Regreening Africa

Ghana Synthesis Report

Joint Reflection and Learning Missions

CRS CATHOLIC RELIEF SERVICES

World Vision

This project is funded by the European Union

World Agroforestry

ACKNOWLEDGEMENT

This report was produced by Regreening Africa team. Special acknowledgements to the staff of World Vision Ghana led by Edward Akunyagra and the staff of CRS Ghana led by Mawuli Asigbee and Philip Atiim, the ICRAF project management unit, the SHARED team and ICRAF-Sahel staff for organizing the Joint Reflection Meeting. Special thanks to the field officers in all the sites for organizing the field work and the communities for their reception and useful interactions. We would like to thank the NOCC representative, project partners and project activity component leaders for providing useful feedback during both the field visit and the workshop. The SHARED team appreciates the useful reviews from World Vision Ghana, CRS Ghana, ICRAF global office and ICRAF-Sahel office on the draft report which significantly improved the quality of the final report.

Disclaimer

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INTRODUCTION AND APPROACH

The joint reflection and learning missions were designed using the Stakeholder Approach to Risk Informed and Evidence Based Decision Making (SHARED) methodology, to create an innovative monitoring, reflection and learning opportunity between implementing Non-Governmental Organisations (NGOs), World Agroforestry scientists and other partners engaged in implementation or oversight at the national and local levels. The mission involved two days visits to project field sites to update on implementation progress and two days discussion/reflection workshop to understand prevailing challenges, assess scaling modalities and technical implementation constraints and opportunities. The field visits included interactions and discussions with farmers, who are the project's primary beneficiaries on opportunities and barriers for adoption of various technologies and practices promoted by the project. ICRAF scientists had an opportunity to share data/evidence face to face from baseline and value chain scoping surveys.

The objectives of the joint reflection and learning missions were as follows:

- To provide a platform for mutual learning on what is working and what could be improved in terms of implementation;
- To review the data/evidence from multiple sources (completed studies and field experience) and to enhance project planning for improved impact;
- To discuss all issues (both technical and managerial) that remain unclear and find a way forward; and
- To identify and agree on action points and activities to be included in the Year 3 Activity Plans and budgets.

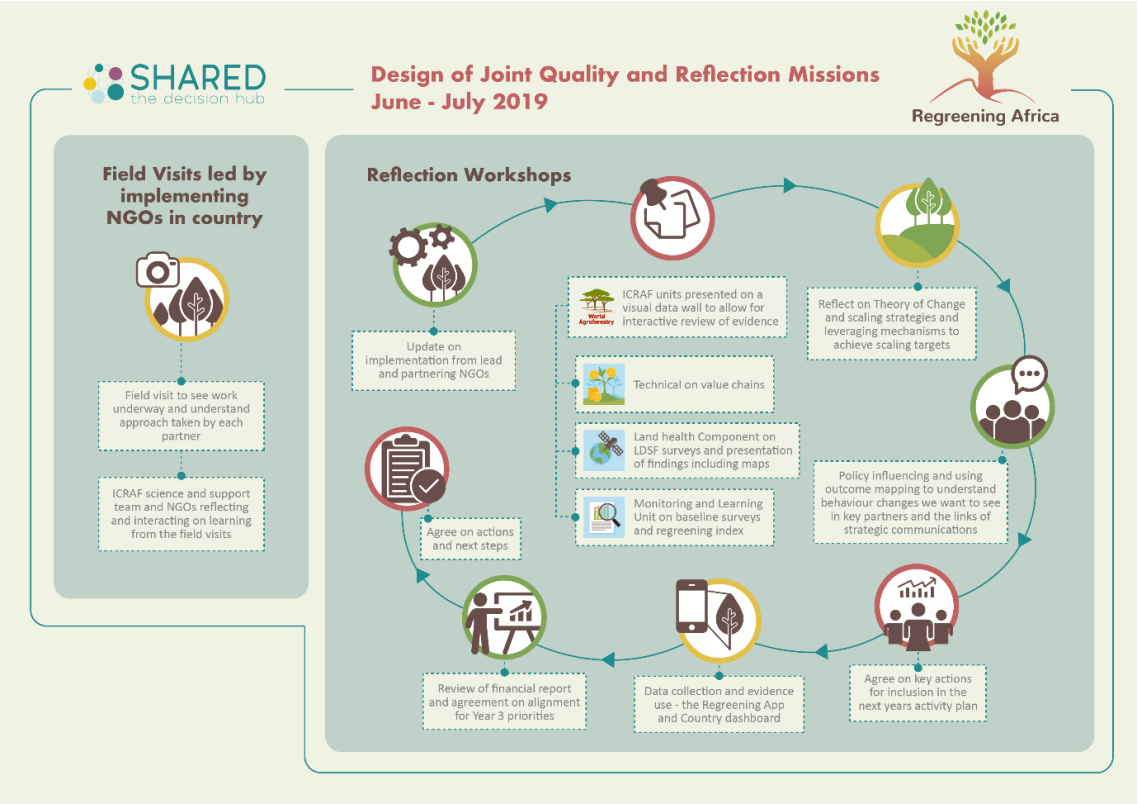

Figure 1: Design of Joint Quality and Reflection Missions using the SHARED methodology.

GHANA PROJECT BACKGROUND

In Ghana, the project is being implemented by World Vision Ghana (WVG) with the support of Catholic Relief Services (CRS), coordinated by the World Agroforestry Centre (ICRAF). The project's goal is to contribute to reversing land degradation and encourage the practice of evergreen agriculture among 40 000 households covering 90 000 ha. by 2022.

This project builds on the years of experience gained from similar projects, such as the Famer Managed Natural Regeneration (FMNR) project in Talensi District.

IMPLEMENTATION UPDATE

Key project achievements during the reporting period

The semi-annual report indicates to date, 480 lead farmers (240 males and 240 females) received technical training in Farmer Managed Natural Regeneration (FMNR) in Bawku West and Garu Tempane Districts. In addition, these farmers benefited from firefighting and management training to deal with the perennial issues of bush fires, thereby becoming community firefighting volunteers. 1050 farmers (649 males and 401 females) received composting training to help farmers replenish lost soil nutrients and maintain nutrients of existing, well-functioning soils. Beneficiary registration was carried out in 59 communities in the Mion district with 1 995 direct beneficiaries consisting of 665 females and 1330 males.

Within the report period, the project managers attended the Steering Committee Meeting in Addis Ababa, Ethiopia from 20th to 23rd November, 2018.

Three supporting staff (Northern Regions Operations Manager, Household Food Security and Resilience Technical Programme Manager and the FMNR Project Manager) and the Agricultural Programme manager for CRS attended the Beating Famine Conference in Bamako, Mali from the 26th to the 28th of February 2018. These two important events created the platform for World Vision International (WVI) and Catholic Relief Services (CRS) to experience peer learning on various regreening approaches to upscale the restoration of degraded landscapes. The Steering Committee Meeting provided an opportunity to guide country teams to review and refine their Theory of Change (ToC) and scaling up strategy. Ghana has since revised its ToC and scaling strategies and has resubmitted these to the Programme Management Unit (PMU).

Ghana held its Stakeholder Approach to Risk Informed and Evidence Based Decision Making (SHARED) Workshop in November 2018 at Radach Lodge in Tamale. The workshop brought together national and regional government officials, donors, Non-Governmental Organisations (NGOs), traditional authorities, grassroots organisations and farmer representatives. The workshop offered participants the opportunity to learn about various regreening projects across the three Northern Regions (Northern, Upper East and Upper West) of Ghana. These projects include the Dakar River tree restoration, the Sustainable Land and Water Management Project (SLWMP), and many others. The workshop ended with agreements on concrete steps in terms of coordination, commitment and funding on how these projects are able to collaborate and have a larger, collective effect on restoration efforts.

