



The Knowledge for the Great Green Wall Action (K4GGWA)

Program Induction and Capacity Strengthening Workshop - Nigeria



Bristol Palace Hotel, Kano State, Nigeria

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Proceedings

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ACRONYMS

AAD:	Action Against Desertification
ACReSAL:	Agro-Climatic Resilience in Semi-Arid Landscapes
CIFOR-ICRAF:	Center for International Forestry Research and World Agroforestry
DLC:	Digital Learning Campus
EU:	European Union
FAO:	Food and Agriculture Organization of the United Nations
FMNR:	Farmer Managed Natural Regeneration
GCF:	Green Climate Fund
GGW:	Great Green Wall
K4GGWA:	Knowledge for the Great Green Wall Action
KSA:	Knowledge, Skills and Attitudes
LDSF:	Land Degradation Surveillance Framework
MDAs:	Ministries, Departments & Agencies
NAGGW:	Nigeria Agency of the Great Green Wall
PAGGW:	Pan-African Agency of the Great Green Wall
SLM:	Sustainable Land Management

1. Introduction

The [Knowledge for the Great Green Wall Action](#) (K4GGWA) regional program funded by the European Union (EU) aims to enhance the implementation capacities of Sustainable Land Management (SLM) practices across Great Green Wall (GGW) countries. Led by CIFOR-ICRAF and FAO, the program collaborates with the Pan-African Agency of the Great Green Wall (PA-GGW) member states to facilitate access to and the use of locally relevant land restoration technologies and knowledge. This initiative builds on lessons learned from recent successes in local partnership developments, such as the EU-supported [Regreening Africa program](#).

K4GGWA's goal is to revitalize the capacities of both state and non-state actors to help address the priorities of target communities and leveraging local expertise to implement SLM practices. These actions aim to help reinforce PA-GGW strategies and action plans, such as those discussed at the 3rd Residential Seminar on the implementation of the Great Green Wall, held from March 4 to 8, 2024, in Ouagadougou, Burkina Faso. The Stakeholder Declaration highlighted the urgent need to strengthen GGW land restoration efforts undertaken by national agencies, Civil Service Organization (CSOs), women's and youth green platforms, universities, national coalitions, United Nation (UN) agencies, and private entities.

CIFOR-ICRAF and FAO, in collaboration with PA-GGW are therefore implementing capacity strengthening action in member countries. So far induction and capacity development workshops have been conducted in Ethiopia involving the Horn of Africa countries Djibouti, Somalia and Ethiopia.

This report provides details on the K4GGWA induction and capacity strengthening training implemented together with the Nigeria Agency of the Great Green Wall (NAGGW) and the Ministry of Environment during 1st to 4th July 2024 in Kano, Nigeria. NAGGW leadership participation was led by Dr. Yusuf Maina Bukar, Director General of NAGGW. Hon. Nasiru Sule Garo, Commissioner for the Ministry of Environment and Climate Change, Kano State was also present, NAGGW focal points from the eleven GGW States (Adamawa, Bauchi, Borno, Gombe, Jigawa, Kano, Katsina, Kebbi, Sokoto, Yobe, Zamfara); NAGGW Directors (Director of Afforestation and Land Management; Director Rural Development and Extension), Field Officers (representing the nine GGW states), academia, civil society organizations, the Red Cross, media and private sector actors. The purpose of this workshop was to deepen engagements with the Nigerian GGW focal points and other stakeholders working with NAGGW to implement SLM initiatives.



Figure 1: K4GGWA training session

2. Workshop Approach

The workshop utilized a variety of techniques to enhance trainee interaction, facilitate cross-learning, on SLM practices and develop joint planning actions on agroforestry based on the knowledge, skills and attitudes (KSA) approach. Participants had a chance for self introductions, contribute in workshop surveys, focused group discussions, feed-backing and plenary discussions on various SLM topics. A field visit to Magama provided hands-on demonstration on Farmer Managed Natural Regeneration (FMNR), agroforestry, application of the [Land Degradation Surveillance Framework](#) (LDSF) methodology and the Regreening Africa App imparting skills to better implement and monitor SLM practices. Values of promoting collaborative environment and ensuring inclusivity, was embedded on the overall training approach. Some key workshop activities conducted to improve learnings, delivery and feedback included:

2.1 Capturing Participants' Expectations

Participants were invited to share their workshop expectations, to further help sharpen the workshop training focus, overall process, and content delivery. Discussions were guided via an open-ended question to the audience via the Mentimeter platform: *"Please list your expectations (s) following your decision to attend the K4GGWA induction and training workshop in Kano"*. Verbatim responses on the expectations listed are presented in Figure 1. In summary, these were:

- (i) to gain insights on the KAGGWA, NAGGW, and GGW initiatives,
- (ii) learn on both indigenous and modern SLM technologies
- (iii) explore available monitoring tools, and networking.

2.2 Participants Surveys

Training session was further evaluated on the Mentimeter and SurveyMonkey platforms. This helped obtain feedback on trainee expectations (Figure 1), topics of interest, gaps and future training formats and mode of delivery. A survey on the training [expectations](#) was conducted at the start of the training and a [feedback survey](#) at the end of the training using a simple questionnaire on the SurveyMonkey platform. Main survey [findings provided here](#) revealed important learning points and needs for future trainings.

At the start, participants were asked on the Mentimeter, *'Please list your expectation(s) following your decision to attend the K4GGWA induction and training workshop in Kano'*. Responses are shown in Figure 2.

Learn more about how to support NAGGW	Interact with participants and gain insights of news ideas, knowledge and skills	To learn in practical terms about FMNR, SLM, the app and to network	Know more about the KGGWA Know more about capacity gap
To learn new innovations as well indigenous methods of SLM practices To learn new monitoring and evaluation tools	1. To provide information on how to tackle or rather improve SLM.2. To interact with various resources person3. To learn how to work with regreening App	To learn more about contemporary sustainable land management practices and tools for monitoring land restoration activities.	My expectations to this program is to learn more about the green wall and the objectives of the project and also to see where to collaborate and support the program if possible
Brainstorming on modern and age old practices that ensures a sustainable land restoration.	Learn how to rehabilitate areas for shed.How to manage green areas	1. To get wider understanding & knowledge on GGW activities undertaking across the implementing countries.	To know how to practically engage in land restoration
1. Learn about the K4GGWA 2. Understand the objectives of K4GGWA and principles3. Understand the practical application of K4GGWA principles in addressing the envntl challenges threatening the	After the training i would like to have more new knowledge on large scale restoration. The beautiful platform will enable me to develop myself and connect with regional and multinational actors in the Great Green Wall implementation for adequate knowledge sharing.	1. Improve my knowledge on sustainable land management practice2. Learn new monitoring app Empowerment and Confidence Building:I expect the workshop and activities focus on building the girls self-confidence, self-esteem, and sense of agency.	To learn more and identify gaps that need intervention.

Figure 2: List of expectation as shared by participants on the Mentimeter

Participants were further asked : *'From your own experience what two things must we do to improve learnings during this training?'*



Figure 3: 'Words cloud' showing participants ideas to improve learning during the training sessions

2.3 Gap Analysis

The workshop facilitator provided discussion questions to help conduct training gap analysis. The objectives of this exercise was to conduct an 'environmental' scan on the status of Sustainable Land Management implementation in order to help identify areas for improvement, major challenges and opportunities for scaling working practices (Table 1). Discussion followed three guide questions (i) What needs to be improved in SLM? (ii) What are the Challenges? (iii) What are the opportunities? Key areas for improvements were highlighted as follows:

- (i) how to enhance community engagement,
- (ii) leverage on religious and political leadership,
- (iii) strategies to implement SLM both on and off the farm,
- (iv) improving collaboration among stakeholders, and how to
- (v) work with the media to communicate and promote scaling efforts.

