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The Knowledge for The Great Green Wall Action (K4GGWA)

Regional Program Induction & Capacity Strengthening Workshop



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Proceedings

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ACRONYMS

AAD:	Action Against Desertification
ACI	Africorp International
ADILP	Africa Drought Inhibition and Livestock Protection Ltd
AU	African Union
AUC	African Union Commission
CIFOR-ICRAF:	Centre for International Forestry Research and World Agroforestry
DLC:	Digital Learning Campus
EFRI	Ethiopian Forestry Institute
EU:	European Union
FAO:	Food and Agriculture Organization of the United Nations
FMNR:	Farmer Managed Natural Regeneration
GGW:	Great Green Wall
GLI	Green Legacy Initiative
K4GGWA:	Knowledge for the Great Green Wall Action
KSA:	Knowledge, Skills and Attitudes
LDSF:	Land Degradation Surveillance Framework
PAGGW:	Pan-African Agency of the Great Green Wall
SLM:	Sustainable Land Management
UNCCD	United Nations Convention to Combat Desertification

1.0 Introduction

The Knowledge for the Great Green Wall Action (K4GGWA) regional program funded by the European Union (EU) goal is to enhance capacities for implementation of Sustainable Land Management (SLM) practices across the Great Green Wall (GGW) countries. Led by CIFOR-ICRAF and FAO, the program is collaborating with the Pan-African Agency of the Great Green Wall (PAGGW) member states to facilitate access to and 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.

The K4GGWA seeks to revitalize the capacities of both state and non-state actors by addressing the priorities of target communities and leveraging local expertise to implement sustainable land management practices. These actions reinforce the PAGGW strategies and action plans, such as those discussed at the 3rd Residential Seminar on the implementation of the Great Green Wall, held in March 4th to 8th, 2024, in Ouagadougou, Burkina Faso. Stakeholder Declaration highlighted the urgent need to strengthen GGW land restoration efforts undertaken by national agencies, CSOs, women's and youth green platforms, universities, national coalitions, UN agencies, and private entities.

Following the feedback from the residential seminar in Burkina Faso and the launch of the K4GGWA regional program in Ethiopia, CIFOR-ICRAF and FAO, in collaboration with PAGGWA, organized a three-day induction and training workshop involving the GGW focal points from Ethiopia, Sudan, Somalia and Djibouti. The purpose of the workshop was to deepen engagements with GGW focal points, their national coalitions and other in-country stakeholders to better connect and implement SLM initiatives. The workshop objectives were to:

- (i) Share K4GGWA project goal, objectives, project countries, partners and work components.
- (ii) Map actors working on SLM, their capacities, needs, and opportunities within the Great Green Wall Belt in Ethiopia, Somalia, Djibouti, and Sudan.
- (iii) Conduct trainings on selected SLM practices and tools, including Agroforestry, FMNR, Soil & Water Management, Land Degradation Surveillance Framework (LDSF), Regreening App, Digital Campus, and Global Tree databases.
- (iv) Co-develop country-specific work plans for scaling capacity strengthening and technical collaboration with K4GGWA and other projects.

2. Workshop Proceedings

The workshop was conducted over three days, each day focusing on different learning sessions and activities.

2.1 Day one: Opening Session: Environmental scan on the status of SLM capacities in member countries

The first day centred on three main discussion sessions. The first session welcomed the participants and fostered interactions for co-learning and sharing experiences. It included introductions of the participants and the workshop program, an official opening speech by the Director General of Forestry in Ethiopia, and a keynote address from the Pan-African Agency of the GGW were shared.

The second session introduced participants to the K4GGWA program. Participants drawn from the Great Green Wall countries around the Horn of Africa highlighted the current state of knowledge with regard to SLM capacities, needs and opportunities to accelerate SLM practices.

The third session involved discussion with participants on the application of the Knowledge, Skills, and Attitude (KSA) approach for holistic learning and better knowledge delivery. During this session, two trainings were conducted: one on agroforestry and the other on the Land Degradation Surveillance Framework and the Regreening App. Each session provided the participants with opportunity to ask questions, work together in groups and present the group work for feedback and learning by other teams.

Patrick Worms (CIFOR-ICRAF) set the tone for the workshop by discussing the challenges faced by many restoration initiatives, specifically the "not invented here" syndrome. He emphasized that while each country has unique solutions, sharing ideas can benefit others. The K4GGWA program aims to provide actors within the GGW belt an opportunity to exchange technologies, options, challenges and opportunities for scaling land restoration efforts. Patrick then introduced speakers for the session.

2.2 Welcome and Participants Introduction: Niguse Hagazi, CIFOR-ICRAF

Niguse Hagazi welcomed participants from various stakeholder groups, including the Pan-African Agency of the Great Green Wall, Great Green Wall National Coalitions, Country Focal Points, the United Nations Convention to Combat Desertification (UNCCD), development organizations, academia, the private sector, civil society institutions, and NGOs (Annex 1). He also shared on the workshop program for the three days (Annex 2).

During his welcome remarks, Niguse provided an overview of CIFOR-ICRAF, which operates in over 60 countries with approximately 190 global partners. He highlighted CIFOR-ICRAF's focus

areas: deforestation and biodiversity loss, climate crisis, unsustainable food systems, supply and value chains, and extreme inequality, all of which align with the Sustainable Development Goals, the Paris Agreement, and the three Rio Conventions. To address these challenges, CIFOR-ICRAF utilizes tree-based systems, leverages partnerships, and generates evidence to inform policy.



Hagazi Niguse sharing his welcome remarks with the workshop participants. Photo: Mulugeta/CIFOR-ICRAF.

2.3 Official Opening – H.E Kebede Yiman, Director General, Ethiopian Forestry Institute (EFRI)

H.E. Kebede Yiman welcomed guests from the GGW initiatives for Africa and from the African



Union. Participants from national agencies of Djibouti, Sudan, Somalia, and Ethiopia, CIFOR-ICRAF colleagues, and other GGW actors. He expressed his pleasure to provide opening remarks for the Knowledge for the Great Green Wall Action (K4GGWA) Program Induction and Capacity Strengthening workshop.

He highlighted the significance of the regional program, funded by the European Union, and appreciated CIFOR-ICRAF for promptly implementing the program following its launch.

The DG reiterated on the common challenges faced by the Horn of Africa, such as capacity and knowledge gaps in designing, implementing, and monitoring GGW activities. He underscored the need for collaborative and coordinated efforts, including training on implementation and monitoring options for GGW initiatives.

He noted that the three-day training workshop aims to address some of these skill and knowledge gaps, as well as coordination and monitoring issues, to effectively plan, implement and monitor interventions aimed at restoring degraded landscapes, conserving biodiversity, and improving livelihoods within the GGW belt.

H.E. Yiman recognized ongoing efforts and contributions from the government, development partners, NGOs, the private sector, and farming and pastoral communities in addressing these challenges. He mentioned Ethiopia's investment in land restoration through initiatives such as the Green Legacy Initiative (GLI), which aims to plant 50 billion seedlings by 2026, with over 32 billion seedlings planted to date and 7.5 billion planned for this year. These efforts are complemented by activities in forest landscape restoration, afforestation/reforestation, and sustainable management of natural forests through participatory forest management.

He highlighted the importance of forest landscape restoration activities in enhancing economic development, improving farm household livelihoods, conserving biodiversity, and increasing resilience to climate change impacts. As many rivers originating from Ethiopian highlands are cross-boundary, the restoration activities contribute to regional prosperity, peace, and security.

He invited workshop participants to share similar ongoing efforts from Djibouti, Sudan, and Somalia for cross-learning, and emphasized the need for collaboration and strong partnerships to address common challenges related to land degradation, biodiversity loss, deforestation, and climate change. He encouraged participants to use the capacity strengthening training workshop as a training-of-trainers (ToT) opportunity to cascade the knowledge gained into their respective countries and areas.

In his closing remarks, he thanked CIFOR-ICRAF for organizing the workshop, the EU for financing the regional program, and the GGW coordination at the African Union, GGW focal points, national GGW coalition members, and all other participants for their attendance. He then declared the workshop officially open and wished everyone a successful deliberation and a pleasant stay in Addis Ababa.

2.4 Keynote Address – Elvis Paul, PAGGW of the African Union

Elvis reiterated the remarks from the DG, EFRI and expressed his pleasure at the commencement of K4GGWA. He challenged the participants, to view Africa as 'one country' in order to address the common challenges on land degradation. He highlighted the common challenges include: land degradation, desertification, extreme weather, and dryland conditions, and emphasized the need for learning and knowledge exchange to scale best practices.



Elvis further urged countries to support each other and shared Ethiopia's Green Legacy Initiative as a model to emulate. He outlined ongoing initiatives at the Pan-African Agency, which include:

(i) The AU's launch of a global strategy for the Great Green Wall, adopted during the 37th summit and launched at the fertilizer summit in Nairobi. This strategy considers all challenges and opportunities, especially the expansion of the Great Green Wall to Southern Africa, Somalia, and Kenya and need to incorporate Pan-African approaches.

(ii) Development of national action plans by Southern African countries.

(iii) Collaboration with China on the Great Green Wall of China initiative, which includes establishing a big data centre that the African Great Green Wall can learn from.