The National Oversight and Coordination Committee (NOCC) held its second meeting on the 19th of October, 2018 in Accra. Members assessed the progress of year one implementation

successes and challenges and discussed learnings going forward. Members approved the work plan and budget for year two.

Due to the constant engagements between the project partners and stakeholders, there were no observed significant programmatic challenges that affected the smooth implementation of project activities for the reporting period.

FIELD VISIT SUMMARY

Description of field site visit

Field visits were conducted between 26th - 31st May 2019 in Garu Tempane and Mion Districts.

Garu Tempane District - visit to Tuduriga village and an FMNR farm where project team interacted with lead farmers, opinion leaders, women's' savings group and volunteer fire fighters, to learn on project roll-out plans, successes and challenges experienced. In addition, project team also visited Batiyok farmer group to interact with lead farmers and opinion leaders on progress to implement FMNR related activities

Figure 2: Field site visits.

Mion District - visit to Kanimo village where the team interacted with women groups, lead farmers and other community members. The team visited a nearby FMNR site whereby some farmers had initiated FMNR practices and learnt the measures to put in place to ensure the area is protected

Key observations, learning and reflections from the field visits

SCALING AND LEVERAGING

- Have exchange visits between WV and CRS sites as a learning platform and motivation or farmers to take up regreening practices
- Need to help address water challenge in Mion District for example through links with WV's WASH project or link the village leaders with other water projects as this was identified as a key need when CRS was conducting needs assessment.
- Need for complete saturation (reaching all farmers) at village level since adoption surveys are based in randomly selected households.

TREE SEEDLINGS / NURSERIES CHALLENGES

- Available tree nurseries are located far from the communities

VALUE CHAINS AND MARKETS

- Develop business plans as per Bamako training
- Allocate resources to develop identified value chains in year 3 and 4
- Link up with other actors (e.g. GSA) to strengthen identified value chains

COMMUNICATIONS

- Good community mobilisation was evident
- Need to document experiences through a regular newsletter (monthly, bi-monthly or quarterly) to be circulated to all project partners in Ghana including NOCC members, NDA, etc to upraise them on project progress and enhance continued support

GOVERNANCE AND LOCAL INSTITUTIONS

- Leverage on district officials, chiefs and other local leaders to influence policy decisions on land and tree tenure, charcoal burning, fire management, etc
- Maximise on faith leaders and lead farmers to spread regreening messages

WIDER PRACTICE AND POLICY

- Documentation and leveraging on districts officials, Northern Development Agency and other relevant local institutions to influence decisions and create a regreening movement on the ground for scaling

TECHNOLOGIES AND PRACTICE

- There is need to improve uptake of regreening activities at farm, village and district levels as current uptake levels were very low.
- Need to change communities perspective on tree cutting through targeted messages on billboards, t-shirts and verbal messaging during meetings

- Time required to undertake regreening activities is long and therefore there is need to integrate incentives that can be realized within a relatively short period of time
- There is need to establish the appropriate tree density of farm and intensity of other practices that meets the threshold for us to say that farm, village or area has been successfully restored—please refer to EU guidelines shared by Patrice.
- Enrichment planting of indigenous and fruit tree species is needed.
- There is need to manage community expectations as some requests (e.g. drilling boreholes) were beyond the remits of the project.
- Primary focus in Mion district should be on protecting communal areas

STAKEHOLDER AND COMMUNITY ENGAGEMENT

- Farmers did not easily share strong evidence of regreening activities during field visits, most affected was Mion district.
- There is need to implement the SHARED road map which identified collaborations and partnerships with other actors (please refer to the SHARED workshop report)

CAPACITY DEVELOPMENT AND EXTENSION

- Establish community needs and how they can be met in terms of technical support

INCLUSION, GENDER AND YOUTH

- Youth engagement opportunities need to be identified and included
- Barriers to women involvement – gender aspects require further work (Gloria's research to provide more insights on this).

Monitoring, Evaluation and Learning

- There's room for partners to learn from each other through regular exchange/co-learning meetings
- Identify leveraging options as per the guidelines shared by ICRAF
- Budget for and roll out key monitoring tools including annual uptake surveys, regreening Africa app
- Monitoring visits to be done annually

REVIEWING THE KEY PROGRESS

INTERACTIVE EVIDENCE WALL

To support the project, various surveys were conducted prior to reflection missions. To ensure this information was shared in an accessible form and that project partners could understand and interrogate this information, it was displayed in a data wall, where maps, graphs and other results were printed and pasted around the meeting room walls. The data wall provided an opportunity for scientists and development partners to discuss the relevance of the data, validate the findings and ensure it is presented in an understandable format. They are also able to discuss how the findings will be used to inform the project planning and help communicate with partners, including the community and government.

Data was presented from various project-supporting components (see Figure 4) including baseline data from the Monitoring, Evaluation and Learning (MEL) team, land health maps

and field data from the Land Degradation Dynamics (LDD) component and feedback from the value chain scoping studies completed by the Design, Techniques and Implementation (DTI) component. The communications component shared some insights and drove a discussion around these. During the sessions on scaling through wider practice and policy, the Stakeholder Approach to Risk Informed and Evidence Based Decision-making (SHARED) component showed initial stakeholder maps and outputs from a policy synthesis and national stakeholder workshop