Pressing challenges frequently experienced included:

- (i) intrusion into rehabilitated areas,
- (ii) poor coordination among actors and a lack of incentives,
- (iii) insufficient data for informed restoration, and
- (iv) prevalence of degrading activities such as unsustainable charcoal production.

Opportunities that could help scale SLM practices were identified as follows: (i) enhancing collaborating with schools to manage intrusion,(ii) more linkages of research, local knowledge to development, and restoration initiatives (iii) using water conservation technologies such as the Groasis Waterboxx for tree planting

Overall, the gap analysis discussion provided the trainers and trainees an opportunity to better orient the workshop to key issues involved in implementation of SLM work.

Table 1: What needs to be improved, challenges and opportunities in implementing SLM work

What needs to be improved in SLM?	What are the Challenges?	What are the opportunities?
<ul style="list-style-type: none"> • Community sensitization and engagement • Leverage on community leaders • Combine restoration on farm and off farm • Promote FMNR • Diversify farming practices e.g. "Farmers in the irrigation areas to include economic trees on farms" • Engage media • Strengthen collaboration among actors 	<ul style="list-style-type: none"> • Charcoal production • Lack of incentives for the communities • Late planting • Weak coordination of efforts • Lack of data on degradation and severity, terrain analysis, species suitability, land suitability, value system analysis, soil analysis etc. • Intrusion on rehabilitated areas • Low visibility of GGW initiatives, 	<ul style="list-style-type: none"> • Greening urban areas • Scaling FMNR practice • Integration of research support from academia to generate data. • Linkage with universities and NGOs on technological approaches to enhance SLM. • Involvement of schools as ambassadors and stewards to support SLM. • Leverage on technologies such as Groasis box to enhance tree growing • Integration of indigenous knowledge. • Explore efficient cookstoves and gas for wood efficiency • Use community radio to communicate SLM to actors at scale.

A question was posed to all participants during plenary: 'What are the urgent learning gaps/areas to improve implementation of SLM in your country?' helped to obtain additional responses (Figure 3)

Livelihood	Tools to monitor restoration success	Livelihood	Planting of trees
Proactive afforestation activities e.g early preparation of raising seedlings before rain falls	Utilization of suitable trees species for planting	Restoration of degraded urban forests	Constant sensitization and engagements
Local Involvement Tools	Using improved technology to implement the goals	Adoption of new modern SLM practices	Advocacy
Constant sensitization and engagements.	Involvement of stakeholders and community members.	Community sensitization and involvement Indigenous knowledge and practices	Involvement of local stakeholders in all activities (Afforestation activities)
Developing indigenous tree species	Emphasizing on community participation in the planning and execution of NGGW programs	Community engagement	Working with timeline
Sensitization and community engagement	Improved Synergy between stakeholders	Security consciousness	Enlightenment campaign to be strengthened Improving livelihood to communities
Watershed management	Creation of clubs and societies in schools	Sharing of knowledge between stakeholders and implementors on SLM	

Figure 4: Words listing on the urgent 'learning gap' to improve SLM implementation

Feedback survey to assess participants level of knowledge/capability on various SLM techniques showed participants have moderate to comprehensive understating on the various topics but low knowledge on rangeland and finance/business skills related topics (Figure 4).

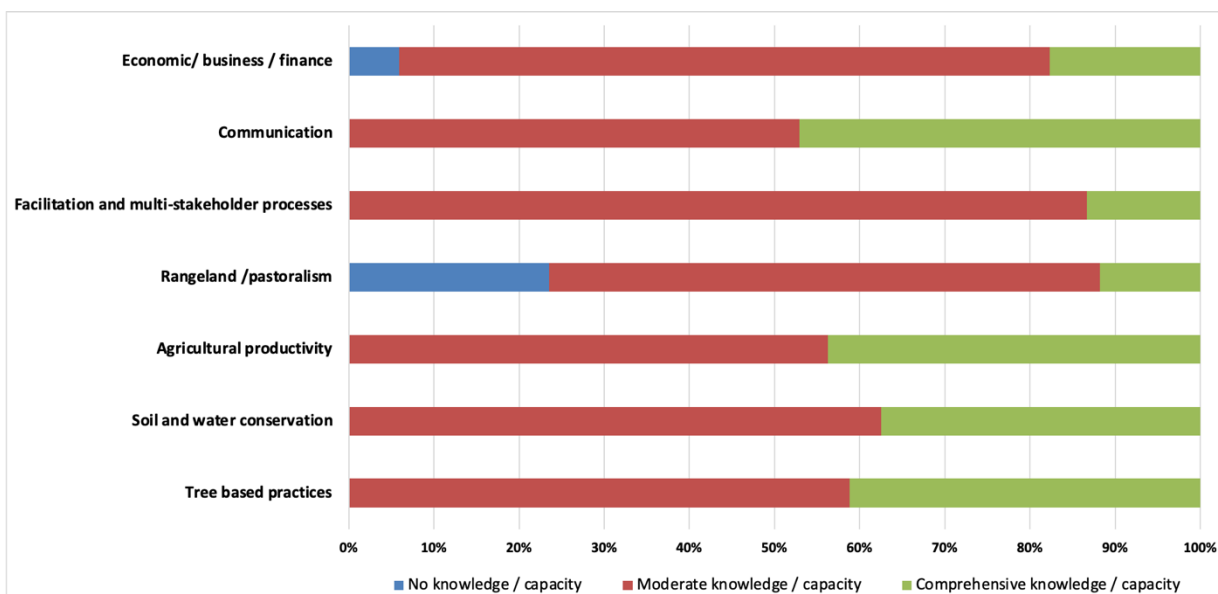


Figure 5: Feedback survey findings on participants level of knowledge on various SLM topics (19 respondents)

2.4 Training Session: PowerPoint, Poster Presentations and Group Discussions

Trainers delivered content using PowerPoint presentations, incorporating illustrations, case studies and focused group discussions to help participants from various work backgrounds better connect with the material. Throughout the sessions, participants were encouraged to ask questions and seek clarifications, fostering an engaging learning environment.

After the presentations, participants organized in groups undertook focused discussions to reflect on the content, share experiences, and discuss challenges in applying the acquired knowledge in their own circumstances. This was followed by participant presentations, allowing for feedback and cross-learning among all attendees.



Participants focused group discussions on: 'following the KSA approach to implement SLM capacity trainings'

2.5 Poster Session

Sit-down sessions were combined with brief poster sessions placed strategically in the training room to share information on the various components of the K4GGWA project and pathways of

implementation. This session allowed participants to have a closer visual overview on the project and more open way to ask questions.



Figure 6: One of the poster presentation sessions facilitated by Ibrahim Toure- CIFOR-ICRAF

2.6 Practical Sessions

Day 2 of the training was dedicated to field practicals conducted in Magama suburb community in Gabasawa local Government, Kano State. It involved:

- (i) Demonstration on how to establish and manage a FMNR field plots
- (ii) How to implement the [Land Degradation Surveillance Framework](#) and collect pertinent land health and vegetation data for a given ecosystem
- (iii) How to use the Regreening Africa App for monitoring land restoration work.

Participants were self-organised in two groups to undertake the sessions and utilise the available time well. FMNR and LDSF field sessions were conducted concurrently with about 15 trainees and the Regreening App session was conducted with the whole group.

FMNR exposure session: During this session participants were taken through key steps involved in setting and managing FMNR plots in their own field set-ups. Sharing of participants own experiences were encouraged to make the session lively. Field walks and observations were undertaken to demonstrate how to mark out an area suitable for FMNR implementation. Discussions covered how to engage farmers on site identification tree species regeneration and management. A field session on FMNR with participants is shown in Figure 7.



Figure 7 Demonstration on FMNR implementation by Niguse Hagazi

LDSF Session: Participants were guided on following the LDSF methodology to measure land health and vegetation structure parameters for sites under restoration. A field demo session with participants is shown in Figure 6.