Comments:

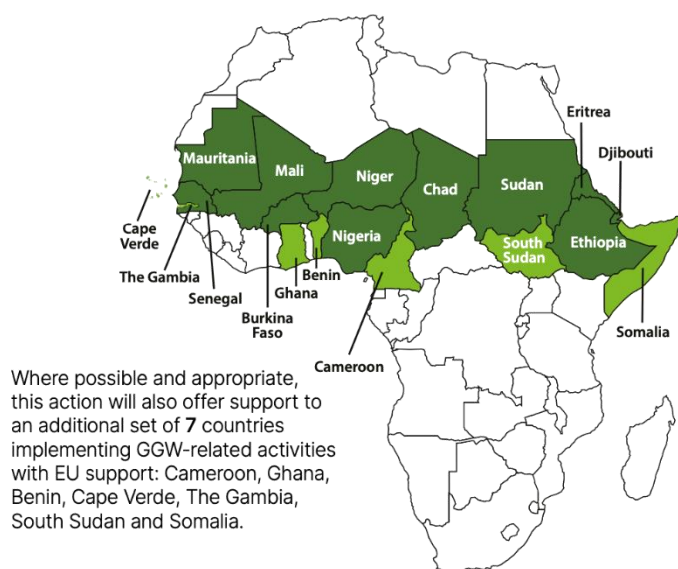
The private sector arm supporting the GW initiatives is keen on the gaps and opportunities to invest in to accelerate efforts and action for sustainable land management. This can only be done if the gaps are clear, and actors are known for investors to intervene.

The GW National Focal Point for Ethiopia, requested the Pan-African Agency of the GW to consider opening the Horn of Africa office in any of the member countries to enhance coordination of the GW action in the region.

2.5 About K4GGWA– Ibrahim Toure, CIFOR-ICRAF

The Knowledge for the Great Green Wall (K4GGWA) is a direct response program to the issues identified in the GGW evaluation. The program is funded by the European Union and implemented by CIFOR-ICRAF & FAO. The purpose of the program is to strengthen the knowledge base to inform the GGW action, address all the drivers of land degradation and improve SLM interventions and monitoring of the activities of key actors. Besides that, the program will seek opportunities to scale sustainable land management approaches and tackle governance issues and policy environments.

The program operates in eleven countries that are the members of the Pan Africa Agency of the African Union with some action in seven other countries. To deliver on the action K4GGWA, works with the African Union Commission, Pan-African Agency of the GGW, National Agencies of the GGW, National governments, Civil society organizations, Private sector, EU delegations and relevant stakeholders.



The program aligns and contribute to different global and regional initiatives such as the Africa Union’s Agenda 2063, Land Degradation Neutrality targets, and their United Nations Framework Convention on Climate Change (UNFCCC) and the United Nations Convention on Biological Diversity (UNCBD) commitments.

On top of that, K4GGWA is addressing priorities identified by the Great Green Wall Accelerator framework and its 10-

Year Priority Investment Plan and contributes to the African Union-led African Forest Landscape Restoration Initiative (AFR100) and Sustainable Development Goals (SDGs) (1, 2, 5, 7,13, 15, and 17). To deliver on its objectives, the project is organized into three major components. And each component is interlinked.

Table 1 Plenary on the K4GGWA program

Question/comments	Responses
In your presentation you mentioned that the project will utilize different tools on agroforestry, please elaborate on these tools.	There are several tools and approaches used in land restoration, the project intends to prioritize options that address the country learning needs.
What is the link between the hub and the knowledge sharing platform?	From previous experiences in other actions, knowledge platforms end with the end of projects. K4GGWA

	program aims to fill this gap by exploring opportunities for establishing a hub whose vision is beyond the project period. To achieve this, it will be necessary to invite other actors that are working in the same space and foster collective marketing and visibility of the land restoration practices.
The intervention to map stakeholder and actions across the project sites is critical as provide pointers for other interested parties to intervene.	This is one of the objectives of the workshop and the expected output from the deliberations.

Building on the welcome remarks, opening sessions, keynote address, and the induction on the Knowledge for the Great Green Wall in Africa (K4GGWA), An interactive session using Mentimeter was facilitated to document participants' expectations for the three-day workshop. A total of twenty-two responses were collected, classified into nine unique areas listed below:

- (i) Gain a comprehensive understanding of the GGW, its objectives, progress, partners, networks, funding opportunities, and plans for integrating local communities.
- (ii) Understand the KAGGWA, its objectives, project countries, plans, and opportunities for contribution and collaboration.
- (iii) Facilitate cross-learning and experience sharing among stakeholders working on GGW initiatives.
- (iv) Discover new options and technologies for implementing and monitoring SLM.
- (v) Explore opportunities for linking research with innovative practices.
- (vi) Develop a joint plan to incorporate indigenous communities in restoration efforts.
- (vii) Engage in knowledge management systems to enhance the effectiveness of GGW initiatives.
- (viii) Enhance collaboration, networking, and knowledge sharing among countries to accelerate land restoration actions within the GGW belt.
- (ix) Develop collective and individual work plans for GGW actions.

2.6 Status of SLM in the Project Countries - Facilitated Elvis Paul

Elvis invited GGW actors from Djibouti, South Sudan, Somalia, and Ethiopia to share ongoing efforts in their respective countries.

2.6.1 *GGW Action in Djibouti – Abdoulfatah Abdourahman, GGW Focal Point*

Djibouti joined the Great Green Wall (GGW) initiative in 1999. Initially anchored in the Ministry of Environment, the initiative was transferred between Ministries until 2022, when the Ministry of

Environment was formally established. Current practices on SLM focus on facilitating access to water and pastures, building community livelihoods and forming farmer cooperatives. Implementation of SLM practices is faced with myriad of challenges such as limited funding, technical capacities, weak coordination and climate related issues. Djibouti is keen nonetheless in expanding SLM practices especially on water and pasture resource management, land restoration, livelihoods diversification, SLM capacity development and greater resource mobilization Table 2.

Table 2 Ongoing SLM priorities, challenges and GGW approaches in Djibouti.

Ongoing SLM Practices	Challenges	SLM Priorities	Approaches
<ul style="list-style-type: none"> • Installation of hydraulic structures to access water. • Agrosilvopastoral Perimeters for food security and income. • Assisted Natural Regeneration (ANR) and tree planting. • Creation of farmer Cooperatives 	<ul style="list-style-type: none"> • Weak coordination with relevant ministerial departments and partners. • Insufficient external funding and low investment from the government. • Weak national ownership and low community involvement. 	<ul style="list-style-type: none"> • Facilitating sustainable access to resources (water, pasture). • Agropastoral perimeters drought and salinity-resistant seeds. • Capacity building • Resource mobilization • Value chain development 	<ul style="list-style-type: none"> • Training, education, and policy development. • Increased investment and efficient resource use. • Local community participation. • Leveraging technology, research, and development. • Implementing robust monitoring and evaluation systems

2.6.2 GGW Action in Sudan – Dr Salih Abdelmageed, SOS Sahel

The GGW work in Sudan has involved three main arms: Civil Society Organizations (CSOs), the government and the private sector. SOS Sahel represents the CSO arm of the GGW. SLM cover mainly integrated water management, conflict on natural resources, livestock management and climate resilience enhancements. The SLM action in Sudan are shown in Table 3 below.

Table 3: Ongoing efforts, challenges, priorities and proposed approaches for SLM in Sudan

Ongoing SLM Practices	Challenges	SLM Priorities	Approaches
<ul style="list-style-type: none"> • Integrated water and natural resource management. • Enhancing climate change resilience and WASH (Water, Sanitation, and Hygiene). • Climate resilient crop 	<ul style="list-style-type: none"> • Lack of land use policy affecting land allocation and use • Natural resource conflicts between nomadic and rain-fed farmers. • Ineffective traditional Natural Resource Management (NRM) 	<ul style="list-style-type: none"> • Natural resource management. • Integrated water management techniques. • Promoting sustainable livelihoods 	<ul style="list-style-type: none"> • Engaging communities effectively. • Integrating water security and environmental restoration. • Promoting sustainable livelihoods. • Strengthening partnerships and

Ongoing SLM Practices	Challenges	SLM Priorities	Approaches
and Livestock management.	laws.		managing land resource-based conflicts.

2.6.3 GGW Action in Somalia - Badal Hassan, GGW National Focal Point.

Plans are underway to include Somalia in the GGW countries. Ecosystem restoration efforts for peace-building and community reintegration were initiated at the 2011 Somalia Conference. Now, several interventions on ecosystem restoration are prioritized for peacebuilding and reintegration as shown in Table 4.

Table 4: Ongoing efforts, challenges, priorities and proposed approaches for SLM in Somalia

Ongoing SLM Practices	Challenges	SLM Priorities	Approaches
Establishing green spaces in deserts through tree planting and Farmer Managed Natural Regeneration. Implementing soil and water conservation structures.	Prolonged civil war and land degradation. Focus on humanitarian aid limiting environmental efforts. Lack of capacity in the agroforestry, environmental and forestry sector. High migration rates reduce population.	Ecosystem restoration. Creation of seedbanks. Establishment of a forestry department and the Green Somalia Initiative	Securing political support. Enabling access to tree seeds. Promoting nature-based solutions for land restoration.

2.6.3 GGW Action in Ethiopia - Adefires Worku, GGW National Focal Point

Ethiopia is a founding member of the GGW initiative. The country is creating a national strategy for SLM and has set up a National Coalition for the GGW to accelerate implementation and scaling. Efforts are geared towards linking GGW work with the Green Legacy Initiative (GLI). Several initiatives are implemented to accelerate SLM practices Table 5.