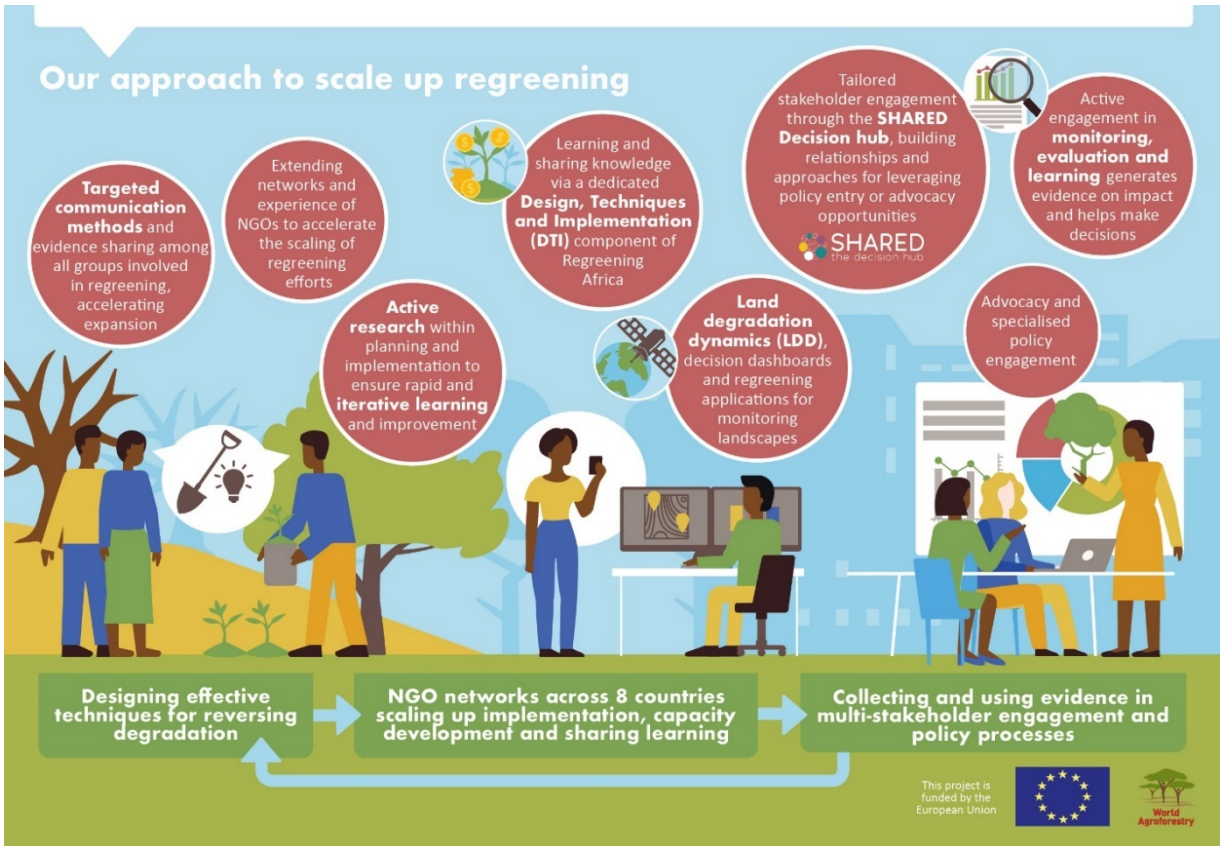

Figure 3: How key technical components led by ICRAF support the implementation of regreening activities.

LAND DEGRADATION DYNAMICS

Description of the component

The Land Degradation Dynamics (LDD) component aims to equip Ethiopia with surveillance and analytic tools on land degradation dynamics, including social and economic dimensions which support strategic decision-making and monitoring in scaling up evergreen agriculture.

Due to budget limitations, no new LDSF sites will be set up under the project in Ghana but existing data from other ICRAF-led projects will be used to inform LDSF indicators in the country, combined with household survey data collected during baseline and end line surveys.

The component identifies and measures key indicators of land and soil health in order to understand drivers of degradation, prioritise areas for intervention and monitor changes over time. Indicators for the assessment and monitoring of land degradation must be science-

based, easy and quick to measure and based on field assessments across multiple scales. It is important that they represent the complex processes of land degradation across landscapes. Examples of biophysical indicators of land degradation include:

1) soil organic carbon (SOC)
2) trends in tree cover
3) herbaceous cover
4) soil erosion prevalence
5) biodiversity
6) soil salinity
7) soil compaction
8) water infiltration capacity.

The project uses the Land Degradation Surveillance Framework (LDSF) methodology. The LDSF provides a field protocol for measuring indicators of the "health" of an ecosystem, including vegetation cover, structure and floristic composition, historic land use and land degradation. It also measures soil characteristics, including soil organic carbon stocks for assessing climate change mitigation potential and infiltration capacity, whilst providing a monitoring framework to detect changes over time.

The LDSF was developed by the World Agroforestry Centre (ICRAF) in response to the need for consistent field methods and indicator frameworks to assess land health in landscapes. The framework has been applied in projects across the tropics and is currently one of the largest land health databases globally, with more than 30 000 observations.

This project will benefit from existing data in the LDSF database, while at the same time contributing to these critically important global datasets.

Key feedback from interactive data wall presentations

Land degradation in project sites:

- Since there will be NO LDSF surveys to be carried out in Ghana due to budgetary constraints, LDD team at ICRAF to share full report from Kayoro and state what the findings imply for Bawku and Tempane
- LDD to provide predictions of LDD data on Mion, Tempane and Bawku West
- Ghana team to propose a workshop at national level to learn ways of monitoring changes in soil components
- Clarify on options available in carrying out the workshop and other capacity building activities

Maps:

- LDD team to Draw conclusions from Kayoro that can inform activities in Bawku West and Garu Tempane
- Quantify and provide changes in vegetation cover in the three implementation districts, including any other indicators that can be tracked by remote sensing
- Details on the tree species prevailing should be included
- National institutional capacity to map vegetative cover is lacking and requires equipping should budgets allow

DESIGN TECHNIQUES AND INNOVATION (DTI) & VALUE CHAINS

Description of the component

The Design and Technical Implementation (DTI) component's overall function is to provide technical backstopping on appropriate land restoration technologies and practices suited for different ecological, economic and social needs including farmer managed natural regeneration (FMNR), tree planting activities, soil and water conservation, grazing land management, fire management, among others. This is achieved through several interlinked activities covering:

- Advisory on priority regreening options in different contexts
- Capacity support to implement appropriate regreening options
- Scoping assessments and technical support on promising value chain options
- Promoting knowledge and materials (germplasm) sharing via peer learning activities, refinement and preparation of technical materials to support implementation

During year three of project implementation, the component will focus more on refining technical backstopping actions for improved scaling by partners through lead farmers, field staff and local advisory services. Some of the key areas requiring immediate attention involve:

- Increased access to quality, disease free planting materials and associated propagation skills
- Sharing and dissemination of more extension approaches & materials
- Supporting community value chains development e.g. guide preparation of community enterprise development plan (EDPs)
- Documenting and sharing co-learning from various project intervention activities
- Training in composting is necessary because it aligns well with the project outputs when reported under soil quality indicators
- Different approaches to reducing number of staking of yams could be a preventive measure to tree cutting

Key feedback from interactive data wall presentations

TREE PRODUCTS AND VALUE CHAINS

- Priority value chains: fuelwood, fruits - Find alternatives to reduce amount of trees being cut down
- More efficient stoves to be explored to help address the issue of tree cutting
- There is need to match value chain activities to existing markets
- Determine measures that can be taken to regulate the fuelwood and charcoal value chains (over harvesting) / Sustainable fuel production with regulation and zoning
- Bee-keeping could be a good reason for farmers not to cut trees, while providing an income
- Production of charcoal from grass- could this be an alternative?
- Mapping of value chain activities to be done from the community to the country level by 29th June
- Feedback from communities on value chains to be prioritised expected by end of June 2019

- Operationalization of the business plan around sustainable firewood, especially in Mion

GENDER

- The plan in Ghana has always been to have Village Savings and Loan Associations (VLSAs) or SILCs (woman savings groups as known in CRS) as entry points to empower women
- Women play active roles in the tree value chains and this should be considered/engaged in land restoring old trees as well as accessing benefits
- Women are keen to have improved/ increased income
- Communities to identify ways of measuring successful gender sensitisation efforts
- Gap identified: women do not have access to shea trees on farmlands, yet this is what they depend on.
- Develop participatory approaches/ tools that can be tested in gender integrated and gender disaggregated groups – Gloria to develop these with Anna Maria
- What lessons can we take to narrow the gender gaps identified in the regreening index—women's involvement in decision making.

MONITORING EVALUATION AND LEARNING

Description of the component

The MEL component serves two key purposes:

- To support the maximization of the project's direct impact by providing actionable feedback on intervention delivery, stakeholder engagement, EGA uptake, and the cost-effectiveness of different, yet equally promising scaling approaches; and
- To generate credible & actionable evidence to support further scaling up of EGA and complementary land restoration interventions in general and those scaling approaches that deliver the greatest value for money.

BASELINE SURVEY DATA

Key data that was presented comes from the baseline survey is an essential part of the Regreening Africa's impact assessment strategy and critical to enable reporting on the outcome and impact level indicators of its overall LogFrame, as well as to estimate many of the project's other outcomes and impacts.

