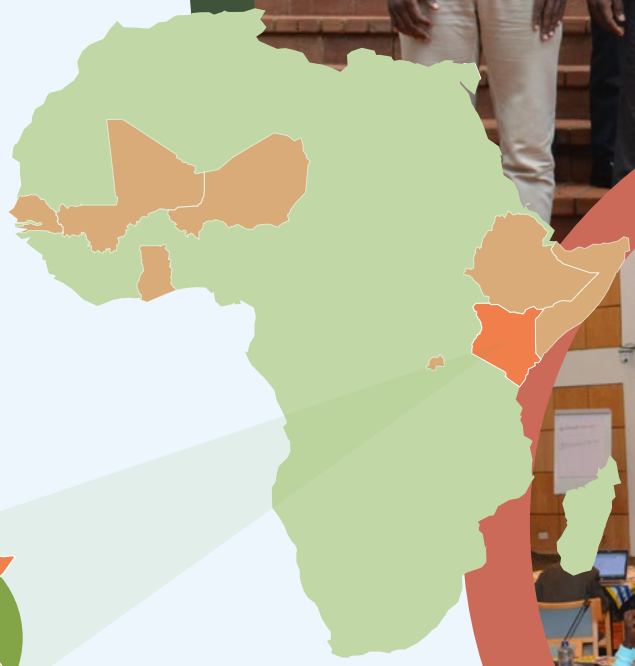
Regreening Africa



REGREENING AFRICA

Inclusive and Evidence-Based Approaches to Accelerating Land Restoration in Kenya

STAKEHOLDER WORKSHOP NOVEMBER 22-23, 2022
NAIROBI, KENYA

Funded by European Union · CIFOR · World Agroforestry · World Vision · CRS Catholic Relief Services · care · Oxfam International · SAHEL ECO · ELD The Economics of Land Degradation

Contents

Workshop Overview	1
Workshop Objectives	1
Participants	2
Overview Presentations of Regreening Africa Programme	2
Key Lessons, Challenges, and Opportunities in Kenya	8
Workshop Opening	11
Gathering Perspectives	13
Interactive Session on Evidence and Experience	14
Key interventions	17
FMNR steps	19
The asset-based community driven approach (ABCD)	19
Lessons learned and long term challenges	20
Value chains	21
Monitoring - evidence, exposure, and adaptation of regreening initiatives and lessons learned	22
Regreening Africa App	29
Regreening Africa dashboard	27
Evaluating Regreening Africa in Kenya: Monitoring from the sky	35
Land degradation dynamics (LDD) indicator maps in western Kenya	37
Visioning the Scaling of Land Restoration	39
Group work - incentives and disincentives	41
Country programme successes and lessons learned	45
Innovative regreening approaches	50
Panelist conversation - perspectives on scaling land restoration in Kenya: A science, community, practice, policy and investment dialogue	51
Celebration of co-creation and commitment	55
Individual/personal commitments	56

Acronyms

ABCD	Asset-Based Community Driven Development
ANR	Assisted Natural Regeneration
ASAL	Arid and semi-arid lands
CBO	Community Based Organization
CFA	Community Forest Association
CSO	Civil Society Organization
CRS	Catholic Relief Services
ELD	Economics of Land Degradation
FMNR	Farmer Managed Natural Regeneration
FOLAREP	Forest and Landscape Restoration Implementation Plan
HH	Household
ICRAF	The International Council for Research in Agroforestry
KEFRI	Kenya Forestry Research Institute
KES	Kenyan Shilling
KFS	Kenya Forest Service
LDSF	Land Degradation Surveillance Framework
NGO	Nongovernmental Organization
NRT	Northern Rangelands Trust
PMNR	Pastoralist Managed Natural Regeneration
SHARED	Stakeholder Approach to Risk-informed and Evidence-based Decision-making
SLM	Sustainable Land Management
USD	United States Dollar
WV/WVK	World Vision/World Vision Kenya

Regreening Africa

Workshop Overview

Regreening Africa held a 1.5 day Stakeholder Approach to Risk-informed and Evidence-based Decision-making (SHARED) workshop in Nairobi, Kenya from 22-23 November, 2022.

This workshop brought together a wide range of stakeholders and partners across local, national, and regional scales to showcase the evidence and achievements of the European Union funded Regreening Africa Programme, in Kenya. Additionally, existing and future programmes, strategies, policies, and resources regarding sustaining and expanding restoration efforts were identified and discussed.

SHARED
The Decision Hub

The SHARED process is a tailored method for stakeholder engagement, managing relationships, and brokering multi-stakeholder cross-sectoral partnerships. The SHARED process is founded on the principle of fostering evidence-based decision making.

Workshop Objectives

1. Showcase the Regreening Africa Programmes successes and learnings

2. Review and discuss the implications of the evidence and experience from 4+ years of implementation

3. Take stock of the current science, practice, policy, and institutional actions in Kenya that contribute to land restoration and multiscale commitments

4. Strategize how ongoing efforts in Kenya can be linked to further support large-scale restoration efforts

5. Action plan future programmes, strategies, policy entry points, and resources that need to be taken forward to expand land restoration at local and national scales

Participants

56 Attendees

19 women
37 men

4 farmers

9 government officials

41 partners and NGOs
2 Private Sector

Overview Presentations of the Regreening Africa Programme

Mieke Bourne Ochieng, Regreening Africa Programme Manager, overviewed the Regreening Africa Programme and shared 5 lessons learned over the years of implementation:

Regreening Africa is a 5-year programme (September 2017 – January 2023) funded by the European Union and implemented by a consortium of international nongovernmental organizations (NGOs), including World Vision (WV) and Catholic Relief Services (CRS), as implementing partners to The World Agroforestry Centre (ICRAF). In each programme country, there is a different collaboration of partners. Additionally, each country has a national oversight and coordination committee which links government priorities as well as local donor needs.

Regreening Africa

Land degradation affects 3.2 billion people globally. In Africa, over 65% of agricultural land is degraded. In response, Regreening Africa works to restore degraded lands and increase resilience across the continent. The programme is implemented in 8 countries (Ethiopia, Somalia, Kenya, Rwanda, Ghana, Senegal, Mali and Niger) and targets a total 500,000 households and 1 million hectares of land.

As of September 2022, Regreening Africa has reached

500,351 households and covered

853,918Ha of land across the 8 programme countries.

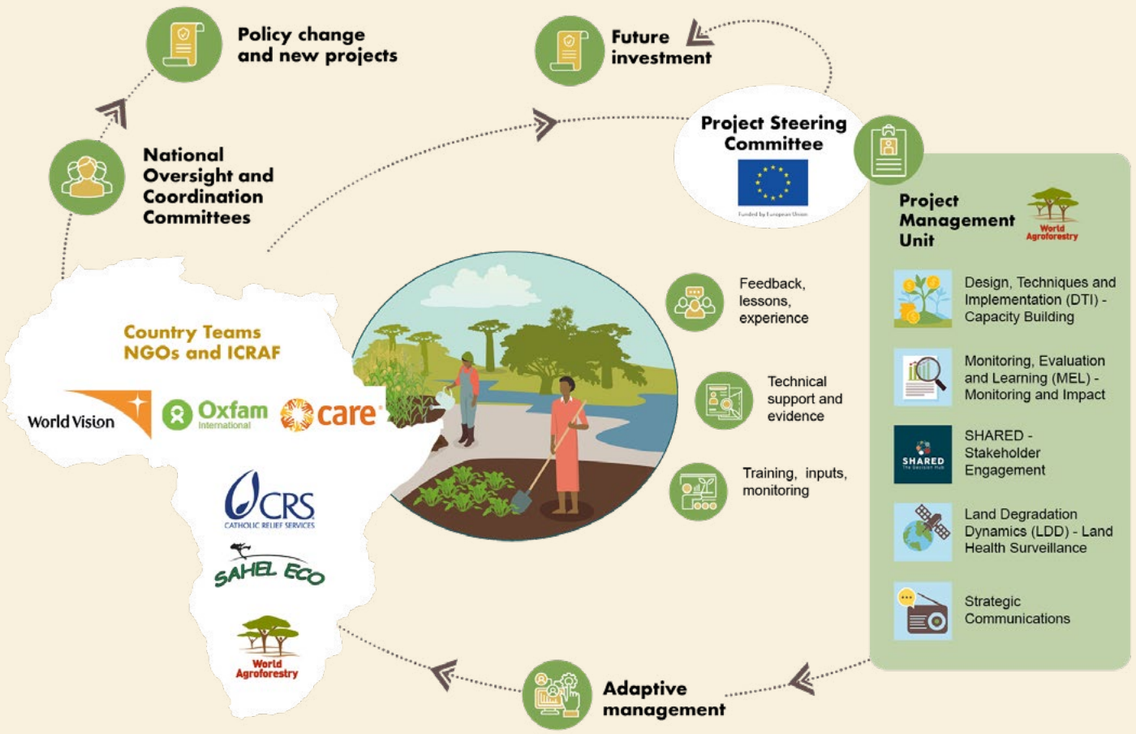


Figure 1: A unique programme structure

LESSON 1

Practices need to match the local context. If the practices do not work for the local community adoption will not take place. The success of nurseries, tree growing activities, grafting and direct seeding should not be based on the numbers of trees planted but rather on their diversity and survival in the long term.

Regreening Africa Programme Manager, Mieke Bourne Ochieng, presents a summary of the key lessons

Nurseries
(Including indigenous trees)

Farmer managed natural regeneration (FMNR), assisted natural regeneration (ANR)
(Big return on investment)

Tree growing
Grafting
Direct seeding

Niger
Soil and water conservation

Ethiopia
Exclosures

Regreening Africa

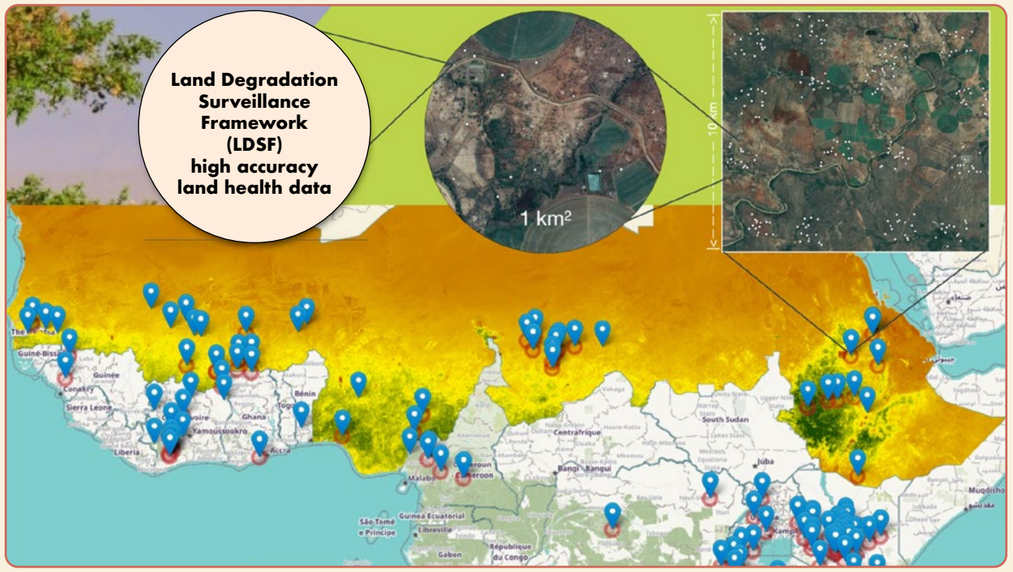


Figure 2: Land Degradation Surveillance Framework (LDSF)

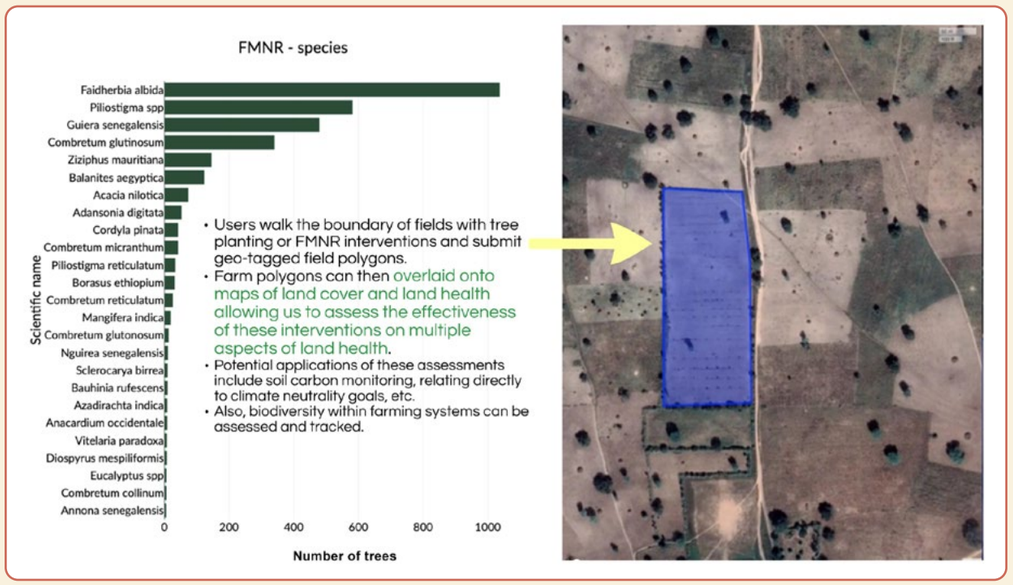
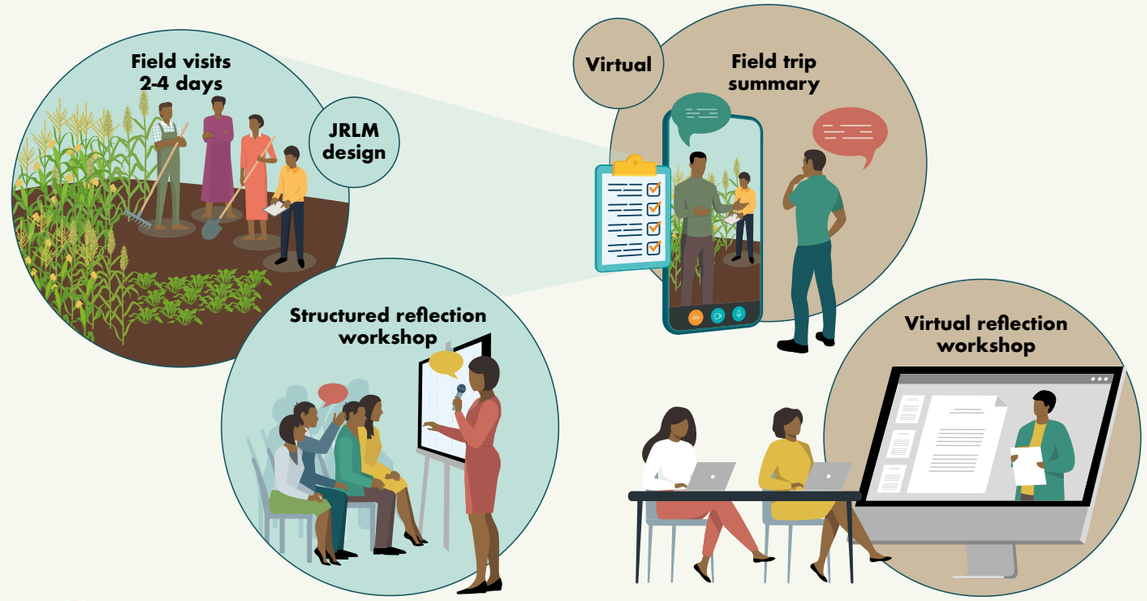


Figure 3: Example of FMNR species in West Africa

LESSON 2

Data should be accessible and available for adaptive management. Joint Reflective Learning Missions (JRLM) have strengthened the partnership between research, implementation, and community.