Table 5: Ongoing efforts, challenges, priorities and proposed approaches for SLM in Ethiopia

Ongoing SLM Practices	Challenges	SLM Priorities	Approaches
Strengthening tree nurseries.	Land degradation and alarming desertification.	Nature-based solutions for land restoration.	Securing community buy-in and participation.
Integrating soil water technologies with tree planting for improved survival rates.	Increasing vulnerability to climate change	Value chain development and expanding markets for products	Aligning initiatives with other ongoing efforts.
Promoting domestication of high-value trees.	Increased food insecurity and poverty	Integrating soil water technologies with tree planting for improved survival rates.	Diversifying options to enhance success.
Developing timber and non-timber value chains.	Conflicts over scarce resources and migration		Generating knowledge for scaling.

2.7 Reflections based on the country level presentations

From the presentation it was evident that the countries shared similar challenges in designing, implementing and monitoring SLM that needed oneness in addressing them. The following reflections were summarized from the presentations:

(i) Collaboration, partnerships, synergies, Integration and political goodwill:

- All four countries are either part of or planning to join the Great Green Wall (GGW) initiative.
- Each country integrates GGW activities with national and local environmental and sustainable land management (SLM) strategies.
- The Government contributes to SLM practices through several initiatives such as Green Legacy Initiative in Ethiopia.

(ii) SLM Practices:

- All countries focus on integrated water and natural resource management to combat land degradation and ensure sustainable use of resources.
- All countries emphasize tree planting/management and agroforestry as key strategies for ecosystem restoration and sustainable agriculture- both crop and livestock.
- All countries are working on options that generate food, feeds and income and employ methods to sustain such through among others farmer cooperatives.
- All countries are exploring technologies that could enable them to maintain their production systems through available resources such as water.

(iii) **Challenges:**

- All countries face significant challenges due to climate change, including drought and land degradation.
- Insufficient external funding and low investment from government and partners are common challenges.
- There is a recurring issue of low community involvement and weak national ownership in GGW activities across all countries.
- Many countries are faced with water scarcity and lack seed centres and resilient varieties to support production.
- Most of the GGW countries are pastoral communities with some open grazing systems that needs to be managed.

(iv) **Priorities:**

- Restoring degraded lands and promoting sustainable agricultural practices are key priorities.
- Building capacity in SLM, natural resource management, and resource mobilization is essential for all countries.
- Access to and management of water resources to enable restoration
- Focussing on livelihoods of the communities
- Building partnerships and campaigns for deliberate efforts of actors to invest in restoration.

(v) **Effective Approaches:**

- Engaging local communities is considered crucial for the success of GGW initiatives.
- Developing policies and strategies to support SLM practices is a shared approach.
- Political buy in and stakeholder participation is integral to success and scaling of land restoration.

3. Session 3: Introduction to learning approaches, Training on Agroforestry & Monitoring Tools

3.1 Introduction to Learning Approaches and Co-design of inclusive Learning Methods - Sammy Carsan.

Participants were introduced to different learning approaches to refresh understanding on key learning principles and styles. The use of the Knowledge Skills and Attitude (KSA) approach in promoting holistic learning in SLM was highlighted. Trainees were asked to share their own experiences on learning approaches. This was to help trainees appreciate the different learning

approaches that may be unique to each trainee in order to enhance meaningful learning. Three main types of learning were shared: *knowing for the purpose of knowing*, *knowing for the purpose of doing*, and *knowing for the purpose of being*.

For any learning to be effective several principles should be adhered to. These principles include Shared responsibility- both the trainer and trainee play critical roles in developing, 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.

Different people adopt different learning styles. Four types of learners were categorised based on their learning styles: 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.

Box 1: Participants sharing session on their unique learning styles

Experience Sharing on Recent Learning and Learning Styles

Dr. Salih Abdelmageed visited Northern Kenya to study various technologies for water management. During his visit, he learned about sand dams, which are constructed along river courses to retain water and sand, facilitating infiltration and raising the water table. Inspired by this technology, Dr. Abdelmageed experimented with sand dams upon returning home and observed successful results. Based on his findings, he proposed incorporating sand dams into water management strategies in Sudan. Dr. Carsan identified Dr. Abdelmageed as an experimental learner, characterized by the mindset of "don't believe it until I've tried it" and strong problem-solving abilities.

In contrast, Dr. Roeland Kindt shared his experience in designing tools for matching trees to specific sites. He emphasized that he starts with a basic design and continually improves it based on new skills and user feedback. Dr. Carsan classified Dr. Kindt as a theorizing learner, who seeks to "understand basic principles" and approaches tasks with a logical and objective perspective.

This comparison highlights the diverse approaches to learning and problem-solving within the field of water management and environmental sustainability, illustrating the value of both practical experimentation and theoretical development among other approaches to learning for the Trainer of Trainer to consider.

3.1.1 Co-design of Learning Styles for Effective Capacity Development among GGW Actors

Sammy Carsan facilitated a group session to enable participants discuss how the GGW actors could improve learnings collaboratively. The actors identified several key ingredients to enhance learnings for accelerated GGW interventions:

- (i) It is crucial to develop a plan to guide all learning initiatives. This plan should identify all stakeholders and devise methods to engage each level, including indigenous communities, grassroots institutions, women, and youth, vital for designing, implementing and disseminating technologies.
- (ii) The strategy should incorporate various approaches and styles to learning, considering the different learning styles and needs of stakeholders.
- (iii) Developing a comprehensive catalogue of learning resources is essential. Methods for disseminating these materials need to ensure they are accessible to many through transparent and effective communication channels. Mixed methods such as workshops, hubs, interactive platforms, and online sessions should be developed.
- (iv) Establishing communities of practice and networks is crucial for strengthening learning. Sustained learning activities should involve actors who can invest resources to support these initiatives.
- (v) Documenting successes is vital for expanding knowledge and aiding in the scaling of capacity development activities.

3.1.2 Urgent SLM Learning Areas among the GGW Countries

Apart from co-designing the proposed learning styles, the actors also mapped five urgent learning areas to improve implementation of sustainable land management practices among the GGW countries:

- (i) Develop a common understanding of what land degradation is and its indicators.
- (ii) Build a campaign to increase excitement about land restoration and the associated benefits.
- (iii) Involve communities in the collaborative and interactive design of SLM initiatives to ensure their needs and perspectives are integrated.
- (iv) Enhance coordination among various stakeholders involved in SLM to ensure cohesive efforts.
- (v) Reach a consensus on standard indicators for monitoring and evaluating SLM practices.

By implementing these strategies and focusing on these urgent learning areas, GGW actors can enhance their capacity development efforts, ensuring more effective and sustainable land management practices.

3.2 Introduction to Agroforestry - Sammy Carsan

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 by 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 may involve several practices in space implemented in temporal or sequential fashion such as:

- **Scattered Trees on Cropland:** Distributing trees randomly or in a pattern throughout the crop fields.
- **Boundary Planting/Shelter Belts/Live Hedges:** Planting trees along field boundaries to protect crops from wind and erosion.
- **Hedgerow Planting/Alley Cropping:** Growing trees in rows between crops to enhance soil fertility and reduce erosion.
- **Improved Fallows/Sequential Tree Fallows:** Using tree species to rehabilitate fallow land by enhancing soil fertility.
- **Woodlots:** Establishing dedicated tree plantations for timber and fuelwood production.
- **Home Gardens:** Integrating trees into garden areas to provide diverse food and non-food products.
- **Rotational Fallows:** Alternating crop and tree 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:

- Understanding how existing cropping and livestock systems will impact or be impacted by tree growing/management of existing trees.
- Implementing measures such as plot fencing or individual tree fencing to protect young trees promotes tree establishment.
- Assessing the potential for short- and long-term income from increased tree cover on farms is essential also the market value of different trees.

- 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, country teams discussing in groups were invited to share their current agroforestry practices, successes, and challenges from their respective countries or implementation sites.

3.2.1 Agroforestry Practices in Somalia, Sudan, Djibouti and Ethiopia

Badal Hassan shared the group work on agroforestry systems in Somalia. The main practices include Silvopastoral, Agrosilvopastoral, Farmer Managed Natural Regeneration and Afforestation as shown in Table 6.

Table 6: Group work feedback: agroforestry practises in Somalia

Agroforestry practices	Successes	Challenges
<ul style="list-style-type: none"> • Silvopastoral • Agrosilvopastoral (fodder, fruits, crops) • Assisted Natural Regeneration (ANR) • Afforestation using aerial seeding, drones and seedballs 	<ul style="list-style-type: none"> • Ecosystem restoration using traditional systems and technology. • More land productivity • Increased food security • Increased tree cover • Sustainable livelihoods 	<ul style="list-style-type: none"> • Land tenure regime. • Population pressure • Climate extremes • Security/ political unrests • Funding limitation • Human resources • Tragedy of common

For Sudan, Dr. Hanan shared feedback from the group work highlighting four main agroforestry systems: Farmer intercrops of *Acacia senegal* trees with crop for subsistence use and sale; tree growing along farm boundary to serve as windbreaks; shifting cultivation practised in rotation where crops are grown alongside trees for three years then trees allowed to establish, while some areas are closed completely to allow regeneration. Detailed plans are shown in Table 7.

Table 7: Agroforestry practices in Sudan.