Village clusters that are targeted early (Year 1) by the project will be compared with those targeted in its last year (Year 4). This will ensure that all communities eventually benefit from the project, but in a systematic way that allows an impact study to be carried out.

Key data presented by the MEL team included:

- The impact evaluation strategy showing village clusters targeted in Year 1 and Year 4 of the project;
- Explanation of the components of the regreening index and their derivation;
- Regreening index results for each individual indicator and dimension;
- Diversity of tree species found in surveyed sites and their prevalence;
- Agroforestry products obtained by households;

- Agroforestry management practices undertaken at household level;
- Access to agroforestry information through extension, training and advice; and sources of such information;
- Approximate numbers of trees on farms and homesteads in the surveyed regions/districts/ communes;
- Household participation in community-level regreening; and
- Analysis of gender inclusion in agroforestry related activities.

BASELINE SURVEY KEY RESULTS:

joint management – members of households involved in decision making

- Entry points of increasing women involvement to be determined
- Determine how the current project indicators link to the EU indicators
- World vision has funds that can be allocated for uptake surveys to be carried out in year 2
- Partners need to request for maps and data from ICRAF that they can share with District officials
- Work in areas that don't have issues on land tenure
- Need ease of access to communal lands for communities to enjoy all benefits
- Options by context approaches
- Based on information provided by respondents and not on observation
- Need to incorporate homestead plantation in the index
- What kind of regreening options should we be promoting in each district?
- What kind of efforts can the project do?
- How do we ensure equity – through interventions and institutions
- Show tools and methods we are putting in place
- Form a sub-group to agree on monitoring elements
- Clearly outline what each tool is trying to bring out/achieve – Regreening Africa APP and uptake surveys
- Reporting templates (annual and semi-annual) to be updated on MEL
- Uptake surveys to capture uptake in communal lands as well
- RRCs used to disseminate agroforestry results and engage communities
- What is the synergy between what partners are doing and the RA App?
- MEL team to share uptake surveys to help identify overlaps
- Clarity is needed on output 4 of the logical framework
- Need to review and strengthen partners M&E systems (MEL team)
- There is a need to clearly adapt project log frame at the country level activity plan
- CRS and WV should target the designated number of households per year in the agreed sites
- MEL team to generate simple maps showing adoption by intervention villages that can be used by communities to convince others to adopt
- Key policy issues to be included during outcome mapping

REGREENING INDEX

The act of regreening has diverse elements, and the combination of these elements will vary by context. To capture this diversity, a 'multi-dimensional Regreening Index' was developed. The Regreening Index comprises four dimensions, with four to five binary (yes-no) indicators

falling under each. The more a household engages in the various dimensions of regreening, the higher its score on the 0 to 1 index.

The first dimension - *Extent of practice*—pertains to the extensiveness of a household's regreening efforts over the past four years. Maximum points are awarded if it has engaged in FMNR and/or tree planting on its main field, at its homestead, and on any other of its other land use areas (e.g. secondary field) during this timeframe, as well as participated in community-level regreening activities. Partial points, if any, are awarded otherwise.

The second dimension - *Intensity of practice*—relates to the intensity of the household's regreening practices. The more new trees and/or shrubs established, the higher the score, with higher points still if agroforestry products produced on farm were used by the household and/or if any of these products were sold.

The third dimension - *Diversity of practice*—measures the diversity of a household's regreening activities. The more agroforestry practices in which a household was engaged and/or agroforestry products produced, the higher number of points awarded. The same is true for diversity of tree species on farm or at the homestead, with higher points for having at least two native species.

The final dimension - *Intrahousehold equity* - gauges the extent a household's engagement in regreening can be considered as equitable along gender lines. If agroforestry establishment activities were undertaken with female decision-making involvement and/or the associated work was undertaken by both women and men of the household, the higher its score will be on this dimension. The same is true for the management of already established trees on farm and if women were involved in spending decisions of any agroforestry products sold by the household.

The regreening index will be used to compare the elements at the onset of the project and after five years of implementation to be able to capture some of the project's regreening impacts.

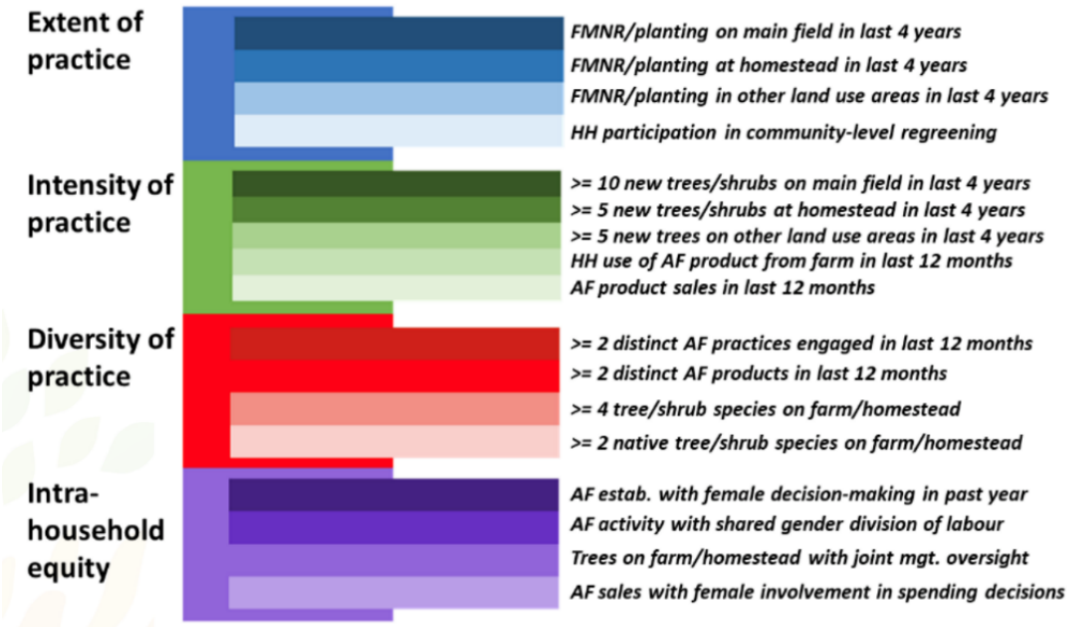

Figure 4: Components of the Regreening Index.

REGREENING INDEX DIMENSIONS AND INDICATORS: regreening index should also be informed by other aspects – options by context

- Regreening index is for farms – what about communal areas?
- Tree density to be used instead of the number of trees
- Need to sub divide the indicators on female involvement in spending decisions

Yendi diocese (CRS site) issues raised on M & E

- Beneficiary registration – is it important or good use of resources? CRS to reflect on this as the adoption rates of regreening activities remain low in their sites
- Beneficiary registration done once a year (costly exercise and sometimes leads to communities requesting for things that are beyond the scope of the project, e.g., boreholes. If these "community needs/demands" are not met then there is likelihood that the project objectives will be undermined).
- Alternative ways of measuring uptake levels other than registration of beneficiaries
- Voluntary registration by farmers symbolises interest in the project (demand) but these demands may fall outside the remit of the project (e.g. the requests to sink boreholes).

