

Insights on the Regreening App Uptake and use by stakeholders in Makueni and Taita Taveta

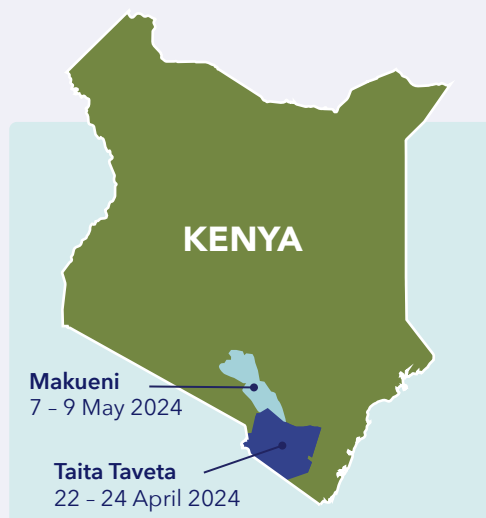
Kelvin Trautman/CIFOR-ICRAF

Research Summary Brief

Background

Under the UK PACT funded project '[Delivering nature-based solution outcomes by addressing policy, institutional, and monitoring gaps in forest and landscape restoration](#)', CIFOR-ICRAF have undertaken practical training sessions with various stakeholders on using the Regreening App, a citizen science data collection initiative that enables farmers, government agents, project officers and implementors to track and provide evidence of restoration practices on the ground by reporting data on key indicators of land restoration.

This knowledge brief seeks to outline uptake of the Regreening Mobile App following two three-day practical workshops attended by a range of multi-disciplinary participants¹.



UK PACT Regreening App and data reporting system training of trainers workshop, Wote, Makueni County.



A three-day practical training in Taita Taveta County on using the Regreening App for forest and landscape restoration.

¹ County government departments (Lands, Urban Planning & Development, Climate Change and Environment), Women and Youth Group members, Community Forest Association members, KFS, Nature-Kenya as well as other Foundations and Initiatives.

Each of the training sessions included a full day on all of the Regreening App's features, a full day dedicated to collecting data from the field and then a final day on data analysis and reporting – capacitating participants to bring the collected data to life.

Day One

INTRODUCTION TO THE APP



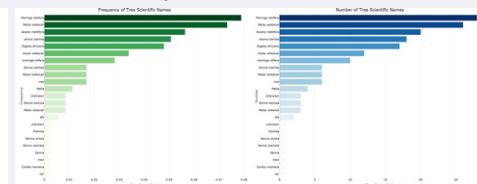
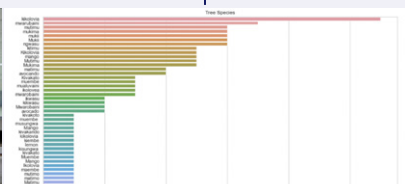
Day Two

FIELD WORK



Day Three

EXPLORE COLLECTED DATA



Photos: CIFOR-ICRAF

Sample of respondents

30 respondents – 18

females and 12 males – who had attended one of the App training sessions in April 2024 were interviewed representing county

government, community forest associations (CFAs), community business organizations (CBOs) and non-profit organizations (NGOs) from both counties (Makueni [Wote, Tawa] and Taita Taveta [Mwatate, Wundanyi, Voi, Taveta]).



The average age of respondents was 36, with the female average age also being 36 and the males 37. The youngest respondent was 24 and the oldest 71.

Regreening App Training Objectives

The objectives of the workshops were to build the capacity of participants to collect information on forest and land restoration efforts. This collected information would not only contribute to a global database helping to demonstrate macro-trends, but also help participants to inform restoration solution and resource management decisions. This may be at personal, business and/or county or national policy levels.



UNIQUE FEATURES OF THE REGREENING 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.

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.

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.

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

The App enables offline data collection, thus making data submission possible when internet connectivity is not available.

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.



Preliminary Results

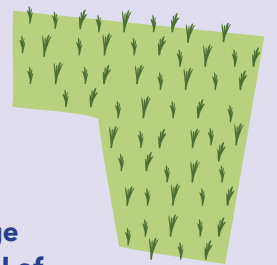
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1 Knowledge, Importance, Priority

To start, respondents were asked about their **knowledge on documenting forest and landscape restoration related data**. Before the training the average knowledge was 'Low' (2/5, n=30), with no difference between male and female respondents. After the training, average knowledge had increased to 'High' (4.2/5, n=30), with no difference between male and female respondents.

Next, respondents were asked whether the **level of importance they gave documenting forest and landscape restoration related data** (including nursery registration) had changed since the training. Before attending the training, the average response was 'Low importance' (2/5, n=30), with female respondents giving less importance ('Low importance') than males ('Medium importance'). Since the training, respondents now designated such documenting 'High importance' (4.4/5, n=30). Male respondents' current level of importance was higher than females' ('Very high importance' compared to 'High importance').

Respondents were then asked how much of a **priority documenting forest and landscape restoration related data** (including nursery registration) was considered among them and their peers. Before the training, it was 'Not much' (2/5, n=30) of a priority, male respondents having considered it a priority slightly more than females. Since the training, the priority level had shifted to 'It very much is' (5/5, n=30), with male respondents giving a slightly higher score than females.