Agroforestry practises	Successes	Challenges
Intercropping (<i>A. senegal</i> + sesame+ hibiscus, groundnuts, millets, Combination of cash and food crops)	Existing trees add nitrogen to the soil. Each crop has different harvesting period	Open grazing during dry season Small plots Pest and diseases (locust) One season per year
Boundary planting (<i>Ziziphus</i>)	Forest products windbreaks, crops	Grazing during dry season, pest (birds)
Shifting cultivation (rotation growing of crops every 3 years) farmers have 3-5 plots	Tree cover is maintained for long, soil regeneration, provide pasture, forest protection, crops+ forest products	Population increases Wildfires
Closure/ community forestry (managed by the community)	Firewood, building materials, fodder, shade, manage livestock keep them away from the farm	Conflict on land allocation

In Djibouti, the main agroforestry systems practised is Agrisilvopastrol systems and Agrisilviculture (mixed cropping) - Table 8. Pastoralism as the main source of livelihood with limited farming along the riverine areas.

Table 8: Agroforestry systems in Djibouti

Agroforestry practices	Successes	Challenges
Agrisilvopastrolism	Secure food, animal fodder and income	Climate variability Lack of technical knowledge
Mixed cropping, windbreaks, Date palm production	Improve resilience. Carbon sequestration. Soil cover	Inadequate infrastructure Limited access to funding

3.3 Applications of Citizen Surveillance and Systematic Data Collection in Monitoring Land Restoration - Mulugeta Gemi, CIFOR-ICRAF

Monitoring restoration is critical for sustaining large-scale restoration efforts. This process serves multiple purposes:

- (i) Sharing outcomes to inspire replication and ensure transferable results.
- (ii) Providing feedback for continuous learning and adaptive management.
- (iii) Ensuring transparency and providing evidence of progress towards specific goals, including periodic assessments of who benefits from restoration interventions (pay for performance).
- (iv) Enhancing trust and fostering additional investments by sharing evidence with restoration investors.
- (v) 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, helps to identify 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.

Two methodologies for assessing land status and monitoring restoration were introduced: the Land Degradation Surveillance Framework (LDSF) and the Regreening App based on citizen science approaches.

3.4 Land Degradation Surveillance Framework (LDSF)

The LDSF is a comprehensive method developed by CIFOR-ICRAF scientists. It provides a science-based field protocol for measuring land and soil characteristics, vegetation composition, and land degradation status over time. 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 is used by various partners in over 45 countries since 2005, the LDSF offers a consistent set of indicators and field protocols to assess ecosystem health.

3.5 Regreening App

The Regreening App is a free mobile-based Android application designed and developed by CIFOR-ICRAF. It features four modules focused on Farmer-Managed Natural Regeneration (FMNR), tree planting, nursery establishment, and engagement. 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.

Comments from the Session

- How does the collected information benefit the actors involved?
- Who owns the data collected using the tool?
- Is the tool linked to other applications, such as the Tree Finder?

4. Day 2: Trainings and Co-learning, SLM and Associated Tools

The second day focused on training participants on managing tree integration on their landscapes, assessing the suitability of different tree species to different sites, and modelling their climate suitability. Experiences from the private sector on implementing SLM were shared by a private actor from Somalia and Sudan. Additionally, Digital Learning Campus- a methodology to promote interaction among actors was introduced. Participants were trained on managing grasslands, soil, and water resources, and introduced to a hub intended to host and disseminate information on land restoration options, innovation and policies.

4.1 Farmer/Pastoralists Managed Natural Regeneration (P/FMNR): An Approach for Landscape Restoration and Livelihoods Improvement - Niguse Hagazi

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

4.1.1 FMNR Steps/Procedures

- **Define Purpose:** Clearly define the purpose of FMNR beforehand.
- **Survey:** Do not slash all tree growth; survey the farm to determine the number and species of trees present.
- **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.

4.1.1 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:

- Consider the ability of species to resprout after cutting, local valuation of species, and farmers' objectives.
- The frequency and intensity of thinning excess shoots and pruning remaining shoots depend on individual or group objectives.
- 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 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 the 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.

4.2 Selecting the right tree for the right place and climate - Dr Roeland Kindt

CIFOR-ICRAF Global Tree Knowledge Platform provides tools to assess the geographic distribution and suitability of different species to various niches, addressing the diverse needs of stakeholders. The resources provide comprehensive information for more than 50,000 tree species existing globally. Various databases and tools have been developed to describe the range, distribution, and uses of these species.

4.2.1 Key Databases

- **TreeGOER (Tree Globally Observed Environmental Ranges) Database** provides environmental range data for most known tree species, covering 38 bioclimatic, eight soil, and three topographic variables.
- **Agroforestree Database** offers detailed information on the management, use, and ecology of tree species suitable for agroforestry systems.
- **GlobalUsefulNativeTrees (GlobUNT) Database:** Supports reforestation principles, promoting the planting of diverse native tree mixtures to benefit local livelihoods and biodiversity.

Comments on the Presentation

- Some of the databases are freely available, providing open access to valuable information for researchers, practitioners, and policymakers.
- The presentation significantly enhances the practicality of utilizing these databases, simplifying their previously complex structures and making the data more user-friendly.
- It is empowering to learn about these comprehensive databases and their functionalities, as they offer crucial insights and tools for effective species management and reforestation efforts.

4.3 SLM Experiences from Private Sector

Private Sector in Somalia and Sudan are engaging in land restoration

4.3.1 Experiences from Somalia: Abdishakur M.M

Africa Drought Inhibition and Livestock Protection Ltd (ADILP) is committed to restoring Somalia through various initiatives, including tree planting, water harvesting, and enhancing food security. Between 2023 and 2024, the company has successfully grown over 200,000 trees and established three tree nurseries. ADILP employs hydroponic technology to cultivate Napier grass, supporting livestock production, and uses rainwater harvesting and drip irrigation systems to produce fruits and vegetables. When stored and harvested water is depleted, the company purchases additional water to sustain its operations. Despite facing numerous challenges, such as financial and non-financial resource constraints, security issues, limited capacity, and the greater emphasis on humanitarian aid over restoration by various actors and funders, ADILP continues to make significant strides. The company actively participates in international conferences and has received several awards, recognizing its efforts as a restoration champion.

4.3.2 Experiences from Sudan- Dr. Hanan Elhadi

[Africorp](#) International (ACI) collaborates with farmers in Sudan to improve returns on smallholder farmers' labor and investment, maximize efficiency through manufacturing and processing, reduce farming risks, and ensure sustainability. Their strategies include promoting crop rotation, using nitrogen-fixing species *via* agroforestry, aiding the transition from conventional to organic farming, and connecting farmers to export markets. Africorp's product portfolio includes herbs, gums, oil seeds, and forest fruits. The company employs a B2B model in which farmers provide 60% of the inputs, and the company supplies 35%. They support farmers by providing seeds, agronomic practices, and marketing services. Beyond improving farmers' livelihoods, the company also promotes land restoration. The company partners with various global organizations and actively participates in international conferences.

4.4 African Grassland- Patrick Worms, CIFOR-ICRAF

Holistic grazing management offers significant benefits for land restoration, nutrition, resilience, adaptation, and mitigation. Many grassland biomes are naturally silvopastoral systems that historically supported large herds of herbivores. These vast herds, kept densely bunched by predators, impacted the grasslands through massive grazing, manuring, and hoof action before moving on, allowing the freshly grazed and fertilized grasslands to regenerate. This natural process contributed to the formation of chernozems, the world's richest soils. Additionally, herbivores play a crucial role in seed dispersal and breaking seed dormancy, both essential for vegetation regeneration.

The key to successful grassland management lies in the method of grazing. When herbivores are allowed to wander freely, soil degradation occurs, even in wooded areas. However, this can be reversed through proper management. For example, adaptive multi-paddock grazing has shown remarkable results, with annual grasses returning after just two seasons. Consistent application of these grazing systems transforms hardpan soils, which are unable to absorb water and provide nutrients, into soft loams covered with living plants year-round.

Understanding grasslands necessitates a close examination of the ground. Dry and dying grasses, which oxidize and become useless to ruminants and wildlife, need to be trampled to create mulch. Herbivore hoof action, urine, and dung are vital for regenerating such grasses. Allowing grass to rest is also crucial for its recovery and regeneration. The deep roots of natural grasslands function as powerful carbon pumps. They exchange sugars from photosynthesis for micronutrients with the soil microbiome, enabling both to thrive. When plants are grazed, some roots die back, sequestering carbon deep in the soil. As the plants regenerate, new roots grow, perpetuating the cycle. Conversely, the shallow roots of ploughed and reseeded pastures make these systems fragile, dependent on external inputs, and less effective at sequestering carbon.

Several global initiatives advocate for grassland as a tool for restoration and climate change adaptation and mitigation. For instance, the 2022 IPCC report on climate change recommends grassland management as a strategy for climate mitigation and adaptation. COP 27 called for the acceleration of pastoral management for restoration and climate resilience. Organizations like IUCN, Regreening Africa, and CGIAR centres are actively promoting grassland management as a means for land restoration and livelihood enhancement.

4.5 K4GGWA Innovation hub - Patrick Worms

The K4GGWA program will utilize innovation as a key approach to accelerate the implementation of sustainable land restoration. This initiative will involve providing grants to actors, particularly

youth, who are working on transformative technologies that have the potential to scale. The process is structured to ensure the most impactful projects are selected and supported.

Grant Application and Selection Process

- (i) **Call for Applications:** The program will issue a call for applications, inviting proposals from individuals and organizations, especially focusing on youth-led initiatives.
- (ii) **Assessment by Experts:** A team of experts (see Figure 1) will assess the received applications. This assessment will consider the potential impact, scalability, and sustainability of the proposed technologies.