LEVERAGING

Given that Regreening Africa is promoting regreening through both in its direct intervention work at the community level and by influencing wider policy and practice, we have defined two types of adoption: *directly facilitated* and l*everaged*. Directly facilitated adoption will be measured primarily through the uptake surveys and complemented by the Regreening Africa App. Leveraged adoption was initially defined as an evidenced-based projection of such adoption that is expected (or known to have occurred) following the implementation of the Project's proven EVA scaling approaches by non-project related initiatives and investments known and underway by project closer. 'Leveraged adoption' could be as a result of something as simple as a 'sister project' being implemented by one of the iNGOs participating in the country consortium that is using the Project's same scaling approaches. However, it could be less direct, for example, another organisation or government institution pursuing the same scaling approaches as developed under the Project.

Following engagement with country teams and other project stakeholders, the definition was further elaborated and guiding principles established to guide on what can be considered leveraged adoption.

Principles for Leveraged Adoption:

There is no set way for achieving and measuring leveraged adoption. It is, however, helpful to think in terms of the following principles:

1. **Meaningful link to Regreening Africa**

While there may be several other initiatives promoting regreening in a particular country, any adoption of such practices by farmers targeted by these projects cannot automatically be counted as leveraged adoption.

Leveraged adoption would be if:

- an organisation, or partner, previously not focused on regreening, implemented a project that promotes regreening alongside its core business (e.g. improved agricultural practices). Regreening Africa's resources and/or expertise are used to develop the capacity of this project's staff to promote regreening among the farmers, as the link and value added of Regreening Africa is clear and defensible; or
- if there is sufficient evidence that Regreening Africa's underlying objectives (to develop more cost-effective direct scaling approaches and the use of better technical approaches for restoring degraded communal land) have been used in direct scaling approaches and/or improved technical practice projects that have been developed under Regreening Africa and taken up by other initiatives.

This pathway for leveraged adoption was put forward in the Country Planning Guidelines and is expected to take place in Regreening Africa's later years, as it will take time to develop, evidence, and promote these practices.

There are potentially other pathways for promoting leveraged adoption, but the link to Regreening Africa must be defensible and clear, with a credible and realistic estimation or measurement approach.

2. Means of evidencing the link back to Regreening Africa

If an evaluation team were assigned to evaluate Regreening Africa, its terms of reference would include auditing the reported leveraged adoption figures. In the leveraged sites, the numbers of farming households that have adopted improved regreening practices may be well evidenced. However, the evaluator may ask for evidence of how this adoption is connected back to Regreening Africa.

Making this connection would be easier if such scaling approaches and/or technical practices have a clear Regreening Africa 'signature', i.e. a distinct Regreening Africa-devised scaling approach or technical practice. A 'signature' is something that unequivocally links the scaling approach or technical practice back to Regreening Africa. Provided there is good evidence that the project used the 'signature' scaling approach and/or the farmers have taken up the 'signature' technical practice, any resulting adoption may be counted as leveraged.

In other cases where leveraged projects and initiatives are encouraged or supported to promote more general regreening practices, it will be important to document and evidence the influence pathway. The Outcome Mapping approach used by Regreening Africa is an effective way to do this. Here, stakeholders (e.g. a government initiative promoting land restoration) are identified. An outcome challenge is then defined for each stakeholder (e.g. a major government land restoration program includes the promotion of FMNR, as opposed to only tree planting), as well as engagement or influencing strategies to achieve the outcome challenge. Progress markers (sequentially progressive milestones towards each outcome challenge) are further defined (e.g. government stakeholders actively participate in trainings and demonstrations on FMNR). If the roll out of the engagement strategies and progress markers leading up to the outcome challenge are clearly documented and evidenced, then

there will be a clear 'paper trail' between the reported leveraged adoption figures and Regreening Africa.

3. Credible, yet realistic, means of estimating/measuring the leveraged adoption

For obvious reasons, any reported leveraged adoption figures should not be crudely estimated. There should be a way of measuring, or at least credibly estimating, the expected leveraged adoption. We know from adoption studies that famers do not automatically adopt complex agricultural and natural resource management practices, even after being exposed to significant training and extension. The following table presents possible methods for estimating and measuring leveraged adoption.

Method	Description	When appropriate	How to implement
Extrapolation	The same or similar intervention model used in Regreening Africa's direct scaling sites is implemented in the leveraged sites. Uptake rates from the direct scaling sites are used to estimate leveraged adoption numbers in the leveraged sites.	Use when Regreening Africa's community-level intervention model for the direct scaling sites is also implemented in the leveraged sites. The leveraged sites are not radically different (e.g. in terms of farming and agro-ecological systems), so that similar uptake rates would be expected.	Estimate household and hectare adoption figures by using the documented uptake rates ascertained by the uptake surveys implemented in the direct scaling sites. For example, if the uptake rate is 45% in the direct scaling sites and the number of households and hectares in the leveraged site is 20 000 and 10 000, respectively, leveraged adoption would therefore be 9 000 households and 4 500 ha.
M&E data from leveraged project	The leveraged project or initiative has a functioning M&E system, and this system is relied upon to generate the leveraged adoption figures.	Use when a good M&E system is in place, e.g. one that undertakes surveys or keeps farmer records, which can be relied upon to provide adoption data.	Data will be obtained from the leveraged project's own M&E system. An agreement must be reached for sharing the data in time for Regreening Africa's reporting cycle.
Direct measurement	Uptake surveys are undertaken in the leveraged sites and/or the Regreening Africa App is applied.	Use when options 1-2 are infeasible or when resources are available to undertake uptake surveys and/or roll out the App in these sites.	Uptake surveys and/or the App are rolled out in a similar way to the direct scaling sites or the leveraged partner in question is supported to do the same.

Method	Description	When appropriate	How to implement
Informed estimation	Local informant interviews and participatory methods are used to obtain household and ha. figures. (Note: This method is susceptible to bias, so exercise caution.)	Use when options 1-3 are infeasible, and the leveraging sites are at a reasonable scale to allow participatory data gathering.	Information is gathered from local informants on approximate number of households adopting promoted regreening practices and/or area of communal land covered.

Table 1: Four possible methods for estimating or measuring leveraged adoption.

Leveraging approach

With this guidance, the project team discussed what leveraging opportunities exist for the project in Ghana.

Key summary of discussions for leveraging

Ongoing Leveraging Plans and Activities

World Vision Ghana

Projects implemented by WVG focus on FMNR and food security carry out activities in different areas. The additional aspects brought about by the project include wider policy influencing and capacity building. Some of the projects being leveraged include WASH (Water, Sanitation and Hygiene) and food security projects running in Garu-Tempane and Bawku Districts. They are bringing in MOFA and Forest Services Associations into implementation activities which include:

- Rolling out radio and television campaigns as additional avenues to build farmers' capacities (WVG is intending to cover 4 other districts with radio and TV campaigns);
- Working with nucleus farmers who control farmer groups;
- Project redesigning; and
- FMNR – component of food security.

CRS

The Ghana Extension System Strengthening project funded by AGRA focuses on providing extension services and wants to interpret the tree component. The project recently commenced activities and is scheduled to end in 2021. It uses the village-based advisor model and mother and baby demonstration approach. CRS would like to integrate tree component into the activity plan.

List of existing projects

1. University for Development Studies – Protection of the Kpasokogna

2. Sustainable Land and Water Management Project (SLWMP)
3. Resource Management Support Centre – Bush wildfire control
4. Resource management Support Centre (RMSC) - Rosewood monitoring and evaluation
5. Bongo traditional area - Community Resource Management Areas and WINROCK International / USAID Agriculture and Natural Resource Management project (AGNRM)
6. Forestry commission - sustainable land and water management
7. United States Environmental Protection Agency (EPA) – mapping of regreening
8. EPA - Reserving land degradation and providing alternative livelihood for community members especially women
9. Water Resources Commission - PAGE - Regional water resources management project
10. World Vision International / CRS - FMNR
11. TREE AID & CIFOR - WAFFI
12. EU REACH Resilience against climate change
13. Tree Aid - Dakar River trees restoration
14. Forestry Research Institute of Ghana (FORIG)
15. Shea Network Ghana - Improving Marginalised women's right to access and control of Shea parklands.