LESSON 3

Partnerships and inclusion are critical to programme success. There are lessons to be learned across the organization on including and empowering youth and women.

Photo: Workshop participants in Kenya

Regreening Africa

Key Lessons, Challenges, and Opportunities in Kenya

KEY INSIGHTS

1. Practices are varied and must match present and future local contexts.
   - Tree planting should not be the sole focus, it can be combined with FMNR. The trees need to come from quality nurseries and be planted where there is water and protection from grazing. We do not refer to tree planting anymore, we talk of tree growing. We are not planting trees so that they can die, we are planting trees so that they can grow, prosper, and benefit people and the land.
2. Address drivers of degradation and incentives for restoration.
   - Incentives for restoration can be used to increase productivity and resilience.
3. Bringing science, evidence, and monitoring to the global and local restoration agenda accelerates impacts on the ground.
   - By bringing information together from the Regreening Africa App, local knowledge, and to NGO experiences we are able to accelerate success. It helps to understand the area that needs focus, track what is working and what is not. Challenges can be identified and addressed.
4. Data should be accessible and available for adaptive management.
   - From local government, community perspectives, NGOs and scientists, regreening uses a shared approach to integrate evidence into planning and for adaptive management.
5. Partnerships and inclusion, including and empowering youth and women, is critical for effective and equitable change.
   - Ensuring inclusion is central to our work.

The Regreening Africa Programme set an ambitious target for Kenya, with the overall goal of reversing land degradation through scaling restoration practices by smallholder farmers, additionally enhancing food security, climate change resilience, and economic empowerment. In Kenya, the Regreening Africa Programme operates in the counties of Migori, Homa Bay, Laikipia, Nakuru, Baringo, Isiolo, Marsabit and Samburu

Brian Wambua, of World Vision Kenya, provided additional context on the programme

Key Points and Comments

- Brought together diverse stakeholders.
- Established a regreening movement.
- Influenced nationwide campaigns contributing to 10% tree cover on farms in Kenya.
- Developed unique policy documents to accelerate restoration.
- Strengthened value chains to provide farmers with better economic opportunities.
  - For example, the avocado value chain in Baringo was promoted and farmers were able to harvest 100 kg in a year, resulting in an annual income of 5,000,0000 KES. Kenya is now a major exporter of avocados.
- Build the restoration capacity of partners and communities.
- Established natural resource management forums, comprised of lead farmers, community forest associations, local administrations, schools, churches, civil society organizations (CSOs), NGOs, county governments and government parastatals. The established partnerships and linkages will continue to influence restoration efforts past the project implementation period.

Question?

What value chains have you been working on in these arid and semi-arid lands?

- Nyatike Sub County in Migori County is known as a very dry area. Moringa has worked well in this arid and semiarid landscape. We are replicating the same model in other countries with similar environmental contexts.

What is your reforestation density? Are you planting per acre or hectare?

- Typically, 1,000 seedlings are planted per hectare, however, spacing varies based on the species.
- With regards to planting by farmers,, they make the decision in terms of the number of trees they intend to plant, based on the preferred products and benefits of the trees.

What is the minimum amount of species diversity targeted?

- There is no minimum number of species. We focus on the species that farmers prioritize.

What survival rate have you encountered so far in high potential areas and low potential areas?

- The survival rate is 70%. A notable challenge is direct seeding in areas with open grazing. Selection of the right species in the right ecosystem, or in the right agro-ecological condition is critical. We are not just focusing on planting trees, we are also implementing other regreening practices, such as FMNR. Such a balance increases overall survival rates.

Question?

Are there any restrictions to using the Regreening Africa App?

- There are no restrictions; the Regreening Africa App can be used for free by anyone. Other projects can also be registered.

Do we have a platform where farmers who have been successful can share their experiences?

- Documentation of best practices is through videos and manuals.
- Site visits.
- Underground forest.

Professor Donald Ogweno

Spoke on how the 5 counties along the shores of Lake Victoria have the lowest forest cover, stressing the importance of the Regreening Africa Programme to the Lake Victoria ecosystem and the livelihoods of the people that rely on the area's resources.

You cannot protect the environment unless you empower people, involve them and help them understand that these resources are their own and that they must protect them

Late Prof. Wangari Mathai

Photo: Late Prof. Wangari Mathai. MJ Kim/ Getty Images

Workshop Opening

Numerous speakers from various organizations and agencies made opening remarks highlighting the importance and impact of the work being done through Regreening Africa:

Stephen King'oo, Ministry of Environment and Forestry

Kenyan Government Representative

- **Forest restoration has been proposed as a scalable nature-based solution to achieve global environmental and socio-economic outcomes** and is central to many policy initiatives, such as the Bonn challenge.
- Restored forests contain appreciable biodiversity, improve habitat connectivity, and sequester carbon. This **incentive mechanisms have been a focus of forest restoration efforts for decades**. Yet there is still little understanding of how to promote restoration success.
- **Gender mainstreaming and engagement of youth** in tree growing investments should also be a priority when rolling out all forestry programmes. Gender parity in forest education empowers rural women to sustainably manage forests whereas engaging the youth creates employment through a variety of cottage industries.
- The mandate of the Ministry is to protect and develop forests to ensure a healthy environment. This cannot be achieved without collaboration and engagement of partners and stakeholders.

Geoffrey Kativa

Acting National Director of World Vision Kenya

- The impact of environmental degradation and climate change threatens the earth's natural ecosystem and thus humanity's ability to maintain good health and well-being particularly in countries already vulnerable to natural hazards, fragile communities, fragile economies, and unstable political systems.
- **The reason why we have the worst famine in the last 40 years in Kenya, especially in the northern part, is climate change**.
- **Due to the impact of climate change more communities are being drawn into extreme poverty**.
- Further comments were made on the successes of the Regreening Africa Programme, how women and children are most impacted, and how land conservation is a long-term plan in which strong collaboration is needed for achieving restoration outcomes.

They additionally provided an overview of World Vision's operations in Kenya:

- The Integrated Management of Natural Resources for Resilience (IMARA) in Arid and Semi-Arid Lands programme is currently in its second phase and in implementation across 5 counties: West Pokot, Narok, Laikipia, Turkana, and Elgeyo Marakwet. Phase 1 of this programme saw the restoration of 50,000 ha of land. The second phase is targeting 150,000 ha of land.
- The Central Rift Farmer Managed Natural Regeneration Scale-Up Project (CRIFSUP) is a 10-year programme implemented in 2 phases. During phase 1, the project was able to reach 6,500 households directly and restore 16,000 ha of land. Phase 2 intends to reach 48,000 ha of land under restoration.
- Achievements of the Regreening Africa programme within the 5 years include: Increase forest cover by **151,000 ha** which was achieved through working closely with farmers, Kenya Forestry and other stakeholders.

Funding

- World Vision through the Public Private Partnership received a grant of 18 million USD to implement a carbon asset management project funded by the Carbon Asset Management Company, based in the United States of America. The project is implemented in consortium with World Vision as the lead and it covers four counties: Tana River, Elgeyo Marakwet, Narok, and Kwale. This project has the ambitious target of regreening 250,000 ha of land.
- The Korea Embassy will be providing a 10-year grant covering Narok and Kajiado counties, starting January next year. Thus far, World Vision has received a commitment of 9 million USD for land restoration activities.

Gathering Perspectives

Workshop participants were asked to share how strongly they agreed or disagreed with the following statement: *Do we in Kenya have a coordinated approach to bringing a wide range of stakeholders and evidence together for taking decisions on land restoration strategies?*

Strongly disagree
Number of Responses 2

Comment(s):

- No coordination flow between the ministry and the local level.
- There is a lack of synergies between stakeholders.

Somewhat disagree
Number of Responses 11

Comment(s):

- We have so many efforts ongoing in regards to restoration but there is a duplication of some restoration efforts.

Neutral
Number of Responses 10

Comment(s):

- Forest cover should be more than what is being reported.
- The coordination is not equal.

Somewhat agree
Number of Responses 3

Comment(s):

- Some policies are not in place.
- More stakeholders should be brought together to implement more structure.

Strongly agree
Number of Responses 13

Comment(s):

- Policies and strategies are in place.
- What lacks is the implementation process.

Interactive Session on Evidence and Experience

An interactive and participatory gallery walk on programme evidence and experience was facilitated by subject matter specialists. Evidence and experience walls are useful tools to bring results and data into discussion spaces to understand and identify trends, relationships, implications, and gaps in information.

See highlights and findings from this activity and Regreening Africa's work across Kenya:

Money is not only in gold but also in trees. People should therefore invest in agroforestry for better livelihoods, food security and land restoration."

Joseph Tinkoi, World Vision Regional Manager

The Project has completely changed my life. I make a net profit of 6,000 KES weekly from paw-paw sales in Homa Bay."

Maxwell Ochoo

We have also been involved in providing platforms for partnerships, knowledge development and peer learning for sustainable landscape restoration."

Lilian Dodzo, former National Director of World Vision Kenya

We have trees on our farms that are appropriate for bee farming, and now with the skills that we have acquired, accessing modern beehives would help us better our yield."

Joyce Achieng, farmer

In 2020, I decided to start an avocado nursery where I source scions from Habex and get a skilled person to help with grafting."
Pamela Kimeto, farmer

Choosing to include avocado trees in my farm is like a light shining every day on me."
Rose Kiptoo, farmer

A successful restoration movement has to be rooted in local communities."
Ms. Wanjira Mathai, Vice President and Regional Director for Africa World Resources Institute

Different stakeholders were able to share their insights, perspectives, and experiences

Question?

How long does it take for a farmer to benefit from an avocado farm?

- Ranges depending on tree variety as well as farming methods. For example, grafted avocados take 3 years - with proper care 50-60 kg are produced and prices vary from 40-100 KES/kg.

What informed the choice of avocado and not other fruits in Elgeyo Marakwet?

- Farmers were encouraged to plant different species on their farms for their value chains and this has seen more farmers take it up.

What is HABEX's contribution towards the contract agreement?

- Habex gives seedlings on credit, assures the market for products and tree extension support to the farmer.

What is the farmer's contribution?

- To water, provide land, fence, apply manure and meet any other agronomic requirements.
- First harvest is deducted at a rate of 25% to recover debt credit.

How well do communities internalize the restoration concept and make it their own?

- Farmers are trained on the various regreening produce via farmer-to-farmer exchange visits, among others.
- Communities have been trained on how to take videos to help spread the regreening message.

How is gender mainstreaming being done / how do we make trees belong to women?

- Women volunteer to work on their farms. Women take up planting of fruit trees.

What happens to the money earned by women tending crops?

- Decision making is mostly done by men. This negatively influences the potential of women to benefit.

How many homesteads are women-led?

- Many households/ homesteads are women-led.

What other plans of livelihood do you have for Nyatike so that they don't cut trees for charcoal?

- Fruit trees such as mango, paw paw, and avocado which are doing well in the region are being promoted.

Comment(s):

If we keep prioritizing budget over key infrastructure while ignoring environmental conservation, soon mother nature will visit her wrath on us and the development infrastructure will not be spared as we have seen with the landslides happening in our country.

KEY INTERVENTIONS

The interventions of the project in Kenya include:

FARMER-MANAGED NATURAL REGENERATION

Systematic regeneration and sustainable management of trees and shrubs beginning with tree stumps, roots, and seeds in the soil. FMNR takes place on agricultural lands, commonly smallholder plots.

TREE NURSERIES

Controlled spaces where young tree seedlings or other plants are propagated in large quantities for eventual transplant into fields or for sale in markets.

ASSISTED NATURAL REGENERATION

ANR and FMNR share the same practices, however, ANR takes place on communal lands where priority is given to protect mother trees and wildlings.

GRAFTING

Grafting is a horticultural technique where the tissues of two plants are joined to continue their growth together. The upper part of the combined plant is called the scion while the lower part is called the rootstock. Trees grafted from healthy rootstock will grow faster, develop quicker, and are more resilient to environmental pressures such as droughts.

TREE PLANTING

The process of transplanting tree seedlings. Planting high value tree-crops, such as mango and avocado, has been promoted and value chains for tree crops have been strengthened. In Kenya, trees have most commonly been planted in gardens, external boundaries, and woodlots.

Question?

How do you deal with undesirable invasive species?

- Create awareness on indigenous species and methods for dealing with invasives.
- Better management of exotic species.
- Better land management.
- Diversity of species.

What methods are available in terms of dealing with pests and diseases?