Figure 8: Demonstration on soil water infiltration measurement and soil sampling techniques by Dr. Mulugeta Mokia, CIFOR-ICRAF

3.0 Workshop Proceedings

The workshop was conducted over four days period, each day with sessions covering key themes and topics (See Agenda: Annex 1). The first day provided a welcome opportunity to all participants and fostered interactions for co-learning and sharing of experiences. Participants introductions was followed with sharing of workshop program official opening speech by the Director General of NAGGW (Annex 2), and a keynote address from the Honourable Commissioner of Environment and Climate Change of the Kano State.

Subsequent session introduced participants to the K4GGWA program its objectives, work packages, program countries, and alignment with the GGW, global, regional, national and local initiatives. Participants further engaged in a session to scan the status of SLM, the successes, challenges and opportunities for scaling up and out.

The third session covered two trainings on (i) different approaches on learning that aid effective capacity development using the Knowledge, Skills, and Attitude (KSA) approach; and (ii) training on agroforestry practices and (iii) techniques and methodologies for land health assessment and monitor land restoration.

3.1 Day one: Opening Session

3.1.1 Official Opening - Dr Yusuf Maina Bukar- Director General NAGGW

Mariam Ominiya welcomed the participants and led them on the Nigeria National Anthem before inviting Dr. Yusuf Maina Bukar, the Director General (DG) NAGGW, to give the official remarks.

Dr. Bukar warmly welcomed everyone to the workshop, acknowledging the diverse protocols and expertise present, including representatives from CIFOR-ICRAF, NAGGW staff, GGW focal points from various states, academia, civil society organizations, traditional leaders, and green platforms for women and youth. He highlighted the pressing issue of the environmental degradation evident by the browning occurring between the Niger and Benue rivers, emphasizing how such challenges underscore the importance of initiatives like the Great Green Wall.

He also introduced the K4GGWA initiative, a project within the GGW belt funded by the EU and led by CIFOR-ICRAF and FAO. Dr. Bukar shared his involvement in the project, including participating in its launch, stakeholder workshop in Burkina Faso, and planning efforts to implement the CIFOR-ICRAF KAGWA-led program in Nigeria. He stressed the role of CIFOR-ICRAF in Nigeria to build the capacity of both state and non-state actors in sustainable land management, and the importance of including all actors to ensure ownership and sustainability.

The DG praised the knowledge-driven collaborative approach planned to deliver the workshop aimed at training of trainers who can cascade lessons to other stakeholders. He noted that the approach is inclusive allowing for integration of perspectives from all levels of stakeholders across different gender in designing, implementing, and monitoring sustainable land management practices. Dr. Bukar urged participants to

actively engage with the sessions as they will guide to develop country-specific work plans, share reporting needs and engagement strategies, and showcase national Great Green Wall initiatives for collaboration and linkages. He concluded by wishing everyone a productive workshop and officially declared the event open.



Figure 9: Dr. Yusuf Maina Bukar - Director General NAGGW sharing his opening and welcome remarks.

3.1.2 Keynote Address – Hon. Nasiru Sule Garo- Commissioner for Environment and Climate Change, Kano State

The Honourable Commissioner expressed gratitude to the DG NAGGW for the invitation to the KAGWA workshop, emphasizing the critical urgency of addressing climate change, which he described as a "killer." He commended NAGGW's efforts on Sustainable Land Management and urged the organization to expand its focus on community sensitization about climate change and its impacts. He also noted that the Ministry of Environment, now expanded to include climate change, is keenly focused on urban forestry initiatives in her quest to contribute to land restoration initiatives. Highlighting the relevance of the KAGWA program in SLM, the Commissioner underscored the critical role of farms in ensuring food security and stressed the importance of educating farmers about SLM practices. He challenged NAGGW to engage students in land restoration initiatives through both cash and non-cash incentives for sustainability and widespread adoption.



Figure 10: Hon. Nasiru Sule Garo - Commissioner for Environment and Climate Change Kano state, addressing K4GGWA Trainees

3.1.3 About K4GGWA – Ibrahim Toure, CIFOR-ICRAF

Ibrahim Toure introduced K4GGWA - an EU-led initiative managed by CIFOR-ICRAF and FAO. K4GGWA's objectives are to: (i) enhance the uptake and effectiveness of sustainable land management, land restoration, and integrated landscape management practices; (ii) improve land health and vegetation monitoring, and intervention targeting; (iii) strengthen the policy and institutional environment to support sustainable management and livelihoods.

The program targets 11 member countries of the Pan-African Agency of the Great Green Wall (PAGGW) and seven additional countries. It collaborates closely with the African Union Commission, the Pan-African Agency of the GGW, national governments, civil society

organizations, the private sector, EU delegations, and other relevant stakeholders. The program provides support on several areas like:

1. Training and capacity building for stakeholders
2. Agroforestry technologies and tools for sustainable land management
3. Knowledge management and sharing among all actors
4. Land health assessments and mapping of degraded landscapes
5. Engagement of women, youth, and civil society organizations.

So far, the project's milestone includes knowledge-sharing sessions organized with PAGGW, program induction and capacity-strengthening workshop in Ethiopia, evaluation of policy and legal frameworks, webinar on youth engagement and webinar on innovation.

K4GGWA's Nigeria training objectives were to:

- (i) Discuss capacity needs and opportunities for sustainable land management with GGW actors in Nigeria.
- (ii) Co-develop work plans for technical engagement with K4GGWA and other organizations, focusing on specific practices and tools for 2024–2025 and beyond.
- (iii) Discuss reporting requirements, deadlines, and engagement plans.
- (iv) List current GGW projects at the national level to facilitate cooperation and connections.

3.2 NAGGW SLM Work

3.2.1 Ahmad Majidadi Bagudo- AG Director Rural Development and Extension

The Director began his presentation by highlighting how the Great Green Wall (GGW) initiative represents Africa's opportunity to address biodiversity loss, desertification, and land degradation in the face of climate change. He emphasized that the GGW is not just an environmental project, but a vital strategy for conserving natural resources, promoting sustainable development, and reducing poverty in Africa's Saharan and Sahel regions.

Within the NAGGW several efforts are on-going under the initiative, such as energy-transition programs that introduce gas stoves and efficient cookware, the installation of solar-powered pumps to reduce water pumping costs and mitigate climate change impacts, and the expansion of road networks in GGW regional states. Other key projects include water infrastructure development across the Agency's corridor, community livelihood initiatives like orchards, communal gardens, and animal watering troughs, and a motorbike program aimed at improving mobility and tracking project progress.

The Agency activities are guided by PAGGW requirement to be gender inclusive. For example, women and youth engaged in different value chain development activities have received international recognition through French radio and television. The Agency also provides agricultural training and veterinary care for small ruminants and teach technical skills to out-of-school youth. These livelihood interventions are designed to engage young people, reducing rural-to-urban migration and help curb inactivity.

The agency has learnt several lessons while implementing SLM practices. These include:

- (i) Collaboration is critical for ownership
- (ii) Mobilization, sensitization and capacity development are a continuous process
- (iii) Effective competition among states is critical for widespread adoption
- (iv) Livelihood interventions are critical for the community
- (v) Include non-timber product value chain development



Figure 11: Presentation on the GGW activities by Ahmad Majidadi Bagudo- NAGGW Director Rural Development and Extension

3.2.2 Isa Abubakar, Ag. Director of Afforestation and Land Management (ALM) NAGGW, NIGERIA

Mr Abubakar began his presentation by highlighting the severe impact of desertification in Nigeria's eleven frontline states, threatening the livelihoods of over 40 million people. Approximately 20,379.62 sq km of rangeland and cropland are affected each year. Affected populations are among the poorest and most vulnerable to climate variability and land degradation, depend heavily on fragile ecosystems for rain-fed agriculture, fisheries, and livestock management. Despite numerous policies and strategies, desertification remains a persistent challenge in Nigeria.