Figure 1: Panel of experts receiving and vetting the application for innovation grants

- (i) **Selection of Beneficiaries:** From the pool of applications, a shortlist of beneficiaries will be created. These shortlisted candidates will undergo a thorough selection process.
- (ii) **Vetting Process:** The shortlisted beneficiaries will be vetted to ensure they meet all the criteria and have the capability to effectively utilize the grants for expanding their innovations.
- (iii) **Approval and Grant Distribution:** Upon successful vetting, the selected beneficiaries will be approved to receive grants. These grants will enable them to scale up their innovative technologies for land restoration.

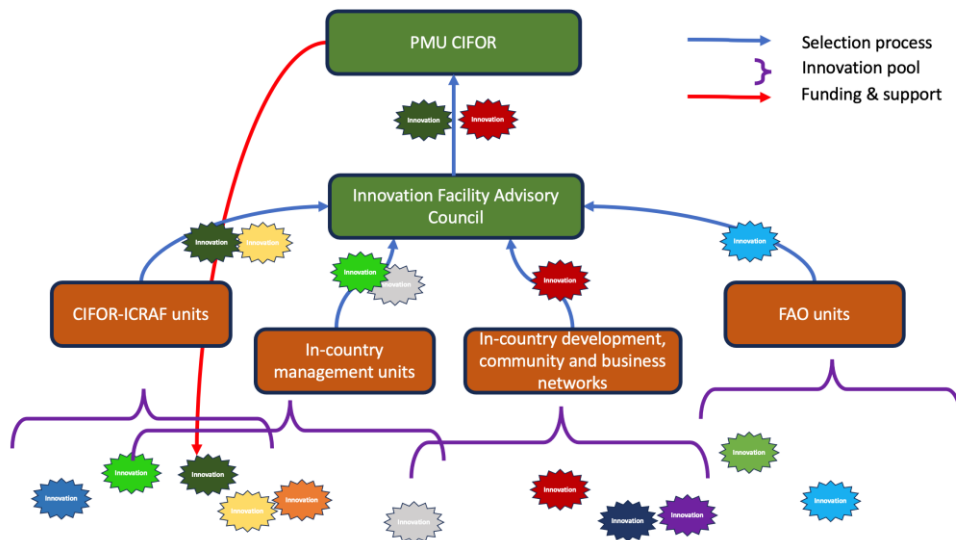


Figure 2: Step-by-step process from application submission to final approval.

4.6 Overview on the Digital Learning Campus (DLC) - Amos Lang'at

The DLC is a transformative learning hub co-developed by CIFOR-ICRAF and the Global Landscapes Forum. 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

(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:** Customized landing pages for the K4GGWA community
 - **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 Digital Campus includes a dedicated page for the Knowledge for the Great Green Wall 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.

4.7 Soil and Water Management - Grace Koech

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

There is a need to prioritize landscape restoration to enhance rainfall productivity and reduce erosive capacity of rain drops. This calls for efforts to grow or manage existing trees and restore grasses that play a critical role in intercepting rainfall and facilitating infiltration. Beside interception, it is important to promote productive evapotranspiration. The ability of the soil to capture, hold and retain moisture is determined by three key soil properties, soil moisture, soil infiltration potential and soil fertility.

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

Also, it is important to harvest water to reduce its erosive capacity as it flows through the surface water harvesting can be done using three main technologies, roof water harvesting, micro and macro harvesting depending on the location of the catchment relative to the target area. Countries are already practising some level of soil and water technologies as summarised in Table 9.

Emerging science underscores the importance of developing water infrastructure that incorporates trees at both landscape and farm levels. This integration is vital for enhancing, or even maintaining, agricultural yields in rain-fed systems. By capitalizing on green water and implementing appropriate land and crop management strategies, we can significantly improve water availability and use efficiency in rain-fed agriculture, ultimately supporting sustainable food production. Ongoing soil water management technologies and challenges in the project countries are listed in Table 9.

Table 9: Soil and water conservation technologies in the project countries

Country	SWC Technologies	Success	Challenge
Ethiopia	<p>Micro water harvesting: Soil/ Stone faced bunds, trench, terrace, micro-basin.</p> <p>Macro water harvesting: Farm Pond, Percolation Pond, Stone check dam</p> <p>Landscape restoration for water management: Grass planting, Gully Rehabilitation, Conservation agriculture with trees</p>	Control erosion, increase infiltration, Ground water recharges, increase seedling survival rate, Expand irrigation. Regulated water flow year-round, livelihood improvement	Labor intensive, Technical/skills gap, Topography (Rugged), Finance, Free grazing
Somalia	Dam	Water conservation, prevent soil erosion, Enhance livelihoods	Low volume, Leakage, Water pumps needed.
Sudan	<p>Micro water harvesting: Terraces.</p> <p>Landscape management. Ridges and pits at the landscape</p> <p>Macro Harvesting: Sand Dams, Haffirs, Check Dams, Wells</p>	Retention of water in the soil for both crop & pasture Regenerate vegetation, Community engagement, enhance drinking water, Rehabilitate rangeland.	Land holding systems, Distance from home need labor, Protection, Rehabilitation
Djibouti	<p>Soil management: Zai, Half-moons, Cordon stone, Composting, Agrosilvopastoral, Dune stabilization water management</p> <p>Water management: Micro dams, Retention basins, Drip Irrigation, Surface harvesting technique, Underground water structure (To collect runoff).</p>	Agriculture productivity, Improved yield, Soil erosion reduction, Rehabilitation at reforestation, Efficient Irrigation systems used, Ground water recharges, Optimization of water use.	Climate variability, Inadequate infrastructure to harvest run off water, Construction cost and maintenances, Limited access to technologies, Cooperation and coordination

5.0 Day 3: Mapping of actors working on different SLM aspects

The last day of the workshop focused on developing group activities and plans by identifying SLM practices, key learning areas, mapping stakeholders and actors working on the area and what support is required to achieve land restoration in the area. Feedback from each group is presented in the tables 10, 11, 12, and 13:

Table 10: Learning areas, opportunities actors and required support in Sudan

Practice	Learning area	KSA (Knowledge/Skills /Attitudes	Opportunity	Who implements	Who support	By when			
						2024	2025	2026	2027
Coordination	Formation of country hub	Identify KSA gaps within the hub	Online & face training and learning materials	GGW focal point	KAGWA	Q3			
Intercropping (acacia Senegal+ sesame+ hibiscus, groundnuts, millets, Combination of cash and food crops	Production of high value trees and crops, Business development Engagement of stakeholders including communities and private sector	Agroforestry, Value chains, quality assurance, surveys, seed sourcing (Balanities, Ziziphus, Grewia, Tamarind, Acacia, Adansonia), monitoring	Trainings, learning materials, PRA approaches, SHARED, nurseries, seed sources, seed stands,	NFC, Higher council for environment & Natural resources Research stations, local Ngos, private sector, local leaders, research stations and national universities	Government K4GGWA Africorp International, SoS	Q4	Q1 Q2	Q1	Q1
Rehabilitation of Range land	Broadcasting selected pasture seeds (species) Demarcation of livestock corridors Husbandry techniques	Seed sourcing, Seed banks, explore fodder trees, surveys. Seed broad casting Skills Hay production, processing, and storage Attitudes change on farmers thinking	Training, learning materials, seeds, infrastructure,	CSOs Extension department NGOs, research stations and national universities	Government K4GGWA SoS		Q2	Q2	Q2
Tree planting on farm Boundary (Ziziphus)	pruning	Skill on pruning	Training, materials, demonstration plots,	CSOs Extension department	Government K4GGWA INGOs, SoS		Q4		
Policy implementation and reforms	Land use management. Grazing policy reform Shifting cultivation Community forestry Catchment protection	Policy implementation Advocacy	Lobby for policy implementation. Training on advocacy for policy reforms	CSOs, Range & Pasture Extension department	K4GGWA Government INGOs		Q2	Q1	Q1
Tree planting along the seasonal streams to protect erosion	Suitable species	Attitude change Skills	Training, tree selection,	NFC Tribal leaders Water corporation	Government INGOs K4GGWA Researchers		Q3	Q3	Q3
Landscape management integrating, reforestation, Micro water harvesting, Terraces using contour techniques, Ridges, and pits	Contour Skills Selection of suitable trees and pasture, Tied ridges. U&V shape catchment	Skill development	Training, demonstration, seed sources, community mobilization, Incentive, tools	CSOs Extension department	NFC INGOs K4GGWA UN agencies, FAO		Q2	Q2	Q2
Macro-water harvesting	Sand Dams Check Dams	Skills Knowledge Sharing	Training, demonstration, infrastructure, tools,	NNGOs CBOs, Communities	INGOs UN agencies, GGW		Q2	Q2	Q2

Table 11: Learning areas, opportunities actors and required support in Somalia

Practice	Learning area	KSA approach	Who implements	Who supports	By When		
					2024	2025	2026
Agro-Silvo-Pastoral systems,	Seed handling, Nursery management, Tree planting, Agroforestry and LDSF	Trees-Crop-Livestock interaction.	Ministry of Environment and Climate Change. Local ecosystem restoration champions Network	CIFOR-ICRAF: Through K4GGWA: Component 1 & 2			
Nature Based Solution	Understanding of NBS options	Incentive, NWFP Value-Chains,	MOECC	CIFOR-ICRAF:			
Reforestation/Afforestation	Regular training on Forestry and sustainable Natural Resources management and utilization	Selection of Suitable Trees species. Developing practical skills in tree planting	MOECC Local ecosystem restoration champions	Under the Program for Sustainable Charcoal Reduction and Alternative Livelihoods: linked K4GGWA			