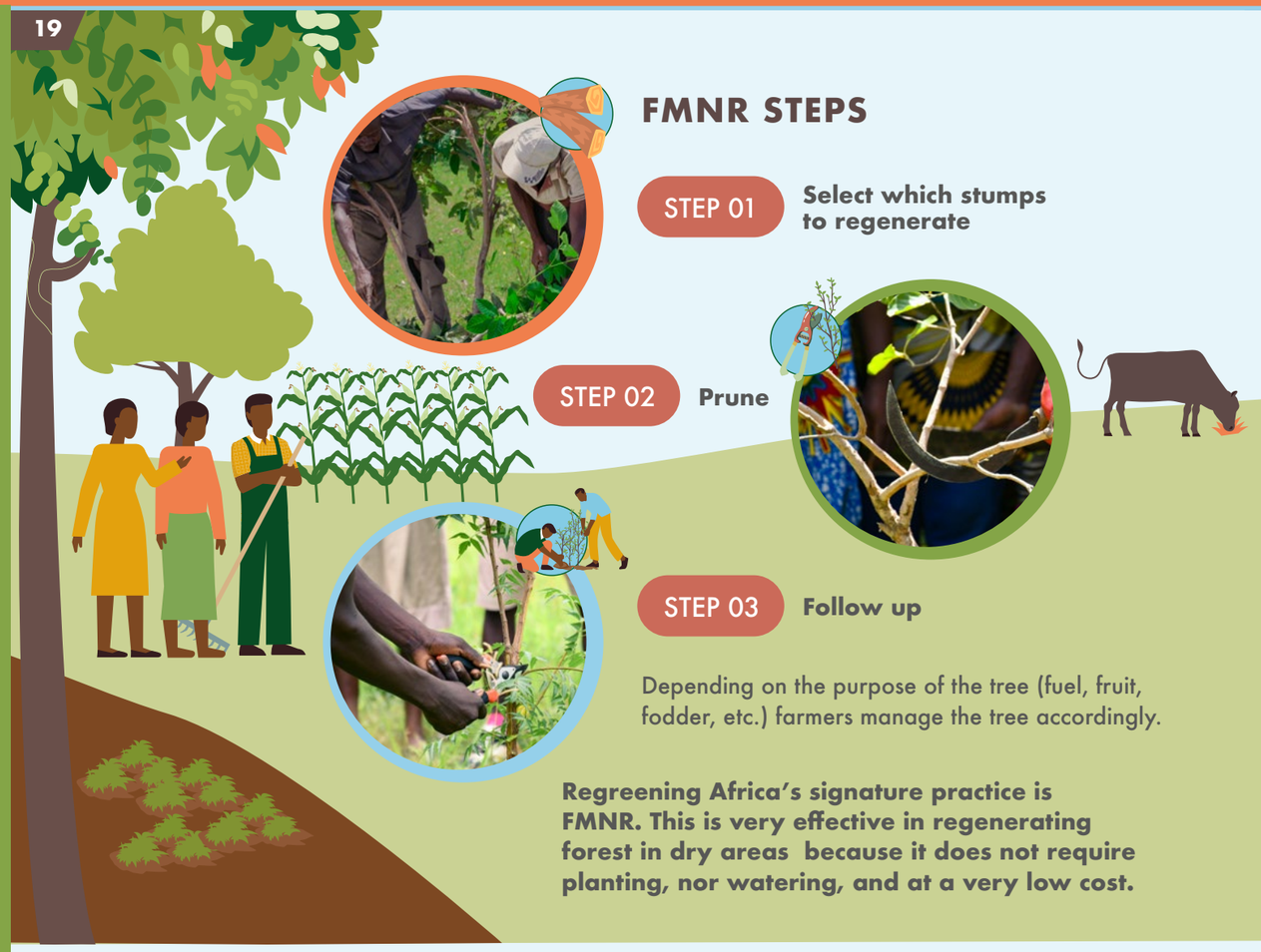
- With the help of Kenya Forestry Research Institute (KEFRI), a tree variety that helps with pests and diseases was procured.
- Planting fodder trees.

For pest management, do you partner with people on the ground?

- Tree management practices such as pruning improves air circulation and intercropping reduces the occurrence of pests.

As the project focuses on regreening, what are the incentives given to communities and policies to reduce tree cutting for charcoal and firewood (fuel) at the household level?

- Having communities plant trees that they connect/resonate with and that can thrive in their regions have proven to encourage the communities to practice restoration.



FMNR STEPS

STEP 01 Select which stumps to regenerate

STEP 02 Prune

STEP 03 Follow up

Depending on the purpose of the tree (fuel, fruit, fodder, etc.) farmers manage the tree accordingly.

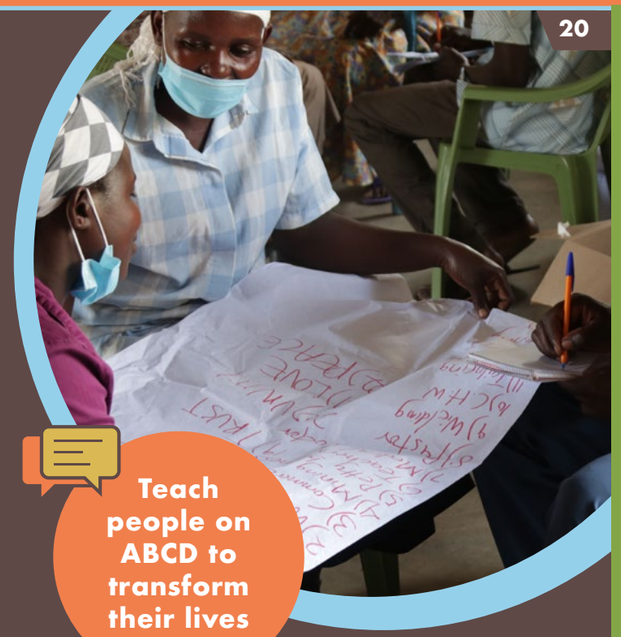
Regreening Africa's signature practice is FMNR. This is very effective in regenerating forest in dry areas because it does not require planting, nor watering, and at a very low cost.

THE ASSET-BASED COMMUNITY DRIVEN APPROACH

The asset-based community driven approach (ABCD) approach encourages communities and individuals to identify their current assets and to assess how their current assets can be used to improve their lives and livelihoods.

The ABCD approach is based on three principles:

- **Everyone has gifts**
- **Relationships build a community**
- **Start with what you have**



Teach people on ABCD to transform their lives

Common assets include:

- Human assets
- Social assets
- Natural assets
- Physical assets
- Financial assets

The ABCD team has worked with 30 community groups in Homa Bay County to co-develop asset and strength-based individuals and community action plans.

ABCD manuals for Regreening Africa have been produced.

LESSONS LEARNED AND LONG-TERM CHALLENGES

Lessons Learned

- Shifting attitudes of all stakeholders by improving their understanding of the benefits of land restoration.
- Building technical capacity among government experts, development agents and programme beneficiaries.
- Rural Resource Centers are an efficient and cost effective way to reach large audiences.
- Bottom-up regreening uptake.
- Use of community videos.
- Use of the Regreening Africa App for monitoring activities and impact.

Challenges

- Insecure land tenure rights.
- Delayed benefits for restoration investments.
- Gender discrimination in decision-making.
- Lack of basic processing technology.
- Agroforestry lacks a firm anchor ministry.
- Free grazing of animals can reverse restoration gains.
- Sub-division of ancestral lands for inheritance.
- Weak investment in ASAL value chains.
- Poor quality germplasm.

VALUE CHAINS

Value chains have the potential to intensify regreening practices

Promising value chains include:

Fruit Trees

Gums and Resins

Honey

- Trees must be considered as a value chain - tree growing is an enterprise.
- Strengthening value chains is crucial for job creation for women and youth, e.g., youth are engaged in charcoal making as a value chain in Migori and Homa Bay.
- Regreening Africa has helped strengthen value chains in Kenya by providing trainings and creating market linkages.

Question?

Is there a possibility for market saturation?

- We are not there yet.

Were counties given a chance to pick their preferred enterprises?

- Counties were involved in prioritization of the enterprise options.

Have you experienced beekeeping challenges?

- Farmers have the necessary beekeeping technology.
- Stingless bees are being promoted.

What are technical approaches for scaling regreening in Kenya?

- Produce large amounts of high quality seedlings.
- Emphasize issues around good practices.

MONITORING - EVIDENCE, EXPOSURE, AND ADAPTATION OF REGREENING INITIATIVES AND LESSONS LEARNED

Regreening Africa Programme overall Theory of Change for direct scaling sites

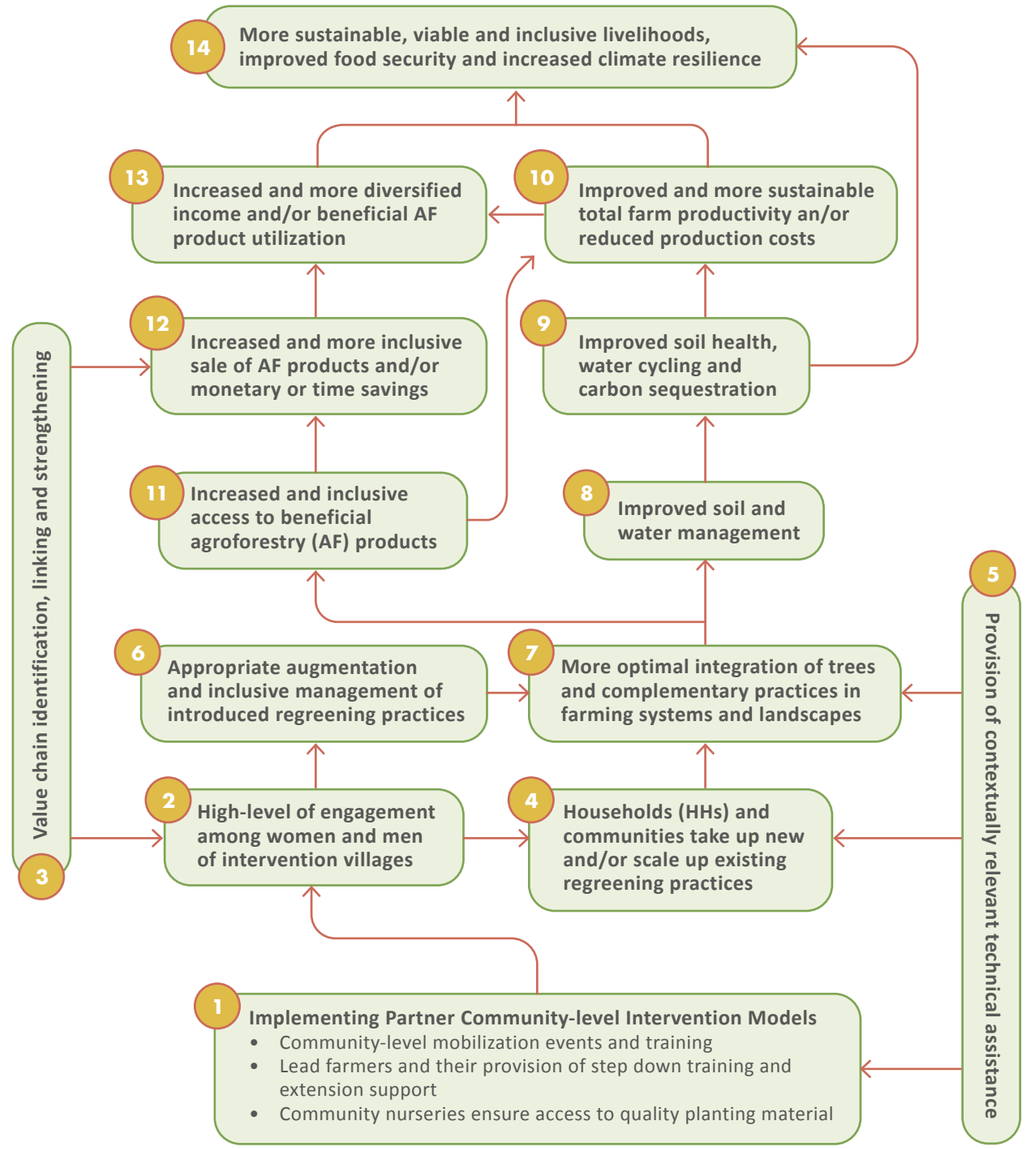


Figure 4: Theory of change for direct scaling sites

Monitoring, Evaluation and Learning Approach

Phase-in impact evaluation design

Beneficiaries enrolment

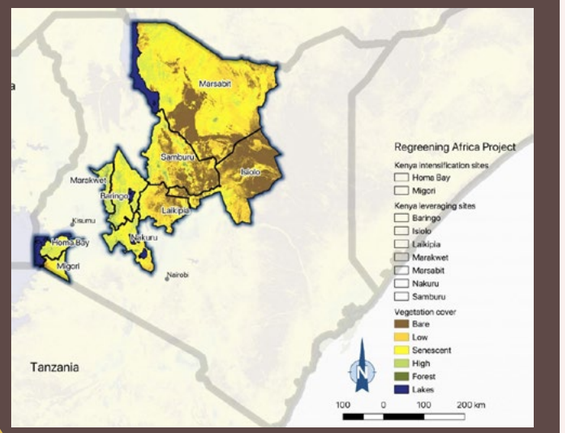
YEAR 1 (Treatment)

YEAR 4 (Comparison)

The objectives

- Assess project's progress towards intended objectives (HHs and hectarage attained)
- Derive lessons and best practices for future restoration projects
- Estimate project impact on various environmental and socio-economic outcomes

Data



- Household survey - similar to baseline
  Targeted: 984 baseline households
- 846 HHs surveyed
  (13% attrition – 132 households could not be reached at endline)
- Village level surveys
  58 villages selected randomly – from all sublocations
- Key informant interviews
  9 key informants

Overall impact assessment approach

Ex-ante modelling of long-term impacts

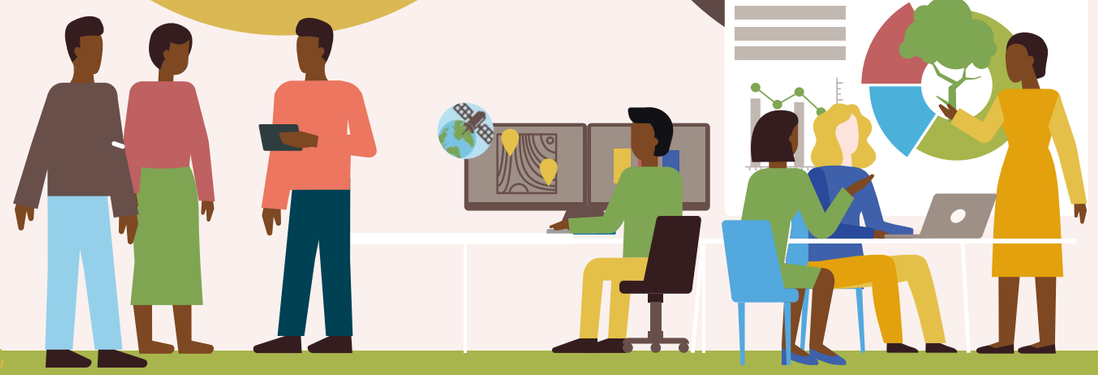
Before/after and with/ without analysis

Land health assessment

Direct Impact Evaluation Design

Evaluate the extent to which the programme's direct intervention TOC has unfolded or is likely to unfold