The GGW presents a viable solution to this problem. Launched in 2005, the GGW originally aimed to create a vegetation barrier across the Sahel between the 100 and 400 mm isohyets of average rainfall. Over time, it has evolved into a comprehensive ecosystem management approach, focusing on sustainable dryland management, restoration, natural vegetation regeneration, water retention, and conservation measures.

The GGW programme is a community-driven initiative, emphasizing on land rehabilitation, natural resource conservation, poverty alleviation, food security, employment generation, livelihood enhancement, and strengthening community resilience to climate change and variability. Initiatives such as the School Outreach Programme engage primary and secondary school students in GGW implementation, while the Forest Guard Programme trains and employs unemployed youths. To address water scarcity in Nigeria's drylands, the GGW Programme has constructed 65 solar-powered boreholes and animal drinking troughs since 2013. It also promotes alternative livelihood activities aimed at diversifying income, reducing rural poverty, generating employment, lessening pressure on land resources, enhancing the rural economy, and curbing social unrest and forced migration.

Public awareness and information dissemination are critical to the success of the GGW programme. Efforts include developing the GGW website, maintaining radio and TV jingles, publishing articles in newspapers, and promoting alternative livelihood options.

The post-2024 strategy for the GGW Programme in Nigeria involved several national policies, plans, and strategies across various sectors, including environment, agriculture, energy, drought management, tropical forest conservation, water resources, biodiversity, economic empowerment, women's policy, and rural development. The 2024-2027 strategy aims to achieve goals such as employment generation, food security, national security, rural poverty reduction, increased vegetation cover, gender equality promotion, and climate change mitigation and adaptation. However, challenges remain, including conceptualizing a unified ecological system, ensuring consistent monitoring, and addressing financial disparities. The post-2024 strategy seeks to consolidate past achievements and realize these objectives.

The GGW project has faced criticism such as insufficient focus on livelihood vulnerabilities and its failure to eliminate conflicts and migration in the Sahel region. Moving forward, the GGW should support broader implementation on Nature-based Solutions, emphasize natural resource governance mechanisms, and expand its focus on rights and access. Additionally, the programme should improve coordination, develop consistent metrics for monitoring and assessing outcomes, and create an enabling environment for private sector investment. Furthermore, the Nigerian government should collaborate with the GGW to improve water access for communities.

Lessons learned so far include:

- (i) Importance of community sensitization,
- (ii) Sustaining efforts in tree planting can help on vegetation improvement
- (iii) Consider awards for efforts on trees that survive on land
- (iv) NAGGW should consider constructing small earth dams for irrigation
- (v) It is important to employ forest guards to prevent theft and vandalism.

3.3 Training Session

3.3.1 Learning Approaches - Dr Sammy Carsan, CIFOR-ICRAF

Dr Carsan exposed participants to the Knowledge Skills and Attitude (KSA) approach to learning aimed at building ToT's understanding of key learning principles and styles as next level trainers. The intention of the session was to strengthen the capacity of trainees in designing effective capacity development approaches that incorporate learning needs and styles to enhance meaningful learning.

Three main types of learning, *knowing for the purpose of knowing*, *knowing for the purpose of doing*, and *knowing for the purpose of being* were discussed. For effective learning, several principles were emphasized. These principles were classified as: Shared responsibility - both the trainer and trainee play critical roles in development, delivery, scaling and management of knowledge. The role of the trainee is to share their knowledge needs, share their experience to enhance learning and disseminate the acquired skills. The trainer roles include tailoring the training modules to the needs of the trainees while providing additional skills, delivering knowledge in diverse approaches for ease of understanding and internalization. Both the trainer and trainee need to create a safe environment for learning and have fun while learning. Secondly, the learning should be *problem-oriented* rather than *content-oriented*. Focusing on the problem allows trainer to expose trainees to possible ways to address the problem rather than overload them with too much content that they may not relate to. Thirdly, each learning approach should provide sufficient time for reflection to allow internalization of the skills and knowledge. Reflection allows trainees to explore their contribution to the solutions of the problem at hand.

ToTs were sensitised that different people may adopt different learning styles. He categorized four types of learners based on their learning style. Active learners: '*jump in and do it immediately*', Reflective learners: '*wait and see, then try it*', Theorizing learners: '*understand basic principles; logical; objective*' and Experimental learners: '*don't believe it until I've tried it*'; problem-solvers. When designing training on SLM, it is therefore critical to integrate the learning needs and styles to enhance effectiveness.

3.3.2 Introduction to Agroforestry - Dr. Sammy Carsan CIFOR-ICRAF

Africa's drylands cover approximately 1.96 billion hectares, with 65% of this landmass classified as degraded (IPBES, 2018). This degradation results from various socioeconomic, biophysical, climatic, and natural factors. One significant indicator of land degradation is the loss of tree cover, often caused by agricultural expansion and the overharvesting of tree products.

Agroforestry offers a promising solution for integrating trees into farming systems to provide economic, social, and environmental benefits while accommodating different land uses. Trees on farms deliver various products and services and can be incorporated into several systems, including agrosilviculture, agrosilvopastoral, and agropastoral systems. Each system involves specific practices such as:

- (i) **Scattered Trees on Cropland:** trees distributed randomly or in a pattern throughout the crop fields.
- (ii) **Boundary Planting/Shelter Belts/Live Hedges:** Planting trees along field boundaries to protect crops from wind and erosion.

- (iii) **Hedgerow Planting/Alley Cropping:** Growing trees in rows between crops to enhance soil fertility and reduce erosion.
- (iv) **Improved Fallows/Sequential Tree Fallows:** Using tree species to rehabilitate fallow land by enhancing soil fertility.
- (v) **Woodlots:** Establishing dedicated tree plantations for timber and fuelwood production.
- (vi) **Home Gardens:** Integrating trees into garden areas to provide diverse food and non-food products.
- (vii) **Rotational Fallows:** Alternating crop and tree shrubs planting in cycles to maintain soil health.

When designing an agroforestry system, it is crucial to consider tree choices based on specific objectives, such as compatibility with crop and livestock systems, water catchment rehabilitation, and potential for soil nutrient recycling. Several factors can influence the adoption of agroforestry, including soil type, market access, energy needs, and the roles of food and feed provisioning.

Key considerations for incorporating trees on farms include:

- (i) Understanding how existing cropping and livestock systems will impact or be impacted by tree growing/management of existing trees.
- (ii) Implementing measures such as plot fencing or individual tree fencing to protect young trees promotes tree establishment.
- (iii) Assessing the potential for short- and long-term income from increased tree cover on farms is essential also the market value of different trees.
- (iv) Highlighting specific benefits for farmers, such as access to fuelwood for women, additional fodder for livestock, and timber for construction.

Based on this introduction to agroforestry, Dr. Carsan invited country teams to share their current agroforestry practices, successes, and challenges and learning needs across the different states.



Figure 12: Group work presentation by Usaman Yarima, Gombe State university (Left) and Dr. Alhaji Ngare Dogo, Civil society representative (Right)

Agroforestry Practices in Nigeria

Two main agroforestry practices were prioritised by trainees: agrosilvopastoral and agrosilviculture Table 2. According to the trainees, successful practices help improve soil cover and fertility, generate ecosystem products and services, improve livelihood and food security and enhance ecosystem health. Major challenges impeding agroforestry practices across the states include selection of the right tree and crops; insecurity; seed propagation; limited integration of local knowledge; funding; sociocultural conflicts; and lack of standards for monitoring success. To address these challenges, several learning needs were identified such as: community engagement and sensitization; provision of technical skills; support with extension services; how to engage political leaders for buy-in; better approaches on farmer-herder conflict management, advocacy and policy support (Table 2).

