Scaling - up Sustainable Land Management (SLM) practices by smallholder farmers: working with agricultural extension to identify, assess and disseminate SLM practices
(2016-2019)

APPRAISAL PHASE REPORT

By

UGANDA LANDCARE NETWORK
A National Platform for LandCare Stewardship

Funded by IFAD
Enabling poor rural people to overcome poverty

Contents

Abbreviations and acronyms

ASAP	Adaptation for Smallholder Agriculture Programme
ASPIRE	Agriculture Services Programme for Innovations, Resilience and Extension
ATAAS	Agricultural Technology and Agribusiness Advisory Services
AWPB	Annual Work Plan and Budget
CAES	Centre for Agricultural and Environmental Studies
CBOs	Community Based Organisations
CCA	Climate Change Adaptation
CCAFS	Climate Change, Agriculture and Food Security
CCCA	Cambodia Climate Change Alliance
CDE	Centre for Development and Environment
CGIAR	Consultative Group on International Agricultural Research
DS	Decision Support
EU	European Union
FAO	United Nations Food and Agricultural Organization
FFS	Farmer Field School
GOU	Government of Uganda
IFAD	International Fund for Agricultural Development
IUCN	International Union for Conservation of Nature
KM	Knowledge Management
LD	Land Degradation
MAAIF	Ministry of Agriculture, Animal Industry Forestry and Fisheries
MOLG	Ministry of Local Government
MWE	Ministry of Water and Environment
NAEP	National Agricultural Extension Policy
NAFRI	National Agriculture and Forestry Research Institute
NARL	National Agricultural Research Laboratories
NARO	National Agricultural Research Organization
NDP	National Development Plan
NEG	National Expert Group
NGO	Non-Governmental Organization
NGO	Non-Governmental Organization
PDR	People's Democratic Republic
PRELNOR	Project for Restoration of Livelihoods in the Northern Region
QA	Questionnaire of SLM Approaches
QM	Questionnaire of Mapping Land Degradation and Conservation
QT	Questionnaire of SLM Technologies
RIMs	Results and Impact Management System
RUA	Royal University of Agriculture
RULIP	Rural Livelihoods Improvement Project
SPGS	Saw log Production Grant Scheme
ULN	Uganda Landcare Network
UNDP	United Nations Development Programme
WOCAT	World Overview of Conservation Approaches and Technologies

1.0 Introduction

1.1 Background

The World Overview of Conservation Approaches and Technologies (WOCAT) global network whose secretariat is hosted by the Centre for Development and Environment (CDE), University of Bern, Switzerland has an ongoing partnership with three national partners: (Royal University of Agriculture in Cambodia[1]; National Agriculture and Forestry Research Institute in Lao PDR[2] and Uganda Landcare Network in Uganda[3]). This partnership is towards implementation of a three -year IFAD funded project (2016-2019) entitled 'Scaling-up Sustainable Land Management (SLM) practices by smallholder farmers: working with agricultural extension services to identify, assess and disseminate SLM practices'. The project's overall goal is to enhance the resilience of communities and their smallholder farmers to climate change shocks as well as pressures exerted by population growth, rapid urbanization, and economic expansion. In Uganda, the project is designed to harness synergies while adding value to an the IFAD funded government investment programme entitled 'Project for the Restoration of Livelihoods in the Northern Region (PRELNOR)' [4] implemented by the Ministry of Local Government (MOLG) [5].

SLM presents a viable alternative for smallholder farmers to meet market demands in a sustainable manner, while enhancing their resilience to climate change and strengthening ecosystem services at a landscape level. Although a large array of SLM innovations exists, many developed by smallholder farmers, only a small percentage are documented and evaluated for scaling-up. The extension services that are critical for the scaling-up of SLM are often weak, and seldom knowledgeable or equipped to promote SLM innovations. This project is therefore strategically designed to improve the availability and accessibility of SLM knowledge by simplifying already existing knowledge management tools and methods, and developing new ones, to support autonomous decision-making on their use and application by both agriculture extension services and smallholder farmers. Further, the adoption of participatory action research methodologies in the project is positioned to help develop a knowledge base that has practical application in diverse agro-ecological zones, and is transferable between countries of the global south.

1.2 Appraisal Phase

The project grant document stipulates the first months of project implementation as the appraisal phase.

This report summarizes the outputs of the appraisal phase. It is organized according to the appraisal phase activities foreseen in the 2016-2017 Annual Work Plan and Budget.

---

[1] Royal University of Agriculture (RUA) - Center for Agricultural and Environmental Studies (CAES) www.rua.edu.kh
[2] National Agriculture and Forestry Research Institute (NAFRI) www.nafri.org.la
[3] Uganda Landcare Network (ULN) www.ugandalandcare.org
[4] https://operations.ifad.org/web/ifad/operations/country/project/tags/uganda/1681/project_overview
[5] https://www.molg.go.ug/sites/default/files/Ministerial-Policy-Statement-Local-Government-and-LGFC.pdf

1.3 Project locations

The Scaling-up SLM project is implemented in 9 districts, Lamwo, Adjumani, Amuru, Gulu, Nwoya, Agago, Kitgum, Pader plus a new district Omoro[6] curved from previous larger Gulu district and approved by government effective July 1 2016, 25 sub counties, and 28 catchments. The catchments overlap with the project area of PRELNOR that includes original 600[7] target villages of Acholi sub region[8] including Adjumani district. Figure 1 illustrates the PRELNOR project area whereas Figure 2 shows the Scaling-up SLM project sites.

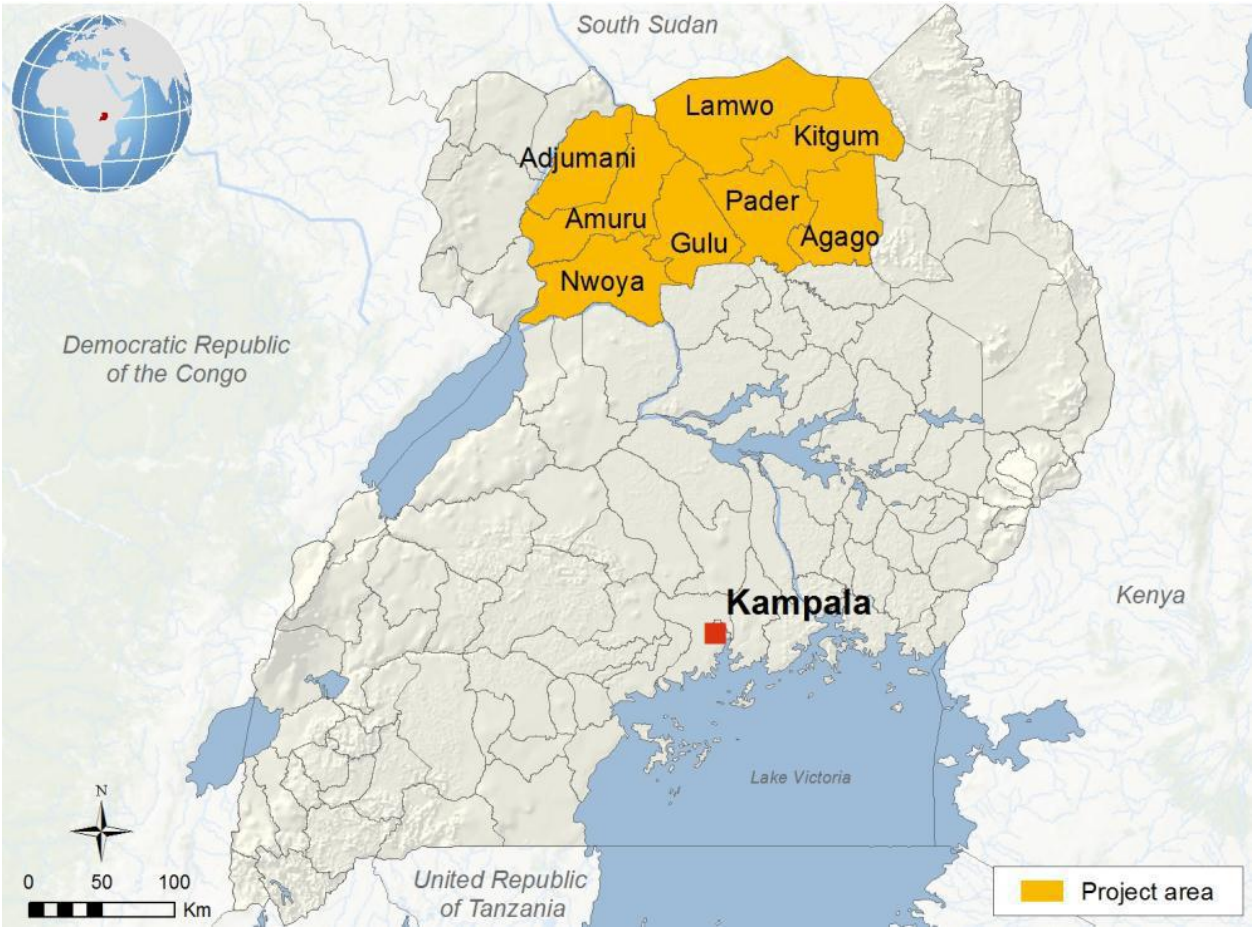


Figure 1: PRELNOR project area

[6] http://www.parliament.go.ug/index.php/about-parliament/parliamentary-news/680-parliament-creates-23-new-districts

[7] PRELNOR now targets 491 villages

[8] Acholi sub-region is a an ethno-linguistic region traditionally inhabited by the Acholi people comprising of current 8 districts in Northern Uganda namely :Agago; Amuru; Gulu; Kitgum; Lamwo; Nwoya; Pader and Omoro

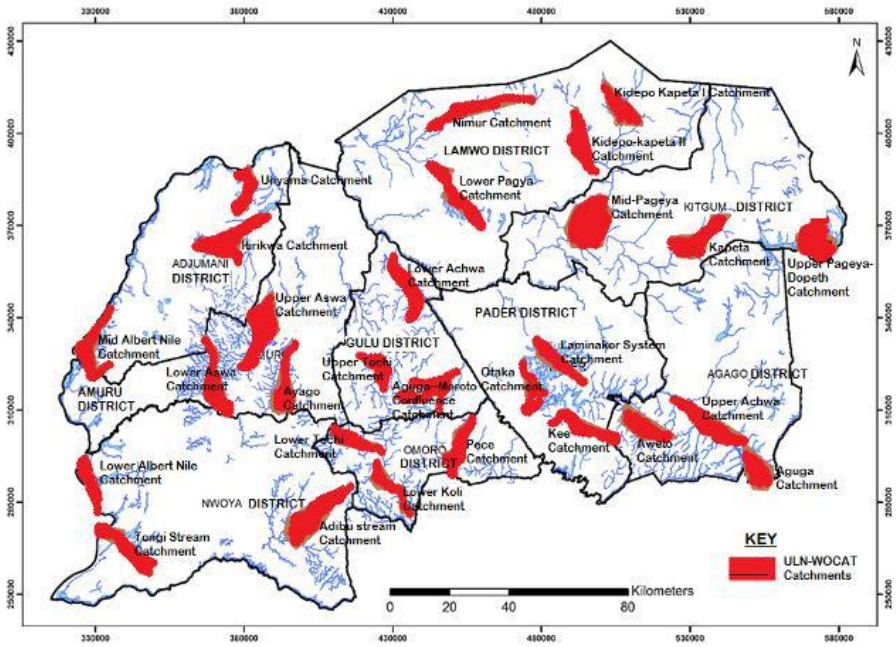


Figure 2. Map of the WOCAT /ULN project selected 28 catchments

During the initial National Expert Group (NEG) meeting dated November 10th 2016, a decision was made that the WOCAT/ULN project adopts a landscape approach. Consequently, 28 catchments[9] (Table 1) were purposely selected to capture at least three catchments in each district of various identified SLM technologies and approaches for documentation under the WOCAT methodology and format at the same time ensure to the extent possible overlap with the PRELNOR 600 target villages in Northern Uganda.

DISTRICT	Catchments
LAMWO	1. Nimur 2. Kidepo Kapeta I 3. Kidepo KapetaII
AGAGO	4. Lower Pageya 5. Upper Achwa 6. Awero 7. Aguga
PADER	8. Lamina Kor 9. Otaka 10. Ike
OMORO	11. Pope 12. Lower Coli 13. Lower Tochi
KITGUM	14. Upper Paggeya Dopeth 15. Kapeta 16. Mid Pageya
GULU	17. Upper Tochi 18. Aguga Moroto

[9] The 28 catchments were chosen for the documentation process. Later, for Year 2 and 3 – farmer to farmer exchanges and eventually support to farmers in the implementation of good practices also other catchments will be considered.