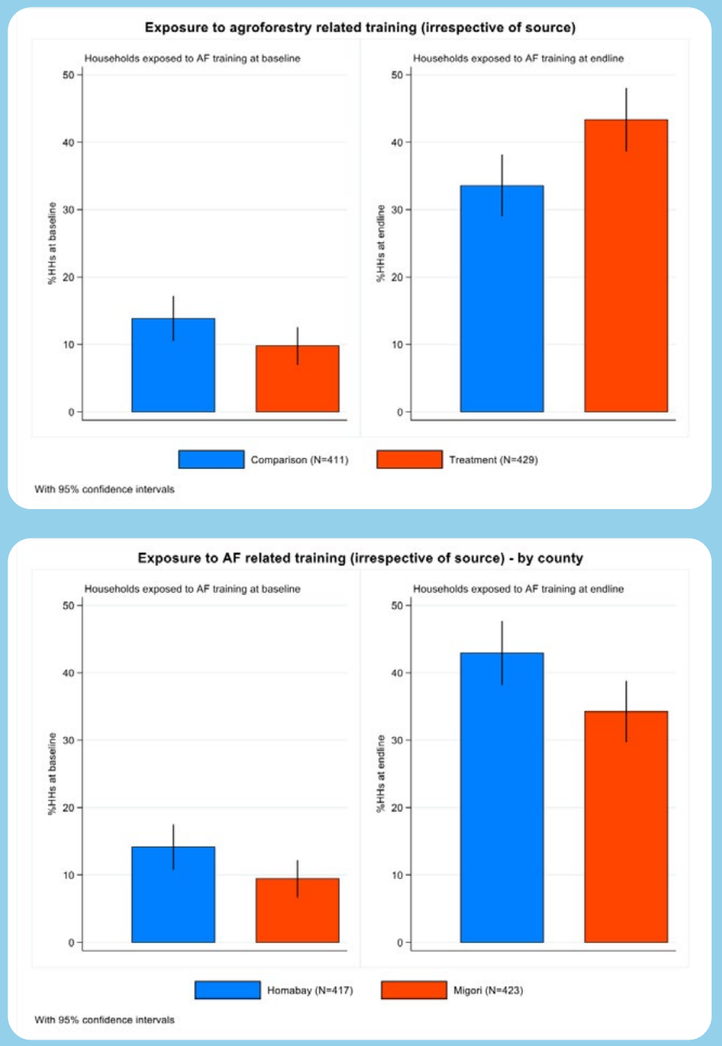
- Documenting the intervention
- Estimating number of households reached and practicing Regreening and hectarage



Key results and discussion

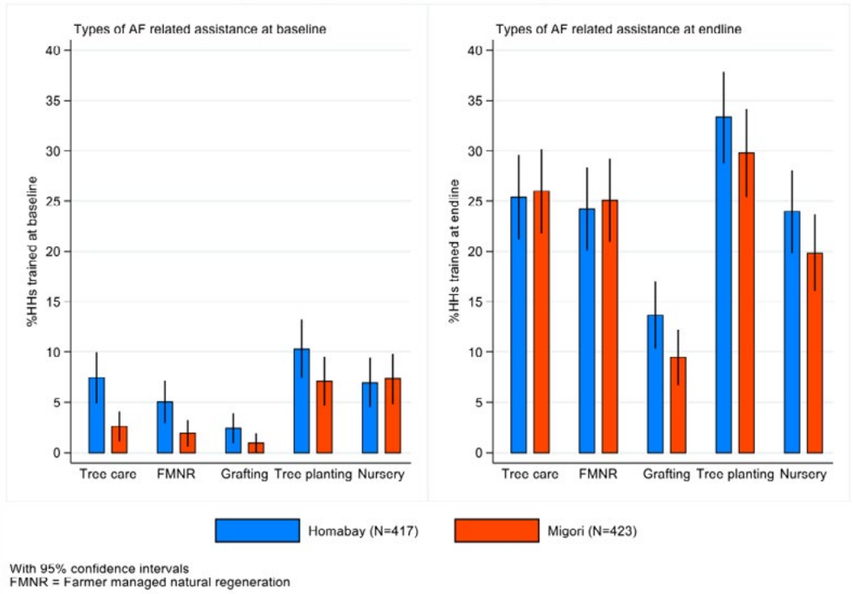
- Some improvement the percentage of households exposed to regreening activities/practices irrespective of source.
- Exposure in both treatment and comparison sites.
- From 10% to 43% in treatment sites and 14% to 34% in comparison sites.

Exposure to regreening initiatives

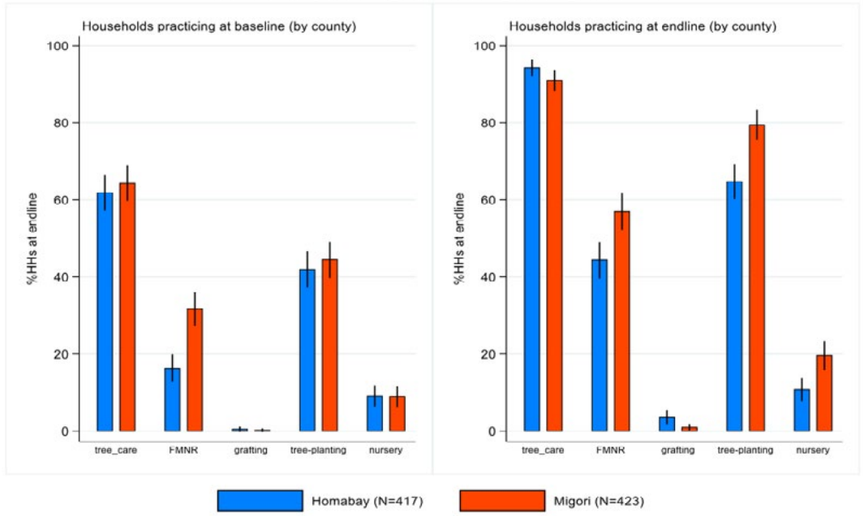


Uptake of regreening and restoration actions

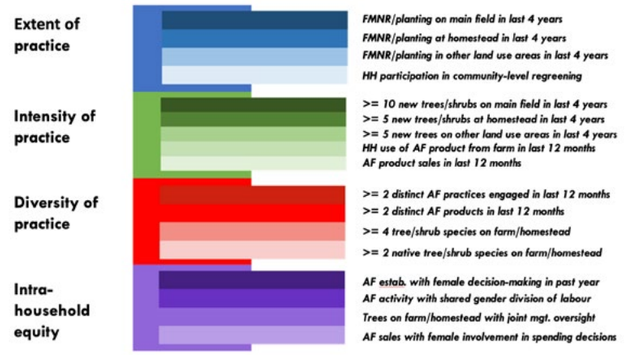
Types of agroforestry related training provided



Households practicing different regreening activities

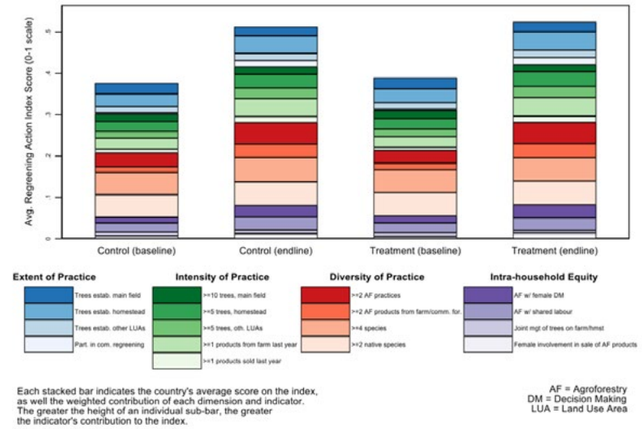


Intensity and extent of uptake using the Regreening Action Index



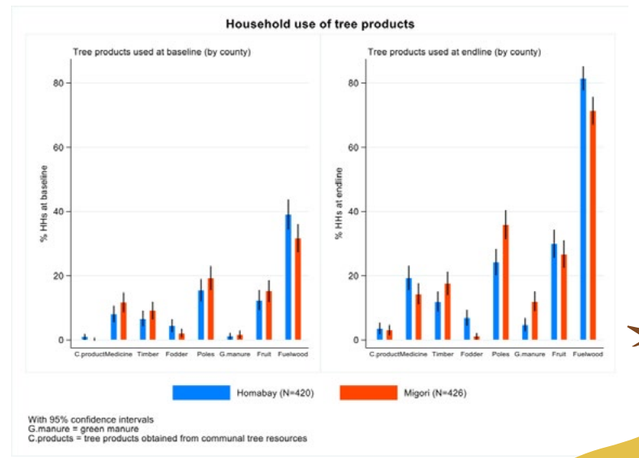
Improvement in the overall Regreening Action index
From 0.38 to 0.52

Regreening Action Index, baseline and endline surveys - Kenya



Increase in percentage of households accessing different tree products

Household use of tree products



- Project progress towards the intended objective was assessed.
  - Baseline data was collected in 2018.
  - Endline data was collected from September-October 2022.
- Exposure to tree care and FMNR has significantly increased - more farmers are now engaging in these practices.
- Tree planting has increased.
- Tree nurseries in Migori have increased.
- The Regreening Action Index is composed of 17 binary indicators. The Index allows the comparison.
  - The index has an extent of practice dimension and it relates to where trees are being planted because there are communal lands and different niches that a farmer has access to.
  - A component of the index is intra household equity, which relates mainly to gender.
  - The index allows you to compare across all 8 countries of Regreening Africa on a single scale.

Regreening Africa

Economics of Land Degradation

THE ECONOMICS OF LAND DEGRADATION

ELD Initiative

- **Global initiative** established in 2011 by the German Federal Ministry for Economic Cooperation and Development, UNCCD and European Commission.
- Aims at transforming global understanding of the **economic value of productive land** to improve sustainable land management (SLM).
- Is supported by the ELD-secretariat hosted by the Sector Project BoDeN (at GIZ in Bonn, Germany).
- Offers a website and diverse publications **www.eld-initiative.org**

Project Activities

- ELD asseses the **cost of land degradation and builds the capacity** of various institutions (e.g., government departments).
- Assessment of the economic **cost and benefits of investment in sustainable land management**.
- **Capacity building** on the valuation of ecosystem services.

> **We believe that you can only be motivated to take care of something if you truly understand its value."**
> Lutta Aphayo, ELD Ambassador.

Key Results

Physical terraces and agroforestry have a longer payback period but **yield benefits over a longer time frame**. These benefits (e.g., improved soil and water retention) are not restricted to the farm scale but **extend to wider society**.

Agroforestry has higher economic than financial value. It provides **important benefits to wider society** but often farmers have to cover the costs.

Manuring and intercropping have a **positive net present value and shorter payback period**, hence it takes less time to recover initial outlay costs through improved yields (Highly adopted practices).

Methodology

- 320 HH surveyed from Bungoma, Siaya, Kakamega.
- Evaluated using regression and cost-benefit analysis techniques.

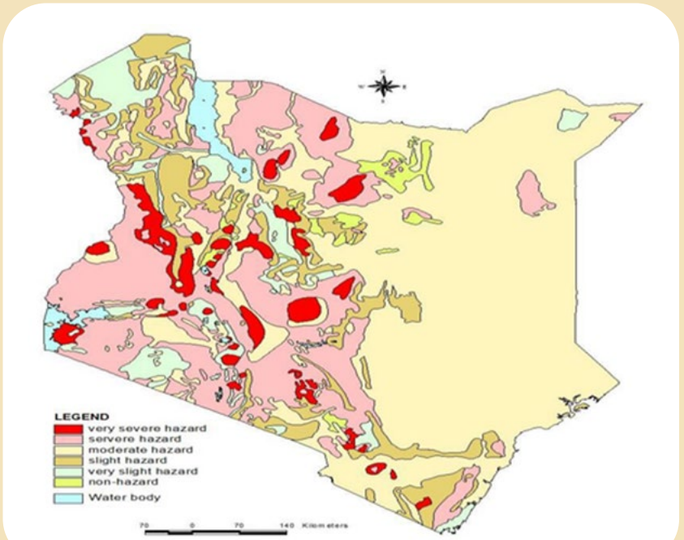
Goal

- Identify the rationale for implementing SLM practices.
- Determine how long it takes for total benefits to outweigh total costs.

22%-30% of land in Kenya is considered severely degraded and 64% moderately degraded (ELD, 2015)

Determinants of SLM uptake

- **Farm characteristics:** An SLM practice is more likely to be used where more of the farm is **owned** and more of the labor used on the farm is from **family members**.
- **Access to assets and advice:** Key variables include membership of **agricultural groups** or projects, recent contact with **advisers** and access to **machinery** or farm buildings.



Estimates of the cost of land degradation in Kenya range from USD 0.39 billion to 1.3 billion per year

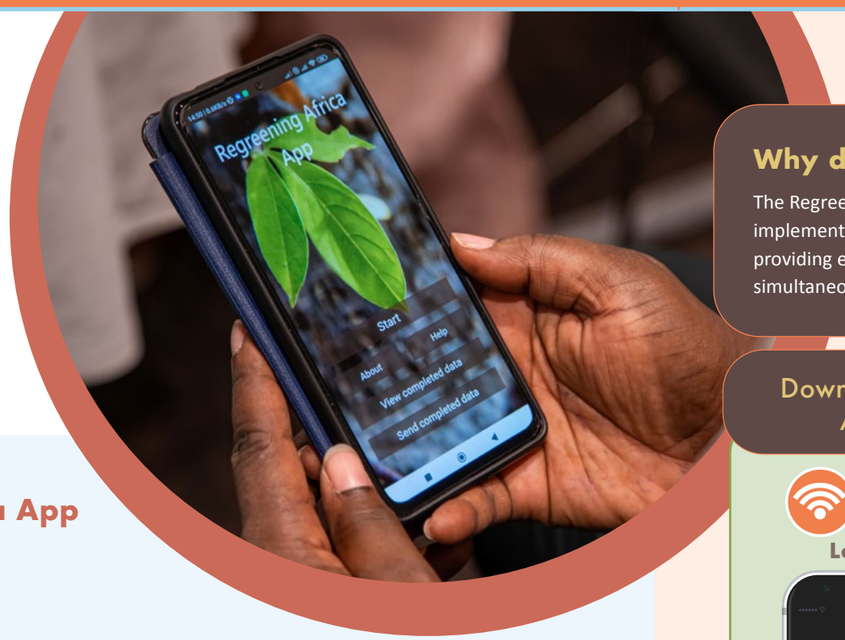
Conclusion

- Policy should support practices that deliver high returns at low cost and improve soil and increase yields at a wider scale through a combination of **institutional** and **capacity building actions**.
- If the twin goals of reducing land degradation and improving food security are to be addressed, it will be vital for smallholder farmers to be adequately and appropriately **compensated** and **supported** for undertaking environmentally sustainable practices.
- The cost of agroforestry is felt by the individual farmer but the value is for the entire society.
- Land tenure and extension services are key.

Regreening Africa

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 the targeted households having adopted tree planting practices.
- Record the number of hectares regreened by tree planting.
- Mapping tree planting plots.
- Identify the agroforestry systems established (objectives, disposition of the trees, density, tree species).
- Recording and analyzing management practices.
- Evaluate the performances of the planting practices.
- Tracking growth of trees by making references and management practices assessments.
- Geotagging selected trees.

FMNR MODULE

- Record the targeted households having adopted FMNR practices.
- Record the number of hectares regreened through FMNR.
- Mapping the FMNR plots.
- Recording tree species composition of the FMNR plot.
- Recording management practices.
- Tracking growth of trees by making references and management practices assessments.
- Geotagging selected trees.

NURSERY MODULE

- Record nurseries supported by the Regreening Africa Programme.
- Record seedlings production (species composition, production capacity, seedlings quality).
- Recording and assessment of the seedling production practices.
- Geotagging nurseries.

TRAINING MODULE

- Documenting the trainings carried out: the number, location, topic, etc.
- Connect the topic of the trainings carried out in a given location to the practices and issues identified that will guide the training schedule(s).
- Documenting participation in the trainings in terms of number and gender.

Why do we need it?

