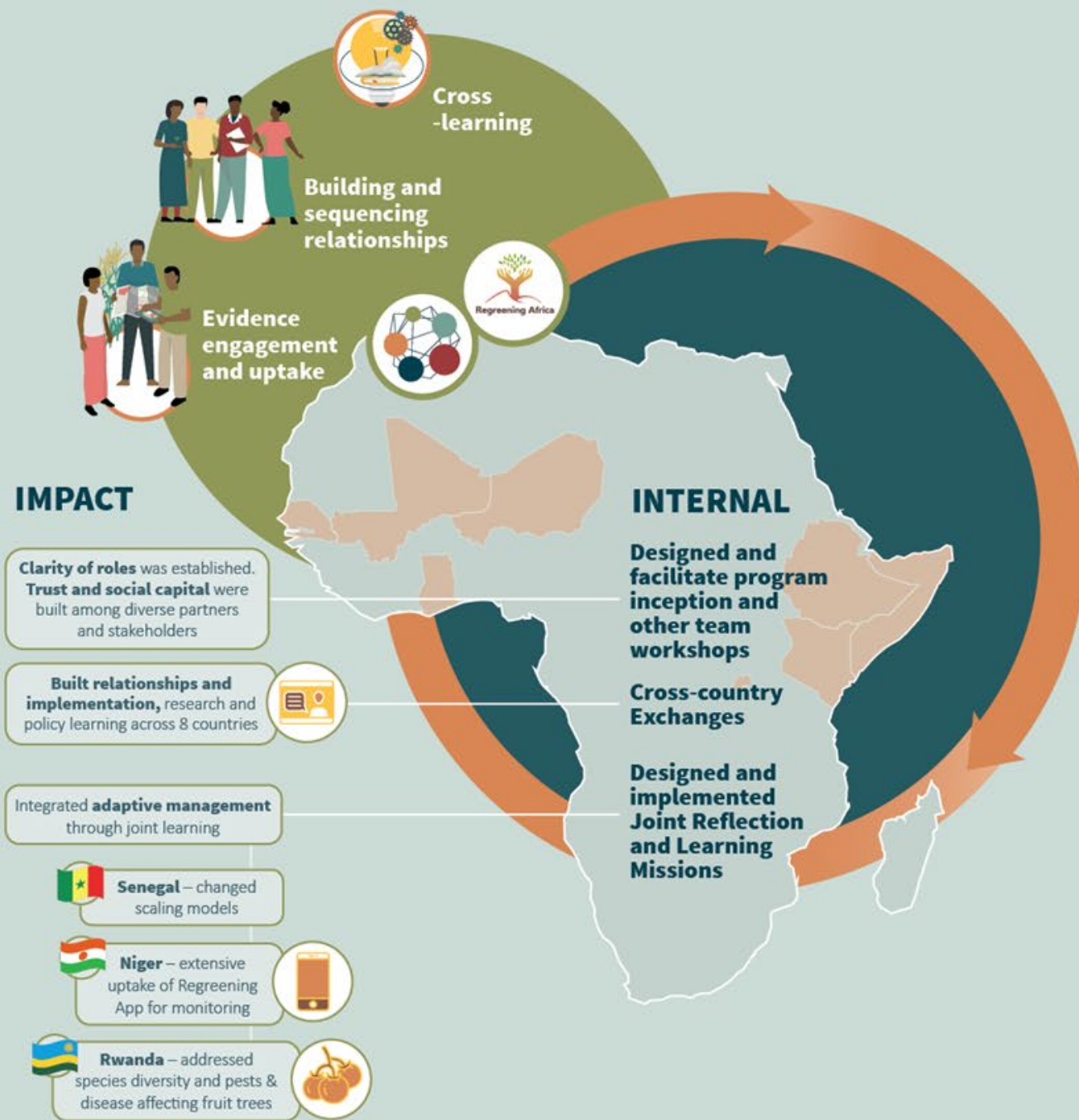
- Total number of farmers approaching 200,000 by end of January, 2023!