	19. Laminator
NYWOYA	20. Adibu 21. Tongi 22. Lower Albertine Nile
AMURU	23. Lower Aswa 24. Ayago 25. Upper Aswa
ADJUMANI	26. Mid Albert Nile 27. Ituirikwa 28. Unyama

Table 1: WOCAT/ULN 28 catchment in Northern Uganda

2.0 Summary of appraisal phase results by activity

2.1 The National Expert Group (NEG)

Establishment of the National Expert Group (Table 2) was prioritized as a core technical and policy advisory group in consultation with the IFAD Country office on the composition and expertise. The NEG team is comprised of selected stakeholders from line ministries, UNCCD focal points, research organizations, NGOs and national bodies involved in extension services. Terms of Reference were formulated in which the function and tasks of the NEG are specified.

No	***NAME***	***Gender***	***CURRENT JOB and EXPERTISE***	***INSTITUTION***	***Email***
1	*SANDE MUTABAZI (Mr)*	*M*	***Commissioner, Farm Development*** *Extension and policy analyst*	Ministry of Agriculture, Animal Industry and Fisheries (*MAAIF)* www.agriculture.go.ug	*sundaymutabazi@yahoo.co.uk*
2	*MUWAYA STEPHEN (Mr)*	*M*	***UNCCD Focal Point*** ***Land ecologist***	United Nations Convention to Combat Desertification (UNCCD) *www.unccd.int*	*smuwaya@yahoo.com*
3	*MUBIRU DRAKE (Dr)*	*M*	***Senior Research Officer*** *Soil fertility , sustainable land management, and Climate change specialist*	*National agricultural Research Organization (NARO) National Agricultural Laboratories - KAWANDA* www.narl.go.ug	*drakenmubiru@yahoo.com*
4	*GRACE NANGENDO (Dr)*	*F*	***Director Landscape Ecology and Technical Services*** *Land ecologist and GIS expert*	*Wildlife Conservation society (WSC)* *www.wcs.og*	*nangendo@alumni.itc.nl*
5	*BEATRICE Luzobe (Ms)*	*F*	***UFAAS Focal Point*** *Extension and Rural Advisory services*	Forum for Agricultural Advisory Services *(UFAAS)* www.afaas-africa.org	*bnluzobe@gmail.com*
6	*TENYWA MOSES (Prof)*	*M*	***Soil Science*** *Soils expert and integrated water Management (IWM) specialist*	*Makerere University Kampala (MAK)* www.mak.ac.ug	*tenywamakooma@yahoo.com*

Table 2: Members of the National Expert Group (NEG) in Uganda

2.2 Review of existing relevant projects/programmes

The project commenced with a desk review of existing relevant projects and programmes related to SLM and resilience to climate change. The desk review was complemented with online searches as well as visits to partner institutions at national and district level including line Government Ministries such as the Ministry of Agriculture Animal Industry and Fisheries (MAAIF), the Ministry of Water and Environment (MWE), the Ministry of Local Government (MoLG), United Nations Food and Agricultural Organization (FAO), United Nations Development Programme (UNDP), Sasakawa 2000, and the International Union for Nature Conservation (IUCN). In addition, a reconnaissance trip on February 8-12, 2016 to the project site with a WOCAT staff provided an opportunity to understand the programmes on the ground, appreciating key landscapes, institutions and an overview of existing land degradation problems as well as SLM innovations.

In total, 37 relevant on-going projects and programmes have been identified (see Annex 1). This list includes a World Bank (WB) funded project, under implementation countrywide jointly by MAAIF and the National Agricultural Research Organization (NARO) entitled 'The Agricultural Technology and Agribusiness Advisory Services (*ATAAS*)'[10]. The overall goal of ATAAS is to sustainably increase agricultural productivity and incomes of participating households by improving the performance of agricultural research and advisory services system. The rationale of SLM in the ATAAS project is enhancing environmental resilience and sustainability of agricultural land resources while generating local and global environmental benefits in addition to improved yields. With a focus on wide adoption of appropriate technologies, SLM activities in the ATAAS project are organized around three key areas: (i) institutional governance through strengthening capacity of planning and practicing SLM; (ii) Scaling up on the ground activities for improved Natural Resources Management (NRM) and (iii) reducing vulnerability through NRM monitoring and knowledge management (KM). The ATAAS overlaps with the Scaling - up SLM project in Northern Uganda 9 districts where SLM specialist have been recruited and operating under Ngenta and Abi Zonal Agricultural Research and Development (ZARDI) centers to demonstrate SLM technologies and facilitate related training on SLM. Consequently, the scaling up SLM project has targeted these specialists as part of extension staff to participate in the training as well as documentation of technologies and approaches.

Other, equally relevant, projects and programmes with opportunities of collaboration include:

- The Consortium of International Agricultural Research Centers (CGIAR) programme on Climate Change Agriculture and Food Security (CCAFS) project under implementation in Northern Uganda entitled 'Increasing food security and farming system resilience through wide adoption of climate smart agriculture practices'.[11] Demonstrations of climate smart agriculture practices are ongoing as well as using

[10] http://projects.worldbank.org/P109224/agricultural-technology-agribusiness-advisory-services?lang=en&tab=overview :
[11] https://ccafs.cgiar.org/news/outscaling-climate-smart-agriculture-practices-through-farmer-driven-demonstration-plots#.WMvBHm

multi stakeholder platforms: A Learning Alliance approach to increase adoption. The Learning Alliance model brings together different partners drawn from policy makers, academic, research organizations, civil society, the private sector and farming communities themselves facilitating the sharing of information, knowledge and experiences. CIAT is one of the research partners working together with IITA with demonstrations in Nywoya district. Staff of this project are participating actively in the scaling up SLM project specifically in training and documentation of technologies and approaches as part of demonstrations.

- The commercial forestry project under the Saw log Production Grant Scheme (SPGS) III[12] is a project Government of Uganda (GOU) receiving technical support from United Nations Food and Agricultural Organization (FAO) and funded by European Union (EU) operates countrywide including Northern Uganda. The project is about promoting commercial tree planting by small, medium and large-scale growers and community groups to increase their income, while at the same time helping to mitigate the effects of climate change.

- The Northern Uganda Social Action Fund (NUSAF 3): The goal of this project is to provide effective income support to and build the resilience of poor and vulnerable households in Northern Uganda. Under the Rural Livelihoods component the project targets increased crop production and net income to benefit 10,000 of the poorest households. Further its focus is intensification of farming systems whilst at the same time conserving the natural resource base (soil health and water conservation). PRELNOR specifically is working towards cropping yields from current lands increased through the timely use of appropriate technology, land use and cultivation practices. In terms of collaboration, the SPGS is an approach that has been targeted for documentation. In addition staff of SPGS will be trained as well as using the afforestation sites as nodes of scaling SLM in Northern Uganda.

2.3 Knowledge management system of agriculture extension services

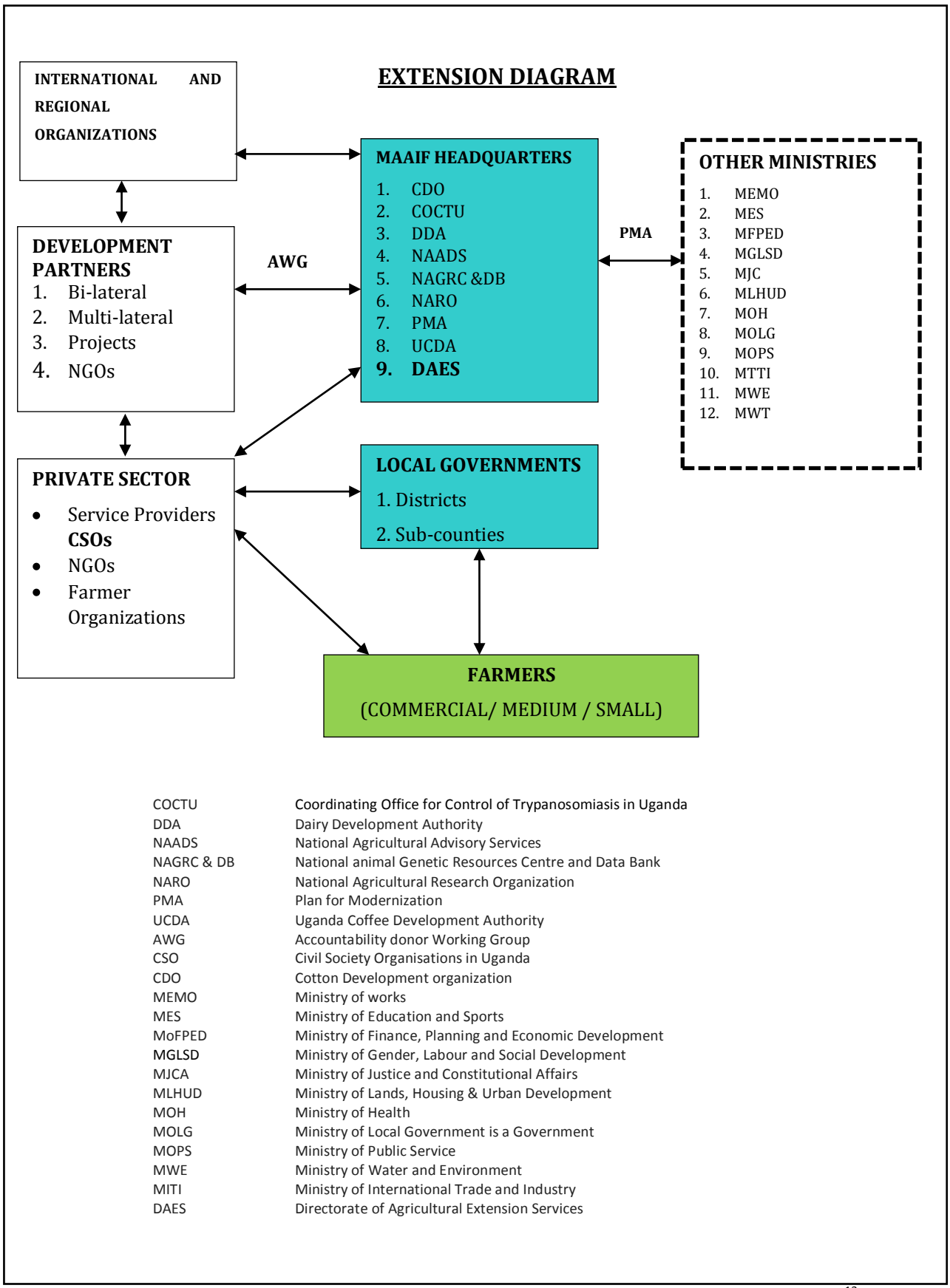
Promoting sustainable land use and soil management is one of Government of Uganda (GOU) priorities indicated, recognized and emphasized in all periodic national and sector development plans over the last 20 years. This includes the current National Development Plan (NDP II) (2015/16 – 2019/20) and the Agricultural Sector Strategic Plan (ASSP). It is emphasized in the National Agricultural Extension Policy that all agricultural priorities require an effectively functioning extension service to actualize. In 2016, the government launched a new extension policy, the National Agricultural Extension Policy (NAEP). Its vision is “Prosperous farmers and other agricultural actors for socio-economic transformation”. Its mission is to “promote application of appropriate information, knowledge, and technological innovations for commercialization of agriculture” and its goal is ‘‘to strengthen and establish a sustainable farmer-centered agricultural extension system for increased productivity and household incomes and exports’’. The stipulated objectives of the NAEP are namely (i)

[12] http://www.fao.org/uganda/news/detail-events/en/c/434208/

establish a well-coordinated, harmonized pluralistic agricultural extension delivery system for increased efficiency and effectiveness; (ii) build institutional capacity for effective delivery of agricultural extension services; (iii) develop a sustainable mechanism for packaging and disseminating appropriate technologies to all categories of farmers and other beneficiaries in the agricultural sector; (iv) empower farmers and other value chain actors (including youth, women and other vulnerable groups) and (iv) to effectively participate in agricultural extension processes and build their capacity to demand for services.

2.4 Institutional arrangements

Agricultural extension services in Uganda are coordinated by the Ministry of Agriculture, Animal Industry and Fisheries (MAAIF). The ministry has four main directorates: crop, animal, fisheries resources and agricultural extension with distinct departments under each directorate. The directorate of extension is new, having come into existence after the restructuring of the National Agricultural Advisory Services (NAADS) which previously was responsible for the provision of the national extension service. The departments stream down to the different local governments (districts, sub counties and parishes to the lowest structures at village level).