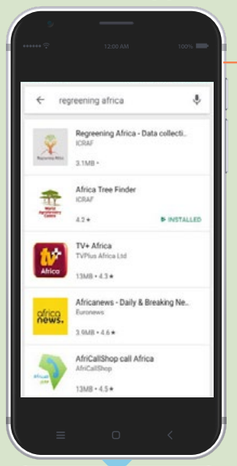
The Regreening Africa App links land restoration activities implemented by farmers and pastoralists to large global initiatives, providing evidence that can positively inform these efforts, whilst simultaneously assessing their effectiveness on the ground.

- The Regreening Africa App is free to use and helps farmers manage their resources through mapping areas, tracking survival rates, etc.
- Uploaded data can be used by the farmer and shared with donors and other stakeholders.

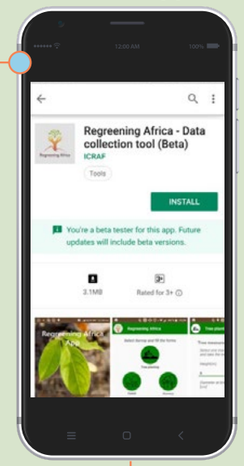
Downloading and accessing the Regreening Africa App on Google Play Store.

Connect your phone to Wi-Fi or to mobile network

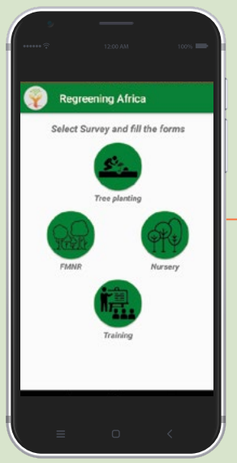
Locate App



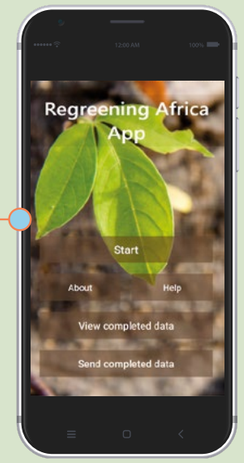
Install App



Start up App



Open survey forms



Question?

Is it available on iPhone?

- Not currently but that is being worked on. All data collectors on the ground use android.

On survival rate, what's the best time to collect data on the species?

- Data can be uploaded at any time - the Regreening Africa App does not stop collecting data.

Could we separate germination from survival?

- That is available in the nursery module.

Does the Regreening Africa App have provision for the species?

- Species are captured.

How do we bring KEFRI, Kenya Forest Service (KFS), and the Regreening Africa App together?

- All of the Regreening Africa Apps' weaknesses and strengths were highlighted in a workshop report.

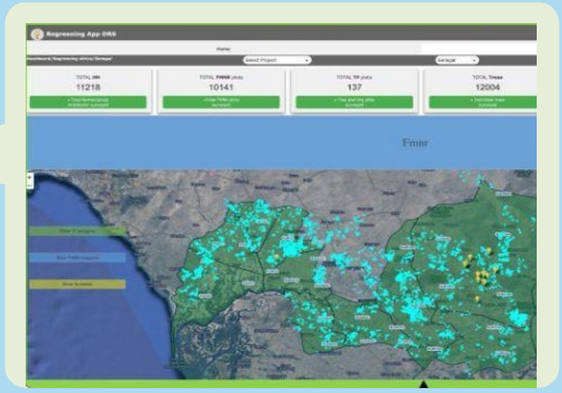
Comment(s):

- Build a module that can capture land reclamation and restoration activities, i.e. soil erosion, ground cover regeneration, and groundwater change.

Regreening Africa App process

The data that is uploaded by the Regreening Africa App users, can then be reviewed by project managers on the Data Reporting System developed as part of Regreening Africa. Project managers can download and review the raw data in real time.

Data displayed on data reporting system



Data reviewed by users or project managers

Data uploaded to Regreening Africa App database

Regreening Africa App database connected to Data Lake Engine for advanced queries and processing of data, including normalisation of species names

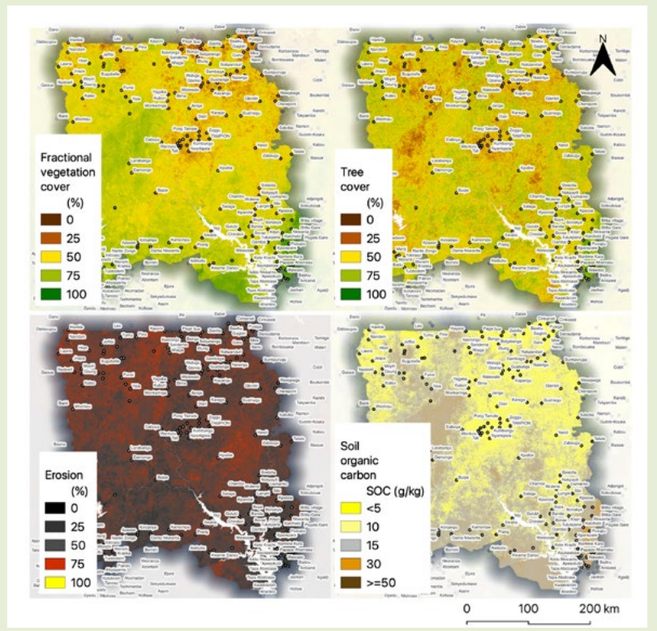
Regreening Africa Dashboard

Users have access to data visualisations, results of analysis, interactive tools and maps

Regreening Africa App used in the field

Normalisation of species names, consistency checks and modelling of data

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

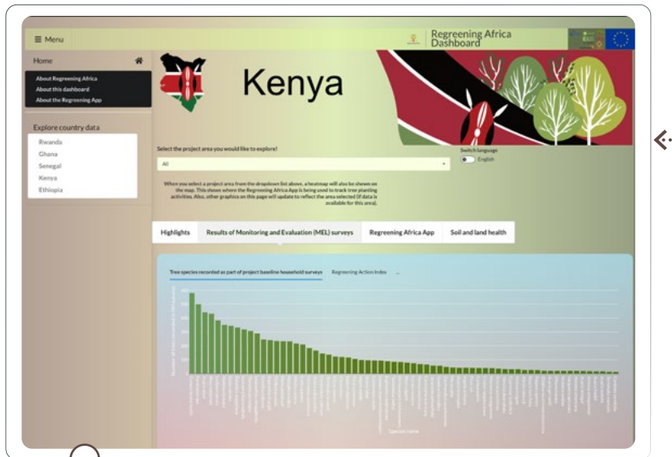


Regreening Africa

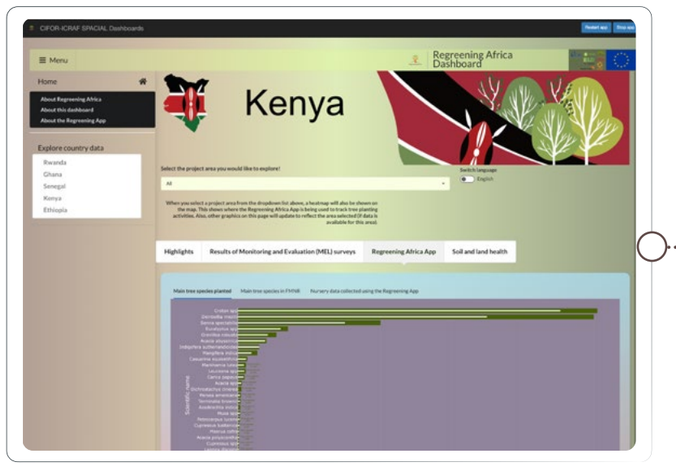
Regreening Africa

REGREENING AFRICA DASHBOARD

PROJECT HIGHLIGHTS

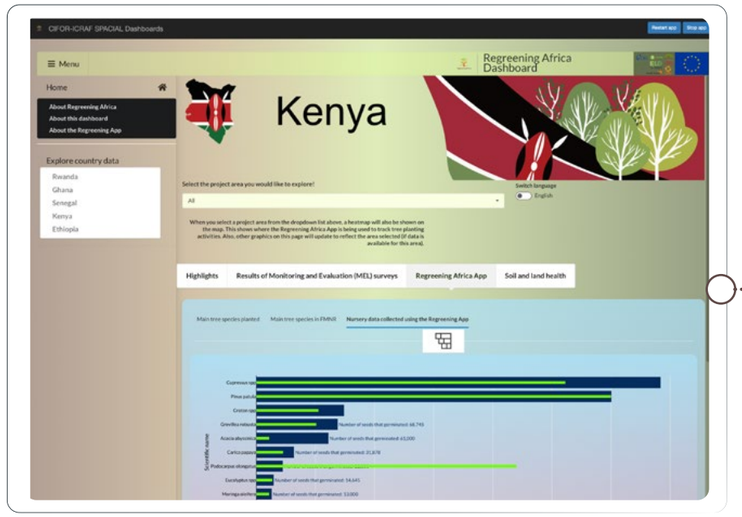


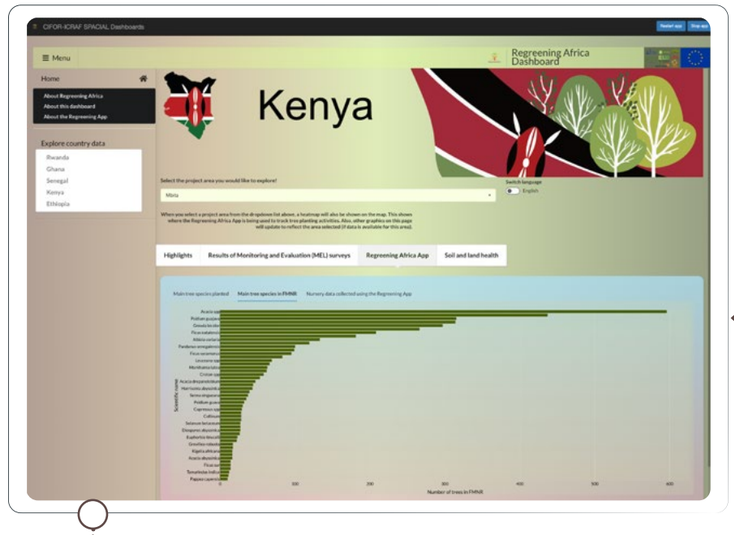
RESULTS OF MONITORING AND EVALUATION (MEL) SURVEYS



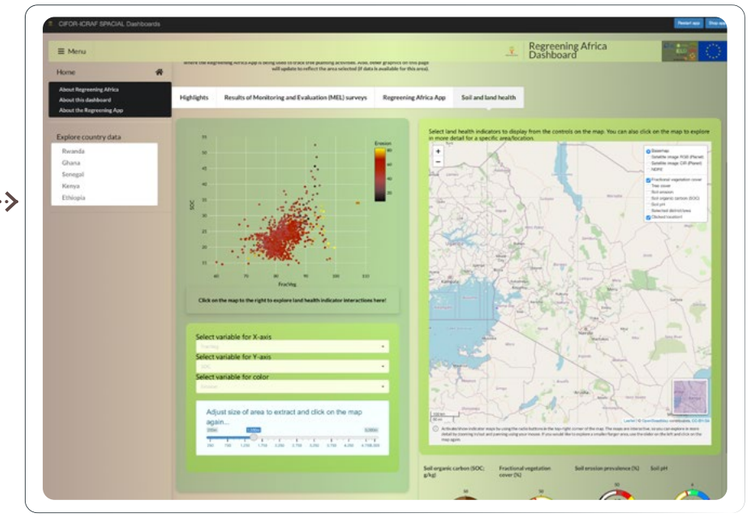
REGREENING AFRICA APP

REGREENING AFRICA APP





SOIL AND LAND HEALTH



REGREENING AFRICA APP

Regreening Africa

Regreening Africa

EVALUATING REGREENING AFRICA IN KENYA: MONITORING FROM THE SKY

How it's done

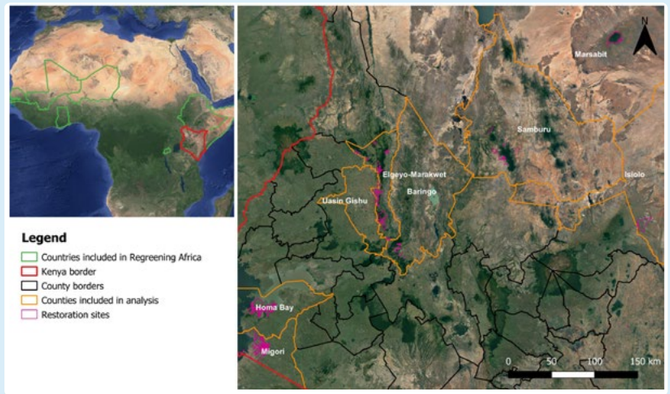
Satellites provide frequent images of the earth's surface globally. This imagery is consistent over time and space. Therefore, it can be used to accurately detect changes in the earth's surface over time and in different regions. With the restoration plot GPS information from the Regreening Africa App, the restoration progress can be monitored. Together with monthly rainfall data, the vegetation at plot-level is modelled and predicted using a greenness indicator: the Normalized Difference Vegetation Index (NDVI).

Next, the predicted vegetation is compared to the actual vegetation at plot-level. The difference between the actual vegetation and the predicted vegetation is an indication of the successfulness of the restoration. In Ghana, we monitor 21,842 restoration sites (27,000 ha).

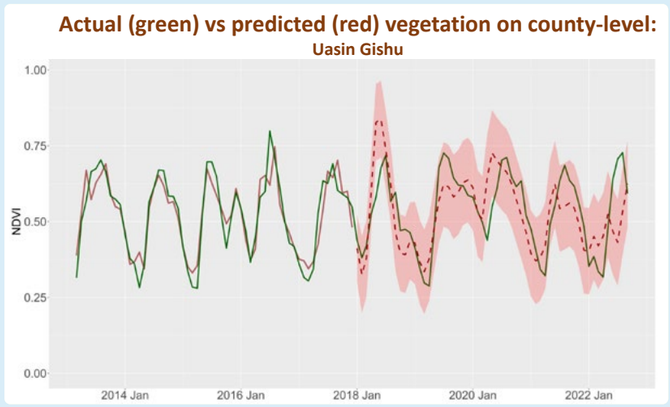
Data used:

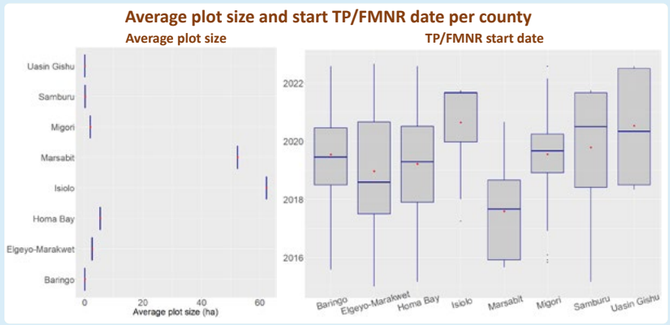
- Landsat 8 images (2013-presence).
- Global Precipitation Measurement - GPM (2013-presence).
- Restoration plot GPS data from the Regreening Africa App.