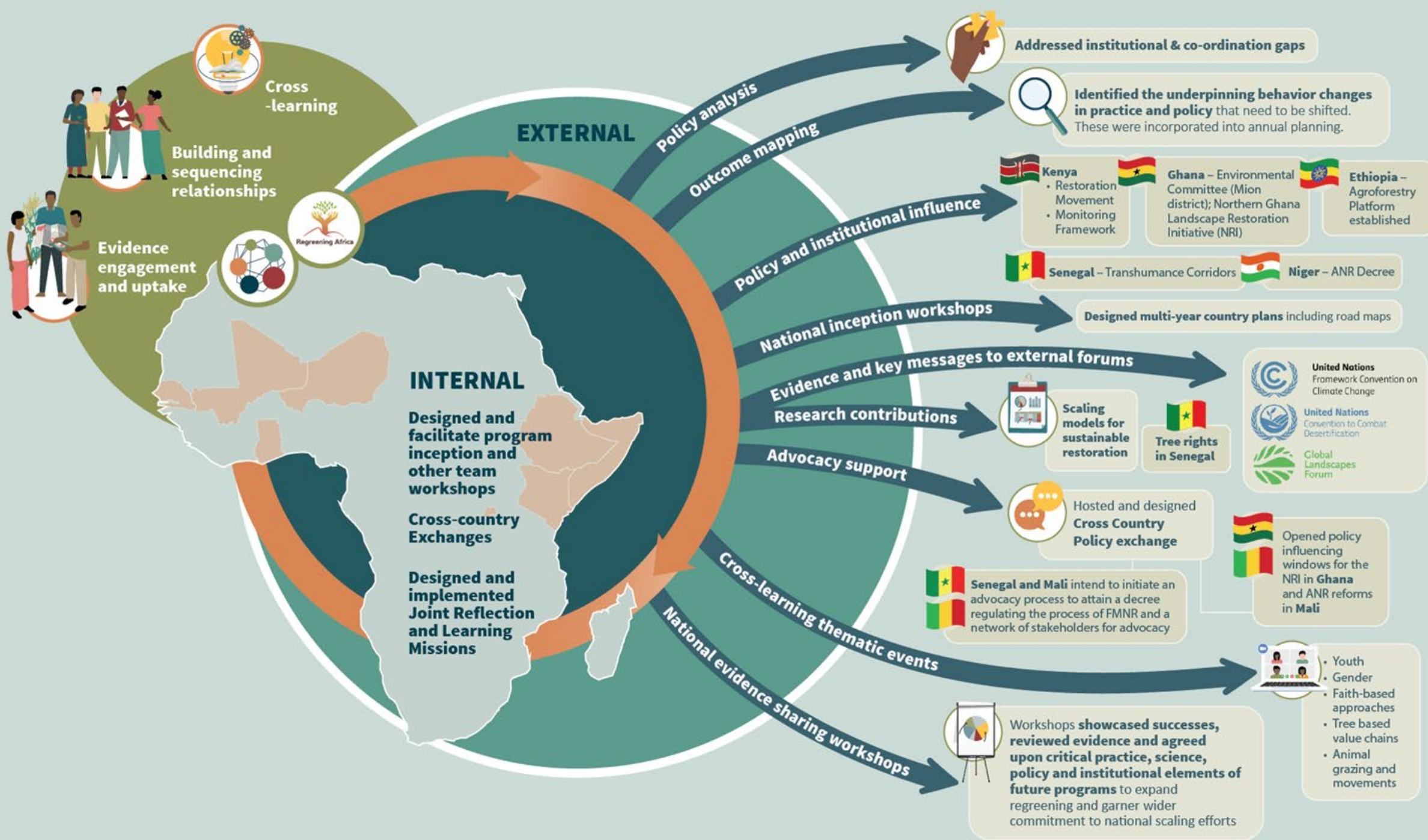
- Platform to unify and bring together data, evidence and learning from the different project components.
- Regreening Africa dashboard: https://dashboards.icraf.org/app/ra_dashboard