COCTU	Coordinating Office for Control of Trypanosomiasis in Uganda
DDA	Dairy Development Authority
NAADS	National Agricultural Advisory Services
NAGRC & DB	National animal Genetic Resources Centre and Data Bank
NARO	National Agricultural Research Organization
PMA	Plan for Modernization
UCDA	Uganda Coffee Development Authority
AWG	Accountability donor Working Group
CSO	Civil Society Organisations in Uganda
CDO	Cotton Development organization
MEMO	Ministry of works
MES	Ministry of Education and Sports
MoFPED	Ministry of Finance, Planning and Economic Development
MGLSD	Ministry of Gender, Labour and Social Development
MJCA	Ministry of Justice and Constitutional Affairs
MLHUD	Ministry of Lands, Housing & Urban Development
MOH	Ministry of Health
MOLG	Ministry of Local Government is a Government
MOPS	Ministry of Public Service
MWE	Ministry of Water and Environment
MITI	Ministry of International Trade and Industry
DAES	Directorate of Agricultural Extension Services

Figure 2 shows the institutional arrangements and agricultural extension system in Uganda (MAAIF 2016)[13]

[13] MAAIF (2016) - National Agricultural Extension Strategy 2016/17-2020/21

2.5 Extension service actors and their roles

There are three broad categories of extension service actors in Uganda. First, there are the agricultural extension service providers. This category comprises the public sector, primarily MAAIF headquarters and local governments whose role is to oversee, coordinate and deliver extension across the country under the decentralized structure of government. Other actors in extension provision delivery include: NGOs, farmer organizations, private sector firms and associations as well as donor funded projects. The second category is the trainers of extension workers and these include, but are not limited to, universities and other tertiary training institutions. Their role is to build the capacity of extension workers to have the skills to disseminate extension services. The third category of actors is those who generate content that agricultural extension services deliver to farmers and these include research organizations and universities among others. Their role is to develop technologies and recommend good agricultural practices for adoption by beneficiaries. In carrying out this role, they work in collaboration with the extension services and farmers during the development stages that provide feedback on the performance of technologies and the recommended good agricultural practices. However, these linkages have not been as strong as would have been desired, but with the establishment of the extension directorate, the delivery and the linkages between key stakeholders will be improved.

Under the scaling – up SLM project in Uganda, the first category two government ministries MAAIF and Local government are playing a key role at multi levels: As part of National Expert Group a core technical policy advisory group they are responsible for building partnerships and developing action plans to giving direction to the project; MAAIF is specifically participating in capacity strengthening component of the project. Considering Local Government hosts the extension directorate at district level where the bulk of extension is anchored, the ministry remains the key target on capacity building and participation of local institutions including farmers. In the second category, Universities specifically Makerere and Gulu universities are part of the NEG but conspicuously coordinating the student attachments as part of knowledge generation and management. The third category are research institutions NARO hosting the national SLM database while UFAAS is engaged to develop and harness a community of practice around SLM playing a key role towards facilitating learning and as well as exchange of knowledge and experiences.

2.6 Extension in PRELNOR

PRELNOR is a national programme targeting increased income, food security and reduced vulnerability of poor rural households in the programme area. The project is being financed by the GoU, an IFAD loan, an Adaptation for Smallholder Agriculture (ASAP) grant and beneficiaries' contributions. The project is being implemented in selected parishes and villages of the 9 Northern Districts of Gulu, Kitgum, Omoro, Lamwo, Agago, Pader, Amuru, Nwoya and Adjumani.

As a result, the Directorate of Agricultural Extension (DAES) under MAAIF is getting reorganized into a single spine system; PRELNOR recruited its project management unit and the extension facilitator in each of the PRELNOR selected sub counties. The staff at the sub county works closely with the directorate of extension staff, where they exist. Knowledge transfer to the farmers is done through farmer groups facilitated by the extension facilitator. PRELNOR is part of the National Project Coordination Unit (NPCU) in Uganda. The NPCU committee is responsible for executing the project on a day-to-day basis, ensuring coherence among outcomes, while facilitating the coordination of activities PRELNOR Project Implementation Unit (PMU) and CDE/WOCAT Secretariat. PRELNOR is specifically providing its project recruited extension staff to work with WOCAT/ULN project in areas of documentation, capacity building and consequently positioned to follow up of SLM demonstrations in their respective districts. WOCAT/ ULN facilitate these PRELNOR extension staff whenever they are involved because PRELNOR has no budget for such activities. PRLELNOR however plans to facilitate its staff to scale up technologies they have identified and budgeted for. This is against a background that WOCAT/ULN will have built capacity of their PRENOR staff adequately to carry on into the future. The extension will gain from the facilitation as well as the capacity building provided by WOCAT/ULN. PRELNOR will continue to collaborate with WOCAT/ULN in areas of capacity strengthening and monitoring and reporting of activities that are complimentary on the basis of "who invites facilitates" the activity.

2.7 Linking the project with agriculture extension

Under the current extension system in Uganda, the scaling – up SLM project plays a pivotal role in mobilizing and supporting through training extension agents including grassroots farmer groups, and champion farmers to SLM. Under the scaling - up SLM project, ULN is specifically supporting extension staff at national, district, sub county and parish level, as well as extension staff recruited by PRELNOR at sub county and parish level, to build a strong Trainers of Trainers (ToT) cadre equipped with skills and competences in understanding SLM and, specifically, in documenting technologies and approaches as well as communicating and disseminating the information among small-scale farmers. ULN has

capitalized on its network of Landcare platforms[14], the district level landcare platforms who are actively involved in championing Landcare innovations such as zero grazing ventures, irrigation schemes, bee keeping etc in districts to get involved in training for sustainability beyond the project cycle.

The National Agricultural Research Organization (NARO) and the National Agricultural Research Laboratories (NARL) in Kawanda - Soils / GIS Unit who were selected to host the national database are a target in training to ensure they are empowered and able to handle documentation across the country. Two staff based in Kawanda and additional staff based in the project site: *Ngetta* Zonal Agricultural Research and Development Institute (NZARDI) are actively participating in the documentation of technologies and approaches during the project. Strategically, beyond the project, these staff will be able to carry on documentation feeding and supporting the national SLM database. Specifically, NARL is developing a portal that will be hosting a national database linked to the global WOCAT database.

2.8 SLM inventory sheets, Technology and Approaches questionnaires (QT&QA) and WOCAT Database

During the appraisal phase, the WOCAT inventory sheets, Questionnaires on SLM Technologies and Approaches (QT&QA) and related Global SLM database (see: https://qcat.wocat.net/km/wocat/) were first introduced to the National Expert Group (NEG) on 15th December, 2016 for them to appreciate details in the questionnaires and database. Following the appraisal phase, a Training of Trainers (ToT) was organized together with staff from the WOCAT Secretariat on February 2-4, 2017. During the ToT, the questionnaires were reviewed with first trial to complete them and begin on capture the information in the online Global WOCAT SLM database.

2.9 Inventory of SLM practices implemented by farmers

SLM technologies and approaches inventory compilation is important to provide an overview of the state of art in terms of existing SLM practices. The inventory **(Annex 3)** illustrates a situation where SLM innovations are evident and practiced by innovative women and male farmers across the 9 districts. Although some of the technologies are associated with projects, hence introduced, quite a number are indigenous, passed on from generation to generation.

[14] All the nine districts have in place District Landcare Platforms responsible for coordination of landcare innovations at district levels. The Local Council (LC) 5 chief (district governor) chairs a committee comprised of Natural Resources Officer; District Forest Officer, Secretary for Production and selected champion farmers. Note Uganda's elected local government structure is arranged in ascending order with LC1 as the lowest village level, followed by LC2 (Parish) then LC3 (sub county) LC 4 (Township) and LC5 District level.

Table 3 below shows a summarized list with short descriptions of the SLM technologies that were identified in a participatory exercise across the 9 districts. At least 33 different technologies and 5 approaches (Table 4) were identified.

No.	Name of SLM Technology	Short description	District	Typical Landscapes	Prevailing problems	Land use type
1	Afforestation	Farmers planting trees specifically pine and teak in open spaces of shrubland. trees outgrow the shrubs and the area becomes a planted forest	Omoro, Agago	Slopes	hunting , malice fires	Biodiversity conservation areas such as forest reserves
2	Agroforestry	Farmers combine growing of various tree species among either annual or perennial crops. The trees are either leguminous, and therefore providing nutrients, provide shade or act as wind breaks to the crops into which the trees are intercropped with. The common trees intercropped include but not limited to: *Sesbania, Calliandra, Ficus Spp, palms* and other Acacia spp	Omoro, Nwoya Amuru	Ridges	Indiscriminate tree cutting, receding water table seasonal, uncontrolled bush fires, Land wrangles, soil fertility loss, windstorm	Settled areas such as homesteads and home gardens
3	Farmer Managed Natural Regeneration (FMNR)	Indigenous trees are facilitated to regenerate while allowing other tree species to emerge with no interference. This allows the once forested piece of land to go back to its original state.	Lamwo, Adjumani , Amuru, Gulu, Nwoya, Agago, Kitgum, Pader , Omoro	Ridges	Indiscriminate tree cutting, receding water table seasonal, uncontrolled bush fires, land wrangles, soil fertility loss,	Settled areas such as homesteads and home gardens

					windstorm	
4	Irrigated Mixed Cropping	Farmers irrigate using a treadle pump to provide water to a farm land intercropped with two or more crop varieties.	Adjumani Omoro	Valley bottom	Sandy infertile soils	Cultivated areas mainly of annual and perennial crops including horticultural crops
5	Crop Rotation	Systematic change (rotation) of specific crops on the same field. One crop is planted in the first season and a different crop is planted in the following season. The rotation is in such a way that different crops have different nutrient requirements. The process can continue until the first crop is planted again at least in the fourth season and the cycle goes on. A common rotation is: groundnuts/beans, sweet potatoes, vegetables, cassava and then back to beans	Pader and Amuru	Slopes	Soil fertility loss, Poor farming such as mono cropping .	Cultivated area mainly involving annual crops such as peas, simsim, maize, potatoes
6	Stover Ploughed back	This practice involves cutting after harvest and burying the maize stovers in the same garden. This allows putting back the mined nutrients back to the soil.	Gulu , Nwoya	slopes	Soil infertility,	Cultivated areas
7	Controlled burning	Deliberate and systematic way of avoiding fire to burn the cropland or grazing	Omoro, Pader	Slopes	Overgrazing , hunting, Deliberate	Cultivated areas for annual crops

		land. Many times, the farmers burn the crop residues, but in this case, the farmers don't burn but leave the crop residues/ grasses to dry and breakdown/ decompose.			burning of biomass	
8	Zero grazing	Farmers keep their animals in a sty and provide the feeds throughout the year through cut and carry. The farmers also have the opportunity to collect the urine and dung from a single point and use it as manure.	Gulu	Ridges	Uncontrolled bush fires, soil fertility loss, land wrangles	Human Settled areas such homestead
9	Direct Manure application	This practice involves collecting manure materials such as animal dung, urine and fresh/green crop residues directly applied to the crops. They are used as to provide nutrients to the soil but also act as soil cover.	Guru, Adjumani	Ridges	Uncontrolled bush fires, soil fertility loss, land wrangles	Settled areas such homestead
10	Mulching in Banana Plantation	Farmers cut grass and cover the ground in the banana plantation. The mulch acts as soil cover, conserves soil and water and also provides nutrients when decomposed.	Nwoya, Pader	Ridges	Bare soils, windstorms	Human settled such homestead
11	Fish Farming	Rearing of fish capitalizing on areas with high water table. It involves managing water in a pond along a flowing water body. For effective fish farming, the water flow should not be interrupted or stopped.	Agago, Amuru, Nwoya	Valley bottoms	Inadequate water supply/ irregular water flow	Fish farming