Where do we monitor?



Actual (green) vs Predicted (red) Vegetation at Zone-Level



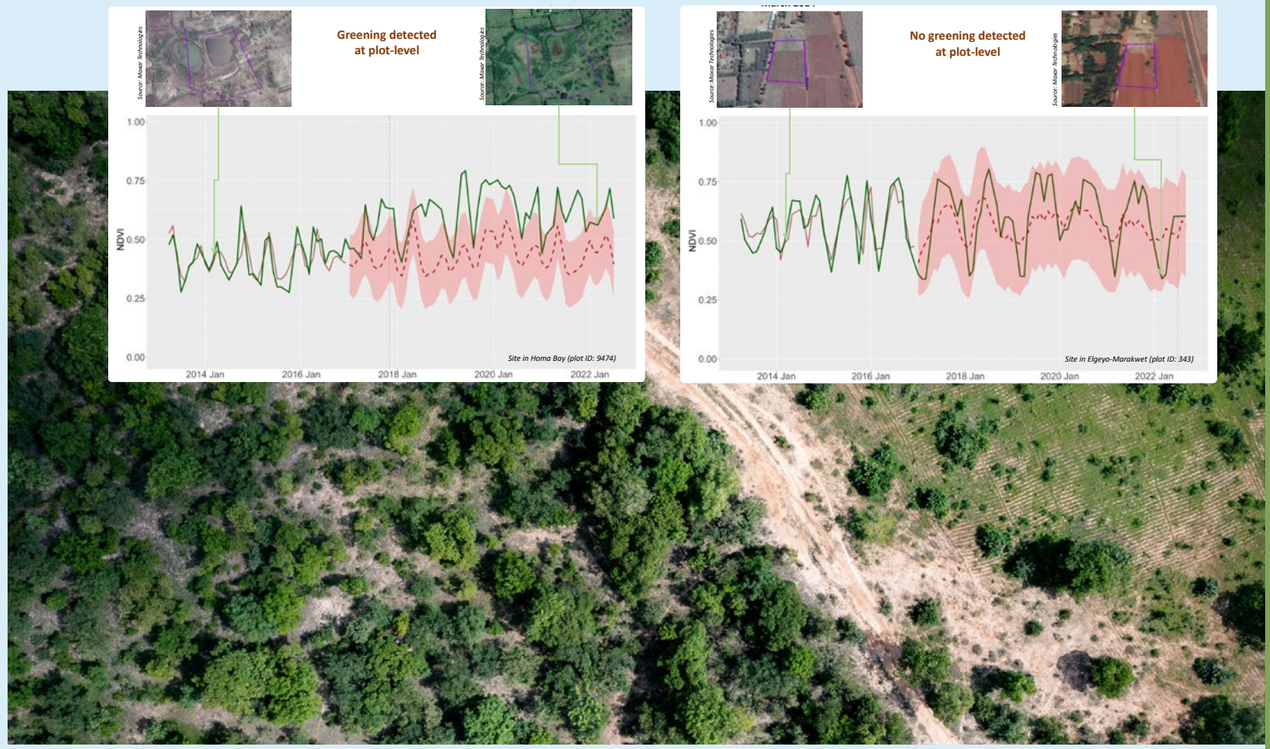


Before and after (time series) land health data is needed to be able to show impact and tell a complete story.

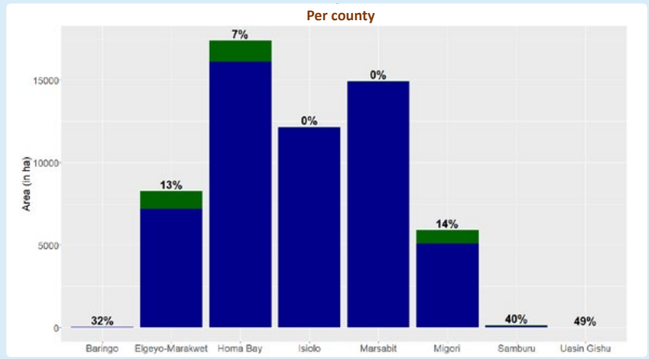
Satellite data shows progression in large areas.

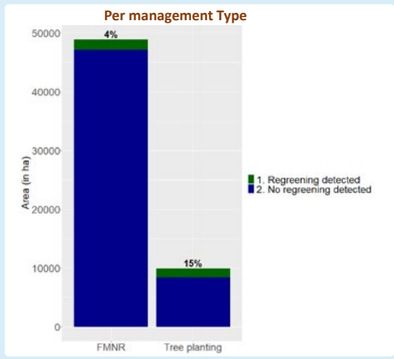
Where FMNR is used there is significant increase in vegetation.

Actual (green) vs Predicted (red) Vegetation at Plot-Level



SUMMARY
Total Area Monitored vs Area where Greening is Detected





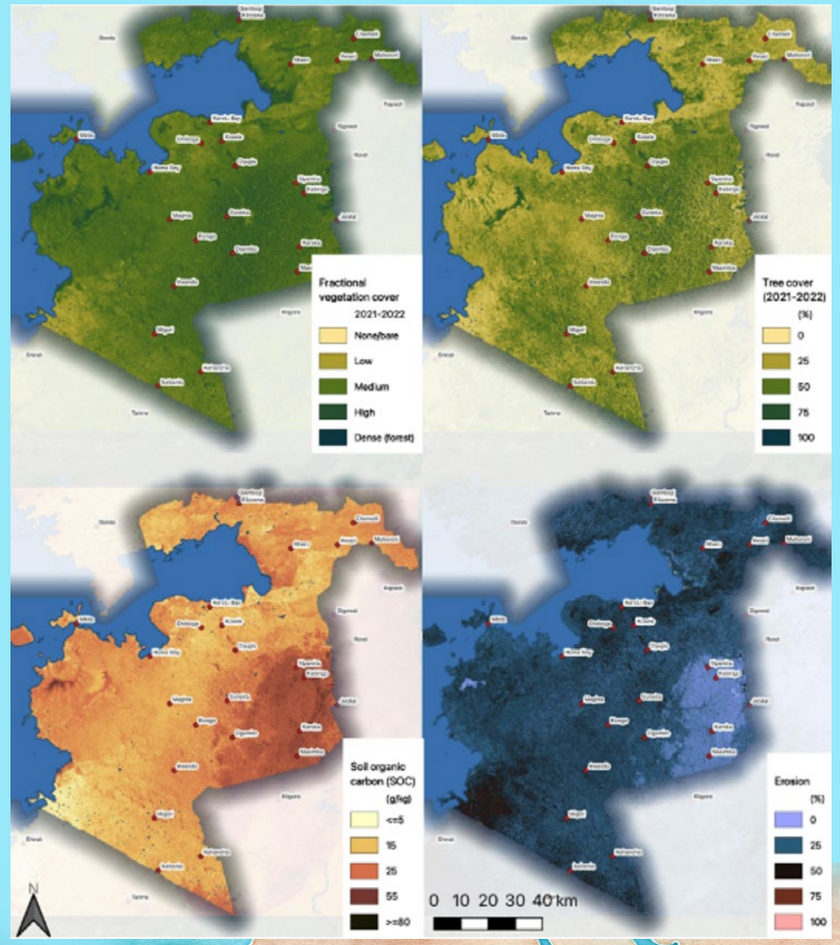
Question?

Can this be used in reafforestation programmemes?

- Yes, to better understand how much investment is needed.

Regreening Africa

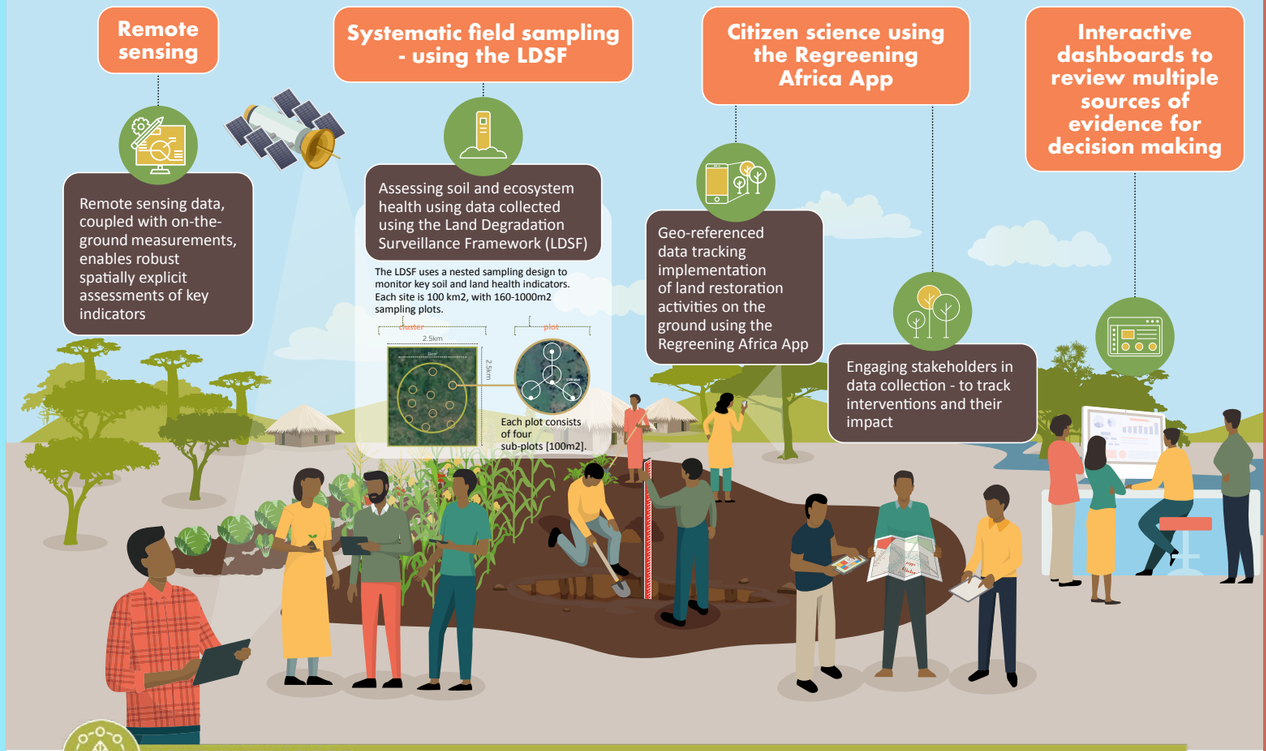
LAND DEGRADATION DYNAMICS (LDD) INDICATOR MAPS IN WESTERN KENYA

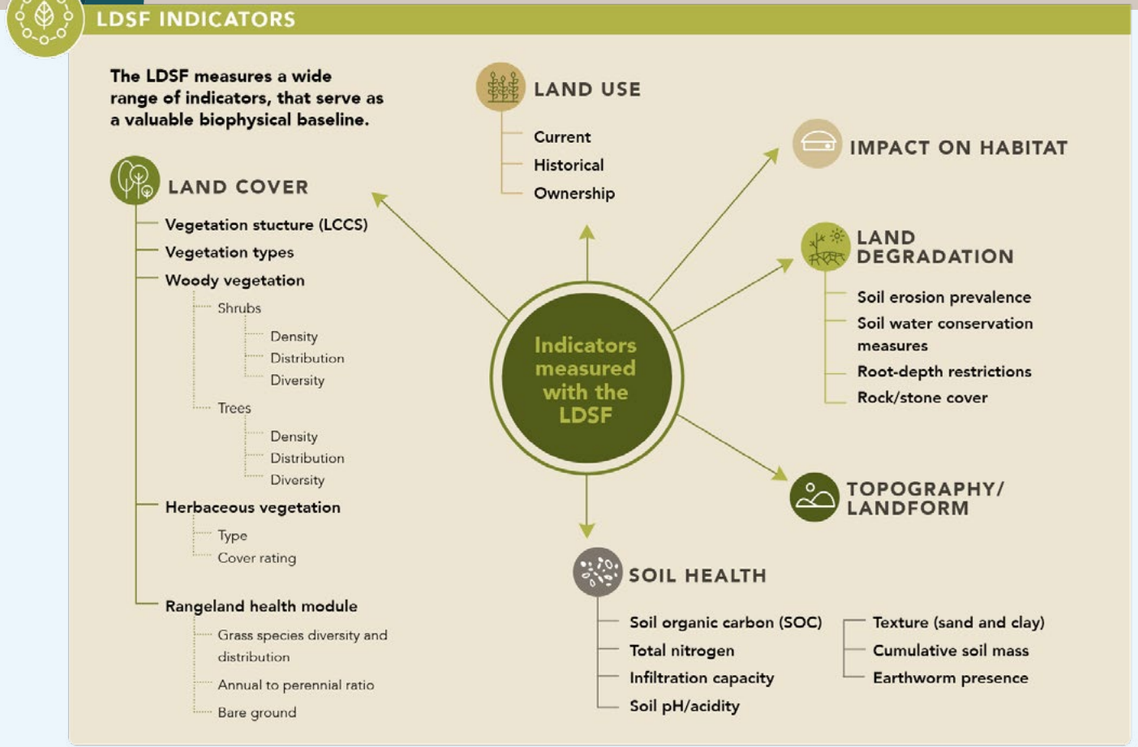


Access powerful predictive data from a global network of sites.

Changes in fractional vegetation and tree cover (2021-2022) were presented, as well as maps of soil organic carbon and erosion.

Combining multiple methodologies to assess land degradation and target restoration interventions





Visioning the Scaling of Land Restoration

Workshop participants reviewed scaling efforts in Kenya and envisioned how scaling can be achieved more efficiently in the future.

Dr. Peter Waweru presented on Inclusive Evidence-Based Approaches to Accelerating Land Restoration in Kenya:

The Forest and Landscape Restoration Implementation Plan (FOLAREP) 2022-2027, is a cross-sectoral and multi-stakeholder coordination framework. It aims to restore degraded landscapes for resilient socio-economic development, improved ecological functioning and contribute to the realization of national aspirations and international aspirations and obligations.

- Counties come up with their own FOLAREP or integrate FOLAREP within their current plans.
  - A technical team has validated the plan (waiting for approval to launch).
- Restoration is of high priority to National and County Government - Kenya has pledged to restore 5.1 million ha of land.
- A detailed monitoring, evaluation, reporting and learning (MERL) framework has been developed by the Kenya Landscape Monitoring Technical working group for tracking impacts, outcomes and processes.

Comment(s):

- Counties are reluctant to enforce reforestation activities. Maragoli hills in Vihiga and Busia wetland have been encroached. Sensitization of county leadership is needed.
- KFS is well spread in the country.
- Forestry is not included in county development plans.
- The disconnect between KFS and counties must be mitigated.
- Large hectares of land should be held for a carbon credit scheme - KFS could provide a tool so that all can benefit.