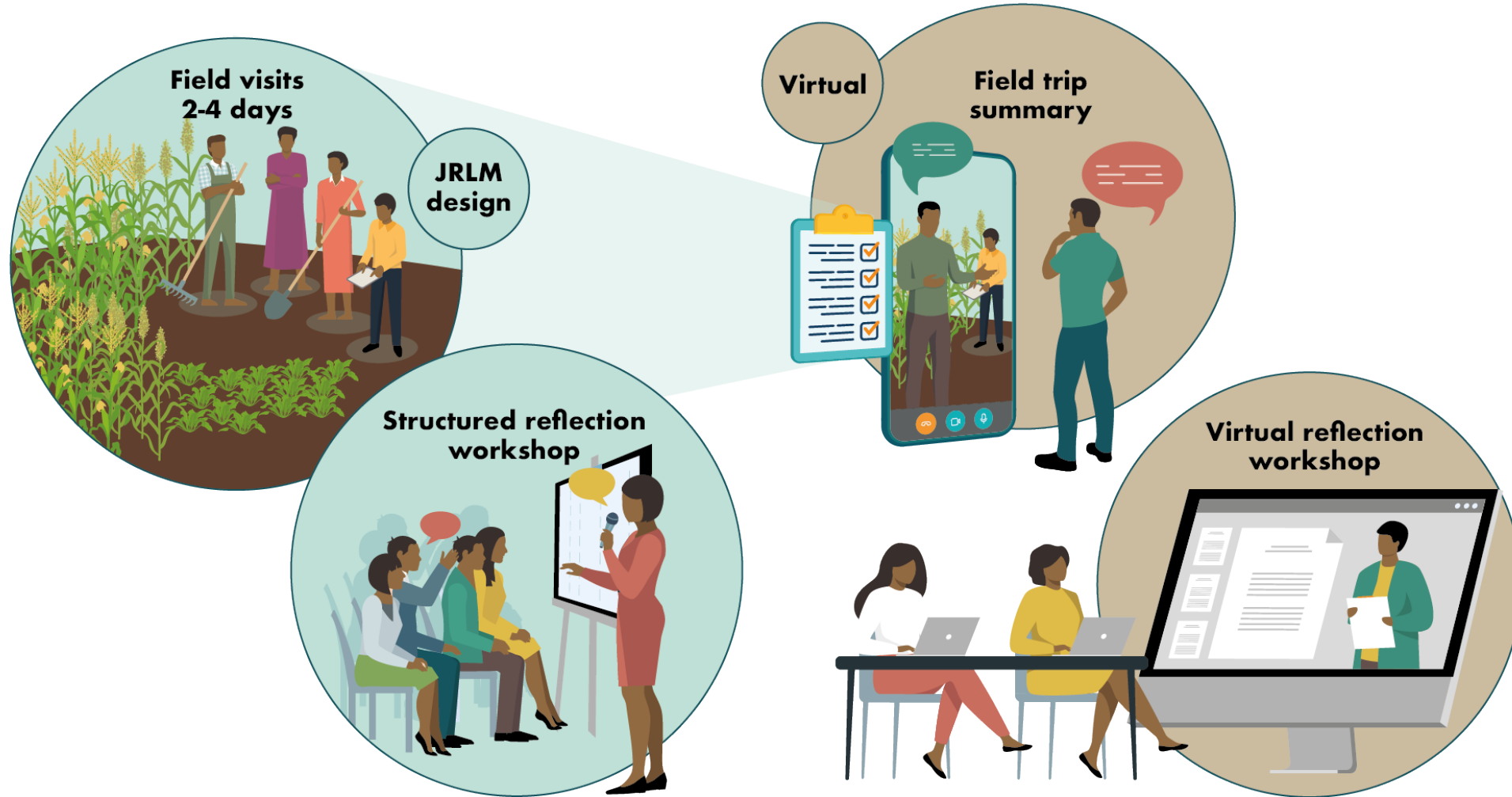
- Country pages
 - Summary of MEL results
 - Data from the Regreening Africa App