Some specific examples that illustrate the change in knowledge, level of importance and priority towards documenting forest and landscape restoration related data include:

"I gained knowledge on the monitoring of tree growth by measuring CBH", male respondent from Wote

"I learned about key indicators to evaluate land health eg. biodiversity, tree cover, soil organic carbon", female respondent from Wote

"Informed decision making on growing right tree species matching right locality", female respondent from Wote

"I am also able to record households adopting tree planting and map areas under restoration", male respondent from Wundanyi



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2 Application, Dissemination, Onward Training

97% of respondents (29 of 30) had used the regreening app since the training² and had done so over 200 times. All female respondents had done so (n=18). Some examples of use since the training were for personal use, government projects, Hatua FMNR plot, Jumuisha Initiative Project, community-based tree nurseries, youths landscape restoration engagements and an Mbololo ward climate change initiative. 17 nurseries had been recorded by app users in Taita Taveta.

Of the module/s of the app that respondents had or will use/d most frequently, **83% answered the tree planting and nursery modules**, 48% the farmer-managed natural regeneration (FMNR) module and 41% the engagement module (multiple choice possible, n=29).

Of the key indicators of land restoration and data that respondents thought would be most useful in their role, **90% considered plant survival rate** to be the most useful, followed by number of trees planted (86%), tree species planted (79%), tree species managed (66%), georeferenced locations of tree nurseries (55%), georeferenced location/polygon of tree planting/FMNR area (45%) and size (height and diameter) of trees planted/managed (41%) (multiple choice possible, n=29).

86% of respondents thought the biggest potential for use of the data collected by the app was to **inform local action/decision making**, 69% to inform future projects, 72% to provide accurate reporting from county to national government and 45% to help attract carbon credits (multiple choice possible, n=29).



Some examples given were:



“We are able to crowd source and know specific tree nurseries in a certain locality, thus improved market linkages”, female respondent from Wote

“Improved tree survival rates since one is able to grow right species to right area”, female respondent from Kibwezi

“Help nursery operators on effective cost-benefit analysis in nursery production enterprises”, female respondent from Wote

“Documenting forest and landscape restoration is now popular among my peers in Taita hills”, male respondent from Wundanyi

“At first we didn’t consider much about the survival rate of our seedlings, but currently this is a great concern to all of us”, female respondent from Wundanyi

² The one who hadn’t did not proceed with the questionnaire, reducing the sample size to n=29.



Respondents thought they would 'Often' 4/5, n=29) use the app, both genders providing similar answers ('Often')³. However, only 24% (n=29) had used the Data Reporting System (DRS) since the training they attended, with some outlining that more training was required⁴. More males (36%, n=11) had used it than females (17%, n=18).

Respondents were asked about the extent to which they had applied at least some of the training content across different aspects of their lives.

Professionally, respondents had 'Highly' (3.5/5, n=30) applied at least some of the training material, with males giving a slightly higher average score than females.

Some examples of professional application included:



"Recording the seedlings I supplied to my clients", female respondent from Wundanyi

"As a team, we have been doing so much tree planting activities in schools, rescue centres and at homes and all this was ignited by the regreening app knowledge", female respondent from Taveta

"I was able to update tree nursery species data and also monitor grown trees", female respondent from Kibwezi

Respondents had also 'Highly' (3.5/5, n=30) applied at least some of the training in their own (on farm or within community, for e.g.) lives, with females giving a slightly higher average score than males.

Some examples of personal application included:



"I used the app to get the actual plot of land in my area", female respondent from Voi

"After the training I got motivated to plant more trees. During the training I had only five trees, but now I have forty", female respondent from Taveta

"I have been able to reach out to women groups and youth groups and trained them on the same. I have also reached out to church groups", female respondent from Tawa

97% of respondents (28 of 29) said they had **told someone who did not attend** the training sessions about some of the training content. **100% of female had done so.** Groups who had been told included: ward climate committee, nursery owners, women groups and a youth group.

All respondents were interested in training others on the use of the app, with most likely recipients of the onward training being farmers and community groups (including tree nursery groups) and in some instance's local government departments.



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³ During a workshop over the 26 and 27 March 2025, 29 participants ranging from government to civil society were asked how likely they were to use the Regreening App in their position, with 3% stating A bit likely, 10% Somewhat likely, 48% Likely and 38% outlining they were Very likely to use it.

⁴ During a workshop over the 26 and 27 March 2025, 27 participants ranging from government to civil society were asked how likely they were to use the Data Reporting System (DRS) in their position, with 7% stating Not at all likely, 4% stating A bit likely, 11% Somewhat likely, 56% Likely and 22% outlining they were Very likely to use it.

Recommendations



Respondents made several recommendations on ways to ensure prolonged uptake and use of the app. These included ongoing training facilitation (logistics, transport allowances) from CIFOR-ICRAF for peer-to-peer training to take place, technological inputs (smartphones), training materials such as a manual and clear feedback on the quality and consistency of the submitted data.

Suggestions on what could be added to the app included:



Translation to Swahili and/or local language.



Also under the Nursery Module, allow information on where certain seedling can be located.



Auto-generation of scientific tree name based on local name.



Being able to preview and edit the data before sending it as it could take several days.



Auto-generation of scientific tree name based on a photo.



Create an IOS version.



Under the Nursery Module, adding a column for tree species, quantities available, current status (e.g. age or height/diameter) and their respective prices.



An illustration of three people (two women and one man) standing around a large document. The woman on the left is holding a tablet, the woman in the middle is holding a folder, and the man on the right is holding a laptop. They all have question marks above their heads, suggesting confusion or uncertainty. The document they are looking at has a question mark on it as well.

Consistent sensitisation on the use of the app is also required to prevent negative speculation on why data is being collected.

Respondents outlined that they would like to be able to access the data collected and already sent, especially to use results and trends to inform policy.

Finally, there was a mention of political interference, with farmers being advised to not allow anyone to gather information from their farms to prevent potential government taxation.