Discussions

- There must be a clear connection to RA for the project to be counted as part of leveraging adoption
- Leveraging can involve introducing improved practices on tree and enrichment planting in a project that did not have these aspects
- For projects that are already deliberately promoting FMNR – its beneficiaries cannot be counted as part of the project leveraged adoption because they would have done FMNR without our intervention anyway!
- There is need to state how the leveraged adoption will be achieved and this should be specified by the partners clearly for ICARF to advise on best ways of monitoring adoption (evidence the leveraging
- There is a need to consider other approaches that can be evidenced easily in addition to radio
- To determine the adoption rates of regreening activities in leveraging sites (can be tracked from 'sister' projects i.e. WV/ CRS other than projects that have no direct relation)
- Need to engage with guidelines prepared by Karl and have a deeper understanding of what to include
- Partners to propose questions that can be included in the uptake surveys to document leveraged adoption
- WV and CRS to request partners in the leveraging sites to include questions in their M&E surveys

- How can we evidence adoption rates as a result of using radio, as this is a key sensitisation method used by partners?

DATA COLLECTION AND ACCESS

Apart from the household surveys, data on project uptake and impacts will also be collected via the regreening Africa app and shared through the project dashboards.

The Regreening App

The Regreening Africa App is a free mobile-based android application designed and developed by World Agroforestry (ICRAF), to help partners and other users to collect information on how farmers are managing and protecting trees on their farms. The App has four modules that focus on tree planting, nursery establishment, Farmer-Managed Natural Regeneration (FMNR) and Training.

OBJECTIVES:

1. To facilitate the evidencing, reporting and verification of the number of households reached and the number of hectares regreened, to the donor
2. To enable monitoring of real-time progress of the project by all project managers (e.g. trainings conducted, tree nurseries supported in their jurisdiction, farmer groups supported, etc)
3. To bridge data gaps from existing data collection tools and methods for triangulation

FEATURES

- The App allows entry of simple text and numeric data, images, and location data of trees and nurseries.
- Facilitates the reporting of the number of households reached and the number of hectares regreened.
- Allows monitoring of the real-time progress of the project (trainings conducted, tree nurseries and seedlings distributed-numbers, and species diversity).
- It allows users to collect data offline and upload it to the server once the device is connected to a mobile network or WIFI.
- Users can view the data they have collected by clicking view data button.
- Final data will be uploaded on dashboard with viewing access to all project managers per country for monitoring regreening successes.
- The app is available in English and French. It will eventually be translated to other languages.

Key question about the app is how it will be rolled out in all sites to collect the required data. The team proposes a phrased approach where WV and CR start with the lead farmers and then gradually use the app to capture other farmers as they take up regreening activities especially on FMNR and tree planting. Other modules (tree nurseries and training modules are easy to use.

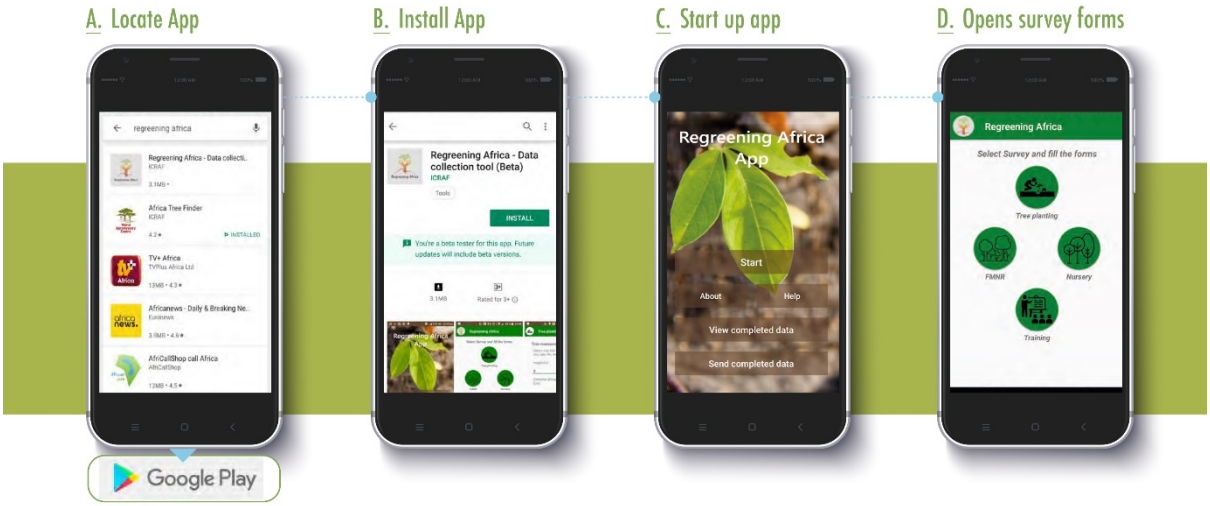

Figure 5: Regreening App available freely through Google Play.

Accessing Evidence and Policy Leveraging Through Dashboards

Online web-based dashboards are being co-designed through the project to share data relevant to regreening easy to access and interpret. Regreening decision dashboards were introduced during the national SHARED workshops to determine interest in developing one for the country. A team of project partners including implementing NGOs and related stakeholders identified important indicators, some display features, data available and end users during an initial discussion. Online conversations and shared working spaces were then used to receive feedback on initial design ideas, receive data and input. The dashboards are now being graphically designed and programmed with the prototype due to be available by the end of 2019. Once the dashboard is available, it will be used to target and monitor project activities as well as feed into national level dialogues on regreening.

SHARED dashboard process feedback

- NDA to possibly maintain the dashboard or act as the coordinating body and provide regular updates **(follow up on this is required by SHARED and project partners).**
- All proposed dashboard custodians must be part of the development process and not involved at the last stages
- For data to be collected in a proper manner, Mieke must provide the template for partners to access
- Yet to determine what happens to the long-term sustainability of the dashboards when there are changes in management
- Recommendation to start with NDA and make changes where necessary
- For the dashboard to be effective and useful, it must be constantly populated with data
- Suggestion to get a team of more permanent staff from 2 or 3 organisations to manage the dashboard so as to keep the platform going when the manager is unavailable
- Dashboard coordinator and host must be able to update the system

Figure 6: The Regreening decision dashboard for Ghana.

SCALING UP (REACHING MORE FARMERS TOWARDS REALIZING THE HOUSEHOLD AND HECTARAGE TARGETS

To be able to scale up, partners need to be clear about how they are intervening at different levels (farm, village, district etc), influencing different actors and in what ways. This was the basis for brainstorming on the intervention model.