- Tools to interactively explore soil and land health data and maps

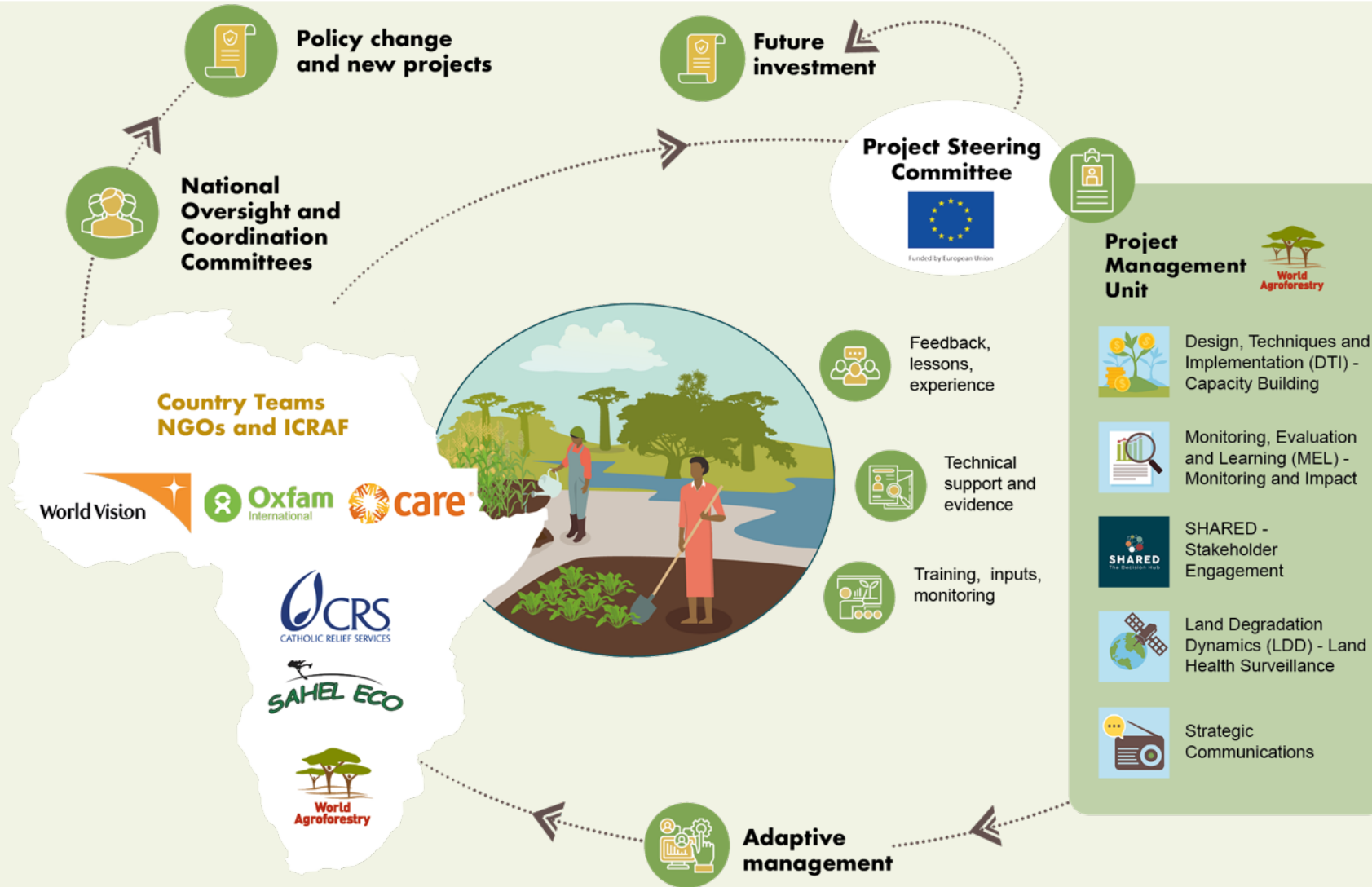




ADAPTIVE MANAGEMENT AND EVIDENCE INTEGRATION



STRENGTHENING PARTNERSHIPS AND INCLUSION





GENDER TRANSFORMATIVE APPROACHES



**YOUTH AT
THE CENTER**

Ingredients of success

1. Addressing drivers and incentives for restoration
2. Working through local structures and processes
3. Matching practices to current and future local contexts
4. Integrating science and evidence to magnify impact
5. Strengthening partnerships and inclusion





Thank You! Merci!

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