		This is because fish requires fresh water.				
12	Liquid Farm Manure on Horticulture	The practice involves use of plant teas and animal urine. Plant teas are made from crushing plant leaves (e.g. Tithonia), add water and allow it to stay for 14 days under cool temperatures to allow fermentation while minimizing nitrogen loss through volatilisation and denitrification including conversion of organic Nitrogen to inorganic nitrogen (ammonia, highly soluble nitrate). . The liquid manure is then diluted to a ration of 1:4 and then applied about 0.5 litres to the crop, 1 foot from and around the plant stem such as maze, beans and a range of vegetables such as cabbages, egg plant and green pepper .	Gulu	Ridges	Soil fertility, environmental pollution	Human settled area on home gardens
13	Woodlots	tree plantations planted on small-scale farms on farm. The farmer makes a choice of which tree species are planted. Usually the woodlots are used as source of fuel wood by cutting branches or as poles for construction of household structures such main houses, kitchens and pens.	Omoro, Agago and Pader	slopes	Tree cutting, indiscriminate bush burning	Cultivated area
14	Fruit tree growing	The farmer's select fruit tree species to plant. The	Omoro, Adjumani	Ridges	Soil fertility loss , tree	Settled areas – home

		common ones are citrus and mango. The fruit tree fields are managed in a way that will conserve soil and water in the soil. The practice could work singly or in addition to another practice like mulching or intercropping.			cutting , biodiversity loss	gardens
15	Small ruminant husbandry	This practice involves rearing of animals like goats and sheep. The rearing could be restricted (fed in their sties) or on a grazing land. The dung can be used to improve the soil fertility.	Adjumani , Omoro	Ridges	Animal waste problems, overgrazing	Human settled areas - homestead
16	Extensive rangeland management	Farmers deliberately leave the rangeland uncultivated, no tree cutting, and no grazing. They do not allow fire to disrupt the ecosystem. The major activity done in such a piece of land is usually bee keeping.	Agango	slopes	Overstocking and overgrazing	Biodiversity conservation areas such as controlled hunting areas
17	Apiary	Farmers use their protected areas for keeping bees. This practice helps to increase incomes of farmers while at the same time conserving the rangeland.	Lamwo, Agango and Omoro	ridges	Tree cutting	Human settled areas
18	Extensive tree nursery management	Farmers establish a tree nursery bed with a variety of species. The nursery is made from local materials and a simple sprinkle irrigation system.	Omoro, Agango	Slopes also valley bottom?	Tree cutting, soil fertility loss,	Cultivated areas mainly perennial crops
19	Irrigated	Farmers employ a sprinkle	Omoro	Valley	Prolonged	Cultivated

	intercrop	irrigation system to water an intercrop of annual crops. They include vegetables and water melons.		bottom	droughts, irregular water flow,	areas mainly annuals
20	Swamp –flow water controlled with subterranean pipes	Farmers cultivate near the permanent source of water- a stream. A water pump is used to supply water to the cropland.	Adjumani	Valley bottom	Prolonged droughts, irregular water flow	Cultivated areas mainly annual
21	Valley dam construction	A valley dam is constructed to collect water that is used for irrigating and for animal use.	Adjumani	Valley bottom	Prolonged droughts, irregular water flow	Swampland
22	Intercropping	This practice involves planting of two or more crops in the field. The two or more crops should be complementary to each other.	Adjumani	Slope	Soil fertility loss,	Cultivated area mainly for annual crops
23	Fanya ju trenches	These are trenches constructed to prevent soil loss. The trench is dug by putting the soil against the slope.	Omoro	Slope	Soil fertility loss	Cultivated area mainly for annual crops
24	Mixed farming crop with livestock	This is the growing of crops and rearing animals on the same farm. The technologies are complementing each other. Where animal wastes are used to fertilize crop and also crop left overs as feed to animals.	Gulu	Ridges	Soil fertility loss Animal waste	
25	Spot mulching with drip irrigation	The technology is common among small sale farmers growing annual crops where the irrigation is used in addition to mulching on	Pader	Ridges	Bare soils, irregular water flow	Human settled areas

		the plant with the aim of water conservation.				
26	Irrigated mixed vegetables	Farmers grow more than one species of vegetables in the field. The vegetables are irrigated, making the water for growth available.	Kitgum	Valley bottom	Sandy infertile soils, Encroachment on swamps	Cultivated swamp fringes
27	Multiplication of coffee seedlings	Farmers establish coffee nurseries to raise the seedlings for both commercial purpose and own use.	Agago	Valley bottom	Encroachment on swamps	Cultivated swamp fringes
28	Nitrogen Fixing Mucuna	Farmers planting legumes such as mucuna intercropped with mostly annual crops in the fields. As a legume, it is nitrogen fixing and therefore supports soil fertility improvement.	Pader	Ridges	Soil infertility	Human settled area
29	Intensive piggery	Farmers undertake piggery production and management. Wastes are used as manure to crops. They are using a technology called indigenous micro-organisms (IMO). These are useful bacteria that are cultured through a number of procedures. The culture solution is used twice a day by spraying the pig sty. The IMO makes the sty stench free.	Pader	Ridges	Animal waste problem/ poor disposal/ poor use	Human settled area
30	Extensive citrus growing	Citrus trees growing covering a large acreage. Since it is a perennial crop, the soil structure is maintained.	Kitgum	Ridges	Indiscriminate tree cutting, bush fires	Human settled home gardens

31	Live fence paddock	This technology is used to divide the land into pieces of land where grazing can be controlled. It is not common in the region and most farmer faced land degradation because of lack of controlled grazing.	Lamwo	Ridges	Uncontrolled bush grazing	Human settled area
32	Community managed forest	Community in the village agreed to conserve 220 acres of natural forest in their community. They established rules (byelaws) that govern the use of the forest and modalities of controlling wild fires.	Lamwo	Slopes	Indiscriminate tree cutting Uncontrolled bush fires	Biodiversity conservation area
33	Enforced No – fire zone	The farmers designate part of their land and put in place fire lines. They control fire which is rampant in the region.	Agago	Ridges	Uncontrolled bush fires	Human settled area

Table 3: SLM technologies identified in project sites

Some images of identified technologies in the project sites are captured below:

Extensive fruit tree nursery: mango Mangifera indica

Mulching bean : Phaseolus vulgaris

Extensive fireline (clean slashed)

Fruit tree growing: Citrus Limon Grevillea robusta boundary

Intercropping Zea mays and Citrullus landaus' *Integrated*

Horticulture Brassica oleracea *and* Abelmoschus esculentus

Agroforestry Coffee and Musa

Agroforestry Coffee and Musa

Crop rotation Zea Mays

Agroforestry Fruit Citrus reticulate and grevillea

Mulching in *Musa spp*

Gravity Irrigation: Solanum lycopersicum

No.	Name of SLM Approaches	Short description
1	Farmer Field School	This is an approach that involves farmer to learning from the field. They use an agro-ecological analysis framework where the farmers look at the crop and its surroundings step by step until they learn all the aspects of the crop. Learning takes place in the field. The farmers only require a facilitator to undertake the farmer field school learning "syllabus".
2	Post project innovation	In this case, after the external facilitator- the NGO completed its activities the local farmer bridges the gap by taking on the activity of disseminating the learnt skills to other farmers. After showing interest, the farmer is supported by other organizations to further his support to other farmers.
3	Project led training	A project or an NGO takes lead to mobilize and organize farmers to learn and adopt specific technologies in a specific period of time.
4	Farmer to Farmer adoption	The farmer learns from other farmers either from the same locality or gets an opportunity to visit other farmers, learns and adopts at the own farm.
5	Farmer managed natural regeneration	Farmers mostly in groups are trained on the importance of trees and ways in which they can allow indigenous trees to regenerate. In this case the farmers leave the land to regain its tree/shrub species to emerge with no interference. This allows the once forested piece of land to go back to its original state.
6	Lead farmer trainers	This is where the project/ NGO facilitate the local population in their own groups to identify and select a fellow farmer to host a demonstration established by the project /NGO. The host is trained and facilitated to train others in his group. The objective is that the farmers to learn from their own and adopt in their fields/gardens.
7	Exchange visits	The farmers facilitate or are facilitated by the project/NGO or by them to visit other farmers on what and how they are doing. It is expected that when the farmers go back they adopt the technologies they have learnt

8	Learning Alliance model	The Learning Alliance model- promoted by CCAFS-CIAT is based on multi-stakeholder platforms and promising in that regards that it brings together different partners drawn from policy makers, academia, research organizations, civil society, the private sector and farming communities themselves. The platform facilitates the sharing of information, knowledge and experiences and visibly retains smallholders' interest. Increasingly local participants in Learning Alliances advocate effectively for deeper plans, the kind that can win funding from international sources, allowing them to last longer and clinch the loyalty of farmers who buy in to the campaign. In short, they are embryonic institutions based on participation and, as such, a replicable approach to tackling the great challenge for climate-smart agriculture practices – sustainable implementation.

Table 4: SLM approaches identified in the project sites

3.0 Inception

A two days inception workshop (**Annex 2)** was organized in the project area from 17th to 18th November, 2016 with a purpose of introducing the scaling - up SLM project to partners, facilitating buy in while clarifying project objectives, targets and outputs. The inception workshop attracted 63 participants (56 males and 10 Females) from various institutions including farmers, policy makers, extension agents, and researchers. The key outcomes of the workshop were namely: (i) harmonized understanding of the project focus and work plan; (ii) definition and characterization of the target group; (iii) finalizing the implementation framework; and (iv) streamlining project research questions.

3.1 Knowledge gaps of farmers and challenges for improving SLM practices

A total of 27 (9 female 18 male) farmers (3 farmers per each of nine PRELNOR districts) illustrated a picture that shows they understand SLM as a process of making good and continuous use of land to satisfy human wants. They gave examples of SLM innovations including planting banana and coffee together, crop rotation of ground nuts and cassava, zero grazing such as goats, cattle, pigs and sheep, farrowing, use of paddock systems, mixed farming, agroforestry, use of manure, use of fertilizer and mulching. In terms of benefits, farmers apprecaiate benefits of SLM. Practices isolated by farmers include: conservation of run off water by digging trenches; gallery management; afforestation and defforestation; controlled bush burning; regular planting of legumes e.g elephant grass; planting of pastures amd use of irrigation. Table 5 outlines a summary of responses from a focus group discussion of farmers conducted during the inception workshop in Gulu to highlight challenging gaps that hinder farmers to scale up SLM practices, as well as suggested interventions. In addition, available opportunities were suggested by the farmer focus group of that including: existence of partners to support dissemination; contact people/ farmers; strengthen existing groups; existing government SLM programmes; existing SLM dissemination materials and trained farmers.

Stakeholder and (desirable situation)	Gaps hindering scaling up	Interventions
FARMERS *(Establish innovation platforms for SLM and bylaws)*	• Illiteracy • Traditional norms • Absence of strong policies • Use of rudimentary agricultural equipment • Few extension workers to disseminate the information • Land wrangles to enable effective dissemination • Some places are hard to reach • Laziness of those people charged with disseminating information • Limited capital to develop relevant dissemination materials	• Strong byelaws initiated and enforced by the local communities • Controlled over grazing • Intercropping • Use of fertilizer • Sensitization of community • Change in nature of land tenure system • Training of community members to become self reliant • enforcement of policies

Table 5: Knowledge gaps and challenges of farmers for scaling SLM practices

3.2 Knowledge gaps and training needs of extension officials

During the appraisal phase, identification of knowledge gaps and training needs of extension workers related to extension and outreach of SLM practices was prioritized. The exercise involved a total of twenty four (4 female; 20 males) extension staff based at district level, sub-county and parishes including one staff of MAAIF, one staff of NARO, one University student and four NGO staff. The task was performed both at fieldwork level in the 9 districts and jointly in group discussions during the inception workshop held in Gulu in November 17 -18th, 2016 to capture the perceptions and responses. A summary of the issues that emerged is outlined in Table 6 below.

Stakeholders and (desirable situation)	What are the knowledge gaps hindering scaling SLM?	What are the training needs
EXTENSION *(Land that is well managed and highly productive supporting sustainable agriculture)*	• limited knowledge of SLM benefits hence underfunding of SLM activities • Inadequate knowledge on SLM practices and approaches • Inadequate personnel to disseminate SLM • Mindset of the people • Lack of record on existing SLM practices –missing data • Inadequate political will on SLM • Lack of logistical support, mainly transport • High poverty level	**<u>Intervention</u>** • Capacity building of stakeholders especially extension and farmers on SLM • Operation wealth creation a government of Uganda programme to distribute agricultural inputs using military veterans • Funding and dissemination • Networking with other service providers (government and non government) • Up scaling good practices through demonstration • Establishment of one stop dissemination centers- Demonstration that illustrates multiple technologies and approaches

		Opportunities • Government projects and programmes • Existing extension systems • Upcoming commercial farmers under presidential programs • Existing CBO and NGOs • Legal framework supporting SLM
POLICY MAKERS (Enabled policy environment for scaling SLM)	• Limited information on funding opportunities for SLM • Limited capacity to negotiate district based commitment gap which is the counterpart obligation from each district • Limited information on affordable training facilities • Narrow view on SLM	• Fund mobilization • Create package on SLM • Translate information into local dialects • Disseminate • Discuss and internalize and choose correct medium • Capacity building of stakeholders • Fund mobilization **Opportunities** • Meetings/dialogue • Radio/TV • Music Dance and Drama • Existing policies
RESEARCHERS *(Increased incomes among households through the promotion of SLM practices)*	• Limited capacity to develop information education and communication (IEC) materials • Lack of ecosystem based decision support options • limited media access • conflicting messages to farmers	• Development of a clear strategy for coordination and networking • Carry out baseline survey to identify SLM concerns using satellite imagery • Develop IEC materials in local language • Develop indicators for M&E of SLM implementation and learning • Develop information database (MIS) **Opportunities** • Free airtime for government information sharing on media • Presence of partners (take advantage of NGOs in livelihood activities in northern Uganda) • Integrated water resource government programme • Projects implementing similar work e.g. livelihoods (REDD plus project)

Table 6: Knowledge gaps and training needs of extension officials

3.3 Potential knowledge products for dissemination channels

Identification of potential knowledge products for dissemination was done during the meetings with a range of stakeholders including 27 farmers; 24 extension staff; and 15 policy makers from the 9 districts of the PRELNOR project area. Table 7 shows an overview of responses from farmers, extension agents and policy makers.