GHANA INTERVENTION MODEL

- District assembly in charge of department of agriculture and Forest Services department, District Ass. coordinates all other bodies but these have respective bodies that export to:
    - Business advisory centre
    - Ghana fire services
    - Ass. M&W – male and female lead farmers
    - Environment protection. agency
    - Other actors

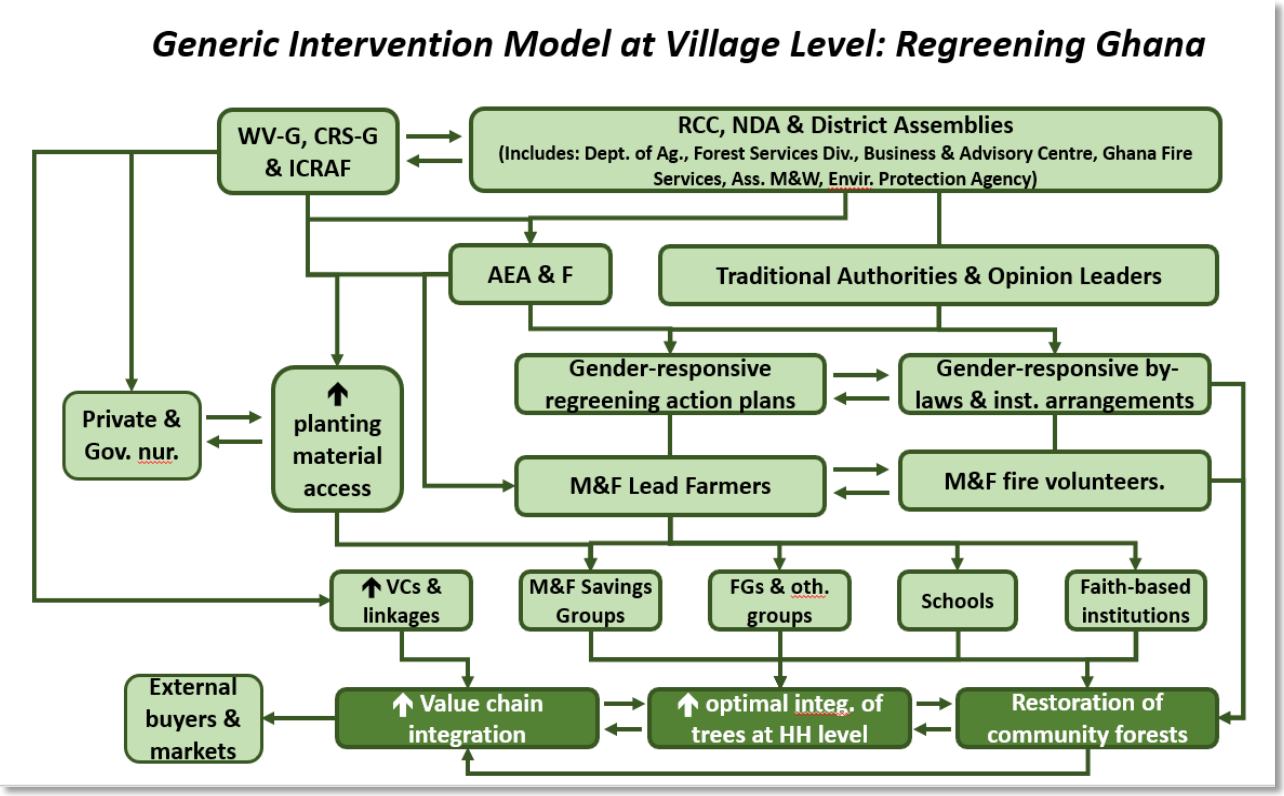

Figure 7: Intervention model for Ghana Regreening Africa project.

- Gender responsive planting materials, by-laws, value chains and linkages
- Gender to be factored in at the village level regreening action plans
- There should be a relationship between traditional authorities and fire volunteers and fire management:
    - Traditional authorities and opinion leaders
    - Fire volunteers and fire management
- All partners and communities to own the process
- Country plans should be developed and owned by communities
- Gender to clearly come out in the diagram
- Chiefs are part of the traditional and opinion leaders

- Have an action plan of what needs to be done – bring the communities into this exercise to enable them to feel a sense of ownership and responsibility to bring them into regreening activities
- Action plan and community by-laws and supporting institutions
- Need for a double arrow between value chains integration and trees at household level

APPLYING STRATEGIC COMMUNICATIONS FOS SCALING

Communication plays a critical role in scaling up, changing local mindsets about sustainable utilisation of trees and forest resources and influencing behaviour change. Strategic communications relates to using communication to bring about desired behaviour change in the target audience. For Regreening Africa NGO implementers, key questions are valuable for communication.

Key questions

- Who is the target audience?
- What is the most effective way to get a message across to them?
- Is the message you are delivering clear and being delivered in a simple and encouraging way to make behaviour change?
- Is the tool you have used the right one? For example, is a national radio broadcast going to reach the target audience in selected scaling locations, or is budget better spent on dedicating this towards a lead farmer advocacy toolkit, posters and a bicycle so they can directly interact with farmers to deliver a compelling message?
- How do you tailor your message to the audience? For example, when looking at policy and the enabling environment, is there a specific policy maker or focal point you build relationships with rather than just publishing a policy brief for a wider policy audience?

Strategic communications are designed to bring about behaviour change. There are three core categories.

1. **Mass media –** tools like radio, newspaper, television and internet.
2. **Interpersonal communication –** approaches like farmer – farmer sensitisation and lead farmers.
3. **Community mobilisation –** approaches like nursery demonstration days and farmer field days.

These three categories all aim to bring about changes in knowledge, attitudes and behaviour in the intended audience.

- Need to harmonise communication materials internally before sharing with the donor to ensure logos and disclaimers are as per the EU guidelines

Influencing wider practice and policy for scaling

Influencing wider policy and practice is a key opportunity for scaling and reaching the ambitious targets attached to this project. This includes efforts to build capacity, share ideas and leverage partners for measurable and linked regreening practices. The other element is the influence on policies, local by-laws, rules and regulations e.g. around land and tree tenure, charcoal harvesting, livestock grazing rules, etc. that may not be measured but are critical to promote and provide an enabling environment for regreening.

Discussions also included reviewing a policy synthesis, outcomes of the national SHARED workshop and updating the ToC for wider practice and policy. An assessment of broad policy issues for scaling is required and stakeholders need to be identified. Overcoming these issues and determining how the project would engage with the stakeholders is necessary.

Ghana policy synthesis

NATIONAL RESTORATION TARGETS

Bonn Challenge: In 2015, the Government of Ghana pledged to bring 2 million ha of degraded and deforested land into restoration by 2030. This will allow both potential economic and climate benefits of 628 million USD and 0.19 $GtCO_2$ sequestered respectively.

AFR 100: The Government also pledged 2 million ha in 2015 to support the Bonn Challenge and promote adaptation to and mitigation of climate change.

Forestry Development Master Plan (1996-2020): In 1996, a nationwide planting target of 200 000 ha was proposed for establishment by annual plantings of 10 000 ha over the next 20 years on unproductive forest lands and in the savanna zone.

National Forest Plantation Strategy (2015-2040): The strategy targets to rehabilitate an estimated 235 000 ha of existing forest plantations and enrich planting of 100 000 ha of under- stocked forest reserves. This will be achieved by pursuing a target of 20 000 ha per year.

POLICY FRAMEWORK AROUND AGROFORESTRY AND REGREENING

Agroforestry in Ghana is supported by several policies, strategies and legislation.

National Agroforestry Policy (1986): There is an existing National Agroforestry Policy since 1986 with the overall objective being to promote agroforestry practices for sustainable land use (MOFA/AFU, 1986). The National Agroforestry Policy recognised the fact that an organised and coordinated approach was required if agroforestry was to play a role in the promotion of sustainable agricultural development.