ASPIRATIONS FOR RESTORATION IN KENYA

ECONOMIC

- Gross Domestic Product (GDP) growth using restoration
- Supply of ecosystem services, e.g., water and timber
- Increased funding for restoration activities
- Grow country GDP by 3%
- Reduced production costs through reducing fertilizer costs
- Improved livelihoods and long-term economic benefits resulting from tree planting

AGRICULTURE

- Soil conservation
- Curbing erosion challenges
- Increased land productivity
- Agroforestry
- Water conservation
- Embrace holistic grazing, planned grazing, and pasture improvement
- Sustainable agriculture so that land cannot be degraded
- Eliminate reliance on food imports

ENVIRONMENT

- All uncovered area to be placed under forestation
- Achieve resilient climates and mitigate climate change
- Increase biodiversity and sustainability
- Reduce carbon emission by 30% by 2030
- Increase forest cover by 10% by 2030
- Meet national and international goals
- Place all uncovered areas under forestation
- Focus on ground cover rather than just tree cover
- See more intact and less degraded rangelands

POLICY AND INSTITUTION

- Legislation aimed at restoring the lands
- Establish and initiate policies that can be used country-wide
- FOLAREP implementation through county community engagements
- A strong role of counties in implementation
- Aspire to see communities incentivized to do land restoration
- Strategies for achieving political buy-in and goodwill
- More synergy and complementary ties amongst partners
- More involvement of youth and women and the amplification of their voices

TECHNOLOGY AND INNOVATION

- Increased and strengthened value chains
- Adopt technology that benefits the environment
- Document all restoration activities using digital technologies

SOCIAL-CULTURAL

- Gender inclusivity
- Return to indigenous practices that honor the land

GROUP WORK - INCENTIVES AND DISINCENTIVES

For group work activities, participants were asked to determine incentives and disincentives for restoration:

SUMMARY OF COMMON INCENTIVES, DISINCENTIVES, AND KEY INPUTS FOR RESTORATION

Incentives

- Livelihoods, markets (such as the carbon market/carbon credits, and economic empowerment).
- Enabling policy framework, political support, and international commitments.
- Capacity and availability of inputs.
- Need for restoration to address climate change.
- Holistic benefits - outcomes such as increased productivity.
- Social cohesion.
- Funding.

Disincentives

- Inadequate resources (e.g., funds, capacity).
- Drought.
- Ignoring local knowledge.
- Low adoption of some practices and low survival rates/ destruction of restored areas.
- Land tenure.
- Slow, long return on investments .
- Pests and diseases.

Key Inputs/Activities for Success

- Build the capacity of CBOs and communities to sustain the work and engage them in the early stages.
- Tree planting campaigns should be combined with community sensitisation (local discussions and radio).
- A focus on livelihoods is crucial.
- Integrating science, bridging research and community.
- Strong National policies.
- Resources need to be devolved to the level where the responsibility lies.

Farmers were asked to identify incentives and disincentives specific to them regarding adopting restoration practices

Incentives

- Availability of planting materials.
- Capacity building.
- Social cohesion.
- Insufficient trees for domestic use.
- Economic empowerment.
- Good leadership.
- Market availability for tree nurseries.

Disincentives

- Lack of capacity building.
- Inadequate resources.
- Negative political influence.

Workshop participants were asked to identify incentives and disincentives regarding restoration policy mobilization and investor support

Incentives

- Political goodwill.
- Forest policies, regulations, and laws.
- Planetary crisis, drought, and destruction of biodiversity.
- Opportunities e.g., energy, carbon credits.

Disincentives

- Slow uptake.
- High cost of investment.
- Conflicting priorities of different political administrations - lack of continuity.
- Lack of political goodwill.
- Bureaucracy of the government especially regarding access to funds.
- Hypocrisy in the political class.
- Tree planting on land reclamation as a PR exercise.
- Unpredictable and harsh climate conditions.
- Pest, diseases, and invasive species.
- Inadequate capacity.
- Underappreciation of the environment's value.

Implementing organizations and NGOs were asked to identify incentives and disincentives specific to them regarding promoting restoration practices

Incentives

- Social responsibility - giving back to the society.
- Mitigating climate change.
- Restore productivity of the land.
- Improved livelihoods - economic sustainability.
- To create the holistic benefits of a restored land.
- Enhancing food security.
- Funding availability and enabling policy environment.
- Carbon market/carbon credits.

Disincentives

- Language barriers.
- Climate change impacts, such as unpredictable rain patterns.
- Insufficient funding.
- Ignoring indigenous knowledge.
- Low adoption of restoration practices.
- Politicizing restoration.
- Lengthy procurement practices.
- Land tenure issues.
- Lack of political goodwill.
- Lack of supporting legislation.
- Mistrust between NGOs and communities.
- Prioritizing monetary gain.

Mapping the Efforts of Local, National and Regional Partners

A group work activity was conducted to map different actors' restoration efforts. Greater documentation of restoration efforts across the country leads to better collaboration and engagement.

COUNTRYWIDE

- Ministry of Energy and Petroleum - development and implementation of bio-energy strategies and policies.
- Ministry of Water and Irrigation - land reclamation coordination.
- Ministry of Agriculture - Kenya National Agroforestry Strategy.
- One Vision Kenya - Devolution and Climate Change Adaptation (DACCA), tree growing, and policy mainstreaming.
- Ministry of Environment and Forestry - forest conservation and management, formation and implementation of policy frameworks supporting restoration, coordination of restoration programme, resource mobilization, and leads negotiations and implementation of Multilateral Environmental Agreements

MIGORI

- Trees for the Future - forest garden.
- Nyatike Mirema Community Forest Association (CFA) - Restoration, tree planting, and fruit tree value addition.
- KEFRI - training on nursery establishment and management, river bank stabilization, green spaces in towns, demonstration of restoration, and school tree planting.
- World Vision/KFS/KEFRI/ ICRAF (Regreening Africa) - FMNR promotion.

KISUMU

- Trees for the Future - forest garden.

HOMA BAY

- Earthlungs Reforestation - restoration/ reforestation.
- Homa Bay Prison - nursery establishment of indigenous trees.
- Trees for the Future - forest garden.
- Eden Restoration - restoration.

BUSIA

- World Vision - FMNR

BUNGOMA

- ELD Stockholm Environmental Institute - sustainable land management, and economic research and valuations.

NAKURU

- Safaricom - reafforestation in government degraded forests.
- Economics of Land Degradation (ELD) / Stockholm Environmental Institute - sustainable land management, and economic research and valuations.
- Kenya Forest Service (Kakamega forest) - restoration and rehabilitation of degraded areas.
- United Nations Development Programme (UNDP) - restoration.

KAKAMEGA

- Just Dig It - bunds

VIHIGA

- Ministry of Energy (Maragoli Hills Forest) - restoration and rehabilitation of degraded forests.

WAJIR

- Songa Youth Group - FMNR and tree planting.
- Oiko Diplomatique - land restoration, environmental peacebuilding, increasing forest cover, erosion prevention.
- FAO (Partners: KEFRI, KFS, KWF, National Rangelands Trust (NRT), NMR, Illmamusi CFA, Naruda CFA) (Mt. Kulal) - policy integration, bioenterprise development, direct and indirect restoration, ANR, knowledge management and sharing on restoration.

MARSABIT

- ELD Stockholm Environmental Institute - sustainable land management, and economic research and valuations.
- Just Dig It - GSBs.
- Kipsing, Charri, Cherub, Sericho, and Burat Schools - tree planting and FMNR.
- TRUST (Government Agencies, County Government, World Vision, Impact Kenya, Kinna Green Ambassadors, Waso Trustland Project) - Isiolo Conservation.
- Food and Agriculture Organization of the United Nations (FAO) (Partners: KEFRI, KFS, KWF, NRT, NMR, Illmamusi CFA, Naruda CFA) - Mugodo forest and landscape restoration, policy integration, bioenterprise development, direct and indirect restoration, ANR, knowledge management and sharing on restoration.

ISIOLO

- Safaricom - reafforestation in government degraded forests.
- Greener Communities Programme - tree planting, food forest project, sports for nature, syntropic farming, conservation modeling, environmental education, all of which are being done in schools and churches.
- Just Dig It - pasture restoration, FMNR/ Pastoralist Managed Natural Regeneration (PMNR), and addressing invasive species.
- UNDP - Magadi Restoration Project.

KAJIADO

NYERI

LAIKIPIA

- FAO (Partners: KEFRI, KFS, KWF, NRT, NMR, Illmamusi CFA, Naruda CFA) - Mugodo forest and landscape restoration, policy integration, bioenterprise development, direct and indirect restoration, ANR, knowledge management and sharing on restoration.

NAIROBI

- Oiko Diplomatique - land restoration, environmental peacebuilding, increasing forest cover, erosion prevention.

NYANDARUA

- ELD Stockholm Environmental Institute- sustainable land management, and economic research and valuations.

TURKANA

- ELD Stockholm Environmental Institute - sustainable land management, and economic research and valuations.

TRANS NZOIA

- Habex Agro LTD - fruit trees (avocado).
- Kenya Water Towers Agency (Mt. Elgon) - tree planting and FMNR.

ELGEYO MARAKWET

- Kenya Water Towers Agency - tree planting and FMNR.
- Cheptengis SHG - tree planting, FMNR, and nurseries.
- Oiko Diplomatique - land restoration, environmental peacebuilding, increasing forest cover, erosion prevention.

UASIN GISCHU

- Habex Agro LTD - fruit trees (avocado).
- Cheptengis SHG - tree planting.
- UNDP - Kaptagat Restoration Project.

BARINGO

- Habex Agro LTD - fruit trees (avocado).
- Kenya Water Towers Agency - tree planting and FMNR.

NANDI

- Earthlungs Reforestation (Old Bonjoge Forest, Kajulu / Kaptumek) - terrestrial restoration and agroforestry (2,150 ha).
- Safaricom - reafforestation in government degraded forests.
- Habex Agro LTD - fruit trees (avocado).

KWALE

- Earthlungs Reforestation (Mbuguni, Dongo Kundu Bridge) - mangrove restoration and beekeeping (1,165 ha).

KILIFI

- Earthlungs Reforestation (Kilifi Creek, Kuchi) - mangrove restoration and agroforestry (1,115 ha).

MOMBASA

- Earthlungs Reforestation (Majaoni/Mtwapa Creek) - mangrove restoration and agroforestry (500 ha).
- Safaricom - reafforestation in government degraded forests.
- Eden Restoration- mangrove restoration.

WEST POKOT

- Boma Ikologia - Holistic grazing approaches.
- Kenya Water towers (Weiwei forest area/Cherengani hills) - tree planting and FMNR.
- Cheptengings SHG - tree planting.

NAROK

- Just Dig It - pasture restoration, FMNR/ PMNR, and addressing invasive species.
- ELD Stockholm Environmental Institute - sustainable land management, and economic research and valuations.

KIAMBU

- Safaricom - reafforestation in government degraded forests.
- Eden Restoration- agroforestry.
- Trees for Future- forest garden.

ARID/SEMI-ARID AREAS

- Jaja Regeneration - Gully rehabilitation and erosion control, land reclamation through training communities in food forest approach.

MISSING ACTORS/EFFORTS

- IUN in Kajiado & Tsavo
- ASAL ministry
- TWENDE Project
- Nature Kenya restoration in Tana River
- Eden Restoration in coastal areas
- UN Environment
- UNDP - Forest Landscape Restoration Projects

Regreening Africa

Regreening Africa

COUNTRY PROGRAMME SUCCESSES AND LESSONS LEARNED

Brian Wambua, World Vision Kenya, presented on successes and lessons learned:

Successes

- Establishment of a Regreening Movement in project counties with stakeholders from all levels.
- Influencing a nation-wide restoration campaign leading to the government of Kenya's achievement of 12.13%, surpassing the set 10% target.
- Development of unique policy documents with unique restoration techniques applicable in fair environment contexts and harsh climatic condition areas, such as the Participatory Forest Management Plan (PFMP).
- Strengthening of tree-based value chains.
- Regreening approaches from FMNR, enrichment planting, fruit tree farming, tree nurseries production, rangeland management, among others, have been applicable in different environmental and climatic contexts despite prevailing drought and harsh environments.
- Adoption of the Regreening Africa App as an M&E tool for measuring land restoration impact by farmers and partners - 18,727 households, 422 tree nurseries, and 192,662 ha of restored land has been mapped.

Lessons Learned

- Strong partnership linkages are a key driver to sustainable restoration.
- Production and planting of tree species well suited for a regions particular climatic conditions is key for a high survival rate.
- Climate change is a major impediment to restoration, species survival, ecosystem stability, and community livelihoods, hence, restoration efforts in line with climate change mitigation and adaptation strategies should be enhanced.
- Building the capacity of partners and communities in technical restoration areas is a major driver to sustainable restoration.

DAY 1 CLOSE

Day 1 of the workshop concluded with the following questions being posed to the participants

Question?

On a scale of 1-5, how optimistic are you about the potential for **dramatically scaling land restoration** in Kenya?

- Average response: 4

On a scale of 1-5, How **empowered do you feel to positively impact** land restoration in Kenya?

- Average response: 4

DAY 2

Opportunities for Scaling through Sustainability Planning

Lucy Ojijo, World Vision Kenya, presented on sustaining Regreening Africa:

Objectives for Sustainability Planning:

- Create opportunities for long-term thinking.
- Identify key interventions in the final years of the project to support sustained efforts after project closure.
- Identify how various partners, including communities, can develop a joint long-term vision and sustainable pathways toward achieving this vision.

Steps in Sustainability Planning

1 Identification and definition of communities

- The project focused on Nyatike (Migori) and Lambwe (Homa Bay County).

2 Community vision mapping

- Several visions were created which can be summarized into the following vision statement: *To attain a diversified and sustainable environment that enhances food security, value addition, and increases the tree cover for better health and livelihoods.*

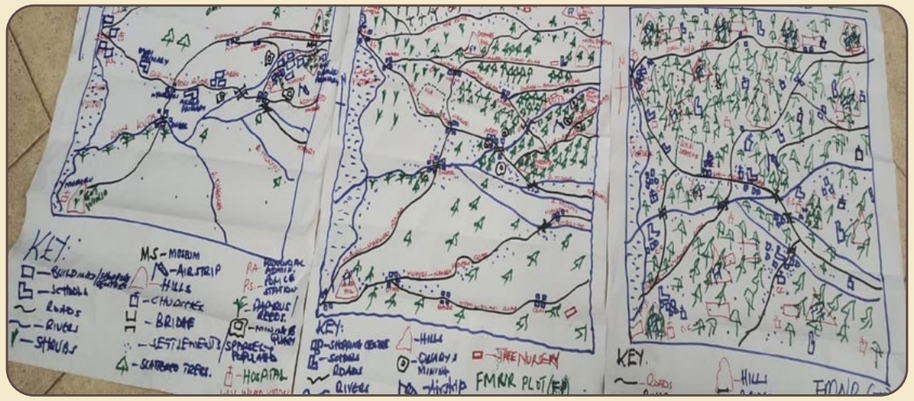


Image: Vision Map for Nyatike

3 Causal consensus

- Assessing the map generated, the communities identified barriers and their root causes underpinning the achievement of the desired vision.
- Identified barriers included climate change, mining, excessive tree felling, and unwillingness to adopt technologies.