Table 2: Agroforestry practises suitable for the GGW belt in Nigeria

Region/site	AFP	success	challenges	Learning needs
Tulotulowa, Yusufari LGA, Yobe state`	Agrosilvopastoral	Improve soil cover and fertility Produce feeds and forage and fuelwood Establish carbon sink for carbon sequestration Improve livelihoods Combat land degradation Increase biodiversity Improve food security	Selection of crop and tree species Likelihood of invasion by immigrant Lack of technical skills for seed pretreatment Poor access to extension services	Awareness Community engagement Training
Adamawa/ Gobe/ Upper benue basin	Agrosilvopastoral	Food security Carbon sequestration Improves soil nutrients Erosion control Income generation	Insecurity Funding Sociocultural conflict Environmental hazards, Lack of integration of local knowledge into modern techniques	Farmer and herder capacity building
Gabassa, Kano Context Sandy soils Devoid of trees Prone to erosion	Tree planting particularly neem trees and Economic trees Farmer managed natural regeneration	Arrest soil erosion Land restoration Cultural heritage promotion Poverty reduction Improve yields	Acceptability Land tenure system Human activities Funding problem Effective monitoring	Absence of sensitization Lack of community mobilization Policy institutional support Land tenure issues Financial barriers Lack of technical support to extension structures.

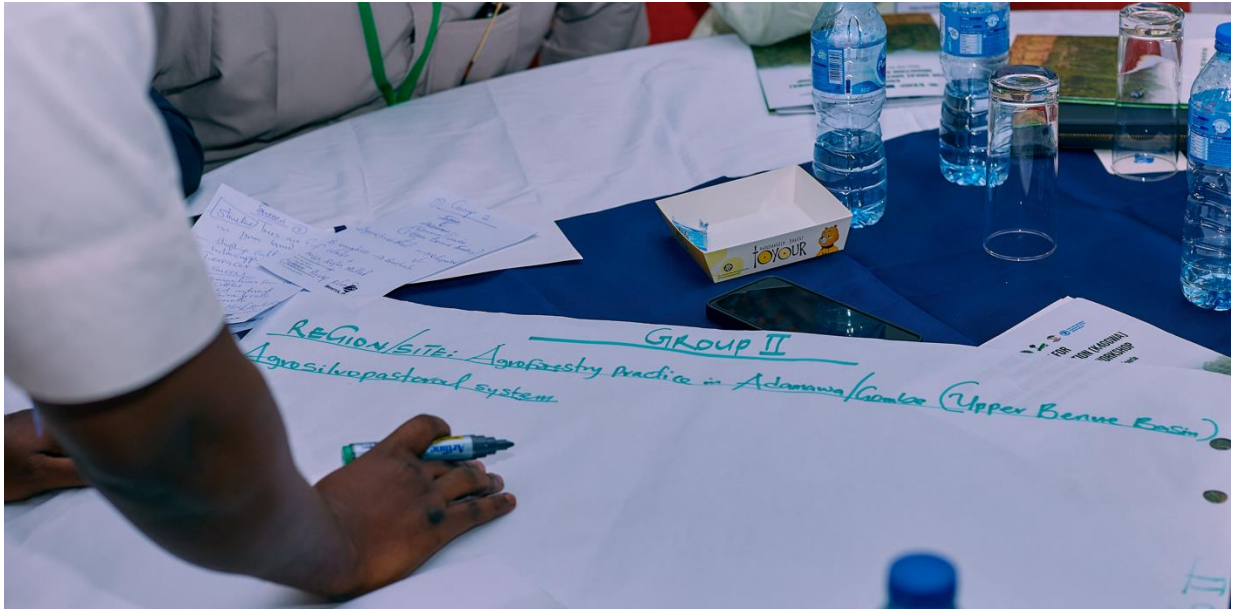


Figure 13: Focused group work session

3.3.3 Land degradation Surveillance Framework (LDSF) and Regreening App - Dr. Mulugeta Mokria, CIFOR-ICRAF

Monitoring restoration is critical to sustaining large-scale restoration efforts. This process serves multiple purposes that includes: sharing outcomes to inspire replication and ensure transferable results; providing feedback for continuous learning and adaptive management; Ensuring transparency and providing evidence of progress towards specific goals, including periodic assessments of who benefits from restoration interventions (pay for performance); enhancing trust and fostering additional investments by sharing evidence with restoration investors; and supporting regular reporting on the impacts of restoration; aiding in the achievement of national, regional, and international commitments.

Monitoring land restoration ensures that activities meet their objectives, identifies challenges, detects early signs of success or failure, highlights areas needing adjustments, and provides valuable information on the ecological and socio-economic impacts of restoration efforts. K4GGWA leverages two main tools to monitor land degradation and restoration processes, the LDSF and the Regreening App.

The LDSF is a comprehensive method developed by CIFOR-ICRAF scientists as a science-based field protocol for measuring land and soil characteristics, vegetation composition, and land degradation status over time. It offers a consistent set of indicators and field protocols to assess ecosystem health. LDSF provides a biophysical baseline at the landscape level and a monitoring and evaluation framework for assessing land degradation processes and the effectiveness of rehabilitation measures over time. The application has been used by various partners in over 45 countries since 2005.

The Regreening App is a free mobile-based Android application designed and developed by CIFOR-ICRAF. It features four modules focused on FMNR, tree planting, nursery establishment, and training engagements. The app helps partners and users collect information on how farmers manage and protect trees on their farms. It is intended for use by farmers, implementing partners, scientists, extension agents, lead farmers, and nursery managers.

4.0 Day 2: Training on SLM options

The second day training events focused on - FMNR, managing grasslands, soil & water resources conservation and use; and a introduction to the Digital Learning Campus (DLC) intended to foster further engagement, collaboration and exploration of available options for land restoration and helping to cascade training actions.

4.1 Farmer/Pastoralists Managed Natural Regeneration (P/FMNR) - Niguse Hagazi, CIFOR-ICRAF

FMNR was highlighted as a rapid and effective method of landscape restoration, involving the selection and pruning of re-growth from tree stumps, live roots or seeds that sprout under favourable conditions. FMNR enhances systematic regeneration and management of underground forests, allowing sustainable production alongside soil conservation and biodiversity protection.

Steps to implement FMNR

- (i) **Define purpose:** Clearly define the purpose of FMNR beforehand.
- (ii) **Survey:** Do not slash all tree growth; survey the farm to determine the number and species of trees present.
- (iii) **Selection and pruning:** Select stumps for regeneration and prune the best stems while removing others. Always cut upwards to avoid bruising or stripping bark. Consult locals and relevant actors to share a joint vision throughout the mainstreaming process.

Species selection and decision criteria

Decisions on the type and number of plants to maintain should be given to individual farmers or community groups, based on:

- (i) the ability of species to resprout after cutting, local valuation of species, and farmers' objectives
- (ii) the frequency and intensity of thinning excess shoots and pruning remaining shoots depend on individual or group objectives
- (iii) some farmers may prioritize producing more leaves and pods for livestock feed, while others may focus on timber/pole production and apply intensive pruning.

FMNR has demonstrated its effectiveness in landscape restoration and has had positive economic, social, and environmental impacts. Notable examples include communities that received carbon money through clean carbon trading initiatives, with significant increases in annual carbon sequestration in Humbo Woreda in Ethiopia. Also, **Abreha We-Atsbeha** won Equator Prize in 2012 for outstanding success in landscape restoration and livelihood improvements. FMNR is thus a comprehensive approach to land restoration that integrates systematic monitoring, community engagement, and adaptive management in achieving sustainable and scalable restoration outcomes. Feedback session on FMNR highlighted the challenges and mitigation measures as compiled in Table 3.