Forestry Development Master Plan (2016-2036): The plan seeks to contribute to reducing Green House Gas (GHG) emissions from deforestation and forest degradation, introducing climate and temperature regulation, sustainable supply of timber and wood fuels, reducing poverty and helping to conserve biodiversity.

Ghana National Climate Change Policy (Ministry of Environment Science, Technology and Innovation 2013): The policy provides a clearly defined pathway for dealing with challenges of climate change within the socio-economic context of Ghana.

- Ghana Forest and Wildlife Policy (Ministry of Lands and Natural Resources Accra-Ghana 2012)
- Growth and Poverty Reduction Strategy (GPRS II) (2006-2009)
- Ghana livestock development policy and strategy (April 2016)
- National Action Programme to Combat Drought and Desertification; Environmental Protection Agency Accra, Ghana (April 2002)
- National Biodiversity Strategy for Ghana (Ministry of Environment and Science 2002)
- Ghana – Vision 2020
- Ghana Forest Plantation Strategy (GFPS) (2016-2040)
- National Riparian Buffer Zone Policy (2011).

Outcome mapping

In other cases where leveraging activities are not measured through numerical indicators, it will be important to document and evidence the influence pathway. The Outcome Mapping approach being used by Regreening Africa is an effective way to do this. If the engagement strategies and progress markers leading up to the outcome challenge are clearly documented and evidenced, then there will be a clear 'paper trail' between the reported leveraged adoption figures and Regreening Africa.

Outcome mapping will be used to track behaviour change (observable changes in the behaviours, actions and relationships of specified boundary partners, as far as outcomes can be logically linked to a programme's activities). Outcome mapping assumes contribution and not attribution i.e. that the project did contribute to observable behaviour change, and not necessary cause them.

Key steps in the exercise:

- Identify stakeholders critical for scaling. Identify 2-5 of them to start with, from various levels (policy, program, local).
- Identify an outcome challenge for each stakeholder. What specifically would you want each stakeholder to be doing differently at or before the end of the project?
- Determine progress markers towards achieving the desired outcome (early, mid and later), around behaviour change
- Agree on engagement strategies that the project team will undertake to achieve the desired outcome.

AGREED ACTIONS AND NEXT STEPS

Throughout the joint reflection discussions, actions and next steps were agreed upon amongst project partners. These were captured and reviewed by the group as outlined below. These actions will be undertaken before the second year of the project is finished or will be included in the plans and budgets for the third year.

Technologies and practices, capacity development and extension, value chains and markets and tree seedlings/nurseries

By end of May 2019

- Tree seed and scion requests to be delivered by Sammy in coordination with Patrice on request.

By end of June 2019

- Feedback to be provided to communities on the outcome of the value chains training conducted in April 2019

July 2019

- Business plans to be developed and actors to be leveraged on identified
- Identify and map two priority value chains

In order to take advantage of the forthcoming 2019 rainy season and the opportunity to re-adjust current activity plans to accelerate expenditure on year two budgets it was agreed that training needs assessment, nursery development and tree establishment plans shall be considered going forward. During discussions it was agreeable to implement several preparatory activities shown below:

ACTIVITY	RESPONSIBLE	BY WHEN
1. Provide template for training needs assessments with timelines (see annex for linked reports)	ICRAF/Sammy	31-May-19
2. Provide tree establishment plans with example of target species for establishment (see annex for linked reports)	ICRAF/Sammy	31-May-19
3. Conduct training and technical support needs assessment	WVG & CRS	30-Jun-19
4. Consultation with Forest commission extension, FORIG, private nurseries to review availability of seedlings and other tree establishment materials (wildlings, direct seeding etc.) for 2019 plan	WVG & CRS	15-Jun-19
5. Survey and map nurseries with quality grafted fruits of mango cashew, citrus to for seedlings procurement	WVG & CRS	15-Jun-19

ACTIVITY	RESPONSIBLE	BY WHEN
6. Develop plans for restoration activities planned from 31st May to 15 July 2019 (homestead/public areas/ schools/ etc.)	WVG & CRS	5-Jun 19
7. Prepare of nursery production calendar for year three planting season	ICRAF/Patrice & Sammy	15-Jul-19
8. Conduct community consultation and mobilization on tree establishment activities	WVG & CRS	30-Jul-19
9. Facilitate establishment of community nurseries to complement seedling production for year three and help transfer learnings	WVG & CRS	30-Jun-19
10. Value chain findings feedbacking and business plans preparation to proceed by end of June and July respectively	WVG & CRS	30-Jun-19
11. Provide translated technical guides on FMNR, EU planting guide	ICRAF/Patrice & Sammy	30-Jun-19
12. Avail USD 1500 for nucleus seed/scion/rootstock materials support (Patrice to coordinate)	ICRAF/Patrice & Sammy	Available on request
13. Team to keep open communication lines on the forgoing plans	All	Continuous

Table 2: Action plan for accelerating on-ground implementation activities covering community mobilization, nursery development tree planting other technical work for all implementing agencies.

- A manual which has wealth of information on disseminating moringa (Moringa oleifera PKM 1 variety) was availed (see annex: technical implementation tools). It was proposed that partners distribute 3 seeds per zip-lock plastic containers and distribute to farmers willing to plant. Moringa is mostly preferred by women and is a "quick-win" regreening activity. They can make a planting pit of 60 x 60 cm in homestead or garden, add some manure mixed with the soil and put the three seeds. The germination rate is 98% so they will get at least two seedlings and they take one of them to replant in another pit.
- With at least 1 kilogram of seeds provided per each organization a minimum of 2000 farmers / organization can be reached.
- An ICRAF technician Mr. Kone was proposed to provide technical backstopping covering tree planting, nursery development, grafting issues and FMNR issues.

Stakeholder and community engagement, Inclusion: gender and youth, and wider policy and practice

By end of May 2019

- WVG to consult the NOCC Chair and present the proposition on the probable Dashboard host and make a decision

By end of June 2019

- Mieke to provide a template to be used in collecting relevant data to populate the Ghana Dashboard, in a proper manner

Other

- Youth engagement opportunity in regreening activities to be identified and bolstered
- Gender aspects such as limitations in the involvement of women require further work
- Emphasis should be given to the participatory exercises to be integrated in to field visits to ensure the community is well engaged in the process and can provide integrated feedback
- Make use of faith leaders and lead farmers to spread the message on regreening and leverage to influence decision making

Communication

July 2019

- First issue of the Ghana newsletter expected by end July 2019

Other

- Ghana newsletter to be produced on a quarterly basis
- Consider participation in the EU Climate Diplomacy Week which was strongly recommended by the EU delegate
- Harmonize material internally before wider sharing with the donor, etc.

LDD

By end of June 2019

- Leigh to share LDSF report and propose implications for Kayoro District
- Leigh to provide predictions of LDD data in Mion, Garu Tempane and Bawku West
- LDD to share full report from Kayoro and state what the findings imply for Bawku and Tempane
- LDD to share polygon data collected from the baseline survey to be included in the baseline report

July 2019

- Training on LDSF to be conducted in Ghana to meet the needs of Objective 2

Other

- Workshop at national level for capacity building in monitoring changes in soil components and mapping vegetative cover

Figure 8: The contents for Regreening decision dashboard for Ghana.

LINKS TO REPORTS

Ghana SHARED Report

MEL

Reversing Land Degradation by Scaling Up Evergreen Agriculture (Regreening Africa), Baseline Survey Report (Ghana_Working_Draft)

Leveraging Guidelines

Ghana Value Chain Report

Shea tree nursery establishment, propagation & improvement by grafting