Table 12: Learning areas, opportunities actors and required support in Djibouti

Practice	Learning area	KSA	Who implements	Who supports
Agrosilvopastrol	<ul style="list-style-type: none"> Soil and water conservation techniques (capacity building) Adoption of new crop varieties 	<ul style="list-style-type: none"> Collaborative Approach Leadership and Initiative Community involvement 	<ul style="list-style-type: none"> Ministry of Environment 	<ul style="list-style-type: none"> UNPD/GEF6/FAO/AF/FAO
Mixed cropping, windbreaks, date palm production	<ul style="list-style-type: none"> Efficient use of water e.g. drip irrigation, Animal disease prevention and control techniques Crop pest management. Training on animal nutrition and basic veterinary care Food processing and preservation techniques Reduce post-harvest losses 	<ul style="list-style-type: none"> Micro dams construction Retention basins Drip Irrigation Surface harvesting technique Underground water structure (To collect runoff) Zai, Half-moons, Cordon stone Composting Dune stabilization Water management & infiltration techniques 	<ul style="list-style-type: none"> Ministry of Agriculture and Environment 	<ul style="list-style-type: none"> UNPD/GEF 6 FIDA/AF/FAO

Table 13: Learning areas, opportunities, actors and required support in Ethiopia

Learning area	KSA (knowledge/skills/attitude)	Who implements?	Who supports?	By when			
				2024	2025	2026	2027
Designing layout and selection of land restoration (SWC) techniques	<p>Knowledge:</p> <ul style="list-style-type: none"> ● Status and features of land degradation ● Customary land management practices ● Local value of selected tree species ● Land restoration options ● Hazards of forest ● Forest products production 	<ul style="list-style-type: none"> ● EFD ● MoA ● ECC ● Ministry of irrigation and lowlands ● World vision ● CRS 	<ul style="list-style-type: none"> ● Environmental protection Authority ● Ministry of irrigation and lowland ● Ministry of Finance ● Ethiopian Biodiversity Institute ● Bureau of land administration (and land use) 				
Vegetation management	<p>Skill:</p> <ul style="list-style-type: none"> ● Social mobilization and organization ● Resources mapping and land preparation ● Silvicultural techniques (Pollarding, pruning, thinning) ● Fire management ● Forest products management ● Tree seed management ● Nursery management ● Plantation techniques 	<ul style="list-style-type: none"> ● Local NGOs (EOC-DICAC) ● District offices ● The wider public 	<ul style="list-style-type: none"> ● Zonal offices ● Universities ● Research institutes ● ATVETs ● Civil societies ● Development partners <ul style="list-style-type: none"> ● FAO, WRI, WORLD VISION, CRS, We forest, Tree aid, CIFOR-ICRAF ● UN, USAID, GIZ, JICA, KOICA ● CSOs (e.g.GAI) ● Local NGOs, Private sector 				
Forest management and utilization	<p>Attitude:</p> <ul style="list-style-type: none"> ● Reversibility of land degradation ● Participatory resource planning ● Market value of forest products timber/non-timber forest products ● Complementary role of silvicultural practices 						

6.0 Conclusion

The workshop was highly successful in bringing together GGW focal points and provided an opportunity for reflection on current learning gaps across countries albeit with similar challenges but varying ideas on solutions. It was a unique opportunity for GGW actors to interact, exchange ideas, and appraise on implementation of SLM options. Key cross-cutting options discussed included: **livestock & range management; agroforestry and tree growing; FMNR, assisted natural regeneration; soil and water management; value chains and monitoring.**

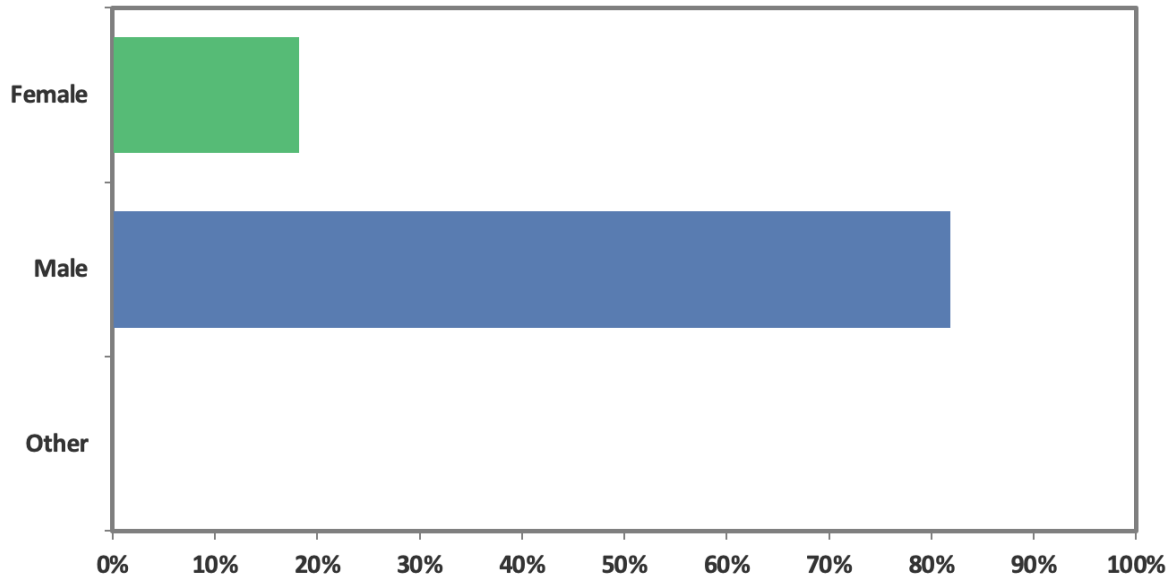
There were similarities on challenges faced for instance **limited funding, low community engagement, insufficient government investment,** and the **need for standardized monitoring approaches** were highlighted, unique challenges were also identified. For example: **Somalia:** Lacks technical capacity and faces issues related to migration; **Sudan:** Is currently experiencing conflict and **Ethiopia** is experiencing expansion of desertification in certain areas.

The workshop was successful in identifying clear areas of learning and strategies to enhance collaboration also between countries. Participants prioritized their SLM activities and mapped out areas where the GGW project could accelerate action while identifying key actors for leverage. There was nonetheless a strong request for country-level training on SLM, emphasizing the inclusion of a broader range of stakeholders to foster collaboration, learning, and implementation of technologies.

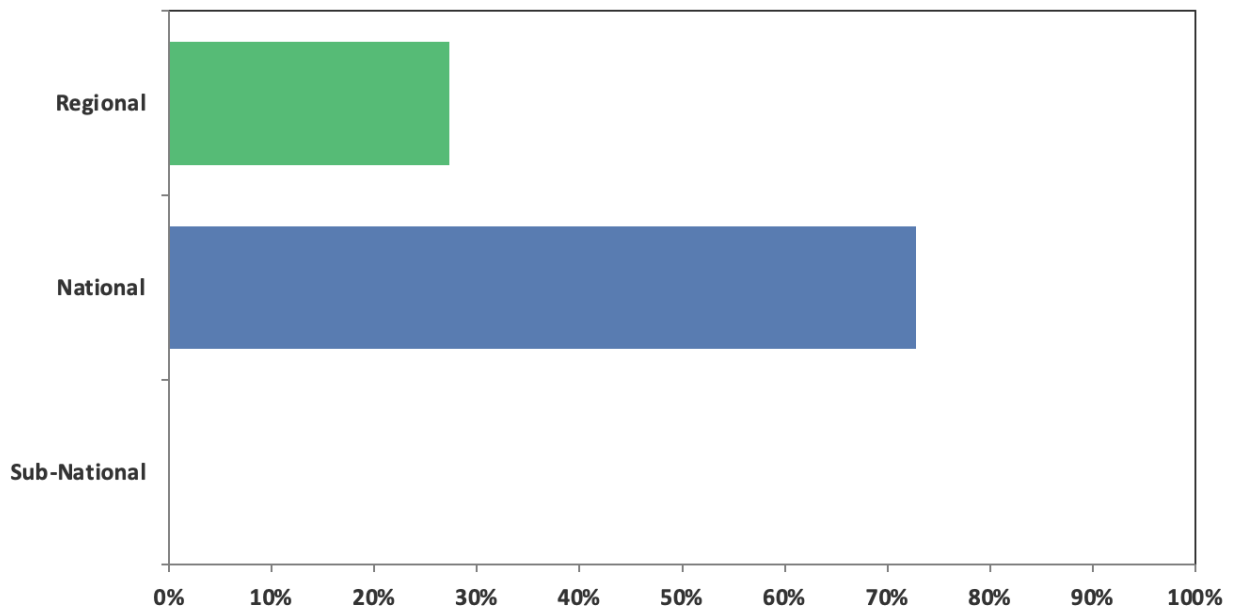
Crucially, all participating countries expressed political goodwill, essential for the success of any SLM-related initiatives. Further communication from the African Union about the ambitious plans to expand and accelerate GGW actions around the Horn of Africa region, and to connect these efforts with other GGW initiatives globally, particularly in China were well received.