Table 3: List of barriers to implementing FMNR and mitigation measures

FGD	Barriers	Mitigation Strategies
Group 1	<ul style="list-style-type: none"> Lack of awareness, sensitization and technical knowledge Right species availability Conflict of interest Constrains for expansion Extension services 	<ul style="list-style-type: none"> Improve on awareness and sensitization Planting by direct seedling, sowing Awareness creation To have more extension services
Group 2	<ul style="list-style-type: none"> Limited knowledge Govt policy & poor agric services Land degradation Conflicts Poor species Socio-cultural believes 	<ul style="list-style-type: none"> Capacity building Political will and commitment Sensitization and awareness creation Ecological restoration and attitudinal changes Grievance redress mechanism
Group 3	<ul style="list-style-type: none"> Land tenancy ownership Lack of knowledge Socio-cultural believes Access to training and resources Grazing Urbanization 	<ul style="list-style-type: none"> Education, training and community engagement Sensitisation through extension service Land reform Capacity building by providing incentives Social fencing and establishment of fodder farms Strict adherence to environmental policies and enforcement of environmental Laws



Group discussion outcomes presentation by Tari Guwa, NAGGW, Principle Community Development Officer.

4.2 Holistic Grazing as a Restoration Option- Prof. Ibrahim R. Muhammad

Professor Muhammad defined rangeland as a type of grassland habitat that enhances environmental stability and supports a wide variety of plant and animal species. He mentioned that several grazing managements can contribute to restoration of the rangelands. This could be achieved by creation of sector-specific policies and actions throughout the region to make all livestock and crop production climate-smart and promote sustainability. It is important to encourage everyone involved in fodder crop-livestock integration to become more knowledgeable and capable for the benefit of the region's overall prosperity.

4.3 Soil and Water Management- Grace Koech- CIFOR-ICRAF

Current demand for water exceeds available supply and is projected to escalate with population growth and environmental degradation. Concurrently, climate change is causing shifts in rainfall patterns and daily temperature. Moreover, escalating soil temperatures are diminishing infiltration rates and amplifying soil evaporation, thereby diminishing rainfall productivity. The challenges above are further compounded by the effects of agricultural land degradation that limits soil potential to capture and hold rainwater to sustain agricultural productivity.

Green water management holds significant potential to address water challenges, yet most stakeholders are unaware of this potential. Optimizing rain-water use could greatly benefit agricultural, industrial, and municipal sectors. However, investment in water harvesting remains limited. Furthermore, rainwater harvesting technologies depend on catchment characteristics. Landscape restoration can enhance rainfall productivity and reduce erosive capacity of rain drops. This calls for growing trees/ managing existing trees and restoring grasses that play a critical role in intercepting rainfall and facilitating infiltration. Beside interception it is important to promote productive evapo-transpiration.

It is important to develop technologies that enhance land restoration to reduce erosive capacity of soil and invest in soil conservation technologies that increases soil ability to capture, hold and retain moisture. The option to be selected depend on the topography, cultural practices, available skills, finances to purchase infrastructure and size of catchment.

Also, it is important to harvest water to reduce its erosive capacity and increase the amount of water for livelihood and environmental conservation. Rain-water harvesting can be done using three main technologies, roofwater harvesting, micro and macro harvesting depending on the location of the catchment relative to target area.



Figure 14: Green water management and soil conservation session facilitated by Grace Koech

4.4 Digital Learning Campus - Amos Lang'at

DLC was introduced as a transformative learning hub, co-developed by CIFOR-ICRAF and the Global Landscapes Forum (GLF). It connects diverse landscape actors and on-the-ground experts through demand-driven, tailored learning experiences designed to upskill and advance the next generation of sustainable landscape professionals. The platform's slogan is "Learn, Engage, and Explore."

Three-Pronged Approach are available:

(i) **Courses & Products**

- **Tailored Courses:** Offers self-paced and blended courses tailored to individual needs.
- **Micro-Learning Products:** Short, focused learning modules.
- **Learning Management System:** An integrated system to manage and track learning progress.

(ii) **Resources**

- **Repository:** A comprehensive collection of guides, manuals, and tools that are action-oriented, catering to both learners and project partners or trainers.

(iii) **Community**

- **Learning Communities:** Networks and discussion forums to facilitate knowledge exchange and collaboration among learners, project partners, and trainers.

Key Features

(i) **Real-Time Collaboration:**

- Allows multiple members to work together on a single piece of content simultaneously.

- Members can make edits, add comments, and propose suggestions that can be accepted or rejected instantly.
 - Promotes co-learning, co-development, and co-creation of knowledge.
 - Facilitates collaborative problem-solving.
- (ii) **Moderation and Task Management:**
- Users can select a moderator.
 - Set start and finish dates for tasks, enhancing efficiency and accountability.
- (iii) **Additional Tools:**
- **Dashboards:** For tracking progress and outcomes.
 - **Zoom Integration:** Seamless video conferencing capabilities.
 - **Courses:** Structured learning paths.
 - **Badges and Certification:** Recognition for achievements and competencies.
 - **Discussion Forums:** Spaces for interactive discussions and networking.

The DLC includes a dedicated page for the K4GGWA program providing actors with access to valuable resources and tools. This page supports the project's goals by facilitating resource utilization and collaboration among stakeholders.

5.0 Day 3: Field work: Practical session on FMNR, LDSF and Regreening App

Day three of the workshop engaged ToTs on field work activities in Magama a suburb community of Gabasawa local Government, Kano State. Practical demonstration covered implementation of FMNR techniques; and LDSF methodology and use of the Regreening App.

The field visit coincided with the start of the rainy season and farmers were very busy on various field operations. Magama has good tree cover and the potential to expand tree growing & FMNR is clear. Diverse tree species dot the landscapes such as: *Azadirchta indica*, *Adansonia digitata*, *Ziziphus mauritiana*, *Acacia senegal*, *Guiera senegalensis*, *Piliostigma reticulatum*, *Borassus sp.* *Parkia biglobosa*. Good tree retention practices on farm have been supported by government tree planting activities. Agroforestry practices involve agrisilvopastoralism: sequential agroforestry plan implemented involve growing of millet, cereal crops, followed by open grazing. Oxen tillage is common and use of raised protective soil bands, with water collection farrow is widely used on cassava plots. Fencing technology using concrete poles on plots under restoration is being tested by NAGGW to help mitigate vandalism.

5.1 Practical 1: Implementing FMNR and other agroforestry practices

Learnings documented in the field included:

- Cultivate farmer **buy-in** as a **key entry point:** in-kind incentives, mindset change to deal with related setbacks e.g. birds, competition with crops, tillage practices

- **Timing:** consider appropriate timing to initiate FMNR operations one or two months before the rains
- Conduct farmer **HH consultations** bearing in mind farm **spaces use e.g. for women, sons** etc
- Discuss **'trees for what'**/purpose and obtain consent to implement practice
- Review **tillage plans** e.g. via oxen, tractor and how it might affect regeneration and tailor practices
- **Species options and selection** after farm surveys/transects walks; identify options for **enrichment planting to fill gaps**
- Understand **unique farm circumstances**, situations and work with trees 'fit' for purpose, compatibility with other farm operations
- **Manage trees to increase productivity** and farmer benefits e.g. pruning's to support biomass use (fertility, firewood, fencing materials, mulching etc). Implies: implement pruning regime based on biomass needs and tree management goals
- Promote **use of the right tools** for thinning, coppice and pruning operations to minimise tree stem damage and infestations
- **Involve farmers from the outset** to mitigate mismanagement challenges such as bush encroachment in pasture areas
- **Manage wildlings *in situ* or translocate seedlings** to safe areas while avoiding root damage e.g. in line planting design to allow tillage operations

5.2 Practical 2: Conducting Land health assessment using the LDSF approach

Key activities during this session covered:

- Practical field implementation of the LDSF methodology was demonstrated
- Tools and equipment needed
- Cluster and plot placement protocols
- Water infiltration assessment protocols
- Soil sample collection and handling procedures for top, subsoil and cumulative samples for lab analysis
- Comprehensive site assessment: topography, vegetation covers etc.