Stakeholders	SLM Knowledge Products	Dissemination channels
Farmers	• Manuals • Training materials • Folk stories • Newspaper	Radio programme, TV programmes such as talk shows; Documentaries; and news briefs; community meetings
Extension	• Policies: (Byelaws, ordinances) • Training manuals • Newspaper pull outs	Meetings, cultural galas, church, barazas
Policy Makers	• Brochures • Posters • Flyers • Bill boards	Music, dance and drama, TV , radio , meetings

Table 7: Potential SLM knowledge products and dissemination channels

Figure 4: Group discussion and presentation about potential SLM knowledge products

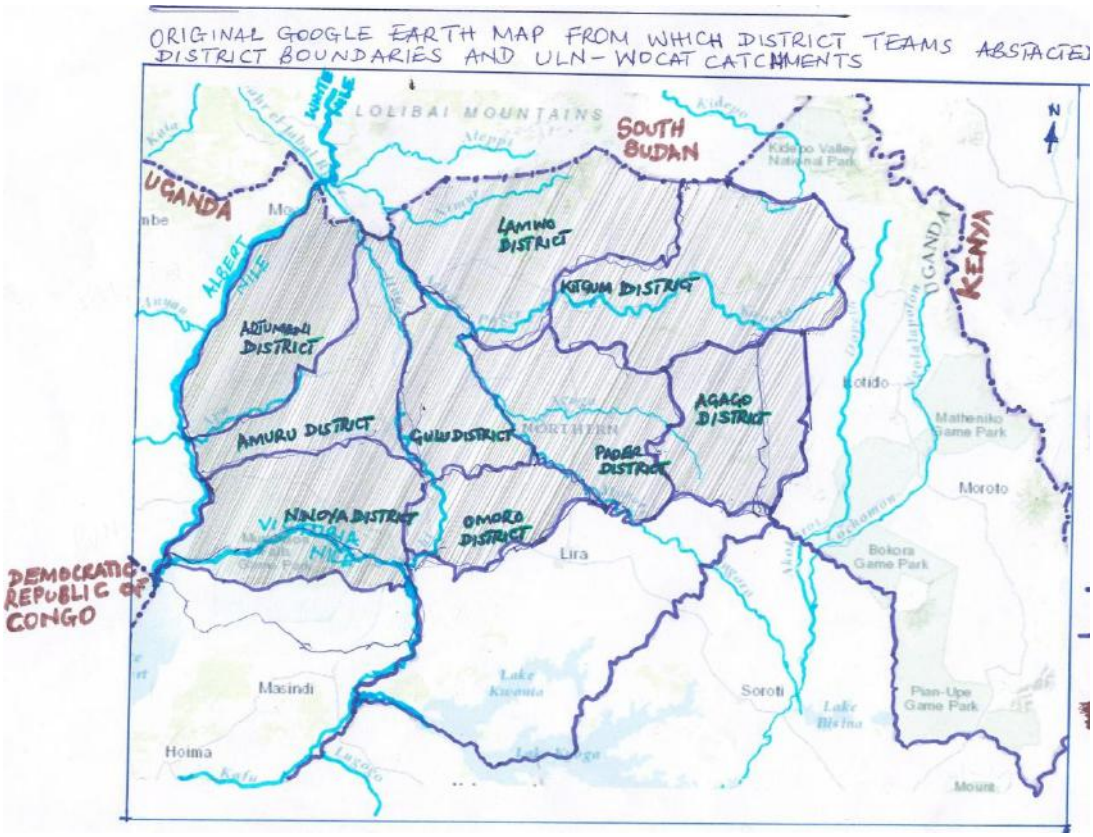
3.4 Maps of areas with unsustainable land management practices

A fieldwork survey was conducted in the nine districts to identify hotspots of land degradation (LD) or unsustainable land management practices deploying participatory mapping and stakeholder analysis techniques **(Annex 3).** Specifically, the mapping exercise went through 4 steps:

1. Participatory identification of hotspots as captured on the 9 district maps by district teams totaling 103 stakeholders (12 female; 91 male): including 45 extension agents; 27 policy makers[15]; 3 researchers and 18 farmers.
2. Using Google Earth Pro, the district teams abstracted their own district boundaries and drew new maps with land degradation hotspots. These are the rich picture maps of each of the nine districts **(Annex 4)**. The Gulu rich picture map is illustrated below in Figure 5.
3. The district teams, based on perceived degradation severity then agreed on specific catchments[16] in all the nine districts totaling to 28 (3 in each district and 4 in Lamwo, considering its large size).

[15] At district level, there are three key policy makers namely: LC5 who chairs the district policy council and heads political wing at district level; Chief Administrative officer (CAO)- Head of civil servants; Resident District Commissioner (RDC) a representative of the president's office

4. The specific locations, where technologies and approaches are documented were chosen by ULN for the Scaling-up SLM project within the larger PRELNOR project area of Northern Uganda



Goggle Earth Pro image illustrating the PRELNOR project area

[16] During the first meeting dated 10th November, 2016 of the NEG , a decision was taken that the scaling –up SLM project adopts the landscape approach specifically focussing on catchments

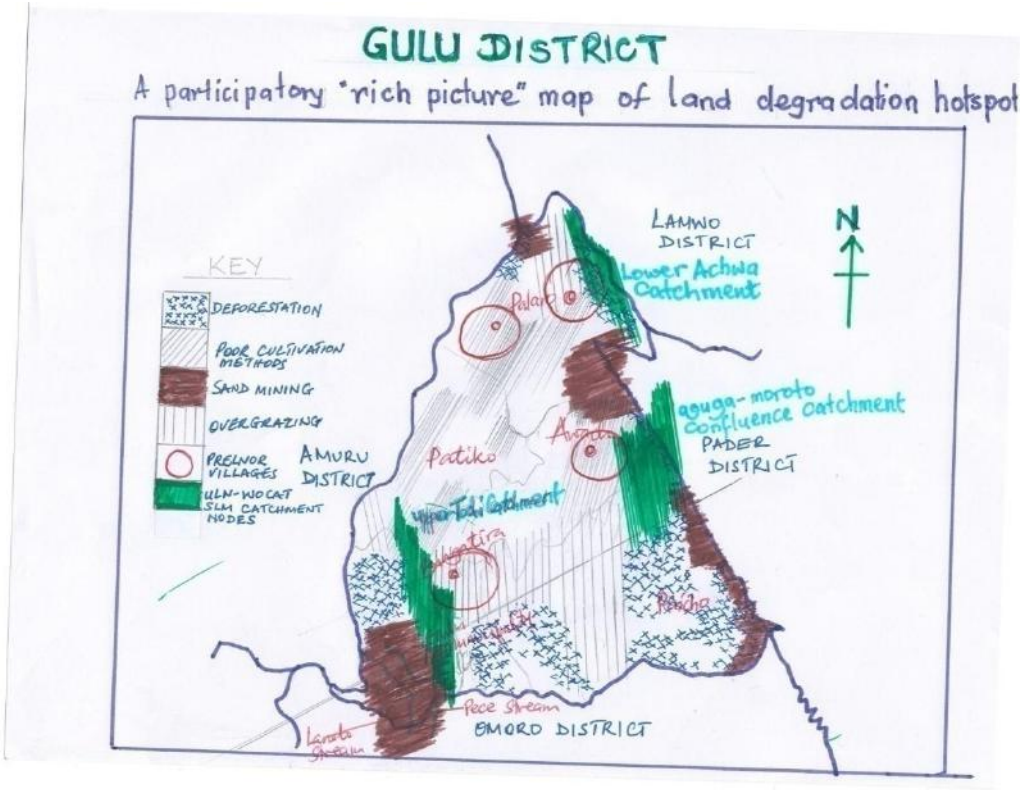


Figure 4: An example of a "rich picture" map, Gulu District

In order to have an insight of the project area, a detailed land use systems mapping was done by a member of National Expert Group (NEG), Dr. Grace Nangendo, using a number of datasets including: (i) land cover; (ii) population of both human and livestock; (iii) watershed (iv) elevation; (v) protected areas; and district (vi) district boundaries[17].The exercise also involved an assessment of land use change (1990; 2000; 2005 and 2015). The maps and a report is attached in **Annex 5**.

Generally, the project area is characterized by a range of land degradation problems linked to direct drivers including resettlement, opening new farmlands, widespread charcoal burning , overgrazing, wild fires, wetland drainage and poor cultivation of methods as well as indirect drivers such as poverty, population increase, and urbanization as well as land use conflicts .

4.0 End of Appraisal phase

A consultation workshop was organized on 30th January, 2017 to coincide with the end of appraisal phase **(see Annex 6)**. The overall aim of the workshop was sharing and discussing results of appraisal phase while isolating activities to mitigate project risks and at the same time advancing matters that enhance achievement of project targets promptly. The specific objectives were namely (i) Raise SLM agenda in a high level policy – dialogue forum in Uganda; (ii) Present and discuss the results of the appraisal phase study with relevant

[17] Omoro district was only created recently in 2015 curved from Greater Gulu District

stakeholders; and (iii) Launch training on WOCAT tools targeting extension agents in Northern Uganda facilitated by the WOCAT Secretariat. The workshop was attended by 36 participants (28 men and 9 women) from government lead institutions in Agriculture, Environment, Local government, office of the Prime Minister, Makerere University, Development partners including FAO, UNDP and relevant NGOs working in the project area.

Action points isolated during the consultative workshop include:

- Emphasis on ground level actions.
- Avoid duplication but complement one another.
- Define and set targets to assess performance.
- Build capacity at community level.
- Promote community based initiatives including monitoring and evaluation.
- Ensure there is ownership by the communities.
- Establish and strengthen multi-stakeholder platforms-for all actors /stakeholders to actively engage.
- Develop and advocate for prioritization of SLM and develop a policy on SLM.
- Promote the empowerment of women and children.
- Capture and document SLM success stories at all levels across the gender categories.

5.0 Conclusion

The appraisal phase implementation in Uganda, coordinated by ULN in partnership with WOCAT while involving a range of stakeholders, has been concluded in accordance with the 2016 annual work plan and budget specifications. The information generated through fieldwork, desktop studies , mapping stakeholder dialogues, and consultations provides an important foundation for the following project activities including: (i) Targeting the specific categories of extension agents at national, district, sub county, and catchments; (ii) Understanding the changes that action sites (landscapes) have undergone, enabling to isolate drivers for focussed scaling up of SLM practices; (iii) Isolating relevant knowledge products and channels endorsed by stakeholders to enable ownership; (iv) Identified technologies and approaches form nodes for scaling up and (v) Action areas outlined during consultative workshop give an opportunity to refine activities ahead.