Annex 1: Workshop Evaluation (Survey Monkey 11 Responses):

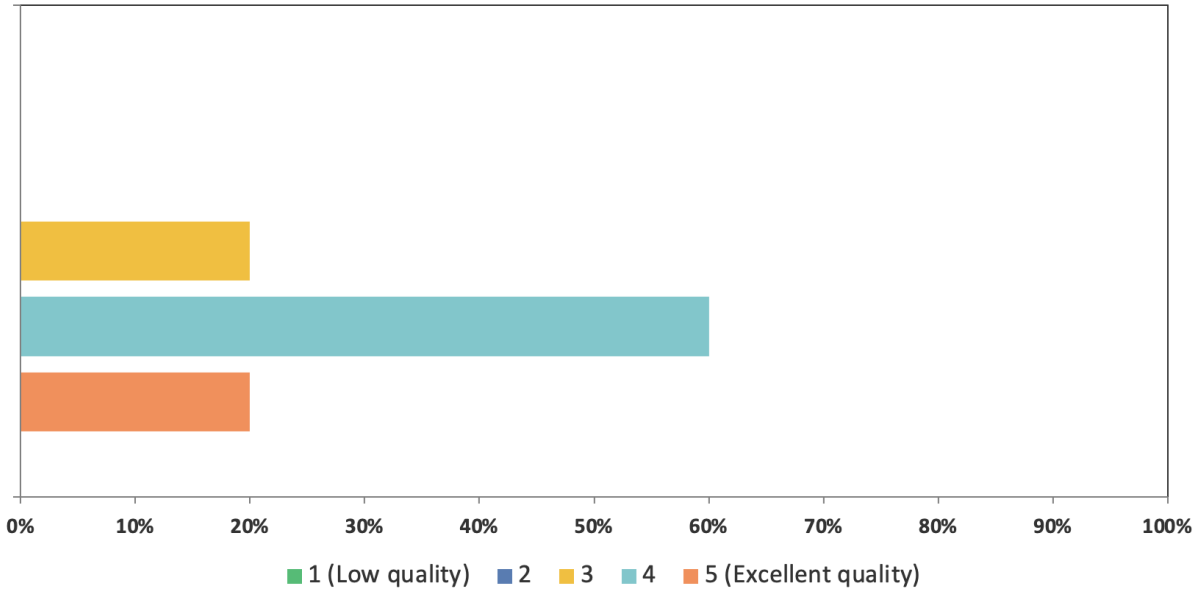
- Please share your gender



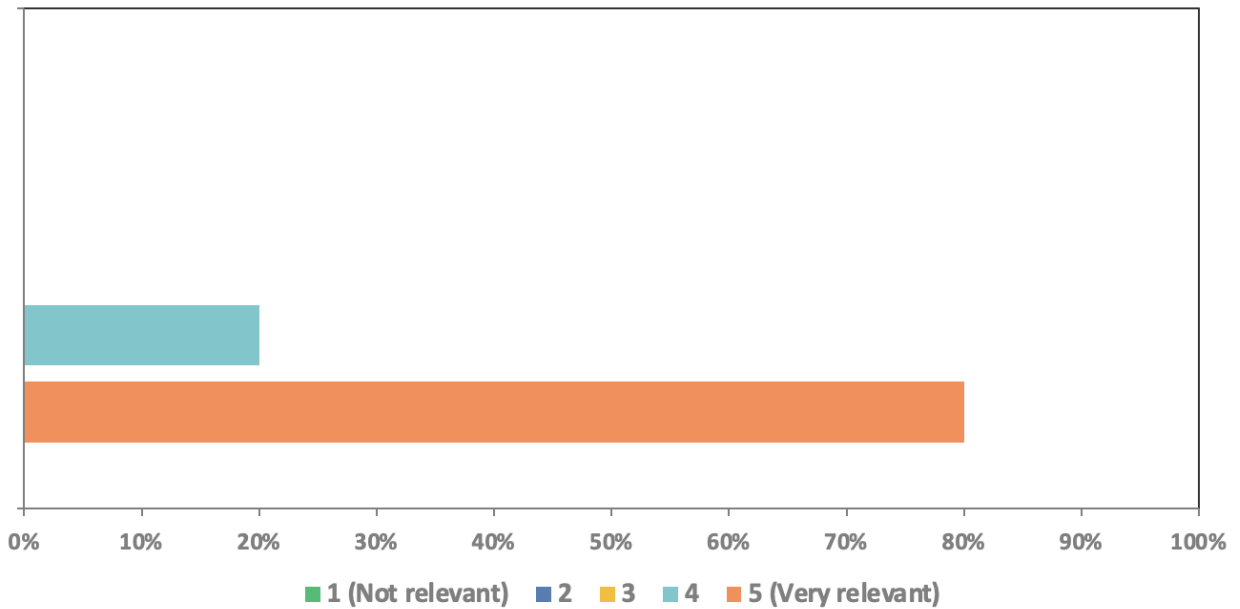
- At which level do you work? (please select one)



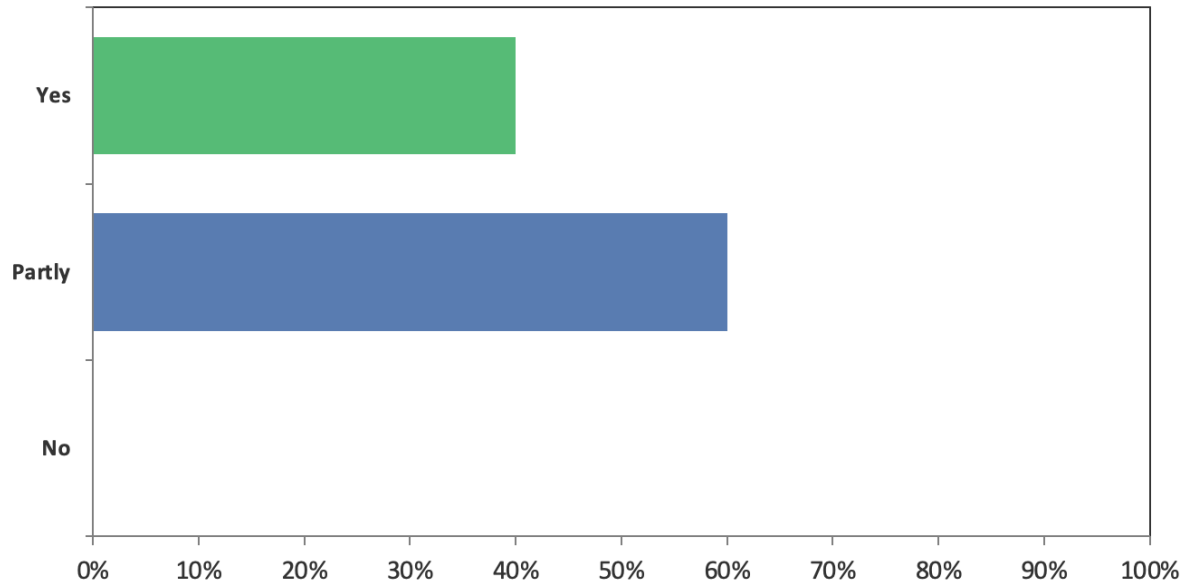
- How would you rate the overall quality of the training? (circle one number between 1 and 5 with 5 the highest)



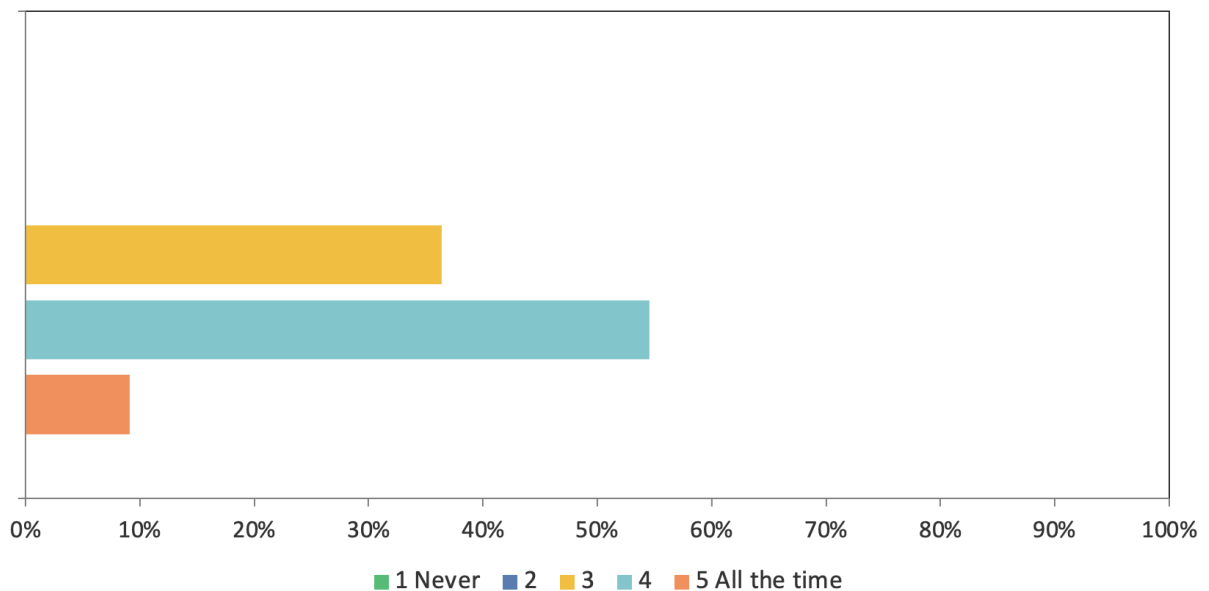
- How relevant was the training content for your work? (circle one number)