5.3 Practical 3: Using citizen science-based monitoring technique with the Regreening Africa App

- Play store download, set up and registration on the RA app
- Demonstration on application of the various modules
- Demonstration on data capture on FMNR as test case in the field and recording plot polygons and species level records

6.0 Day 4: Mapping of actors working on different aspects of SLM

During the fourth day of the K4GGWA Capacity Strengthening workshop, the moderator welcomed back ToTs from the field excursion of the previous day and encouraged them to share their experiences.

Additional presentations were made, one by Red Cross and second by Food and Agriculture Organization (FAO). Trainees then developed their action plans and mapped all relevant the stakeholders categorising them as state or non-state actors.

6.1 Red Cross Presentation- Ibrahim Umar Isma'il

A brief history of The Red Cross Society in Nigeria, established in 1960, and at the time had around 18,470 registered volunteers in the 44 Local Government Areas of Kano State was shared. The society has a newly established branch of the Red Cross focusing solely on climate change which falls under their pre- and post-disaster incidents.

The aim is to support vulnerable communities in reducing climate-related risks and adapting to climate change. The society's interventions include scaling up locally led adaptation, planting and caring of over 10,000 seedlings, and providing capacity building trainings to over 200 volunteers.

In addition, a Climate Resilience Plan for communities in Kano State, has been prepared which includes tree planting, drought monitoring, training women on home-based gardening, encouraging diversified livelihoods, engaging youth as social behavioral change agents, advocating for renewable energy use, using mass media for awareness creation, and dialoguing with community influencers to build climate-led actions.

6.2 Food and Agriculture Organization (FAO) - Moctar Sacande

Moctar Sacande, lead of the SURAGGWA project at the FAO, outlined three major collaborations between the FAO and other programs/agencies:

- (i) FAO and the Great Green Wall (GGW): From the inception of the GGW initiative, the FAO has been a key collaborator. However, due to financial constraints and limited

resources, the FAO has only been able to focus on capacity building in three of the 11 frontline states: Bauchi, Jigawa, and Sokoto. It was reported that the new SURAGGWA project, is currently under assessment by the Green Climate Fund, which aims to help scale up the GGW's work execution.

- (ii) FAO and the Knowledge for Great Green Wall Action (K4GGWA): This EU-funded collaboration brings together FAO's Action Against Desertification (AAD) programs and ICRAF's Regreening Africa initiative. He noted that the success of these initiatives prompted the EU to continue supporting both Regreening Africa and AAD programs.
- (iii) FAO, ACRESAL, and GGW in Nigeria: Nigeria has secured World Bank funding for the expansive ACRESAL project, involving the Ministries of Environment, Agriculture, and Water Resources across 20 states.

6.3 Action Planning and Mapping of Actors

This session involved focused groups discussion to identify SLM practices, key learning areas, stakeholders and actors working on restoration and what support is required to achieve land restoration objectives in their geographical area. Feedback from each group was captured and presented. Summaries are shown in Table 4.

Table 4: State and non-state actors involved in SLM in GGW belt, Nigeria.

Level	State Actors	Roles	Incentives	Disincentives
Federal Government	<ul style="list-style-type: none"> • Federal ministry of agriculture • Federal Ministry of Environment • Federal Ministry of Water Resources • Federal Ministry of humanitarian affairs • Federal Ministry of information • Federal Ministry of Foreign Affairs 	<ul style="list-style-type: none"> • Policy formulation • Funding • Monitoring and evaluation • Publicity and humanitarian services • Foreign partnership 	<ul style="list-style-type: none"> • Livelihood support • Capacity building 	<ul style="list-style-type: none"> • Non-timely release of funds • Political interference
State government	<ul style="list-style-type: none"> • Ministry for Local Government Affairs • State House of Assembly • Ministry of Agriculture • Ministry of Water Resources 	<ul style="list-style-type: none"> • policy formulation • funding support • monitoring and evaluation • Land allotment 	<ul style="list-style-type: none"> • Allocation of land • provision of technical support • livelihood support • capacity building 	<ul style="list-style-type: none"> • Non-timely release of funds • Political interference
Local government	<ul style="list-style-type: none"> • Department of land • Department of Agriculture • Department of Social Welfare 	<ul style="list-style-type: none"> • Sensitization support 		
Agency	<ul style="list-style-type: none"> • NAGGW 	<ul style="list-style-type: none"> • Implementation • Monitoring • Advocate /sponsor policy 		
None state actors				
Community	CBOs	Advocacy Implementation	<ul style="list-style-type: none"> • Funding • Capacity building 	<ul style="list-style-type: none"> • Limited access to education, training and enlightenment • Inadequate recognition and
Community	Traditional Institutions	Advocacy Implementation Community engagement	<ul style="list-style-type: none"> • Livelihoods improvement projects 	

Level	State Actors	Roles	Incentives	Disincentives
NGO's	International Institutions	Funding, Monitoring Advocate policy	<ul style="list-style-type: none"> • Subsidized farming inputs • Funding 	engagement in GGW project
Community	Local communities and Farmers	Implementation Community engagement		
NGO's	Local volunteers	Advocacy Implementation		

The proposed summarised action plan for implementation of priority activities is presented in table 5 below.

Table 5: Proposed action plan for implementation of priority activities.

PRACTICE	LEARNING AREAS	KSA	WHO IMPLEMENTS	WHO SUPPORTS	BY WHEN			
					2024	2025	2026	2027
Agroforestry	<ul style="list-style-type: none"> • Seed/seedlings procurement • Species selection • Soil analysis • Provision of farm implements 	<ul style="list-style-type: none"> • Capacity building • Farmer sensitizing and awareness creation 	<ul style="list-style-type: none"> • Govt agencies e.g. NAGGW, CSO, NGOs, FBOs • Development partners 	<ul style="list-style-type: none"> • Govt agencies • FBOs, CSOs, NGOs 	Q1	Q1	Q1	Q1
Silvicultural practices	<ul style="list-style-type: none"> • Knowledge and understanding of silvicultural techniques, e.g. thinning, pruning, pollarding, translocation etc 	<ul style="list-style-type: none"> • Use of appropriate tools and materials needed in execution of silvicultural treatment 	<ul style="list-style-type: none"> • Farmers under the guide of extension agent 	<ul style="list-style-type: none"> • Govt MDA's • Development partners 	Q1	Q1	Q1	Q1
Social forestry	<ul style="list-style-type: none"> • Community engagement • Provision of incentives • Social fencing 	<ul style="list-style-type: none"> • Awareness creation • Capacity building/ context analysis 	<ul style="list-style-type: none"> • Community interested farmers groups • women and youth organizations 	<ul style="list-style-type: none"> • MDAs • FBOs, Media 	All	All	2	All
Landscape restoration	<ul style="list-style-type: none"> • Evaluation of degradation • Assessment of the causes of disturbances • Constraints and opportunities presented by the land 	<ul style="list-style-type: none"> • Afforestation and reforestation • soil and water conservation e.g. water harvesting techniques 	<ul style="list-style-type: none"> • MDAs • Development partners 	<ul style="list-style-type: none"> • Govt • Development partners 	All	All	All	All

Note: MDA: Ministries, Departments & Agencies; KSA: Knowledge, Skills, Attitudes

6.4 Closing Remarks

DG NAGGW

The DG NAGGW appreciated all the participants for their time and thanked CIFOR-ICRAF for the collaboration. He further encouraged trainees to apply the knowledge gained from the workshop in their respective states to improve the efforts of the Agency. He further encouraged all participants to connect to the Landscape Academy (E-SCHOOL) and for more knowledge.