6.0 Next steps

Considering the annual work plan and budget first year is up to end of June 2017. The remaining activities of this year in the revised AWPB therefore are as following:

- Extension workers (supported by ULN trainers) conduct in-depth documentation and assessment of local/regional climate resilient SLM practices
- Training on production of written and audio visual knowledge products for SLM
- Two-day workshop to analyse SLM practices entered in the national database and formulate context-specific practical principles for SLM implementation

- Develop knowledge products for decision support and dissemination of SLM knowledge
- Collaboration and sharing of lessons learnt, knowledge products with AFAAS and UFAAS, collaboration with UNCCD focal point
- Establishment of national SLM database
- National Project Coordinator participation in the WOCAT Network Meeting in June 2017, Cali Columbia to present project results and exchange with other WOCAT Network partners

7.0 Appendices

Appendix 1: Ongoing projects relevant to Scaling –up project
Appendix 2: Inception workshop report
Appendix 3: Participatory mapping and stakeholder analysis report
Appendix 4: Rich picture maps showing degradation Hot Spots
Appendix 5: Land use systems report
Appendix 6: Consultation workshop report

Appendix 1: Ongoing projects relevant to Scaling–up project

S/N	Organization	Goals and objectives	Foreseen collaboration including key activities /output
1	ATAAS under Ministry of Agriculture animal Industry and Fisheries (MAAIF)	Government Agency (MAAIF) involved in extension services (Agricultural technology and agribusiness advisory services) with OWC in Agago, Climate Smart Agriculture in Amuru, SLM extension/upscaling in Gulu, Kitgum (with Mercy Corps, NARO-ZARDI, DLG and TreeTalk) and FFS with FAO, Lamwo (SLM demos), Omoro	Participating in documentation of SLM technologies in the project area. •Scaling the documented technologies to other areas through training and establishing demonstrations on SLM technologies. This will increase visibility of the technologies. • Participating in policy discussion relating to SLM implementation and mainstreaming into the agricultural extension directorate • Building the capacity of extension agents.
2	ACDP	SLM/NRM extension in Amuru	Participating in exchange farmer visits
3	ADRA	SLM extension in Agago and Pader (livelihoods enhancement and social change)	Training of farmers groups
4	CIAT	SLM extension in Nwoya (with Delight Ltd, Vinayak)	Establishing demonstrations on SLM technologies, Farmer Exchange visits to the project sites Participating in documentation of SLM technologies to capture climate smart innovations Training as part of extension
5	District Local Governments (DLGs)	SLM extension in Amuru, wetlands demarcation, boundary opening and tree planting in Gulu, Kitgum, Nwoya, Omoro and Pader (training, sensitization and supply of inputs)	Training of DLG extension staff, Dissemination of SLM technologies through training farmers, Replicating the documented technologies to other areas through training and establishing demonstrations on SLM technologies.
6	DRC	SLM extension especially tree planting in Adjumani	Participating Farmer Exchange visits towards scaling SLM
7	FAO	Tree seedling distribution in Amuru, Gulu, Kitgum as part of SLM program (through FFS), Lamwo (Forestry tenure project), Omoro (over 50 FFS but inactive currently)	Farmer Exchange visits to the project sites, Replicating the documented technologies to other areas through training and establishing demonstrations on SLM technologies.
8	FIEFOC	Aforestation in Gulu including SLM training, Nwoya (tree seedling distribution)	Source of tree planting materials for farmers scaling Afforestation
9	GOAL	SLM extension in Agago	Participating Farmer Exchange visits towards scaling SLM
10	IFAD	SLM extension (with WOCAT and PRELNOR/DLGs) in Adjumani, Agago,Amuru, Gulu, Kitgum, Lamwo, Nwoya, Omoro and Pader	Participating in documentation of SLM technologies in the project area. •Scaling the documented technologies to other areas through training and establishing demonstrations on SLM technologies. This will increase visibility of the

			technologies. • Participating in policy discussion relating to SLM implementation and mainstreaming into the agricultural extension directorate
11	IITA	SLM extension in Nwoya (with DLG staff)	Collaboration on capacity building including students Backstopping in knowledge management specifically publication
12	IIRR	SLM extension in Amuru together with FAO (FFS)	Farmer Exchange visits
13	LWF	SLM extension especially tree planting in Adjumani; energy saving stoves in Agago, Kitgum (with TreeTalk), Lamwo (with CARITAS), and Pader (capacity building, alternative energy sources/conservation strategies)	Farmer Exchange visits
14	MoLG	Government Ministry: SLM extension (with WOCAT and PRELNOR/DLGs) in Adjumani, Agago,Amuru, Gulu, Kitgum, Lamwo, Nwoya, Omoro and Pader	Supporting districts in the project area with financial resources to scale SLM innovations
15	MWE	Government Ministry :Wetlands restoration in Lamwo and Pader (with ENR grant)	Participate in trainings and policy dialogues including collaborate in dissemination of policy brief
16	NAADS	Government agency: Tree seedlings distribution in Amuru	Participate in training
17	NEMA	Government agency: Wetlands demarcation in Gulu and other DLGs	Participate in Training and scaling SLM innovationa
18	NUFLIP	SLM extension in Agago	Participate in training
19	NUSAF	SLM extension especially tree planting in Adjumani, Agago, Amuru, Gulu, Kitgum, Lamwo, Nwoya (with YLP and LED),	Farmer Exchange visits Participate in training
20	OPM	Government Agency (Office of the Prime Minister): SLM extension especially tree planting in Adjumani	Farmer Exchange visits and knowledge management specifically dissemination of policy briefs
21	OWC	Government policy (multi-sectoral) SLM extension especially tree planting in Adjumani, Agago (fruit trees), assorted tree seedlings in Amuru (together with YLD, LED), seedling distribution with TreeTalk in Gulu, Nwoya	Providing tree crop planting materials to farmers
22	PCCO	SLM extension in Agago together with	Farmer Exchange visits

		WOWIDET and CESVI with messages on tree planting, good agronomic practices, controlled bush burning and counseling on resettlement after war situation	
23	PMG	SLM extension in Agago	Participate in training
24	PRDP	SLM extension in Agago	Participate in training
25	RICE-WN	Tree seedling distribution in Nwoya,	Farmer Exchange visits
26	SPGS	Tree planting on degraded land in Agago, Gulu (with TreeTalk), Kitgum (Sawlog grant scheme), Omoro (with a few commercial farmers)	Providing training to tree growers in the project area.
27	TROU	SLM extension in Pader (with CARITAS; land rights, training of DLG, supply of seeds and seedlings, and market linkages)	Participate in training
28	ULA	SLM extension in Amuru and Pader (women land rights)	Participate in training
29	ULN	SLM extension (with WOCAT and PRELNOR/DLGs) in Adjumani, Agago,Amuru, Gulu, Kitgum, Lamwo, Nwoya, Omoro and Pader	Implementing the SLM project
30	UNCCD	SLM extension (with WOCAT-ULN and PRELNOR/DLGs) in Adjumani, Agago,Amuru, Gulu, Kitgum, Lamwo, Nwoya, Omoro and Pader	Participate in documentation Participate in Training. Collaborate on knowledge management
32	UNHCR	SLM extension in Adjumani	Farmer exchange visits
33	USAID	SLM extension (USAID/SAFE project) together with Sasakawa 2000, TreeTalk, and DLG staff in Gulu,	Training of extension staff and farmers
34	VODP	SLM/NRM extension in Amuru, Gulu, Nwoya,	Farmer exchange visits
35	WFP	SLM extension in Amuru (with ATAAS), Nwoya,	Farmer exchange visits
36	WOCAT	SLM extension (with ULN and PRELNOR/DLGs) in Adjumani, Agago,Amuru, Gulu, Kitgum, Lamwo, Nwoya, Omoro and Pader	Coordination and Implementing the scaling -up SLM project Backstop documentation of Ts and As Mentor and supervise students
37	ZOA	SLM extension in Nwoya (with DLG, ActionAid, Amathione and treeTalk),	Farmer exchange visits Participate in training
38	NARO	Fostering Sustainability and Resilience for Food Security in Karamoja sub region	Participate in documentation of As and As Management of the SLM website Participate in training

Appendix 2: Inception workshop report

Proceedings of the Inception Workshop

Sustainable Land Management (SLM) practices by smallholder farmers: Working with agricultural extension services to identify, assess and disseminate SLM practices.

Pearl Afrique Hotel, Gulu District: 16th -18th Nov, 2016

ACKNOWLEDGEMENT

Uganda Land care Network (ULN) in partnership with World Overview of Conservation Approaches and Technologies (WOCAT) project on scaling up Sustainable Land Management (SLM) practices in the northern region of Uganda acknowledges gratefully the great enthusiasm and support of all the partners who participated in the inception workshop. Specific financial, physical and moral support is acknowledged from the following: Project for the Restoration of Livelihoods in the Northern Region (PRELNOR)/ Government of Uganda (GoU), International Fund for Agricultural Development (IFAD), World Overview of Conservation Approaches and Technologies (WOCAT) Secretariat, and the University of Bern. Farmers' representatives (FRs) from the project sites, the Leadership of the District Local Governments (DLG's), the district technical officers and the National Expert Group (NEG) are particularly commended for their participation and commitment to the SLM project.

Special mention goes to Adeline Muhebwa (Lead Facilitator) ,Prof Moses Tenywa- Chairperson National Expert Group NEG: , Charles-Lwanga Malingu- SLM Specialist ; Joy Tukahirwa National Project Coordinator; Mathias Wakulira secretary , NEG; Edidah Kanyunya ULN in charge of Administration and logistics for ably facilitating the workshop; and Rick Kamugisha - Graduate Student capturing and documenting the workshop proceedings.

List of abbreviations	
DLGs	District Local Governments
FRs	Farmer Representatives
FMNR	Farmer managed Natural Regeneration
IFAD	International Fund for Agricultural Development
IWM	Integrated Watershed Management
LCV	Local Council 5
MOV	Means of Verification
MAAIF	Ministry of Agriculture Animal Industry and Fisheries
NARO	National Research Organization
NEG	National Expert Group
NRM	Natural Resource Management
NUSAF	Northern Uganda Social Action Fund
OVI	Objective Verifiable Indicators
PRELNOR	Project for Restoration of livelihoods in Northern Region
SLM	Sustainable Land Management
ULN	Uganda Landcare Network
VSLA	Village Savings and Loans Associations
WOCAT	World Overview of Conservation Approaches and Technologies
NUFLIP	Northern Uganda Farmers' Livelihood Improvement Project (NUFLIP
NUMEC	Northern *Uganda* Media Club *NUMEC*
UNCCT	

EXECUTIVE SUMMARY

The Uganda Landcare Network (ULN) project on scaling up SLM practices is based on a recognition that wherever SLM research interventions have been successful, impacts tend to be limited to a relatively small number of farmers and partners. Yet significant contribution to rural livelihoods demands accelerated uptake and scaling up of SLM innovations. The inception workshop organized to strategically coincide with the beginning of implementation phase of the project attracted 63 participants (56 Males and 10 Females) from various institutions and government departments. Participants included farmers, policy makers, extension agents and researchers. The workshop targeted the following outcomes: 1) harmonized understanding of the project focus and work plan; 2) definition and characterization of the target group; 3) finalizing the implementation framework; and 4) streamlining project research questions.

The SLM National Project Coordinator, Joy Tukahirwa, emphasized the different components of the project as: 1) Training; 2) Establishment of a national level database (under the leadership of NARO); 3) laying the framework for an extension services knowledgebase decision support system –equipping extension workers; 4) Monitoring and assessment of impacts; and 5) Enhancing the SLM policy framework and producing ground maps for local and regional assessment of land degradation and SLM practices.

The representative of PRELNOR, Mr. Peter Oulanya emphasized that the SLM-livelihoods improvement collaboration was necessary for the improvement and sustainability of food security in the region.

The Chairman LC V – Gulu district, Mr. Martin Ojara Mapinduzi speaking on behalf of the District Chairpersons in attendance, thanked the collaborating organizations ULN, WOCAT and PRELNOR and all other partners for bringing the project to the area. He pledged to work with the other district leaders to support SLM policy and practice, particularly where it involved DLG mobilization and motivation. He emphasized the need for stakeholders to change their attitudes towards positive support for SLM practices and mitigate climate change. He concluded by calling upon all the District leadership to collectively put up a strong fire and develop a powerful force of support for the project".

1.0 Opening and Setting the Scene

1.1. Welcome remarks

The scaling up SLM practices National Project Coordinator (NPC) Joy Tukahirwa, welcomed participants to the SLM workshop and mentioned that the project on scaling up in Uganda will be implemented in nine districts in Northern Uganda where PLELNOR is currently working and how ULN will work with other stakeholders to implement the project using Land care and the SLM process. She emphasized the following as project components (1) Training, (2) Establishing data base led by NARO, (3) Knowledge base decision support – equipping and supporting the extension system, (4) Monitoring and assessment of impacts, 5) Enhancing policy framework, (6) having a standardized template for data collection, (7) Producing maps for local and regional assessment of land degradation and SLM using WOCAT methodology which has been recognized by

Mr. Peter Oulanya staff of PRELNOR project implementation Unit thanked ULN for organizing the inception workshop and the good working relationship it has so far with PRELNOR. Peter mentioned that PRELNOR and ULN are complementing each other to improve food security. Peter acknowledged the support of the district local governments towards spearheading interventions in Northern Uganda for improved livelihoods. He then invited the LC V chairperson for Gulu district, Mr Ojara to address the participants and officially open the workshop

The LCV chairman for Gulu district, who was the Guest of honour, welcomed participants to the workshop and mentioned that*, he was happy that the project is working with the district to support SLM practices and was thrilled to learn about partnerships.*

Figure 1: Gulu LCV Chairman, Mr…… addressing stakeholders at the official opening of the project inception workshop.

He mentioned that the districts were grateful for their involvement in the project and the question of achieving meaningful impacts .