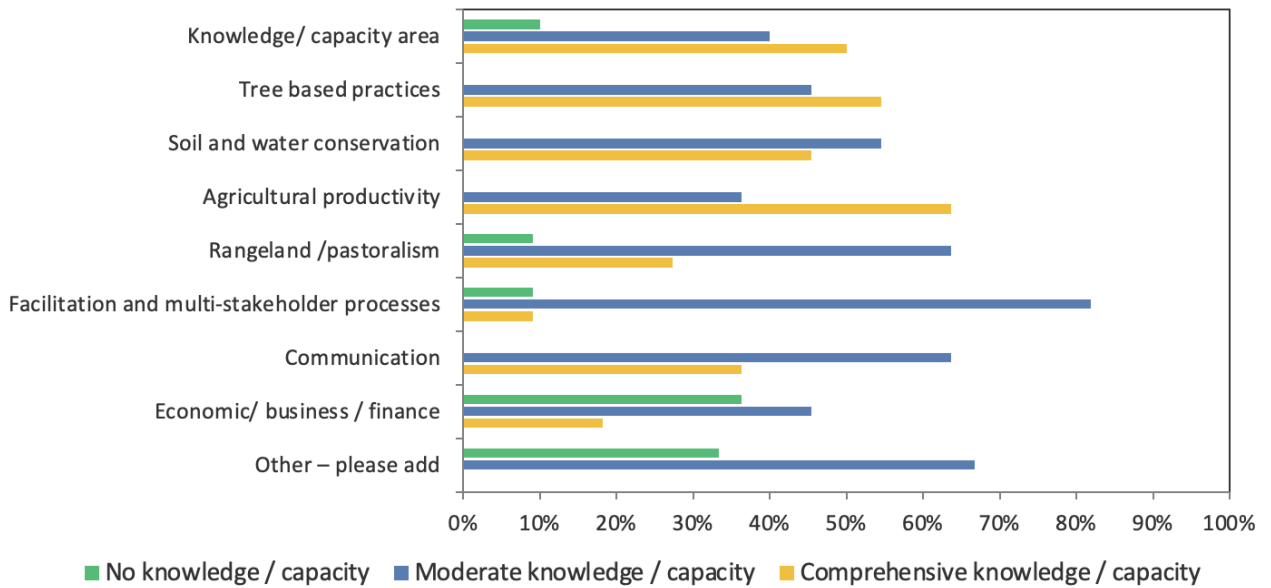
- Did the training meet your expectations?



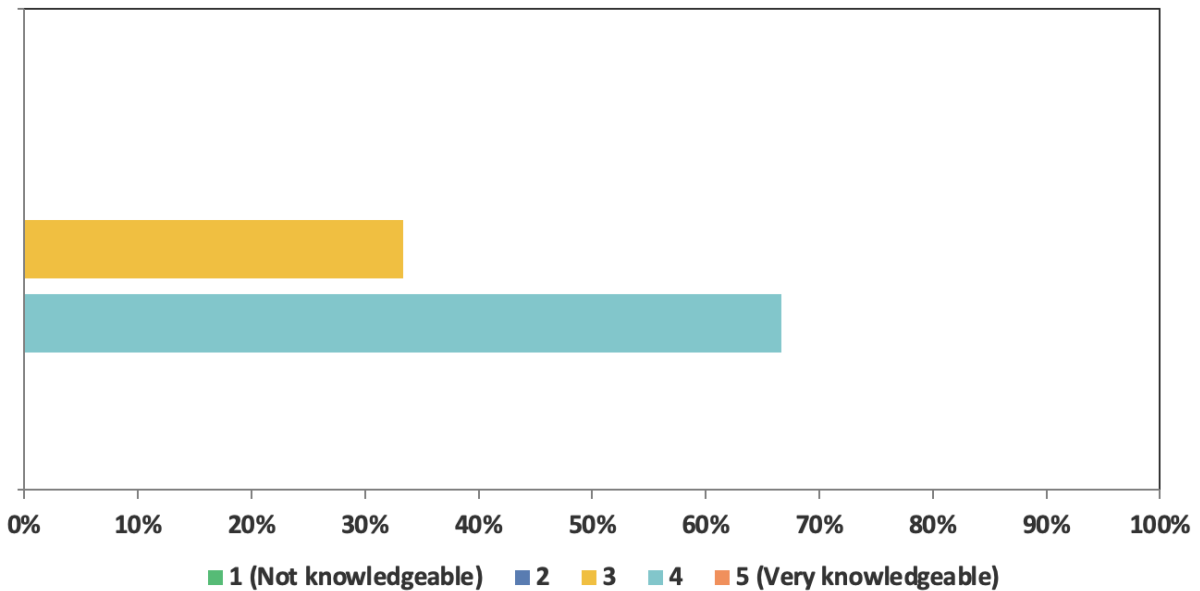
- Please rate your current level of knowledge/capacity on sustainable land management practices and approaches in your country (please circle one number below between 1 and 5)



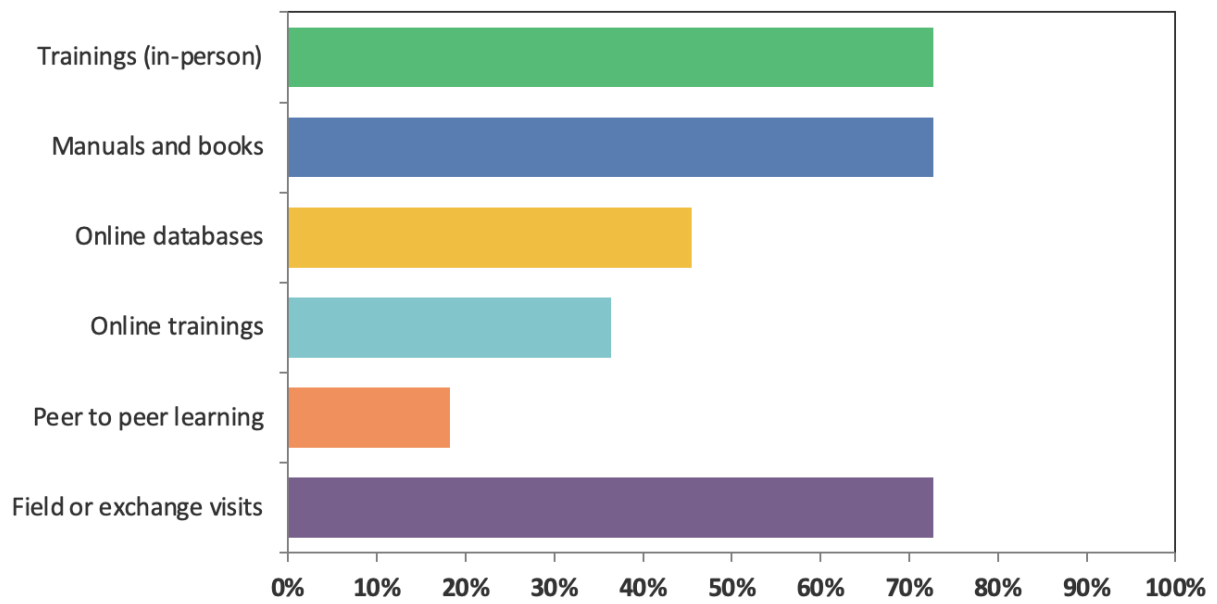
- For each of these areas below, please indicate your level of knowledge/capability by ticking one of the boxes



- Please share how often you use the knowledge and evidence you access to inform the practices and approaches for sustainable land management in your work? (circle one number below)



- Please share which formats do you access information and evidence on sustainable land management through?
-



Please list your expectation(s) following your decision to attend the K4GGWA induction and training workshop

Turbocharging the knowledge collaboration between countries, and use that to accelerate land restoration across all GGW areas.	Knowledge sharing on successful practices across the GGW countries	SLM's best practices to introduce in my countries	Collective and individual next steps
Current state of the GGW movement and innovative ways of enhancing community engagement and sustainability	To better understand the K4GGWI, see what the countries in the region are doing and learn some new skills in SLM .	Learn more about GGWExplore new ideas related to LMS	Learn more about GGW success Learn more about to accelerate the restoration Learn more about the monitoring tools and success
The basics of GGW, its strategic directions, what scope partners have to involve, potential networks in GGW	Understanding K4GGWA objectives and program goals Cross learning and experience sharing from stakeholders and GGW countries	To learn from the different countries on actions for land restoration for adapting and scaling to my country	Networking, experience sharing (existing practices and lessons from GGW countries), be part in the knowledge management system,share responses
My expectation from this training workshop1. we can have joint plat for how to integrate indigenous knowledge's of different countries in GGW2. Find way how to link research and innovation of GGW	1) Science based information2) Experience sharing (methods, practices and achievements from other GGWI member states3) country specific needs based supporting initiatives	I expect to learn about the progress, challenges, and future plans of the project, as well as opportunities for collaboration and contribution.	Networking, experience sharing, learning from each other, develop recommendations work for all countries
I expected from this work shop gate more knowledge about GGW -I know how our land sustained from restoration	Expected to learn about GGW actors and funding opportunitiesExpected to gain more knowledges about ggw action and how to engage effectivelyExpected to learn from east africa actors projects	Learn more on GGWExplore new Ideas on LMS	_ Understand GGWA b/s this time the first one gion_ brief understand AF and FMNR_ understand AF tools
Brief detail project activities Share knowledge and experience from other participants	My name is Mohammed Mussa Idris. I expect to encourage multi-stakeholder cooperation, collaboration and capacitation for restoring degraded land.		

Workshop Mood Barometer:

Day 2



Day 3 (last day)