CIFOR ICRAF

Ibrahim Toure on behalf of CIFOR-ICRAF, the presenters and organisers of the workshop thanked the NAGGW, trainees, staff and all those involved in making the workshop a great success.



Figure 15: Plenary Intervention by Suleiman Abubakar, Adamawa State, Field Officer.

Annex 1: Workshop Program

Knowledge for the Great Green Wall Action (K4GGWA)
Program Induction and Training Workshop

Time	Activity	Presenter	Facilitator/Chair
Day 1 Program			
8:30–9:00	Registration	Organizers	
9:00–9:30	National Anthem & Opening Prayers (Third Stanza)	NAGGW	CIFOR-ICRAF
	Welcoming address	NAGGW	
	Opening speech	Director General, Dr. Yusuf Maina Bukar	
	Keynote Address	Honourable Minister, Federal Ministry of Environment, Balarabe Abbas Lawal (or representative)	
	Introduction of workshop participants	NAGGW	
9:30–10:00	Introduction of workshop objectives and K4GGWA components	Ibrahim Toure, CIFOR-ICRAF, Program Co-lead	
10:00–11:00	Discussion (scan on available SLM competencies & gaps and expectations)	Participants	
11:00 –11:30	Tea break	Organizers	
11:30 –12:00	Brief overview presentation of Nigeria GGW efforts, lessons, and learnings (25 minutes)	Nigeria National Agency for GGW Ag. Director, Rural Development and Extension Services and Ag. Director Afforestation and Land Management	Dr. Sammy Carsan, CIFOR-ICRAF
12:00 –12:30	Discussion	Participants	
12:30 – 2:00	Lunch	Organizers	
2:00 – 3:00	Training Module 1: <i>Agroforestry, Learning Principles, and Implementing Practices (presentation+ Group work)</i>	Sammy Carsan, CIFOR-ICRAF	Ibrahim Toure, CIFOR-ICRAF
3:00-4:00	Training Module 2: <i>Applications of citizen surveillance and systematic data collection in monitoring land restoration: Taking Regreening Africa app and LDSF at scale in GGW countries (presentation +</i>	Mulugeta Gemi, CIFOR-ICRAF	

Time	Activity	Presenter	Facilitator/Chair
	<i>familiarizing with the Regreening Africa app – practical).</i>		
4:00 – 4:30	Tea break	Organizers	
4:30 – 5:00	General discussion, reflection, and way forwards	Participants	
Day 2 Program			
8:00–8:30	Registration	Organizers	
8:30-9:00	Brief recap of day 1	Grace Koech, CIFOR-ICRAF	
9:00-9:30	The Green African Drylands Innovation Hub: activating exceptional innovators, dreamers, and doers across the Great Green Wall (<i>presentation + poster</i>)	Ibrahim Touré, CIFOR-ICRAF	Dr. Mulugeta Gemi, CIFOR-ICRAF
9:30-10:30	Training Module 3: Farmer/Pastoralists Managed Natural Regeneration (P/FMNR): <i>A Tool for Landscape Restoration and Livelihoods Improvement (presentation + poster + country reflections)</i>	Niguse Hagazi, CIFOR-ICRAF	
10:30 –11:00	Tea break	Organizers	
11:00-12:00	Training Module 5: Alternative Water Harvesting and Soil and Water Conservation Practices: <i>lessons and Experiences (presentation + country reflections)</i>	Grace Koech, CIFOR-ICRAF	
12:00-12:45	Discussion and reflection	Participants	
12:45–2:00	Lunch	Organizers	
2:00-3:00	Overview on digital campus	Langat Amos, CIFOR-ICRAF	Grace Koech, CIFOR-ICRAF
3:00-3:45	Holistic grazing as a restoration option along the GGW	Prof. Ibrahim R. Muhammad, Federal University of Agriculture, Zuru, Kebbi State	
3:45-4:15	Tea break	Organizers	
4:15-5:00	General discussion, reflection, and way forwards	Participants	
Day 3 Program (Field Trip)			
8:30	Departure for Field Trip	Organizers	

Time	Activity	Presenter	Facilitator/Chair
10:00-11:30	FMNR Practice session	Niguse Hagazi, CIFOR-ICRAF	NAGGW/CIFOR-ICRAF
11:30-12:45	LDSF Practice Sampling	Mulugeta Gemi, CIFOR-ICRAF	
12:45–2:00	Lunch	Organizers	
2:00-4:00	Regreening App practice session	Mulugeta Gemi, CIFOR-ICRAF	
4:00-5:00	Return trip	NAGGW	
Day 4 Program			
9:00-9:30	Brief Recap on highlights of the field visit	Sammy Carsan, CIFOR-ICRAF	CIFOR-ICRAF
9:30-10:30	Country workplans preparations covering priority face to face training needs, coalition & NGOs support	Group work	
10:30-11:00	Tea break	Organizers	CIFOR-ICRAF
11:00-11:45	Group work presentation	Group leader	
11:45-12:45	Developing country specific K4GGWA action plans	Country based group work	
12:45–2:00	Lunch	Organizers	
2:00-2:45	Group work presentation	NAGGW focal point	Ibrahim Toure, K4GGWA Program Co-lead
2:45-3:15	Discussion with the national coalition on engagement modalities and actions		
3:15-3:45	General discussion, reflection, and way forwards	Countries	
3:45-4:15	Tea break	Organizers	
4:15-4:30	Closing remarks	NAGGW/CIFOR-ICRAF	Ibrahim Toure, K4GGWA Program Co-lead Dr.Yusuf Maina-Bukar, Director General NAGGW

Annex 2: Welcome Speech Director General, NAGGW

Welcome Address Delivered by The Director General, National Agency For The Great Green Wall At The Knowledge For The Great Green Wall Action (K4GGWA) Induction & Training Workshop Held at The Bristol Palace Hotel, Kano on Monday 1st– 4th July 2024.

PROTOCOL

Distinguished delegates, Members of the Center for International Forestry Research and World Agroforestry (CIFOR-ICRAF), Members of Staff of the National Agency for the Great Wall, Representatives from NGOs, Universities, Women and Youth Green Platforms, and other esteemed participants. I am honoured to welcome you to the Knowledge for the Great Green Wall Action Induction and Capacity Strengthening Workshop here in Kano, Nigeria.

The Knowledge for the Great Green Wall Action (K4GGWA) program, funded by the European Union, marks a significant milestone in our collective efforts to improve capacities for implementing Sustainable Land Management practices across the Great Green Wall countries. Led by The Center for International Forestry Research and World Agroforestry (CIFOR-ICRAF), the Food and Agriculture Organisation (FAO), this program aims to catalyse access and use of locally relevant restoration techniques and knowledge across the GGW in collaboration with the Pan-African Agency of the Great Green Wall (PAGGW) member states.

The workshop aims to revitalise the capacity of both state and non-state actors by incorporating the priorities of target communities and utilising local expertise and knowledge to implement Sustainable Land Management practices. This initiative aligns with the identified urgent need to strengthen Great Green Wall land restoration works undertaken by national agencies, Civil Society Organisations, Women and Youth Green Platforms, Universities, and private entities. The involvement of Great Green Wall country focal points as essential nodes for coordination and linkages with various actors involved in Sustainable Land Management work highlights the significance of this collaborative approach.

I encourage you to actively participate in the workshop sessions, share ideas, and participate in the group and feedback sessions. Through your contributions, we aim to develop country-specific work plans for technical collaboration, share reporting needs and engagement plans, and identify ongoing country-level Great Green Wall Initiatives for collaboration and linkages.

I look forward to the fruitful discussions, knowledge sharing, and collaborative planning that will take place over the next few days. Let us work together to strengthen our collective capacity to implement Sustainable Land Management practices and contribute to the success of the Great Green Wall initiative.

Thank you.

Annex 3: Photo capture on some of the training session