He further explained that several farmer groups have put a lot of money in SLM and achieved low impacts. "What has gone wrong?" he exclaimed. He narrated, that in 2012 land degradation was mentioned as the major problem (37%) with majority of households not able to have 3 meals a day. "Families are excited because of the cassava and simsim in Gulu, but what is exactly in Cassava and sim-sim? What impacts are we going to get from the households getting 20 seedlings trees with getting dried and 5 surviving? We may be doing so much but what are we getting. We need to change attitude. We need to be more on the ground. The chairman was happy with the idea of having an SLM data base under this project. It's important to know how much we are doing, our levels of productivity and do a comparative analysis whether we are moving forward or not. We need to learn from past experiences and lessons. He confirmed that the local governments have become used to the NGO way of work when the new programme comes there is excitement and when it closes there are lamentations. He emphasized the need to style up and work together towards gainful sustainable interventions.

He further mentioned that In Rwanda for example every piece of land is documented. Know how much land is planted and fallowed. In Uganda this information is not available. This could be an area for further discussion. He shared that the Local Governments need to realize that their actual deliverable is less than 40% and hence the need to put up strong fire

on such deterring acts and actively support the projects. He then officially opened the workshop.

1.2 Participant introductions

Participants introduced themselves based on their names, where they were coming from (Institutions) and what they do. This was facilitated by Mr. Mathias Wakulira assisted by the Meeting facilitator, Ms. Adeline Muheebwa.

1.3 Workshop Expectations and Fears

- The workshop expectations and fears were facilitated by Mathias Wakulira and Adeline Muheebwa and each participant was given two cards (pink and Green card) after which the expectations and fears were summarized into 5 main aspects which included :- Capacity building, Policy, Way forward for SLM, Land use and Partnerships.

Figure 2: Adeline Muheebwa pins cards as participants share their expectations and fears of the workshop/Project

Figure 3: Expectations categorized into five themes: Capacity building, Policy, Way forward for SLM, Land use and Partnerships.

Table1: Summary of expectations and fears generated by workshop participants

Expectations(Pink Card)	Expectations consolidated into 5 aspects	Fears (Green card)	Fears synthesized into 4 aspects
• How land fragmentation can be handled and profitably use SLM to solve land disputes • Learn new methods of SLM • Learning about Landcare system being talked about • Changes in land policies if any • How ULN will help us manage farm land • To know the current issues in land laws and policies • More about SLM and benefits of SLM to our farmers • How will SLM be like after a number of interventions • Inspired mind change for land use and coordination • What is SLM, Its objectives, the importance and its applicability to our areas • Roles and responsibilities of the different stakeholders in the intervention, who will do what	• Capacity building, • Policy • Way forward -SLM • Land use and • Partnerships	**Fears (Blue card)** • Time may not be followed • Long time lag between inception and project implementation • Project may become silent after inception • Always resume towards closure • Most of the projects sound but during implementation you don't see anything tangible • The effect of climate change will affect implementation SLM in the district • We may start end late and slosh not finish • Are those SLM practices really feasible for small holder farmers • Poor management • What the team agree on may not be implemented and if implemented , implementation may be slow	• Logistics • Time • Research • Policy

• Learning about different farming practices in SLM • What to plant and when(season) • Knowledge on agricultural practices • Understand strategies to be scaled for SLM in Northern Uganda. • How SLM can enhance food security among small holder farmers • To know how a project can support the production of Shea trees • Approaches to sustainable SLM • Technical back up on SLM practices • Success stories on SLM in Ashli region • Statistics about SLM , current status and futures • Recommended SLM practice for our region • Learn about Sustainable land use practices • Know how SLM will complement PLELNOR • Soil and land management practices		• Poor time management • Failure to complete the content of the meeting • How we shall catch up with time • Disorganized sitting arrangement in the room • Security concern • Challenges of seasonal changes in Northern Uganda. • Quality of food • Would the interventions concentrated on selected areas only • Ineffective collaboration with partners during collaboration • Level of interface LG and other partners • Our periderm for 2 days not be paid • Project may be theoretical • Corruption • Others stakeholders are left out • What next when the project ends (sustainability strategy).	

1.4 Workshop rules

During the workshop participants came up with rules to guide the workshop and the table below summarizes the workshop management rules that were developed by the workshop participants.

Workshop Management		**Workshop rules**	
Task	**Person responsible**	**Do's**	**Dont's**
Time Keeper	Mr Charles	• Phones in silence • All answers are correct • Necessary and Important movements allowed • Active participation • Respect each other's opinion • Be audible and speak freely •	• Don't interrupt • Don't dominate discussions • Don not hold side meetings •
Keep us awake	Mr. Ochoa		
Secretary -Recap	Miss Doreen		

1.5 Objectives, outcomes of the workshop and overview of the Project.

This was presented by the NPC and elaborating on specific project objectives:

- Develop a common understanding of project purpose and intentions among partners
- Internalize the key concepts of the project : scaling up, SLM practices, agricultural extension worker and WOCAT data base
- Define and characterize target groups
- Clarify roles and responsibilities of implementing partners
- Draft implementation framework for monitoring outcomes and impact pathways
- Develop key research questions

Figure 3: National Project coordinator presenting inception workshop objectives and outcomes

Outcomes of the meeting

- Harmonized understanding of the project focus and work plan
- Define and characterize target group
- Develop an Implementation framework and
- Streamlined research questions

1.6 Issues emphasized during Joy's presentation?

During her presentation, Joy emphasized the following:

- WOCAT will actively participate in project implementation including backstopping documenting SLM technologies and approaches in the project site

- The funding for the project is a grant from IFAD which is also supporting the PRELNOR project. The Project will focus on scaling SLM practices for increased resilience and role of extension SLM includes methods, approaches and practices, and technologies and policies at landscape level. Whatever is done at farm level, there are spillover benefits to unintended beneficiaries.
- Scaling up involve vertical and horizontal from the farm , community, district and national- having more people at different levels but looking at wide scale impacts.
- Under SLM –Land degradation is one of the issues being addressed
- There are success stories on SLM but adoption is still low and the issue is how will the project enhance scaling - up.
- The SLM Project is in 3 countries and the problem being addressed is land degradation, low adoption and extension characterized by limited capacities – skills
- Hot spots: Northern Uganda is a hot spot in addition to other hot spots in Uganda especially the Cattle corridor, Lake Crescent and extent of erosion in Uganda
- The scaling up project will be addressing what we need to do in these areas where erosion is common and severe.
- Diversity in tree products: which tree does well and which benefits (agroforestry) and the role of extension in reaching out to various
- In terms of scaling SLM, the project will be looking at using a catchment approach and will divide northern Uganda in to units which are natural- we are using landscape approach and the Interest is to build to build capacity in all the nine districts but when we divide the region into catchments , we will be able to look at how do we maximize representation at documentation, focus and targeting
- Northern Uganda appears to be highly degraded. Some people may not understand the history (before and now) so that it raises concern- 20 years and now

2.1 Presentation on Scaling SLM for increased resilience and the role of extension by Professor Moses Tenywa, the Chair National Expert group (NEG –Uganda).

Figure 4: Chairman NEG (Professor Moses Tenywa) ready to make his presentation to workshop participants

In his presentations Moses talked about scaling up and its benefits at multiple levels(Farm, Community, and District levels) , introduced the Integrated Watershed Management (IWM) framework and the conceptualization of resilience and how it relates to SLM and the indicators of land degradation (like erosion, leaching and how can we can tell that these are happening at various levels) .

He also elaborated on who else other than extension workers are well placed to address these issues and briefly on the concepts of scaling up SLM? If SLM is working and not working why is it not taking the entire landscape at farm, community and district level.

He emphasized that that Scaling up can be done at 3 different levels and scales

- Farm level: If you manage the soil very well, you will realize more yields on farm, eating better more diversified meals and improving livelihoods.
- Community and district level: crop, grazing forests and wetlands.
- District/ Watershed level: Benefits in the ecosystems services, air and the quality of water that human beings, plants and animals take

In terms of Emerging framework, Moses clarified that for anything to move from one level to another, there must be a common goal and to achieve the goals there must be approaches and tools to use in order to deliver towards the goal. Watershed management includes (water resource management, human resource management, and energy resource management biomass resource management.

Therefore the issues we are dealing with are so complex and need to looks at different at the different demands as a farm family. Moses mentioned that when talking we need to look at different stakeholders and where they are working and what are the catchments and activities are aligned to a specific context for scaling to succeed. All the different considerations are taken in to considerations.

Moses also emphasized that since the project is about capacity building and resilience. If you have a risk, production is likely to come down if the hazard comes. But we as stakeholders can reduce the risk by increasing resilience by either adding or subtracting

Therefore SLM start with the soil. The question then is - are you maintaining the organic matter? Are you burning or not burning the harvest? Is there erosion? In terms of Erosion control? Are you controlling soil erosion? How? This is what SLM is.

Scaling SLM therefore starts with the soils. We need to look at the nutrient budget. How much nutrients are coming in and going out. There must be some acceptable boundaries. How much of the biomass do you return? All these must be ensured if SLM is to be achieved.

How do you tell that this is SLM? You can look at diversity (how many birds), cohesion of the community, their adaptive capacity, land capacity and restorability

To realize benefits of scaling SLM: Moses mentioned that one /you must have a goal, have a common understanding m, collect the information, situation analysis, which watershed are more vulnerable, how do you implement and monitor

When we get knowledge, we must internalize with indigenous knowledge. You cook on three stones. SLM should be looked into the concept of 3 stones (the stones are not of the same size)

3 things to reflect on is the 3 concepts that represent the 3 stones

- There must be product that you take to the market and its supplied assured (Access to markets)
- Once the market is assured, there is need to secure inputs and access to credit as one parcel. Towards financial security.
- Social capital (working in groups, stakeholders, partnerships and collective action)+ Training and capacity building

After Moses presentations, a few issues were raised which include

- How do we know we are on course on SLM? This requires joint planning
- How do we assess the soils and know what we have put in is improving the soils? This requires some testing. How do we tell this practically? We have a soil test unit. With soils you must know what to do to trust your soils and this will be during capacity building
- Will the project facilitate the trainings on soil testing? Joy responded that PRELNOR has a component on productivity and will handle through Synergy.
- Handling land that has lost soil nutrient is not easy. There is vast land infested with weeds yet they are fertile. The community is failing to get rid of them. How do we handle this under this project? The issues of pests and diseases and Soil testing will be handled under this project through capacity building
- Bush burning is a common? This is a very complicated issue. Has benefits and costs. There are some tradeoffs. One has to understand the context and sensitize the people
- You have talked about Natural resource management and things to be done if we are to achieve SLM? We have a problem of climate change and the rains are always low.
- In the presentation nothing mentioned on irrigation. What sentiments do we have? Training can be able to address such locally done or otherwise and this will depend on that the project will contribute in terms of capacity building and then what others can contribute. Moses emphasized that what we need first is the Market. If you get a loan – invest on land –produce and then produce and seek to the market then you get income.

2.2 Presentation on Scaling up Sustainable Land Management practices by small holder farmers presented by Mathis Wakulira- Preliminary findings

In his presentation on preliminary findings on SLM activities conducted in October in Northern Uganda, Mathias mentioned that ULN used the approach applied by WOCAT – LADA DESIRE (DIPSIR) Framework to tease out driving forces, direct pressures, and state of the land to capture preliminary finding sin the project sites. The following were the findings.

Figure 5: Mathias making his presentation to the stakeholders

Drivers in the sites

The following were cited as the drivers in the project sites

- Human settlement from camps, charcoal burning on economic scale, opening land from cultivation
- Bush burning
- Drainage of wetlands
- Poor cultivation methods aided by mechanization

Mathias also mentioned that during field work it was observed that in Omoro: Trees were glaringly absent and the status of degradation as follows**:**

- Increased degradation
- Increased erosion
- Wetlands conservation
- Increased wildlife conservation/ wildlife conflicts near the National parks while in terms of **Impacts on productivity** there was evidences and manifestations of
    - Poor yields
    - Dry river/ stream beds
    - Land conflicts between communities and also community vs governments
    - Low browing fallowing
    - Agroforestry

Responses to the challenges in the targeted project sites

To respond to the challenges in the project sites

- Introduced projects, Government extension

- Tree planting through seedling supply

Next steps

The following were the steps proposed to be undertaken by the stakeholders visited

- Policy driven on SLM conservation
- Extension intensification
- Incentives for SLM
- Enforcement of statutes. Ordinances and byelaws on what? Such practices need to be scaled.

3.0 Group work on emerging issues, Logical Frameworks and actions plans

After presentations, participants were divided into four groups (Policy, Research, Extension and Farmers) and given tasks with each group nominating a group leader and notes taker as summarized in the table below

Stakeholder	Chair	Note taker
Policy	Robert Okwi	Emanuel Lapyem
Research	Emma Wagajja	Josiah Mukasa
Farmers	Stanley Odoki	Otto Bosco
Extension	Godfrery Jomo	Obina Godfrey

Questions for group works Day 1: Thursday 17th November, 2016. Group Work (11:00 – 12:00 noon) - Scaling Up SLM overview

- Form 4 groups of similar / related disciplines or engagement of work: Extension, Policy, Research and Farmers.
- In the groups formed, write down the composition of the group members, indicating their names, organization and designation.
- Identify a group leader and note taker who will write the notes on the flipcharts.
- Identify one member of the group to present the findings of the group.