Action required from Individual/ Community	Institutions/ Associations	Goals of Strategic Partnerships	Actors Responsible	ACTIONS		
				Immediate	Short Term	Long Term
Identified Barriers - Climate change						
• Plant trees • Manage existing trees • Value addition of tree products • Manage fruit tree mother blocks • Diversify livelihoods to include beekeeping and vegetable gardening	• Value addition • Marketing • Linkages for seedling, tree, and livestock product markets • Technical backstopping • Advocacy • Security • Bylaws	• Scaling to new areas • Market outlets • Proposals for funding • Finances to expand nurseries • Policies to strengthen community resilience to climate change	• Chief • Lead farmers • CFA • KEFRI • World Vision • KFS • Regreening Africa • ICRAF	• Mobilization and sensitization • Seed collection • Acquiring potting materials • Increasing rootstock product • Acquiring beehives • Setting up apiary • Plant forage trees	• Expand the number of nurseries • Grafting, budding, planting • Sourcing for funds from DACCA on climate change adaptation	• Planting • Processing of fruits • Collection centers • Market linkages
Identified Barriers - Mining (Nyatike)						
• Plant trees at mine sites • Sensitization on sustainable mining	• Advocacy • Bylaws • Policy enforcement	• Rehabilitation of mines • Financial support • Fundraising ideas • Resource mobilization	• Miners • Community • The local and provincial administration • County Government • NEMA	• Preparation of area for planting • Planting trees • Refilling mined holes • Sensitization of sustainable mining	• Planting trees • Refill the mined holes • Advocacy • Bylaws	• Use new mining technology • Marketing
Identified Barriers - Excessive Tree Felling						
• Report illegal loggers to the chief • Provide community patrols at the hills and public lands • Plant trees on the hills	• Support CFA in the management of community forests • Penalize illegal loggers • Launch tree-planting campaigns • Offer seedling support • Offer training on sustainable wood fuel production	• Funding for efficient intervention by the national government in sustainable tree management • Provide alternative livelihood options	• CFA • Local chief • County and national government • Local community	• Sustainable wood harvesting • Tree planting campaigns • Enrichment planting in the hills	• Planting trees	• Use efficient kilns • Planting more trees
Identified Barriers - Unwillingness to adopt technologies						
• Sensitize the community on sustainable landscape management		• Sensitize the community on sustainable landscape management	• Lead farmers • CFA • Chief • Government	• Sensitization of communities on land management	• Exchange visits	• Establishment of demo plots on different technologies

Regreening Africa

4 Identification of assets and stakeholders

- **ABCD** and assessing and mapping local institutions can result in the community discovering that they could partner with existing external actors to support their development journey, in addition to fully community-driven efforts.
- Communities are the largest stakeholder.

IDENTIFIED ASSETS OF HEAD, HANDS, AND HEART

Head	Hands	Heart
Creativity	Potting	Passion for the environment
Visionary	Grafting	Tolerance/patience
Listening	Operating farm equipment like tractors	Resilience
Communication skills e.g., presentation/teaching skills	Molding	Empathy
Marketing and salesmanship	Writing (report writing)	Sympathy
Organizational skills	Photography	Generosity – willing to share experience, skills and resources
Planning	Planting tree seedlings	Caring
Decision-making	Nursery establishment	Teamwork
Problem-solving	Practicing FMNR	Sharing
Skills acknowledgment	Grafting	Collaboration
Agroforestry	Making beehives	Donation
Conflict resolution	Pruning and thinning	Distribution of seedlings
Monitoring	Tree planting	Judgment skills
Mobilization	Harvesting	Collaboration
	Weeding	
	Fencing	
	Watering	
	Potting	

INNOVATIVE REGREENING APPROACHES

Haron Mogeni Omweri, World Vision Kenya, presented on various regreening approaches:

Kenya Prisons Homa Bay

- Inmates become involved in restoration.
- 10,000 seedlings of different species have been planted thus far.
- 5 to 10 seedlings are given when an inmate is released.
- Inmates have also received training on how to build beehives.

Nurseries

- Mbita high school established a nursery. They were trained on establishing nurseries, management, and transplanting. They have successfully transplanted 3,000 trees.
- A tree nursery at KFS Homa Bay has been established.

Lead Farmers

- Lead farmers have integrated beekeeping, papaya production, and tree planting/management as well as undertaken the construction of the beehive project.

Laura Mukhwana, ICRAF, presented on:

- A Restoration Conference showcasing the progress and gaining buy-in from various actors
- Thematic webinars
- Action groups - Youth and Women, Agriculture, Rangelands, and Faith-based
- Capacity building programmes
- Groups coming up with proposals
- Models of restoration approaches

Other approaches discussed included:

- Community field exchanges
- Organic farming
- FOLAREP
- Agroforestry strategy within the Ministry of Agriculture

Question?

Do Nyatike people mine in the forest or outside the forest? The current policy does not allow mining inside the forest.

- They are also mining in the forest, but mostly they do it outside of it.

Comment(s):

- County government officers are missing - they should be involved in exchange field visits.
- Regreening in prisons should be scaled up.

PANELIST CONVERSATION - PERSPECTIVES ON SCALING LAND RESTORATION IN KENYA: A SCIENCE, COMMUNITY, PRACTICE, POLICY AND INVESTMENT DIALOGUE

The panel was made up of Milton Oboka (One Vision Kenya), Dr. Beryl Otieno (PhD), Rose Akombo from KFS, Professor Donald Ogweno, William Okello, and Robert Kirui (private sector)

Dr. Beryl Otieno (PhD) discussed the importance of disseminating findings, which helps bridge the gap between research and practice and integrates research into the decision-making process.

Question?

What needs to be done to scale restoration and to continue private sector investment?

Robert Kirui (private sector), emphasized the importance of growing profitable trees, providing communities with a source of livelihood, increasing marketing, and government promotion.

Milton Oboka (One Vision Kenya), presented on the importance of involving local leaders and communities when implementing restoration activities, and noted that a shared vision must be established between all stakeholders.

William Okello noted that fruit production, offering FMNR extension services, and supporting networks for the sustainable supply of seedlings are key opportunities for scaling restoration. Regarding support required for scaling restoration, William further noted that the gap between country governments and communities must be addressed and a budget for environmental conservation must be established.

Question?

How can we ensure that policies can be adopted and domesticated at the county level?

Rose Akombo (KFS) noted that while many policy frameworks are at the National level, there is a need to cascade policies to the county level. Counties can then adapt policies as needed to work best in their respective contexts. Rose also spoke on the need to establish a strong climate change fund.

Professor Donald Ogweno noted that counties are the primary managers of land and that health and education services have been devolved to counties. Despite all these duties and responsibilities, counties receive relatively little funding from the annual budget. As a result, counties have limited resources to employ technical officers. Additionally, devolution of activities has significantly limited the reach of KFS, which once had staff at the divisional level. Professor Donald Ogweno also noted that there is a commitment of 20% of the annual budget to healthcare and 15% to education under Africa Vision 2063.

Panel questions and answers

Are tree nurseries in a position to produce the seedlings?

- KFS has 30 million seedlings and they are growing them with partners. KFS grows 10% and partners grow the remaining 90%.

Are communities in a position to write good project proposals?

- Capacity building is still needed.

What are the priority actions and timeline for Scaling Restoration in Kenya considering our Vision?

There was a group discussion on the barriers to promoting restoration. The outcomes of the discussion are given below.

Barriers and Gaps to Promoting Restoration

Who to solve

- Project officers
- Courts (judiciary)
- Ministry departments
- Civil society groups
- Land commissions
- Civil society
- NGOs
- Community expert
- Local media
- Farmers
- Experts
- NGOs

- Politicizing restoration
- Lengthy procurement
- Land tenure
- Mistrust between NGOs and communities
- Climate change
- Language barrier and narration

Recommendations

- Keep restoration and politics separate
- Choose the right leaders
- Empower communities on the ground
- Have politicians commit to politicize restoration (Green letters of commitments by politicians and civil servants

- Early planning
- Land digitization programmes
- Promoting transparency
- Mechanisms of upgrade cards (Green, Amber, Red)
- Match habitat with species
- Find credible organizations that can help educate the communities on matters concerning climate change

Short term:

- Incorporating storytelling
- Partnering with local media to translate
- Use visuals
- Peer-peer learning
- More demos than theory
- Refer people to webinars on financial management training
- Partnerships with NGOs
- Simplification of the process of acquiring funds for research
- Available funding should be used

Long term:

- Traditional and cultural values integration and preservation

Barriers and Gaps to Mobilizing Policies and Investments

Who to solve

- All stakeholders in restoration, e.g., KFS, Kenya Water Towers, KEFRI etc.
- All stakeholders in restoration, e.g., KFS, Kenya Water Towers, KEFRI etc.
- State and non-state actors and communities
- State and non-state actors
- All stakeholders in restoration, e.g., KFS, Kenya Water Towers, KEFRI etc.
- All stakeholders
- State and non-state actors, communities

Recommendations

- Politicizing of restoration efforts especially when it comes to removal of encroachments
  - Lobbying
- The need for gazettement of more forests to ensure protection
  - Lobbying
  - Creating value to the restoration efforts, e.g., income generating activities
- Lack of resources (financial & human)
  - Lobbying
  - Capacity building
  - Aligning with county planning processes
  - Creating value to the restoration efforts, e.g income generating activities
- Lack of coordinated approach among the actors in restoration
  - Government, law advocacy groups, human rights organizations
    - Providing legal protection to vulnerable groups in the community
  - Land ownership
  - Unfavorable/ harsh climate conditions
    - METDEPT, NDMA, Red Cross, Research Institutions
    - Developing and adopting early warning systems
  - Lack of continuity of projects
    - State and non-state actors, communities
    - Creating value to the restoration efforts, e.g., income generating activities
  - Power dynamics between county government and national government
    - All stakeholders
    - All stakeholders
    - All stakeholders
    - Stakeholder forums to be held, e.g., COG (Council of Governors)
    - Mediation and continuous engagement
    - Aligning with county planning processes
  - Lack of information: who is doing what, and where, which are the right species for an area, etc.
    - All stakeholders
    - Aligning with county planning processes
    - Capacity building State and non-state actors
    - Capacity building

Barriers and Gaps to Adopting Restoration

Barriers and Gaps	Recommendation (2022-2025)	Recommendation (2025-2030)	Responsible	Timeline
Inadequate government support, e.g., provision of resources	Devolve HR in KFS and their functions		Government	Long-term and short-term
Climate change	Adopting new agricultural practices	Sustainable soil and water conservation Communities to allocate their resources during public participation	Government and research institutions	
Inadequate awareness on land restoration	Local advocacy using local radios, barasas and TV		Local leadership	Long-term and short-term
Poverty	Diversify income generating activities	Alternative livelihood e.g., pastoralist move to beekeeping	Research institutions	
Inadequate skills to adopt different restoration	Capacity building and exchange programmes		All stakeholders Government	
Poor infrastructure (market access)	Improve infrastructure			

CELEBRATION OF CO-CREATION AND COMMITMENT

The workshop concluded with participants making commitments to restoration. Some of these commitments are presented below by organizations and individuals:

Stockholm Environment Institute/ Economics of Land Degradation Initiative

- Creating awareness on the value of SLM practices in Kenya.
- Capacity building on the value of land restoration initiatives.

GRECOP

- Working with communities to create community forests.

KFS-Migori

- To restore, protect, and conserve degraded areas, within Migori through FMNR and working with the CFAs.

CFA Nyatike Migori

- To expand farm activities and collaborate with landscape restoration practices to promote the project.
- Sensitizing other farmers and groups to engage in fruit farming.

ACIAR

- Fund new research to ensure the great work everyone is doing is robust to ongoing climate change and help Kenyan farmers make the transitions that will help them be successful under climate change.

Earthlungs Reforestation Projects (Kenya)

- To plan, grow, protect and conserve 100 million trees in Kenya through forest adjacent communities between 2022 and 2027.
- Make forest adjacent communities the true custodians of public indigenous forests.
- Sensitizing other farmers and groups to engage in fruit farming.

MEF

- Formulation of policy frameworks to accelerate restoration.
- Coordination of restoration programmes.
- Resource mobilization for restoration interventions.

LAKECA

- Improve forest cover by training communities how to grow seeds to seedlings and transplanting.

Kenya Water Towers

- Agency is ready and willing to work with partners to restore degraded land and especially water towers in the country.

Ministry of Agriculture

- To conclude the development and implementation of Kenya's National Agroforestry Strategy.
- Coordinate resource mobilization for implementation of Kenya's National Agroforestry Strategy in the country.

World Vision (Kenya)

- We are working with community and other stakeholders to restore 250,000 ha of degraded lands.

Safaricom PLC

- To grow 5 million trees by 2025.

Greener Communities Programme

- Plant more trees.
- Share seedballs with the community.
- Organize mass education on restoration.
- Go to more schools and form environmental clubs and ensure they are active by being personally involved.
- Fundraising and using it together with my skills to educate others in restoration.

INDIVIDUAL/PERSONAL COMMITMENTS

- To train communities in permaculture designs, erosion and gully restoration, and ground cover, enabling them to turn the degraded land into fertile oases, one village at a time.
- Champion the restoration efforts at the landscape level.
- I commit to help with more fundraising for restoration.
- I will engage more area specific tree growing for the ASALs.
- Working with the community to restore 100 ha of land in the next 2 years.
- Fundraising and resource mobilization for supporting restoration movement in Kenya.
- Engage with county and national government in design, implementing and monitoring FLR activities.
- Utilize my skills and knowledge to create a model for incentivizing restoration.
- I commit to train local farmers on sustainable tree planting/growing fruits.
- Resource mobilization and establishment of different kind of seedlings.
- To train 100 youths and women on land restoration techniques.
- Participate in research that generates evidence that contributes to the restoration agenda.
- I commit to protect the environment around me and will encourage others to do the same.
- I will also promote the establishment indigenous tree seedlings for restoration of forests.
- To involve myself on land restoration activities, especially to increase economic value of land restoration.
- Support 500 smallholder farmers to plant 30,000 avocado seedlings from next year's April rains.
- Raise evidence and support for restoration.
- Sharing tree germplasm knowledge.
- Continue supporting the restoration activities (already existing) to actually achieve the goal we set.
- Resource mobilization on behalf of Cheptengis nursery to produce quality seedlings for land restoration.
- Educating the communities on dangers of climate change.
- Working with the local communities to lead restoration efforts.
- Getting more funds to help achieve organizational goals and objectives.
- Working with the community to restore land in 2 years.
- Utilize skills and knowledge to create a model.
- Protect the environment and encourage others to do the same.
- Expand farm activities.
- To formulate policies.
- Coordination of restoration programmes.

Regreening Africa

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SAHEL ECO

ELD The Economics of Land Degradation