Questions

1. What is your understanding of Sustainable Land Management (SLM) practices or innovations? What is your understanding of its Scaling-up?
2. Identify the benefits of Scaling-up Sustainable Land Management (SLM) practices or innovations?
3. Identify the gaps that hinder the Scaling-up of Sustainable Land Management (SLM) practices or innovations?

4. Identify any available opportunities for Scaling-up Sustainable Land Management (SLM) practices or innovations?
5. Identify any risks or dangers that are associated with the Scaling-up Sustainable Land Management (SLM) practices or innovations?
6. How can these risks / dangers be prevented / addressed?
7. What interventions or practices exist on Sustainable Land Management (SLM) practices, where are they located? Who is responsible for promoting them and who are the other stakeholders and what are their roles?
8. Identify any areas of interventions that should be considered under the Scaling-up of Sustainable Land Management (SLM) practices or innovations.
9. Suggest a specific target group for this project and mention any characteristics / criteria that should be considered when selecting the target group?
10. In your view, what is the desired situation? How can you achieve the desired situation?

Day 1: Thursday 17th November, 2016. Group Work (2:00 – 3:00 p.m.) –Log frame Development and Presentation

- **Instructions:**
- Revert to your former groups of Extension, Policy, Research and Farmers.
- Identify a group leader and note taker who will write the notes on the flipcharts.
- Identify one member of the group to present the findings of the group.

<u>Questions for group work:</u>

Based on the project goal and objectives develop a logical framework with the group indicating the following

- The proposed outputs and activities.
- Develop indicators that will be tracked to measure the achievements.
- Suggest how the achievements will be measured.
- Identify any key assumptions / risks
- Suggest when and who will be responsible for implementing these activities.
- Identify ongoing activities, what are the possible sources of resources?

Figure 6: Policy group during group work

Feedback from group discussions

Farmers group presentation on group work

Question1: What is SLM? Farmers understanding of SLM

- SLM is the process of making good and continous use of land to satsify human wants
- Planting banana and coffee together
- Crop rotation of (ground nuts and cassava)
- Zero grazing e.g goats, cattle , pigs and shhep
- Farrowing
- Use of paddock systems
- Mixed farming
- Agroforestry
- Use of manure
- Use of fertilizer
- Mulching

Question 2: Benefits of scaling Up SLM

- Coservation of run off water by digging trenches
- Gallery management
- Afforestation and defforestation
- Controlled bush burning
- Regular planting of legumes e.g elephant grass

- Planting of pastures
- Use of irrigation

Question 3: Gaps that hinder scaling up

- Limited capital
- Little extension services due to few gorvenement extension workers
- Limited knowledge
- Use of rudimentary tools
- Land wrangles and community ownesrhip of land

Question 4: Opportunities for scaling up SLM

- Skilled personell to sensitise the masses
- Research organisations like NARO

Question 5: Risks and dangers of Scaling up SLM

- Absence or presence of weak policies on scaling up and enforcement of the polcies
- Over relying on projects
- Lowering wate table
- Overgrazing
- Reduction in soil fertility
- Increased land conflicts

Question 6: How can we adress them?

- Strong byelaws initiated and enforced by the local communities
- Controlled over grazing
- Intercropping
- Use of fertilizer
- Sensitization of community
- Change in nature of land tenure system
- Training of community members to become self reliance enfrocement of polcies

Question 7: Areas of intervention

- Target highly degraded areas

Question 8: Specific targets

- Research
- Training
- Small scale farmers
- Large scale farmers
- Extension workers
- Policy makers
- Researchers

Question 9. Desired situation

To establish an Innnovation plat form for SLM+Byelaws

Logical Framework for Farmers

Output	Project description/activities	OVI	MOV	Assumptions/ Risks
Mobilize support for capital to farmers	VSLA support to SLM DLG Support for SLM Lobbying for external funding Community work on SLM	Farmers register Number of VSLA supporting DLG budget for SLM funding in place	Minutes of meetings Attendance list Savings account Record Proposals Bank statements receipts	Community willing to support SLM United leaders DLG support to SLM external funding
Increased number of external workers(10 per sub-county)	Train /Recruit extension workers(Local extension workers)	No of extension workers recruited	Extension workers register Log book of extension workers	DLG provide extension workers
Making policies- at least 3 policies/byelaws	Formulate policies at least 3 SLM policies	Policy documents in place	Record of policy/Byelaws	Government willingness to support formulation
Freehold tenure systems achieved	Land survey process initiated	Land title in place	Register of Titles	Government and DLG willingness to provide titles

Extension group presentation on group work

Question 1: What is SLM?

SLM Issues /Activities/Understanding of scaling up

- Activities undertaken to make productive for the present and the future
- Promoting activities to enhance sustainable land use practices

Question 2: Benefits of scaling Up SLM?

- Increased yields /productivity
- Shared knowledge
- Improved livelihoods
- Adaptation / resilience to climatic change
- Provision of conducive environment for policy formulation and implementation
- Conservation of natural resources
- Food security and Nutrition

Question 3: Gaps that hinder scaling up

- Differences in cultures and attitudes
- Prejudice and perceptions
- High poverty levels
- Lack of strategic planning at house hold levels
- Poor land use planning
- Inadequate extension services
- Weak bylaws and policies gorvening NRM
- Lack of exposures by community members to Sucessful SLM sites
- Role conflicts among stakeholders

Question 4: Opportunities for scaling up SLM

- Presence of availabe land for SLM
- Willingess by local leaders to support SLM
- Presence of suportive development parrners
- Availability of champions(model farmers)
- Presence of gorvenement projects(PRELNOR and NUSAF3)
- Availability of extension workers

Question 5: Risks and dangers of Scaling up SLM

- Pests and vectors
- Bush burning
- Land conflicts
- Climate change
- Increasing population
- Land fragementation
- Poor agricultural practices
- High poverty levels
- Selfish interest
- Low adoption rate

Question 6: How can we adress them?

- Community sensitisation
- Capacity building
- Land use planning
- Tree planting/Agroforestry
- Farmer managed natural regenration(FMNR)
- Landuse planning manual development
- Development of appropriate technologies
- Exchange visits

Question 7: Areas of intervention

- Capacity building of stakeholders
- Strenthening ;linkages beetween farmers , reseacrhers, extension ganats
- Political Involvement
- Attitudinal change
- Good policies, ordinances and byelaws
- Re-tooling of agricultural extennsion
- Partners involvement(Bringing more partners on board with resources to support SLM)

Question 8: Specific targets

- Farmers and farmer groups
- Gorvernment Insititutions
- Researchers

Criteria for selection of sites

- Consider seriously degraded areas
- Existance of champions
- Landuse planning
- Where SLM has been successful for learning and experience sharing

Question 9. Desired stuation

- To have land that is well managed and is highly productive that support sustinable agricluture

Extension: Logical Frame work and work plan 2017

Project description	**OVI**	**MOV**	**Assumptions and Risks**	**Inputs/ Resources**	**How will resources be mobilized**	**Responsible person**	**When**	**How resources will be acquired**
Extension workers on SLM practices	No of extension workers trained on SLM	Reports Attendance lists Vouchers/ receipts	Knowledge/ skills acquired to use Drop out of trainers	Facilitators Stationery Training guide Funds Venue	Proposal writing Donor funding Grants Cost sharing Individual farmers Loans from VSLA Banks Donation and Partnerships	WOCAT, MAAIF, PRELNOR NUSAF3 NARO ULN DLG Farmer groups MAAIF NARO	2017	Lobbying from movement and development partners Wells wishers
Demonstrations/ training centers established	No of demos established	Reports Photos Physical vests at sites	Communities acceptance to provide land					Lobbying from movement and Development partners Well wishers PRELNUR, NUSAF 3 and NUFLIP
Organize exchange visits	No of exchange visits conducted	Attendance Photos reports	Extension workers participate in the visit				2017	Lobbying from movement and development partners Well-wishers PLENUR, NUSAF 3 and NUFLIP
Develop SLM training manual	No of manuals developed	Copies of manuals	Farmers willing to learn Manual use friendly				2017	

Policy Group

Existing practices at Farm level, Community level and District level

Farm level: Bush burning to clear land for farming during the dry season; crop rotation; use of appropriate technology; fallowing; drip irrigation

Policy issues: Bush burning done in dry season (November-December) and it is controlled and restricted to farm land while Crop rotation is encouraged at household level to improve land productivity and increase crop yield with Non-monetary labour sources popularized and Intercropping for diversification e.g beans and maize/millet and peas

At Community: There are Cooperative farming groups**,** Commercial cultivation (e.g. awak, Alaya, and Dira) which has provided a safety net for the lazy people. There is also a .clan policy to ensure that its members live responsibly and productively by providing a cushion and direction)

Policy on protecting farm land from fire especially done after harvest. Burning is mostly associated to hunting to supplement household with meat requirements and for pastures

National

Policies may exist but there is a huge gap in knowledge and restricted understanding on them especially at the lower level. Policy makers have low capacity and less exposed to national policies and direction translating to blockage of technocrats from enforcement

SLM is not a Parliament darling

Note: The process through which policies are formulated and implemented at all levels still has challenges (Top-Bottom rather than bottom–top approach).

Policy: Logical Frame work and work plan

Activities	outputs	MOV	Indicators	Assumptions/ Risks	Responsible person	Resources	How resources will be acquired
Training of local leaders on policy formulation and implementation	At least 3 byelaws formulated and implemented (charcoal, wetland management band bush burning	Report and minutes on stakeholder e meetings	No of byelaws passed	Local community willingness to take part in the process	CAO District Council Development partners Media (print and electronic	Stationery Fuel Time Funds personnel	Lobbying from movement and development partners Wells wishers
Training for farmers on SLM Practices(at least 3-5 practices(	Number of stakeholders trained Number of trainings conducted	Reports Attendance lists	Change in farming practices	Stakeholders willingness to take part in the training Resources available LG and partners willingness to support	CAO District council Development partners Media (print and electronic		Lobbying from movement and Development partners Well wishers PRELNOR, NUSAF 3 and NUFLIP
Conducting exchange visits to successful SLM sites	3 Exchange visits	Field reports Number of visits conducted Number of stakeholders involved	Replication or adoption practices	Resources available willingness of host stakeholders to receive and engage visitors	CAO District council Development partners Media (print and electronic		Lobbying from movement and development partners Well-wishers PRELNOR, NUSAF 3 and NUFLIP

Researchers group presentation on group work

Question 1: What is SLM?

Provision of livelihood to current and future generation through SLM practices

Scaling up is increasing adoption of SLM practices in communities to enhance productivity

Question 2: Benefits of scaling Up SLM?

- Increased food security
- Decreasing land degradation
- Increase in sustainable land use
- Environmental conservation
- Soil productivity

Question 3: Gaps that hinder scaling up

- Land fragmentation
- Population pressure
- Lack of knowledge
- Poor attitude by farmers on SLM
- High costs of inputs
- Land wrangles

Question 4: Opportunities for scaling up SLM

- Availability of NGO's and partners
- Political stability
- Land availability

Question 5: Risks and dangers of Scaling up

- Failure to balance the combinations of soil nutrients
- Land wrangles

Question 6: How can we address them?

- Sensitization
- Land documentation

Question 7: Areas of intervention

- Watershed mnagement
- Partnership with NARO and TTAS
- Tree planting
- Conservation
- Agroforestry and
- Training
- SLM IP establishment and facilitation

Question 8: Specific targets

- NFA
- ATAAS
- Private individuals
- PLELNOR
- OWC

Question 9. Desired stuation

- Increased incomes among households through promoting SLM practices

Researchers: Logical Frame work and work plan

Project description	OVI	MOV	Assumptions and Risks	How will resources be mobilized	Responsible person	When	Resources	How resources will be acquired
Research innovations disseminated	Dissemination meetings On farm demos established	Number of meetings, number of reports and number of demos set up	Farmers are willing to attend meetings and set up demonstrations	Proposal writing Donor funding Grants Cost sharing Individual farmers Banks Partnerships	NARL MAK Farmers NARO , PRELNOR LG	2017	Improved seed Soil testing kit Fertilizers A-frame Brochures Office training space	Lobbying from movement and development partners Wells wishers
Research production services on SLM highly demanded	Number of farmers demanding SLM technologies Number of modal farmers practicing SLM	Register of farmers, reports on performance, minutes of meetings	Farmers will have a positive attitude to SLM	Proposal writing Donor funding Grants Cost sharing Individual farmers Banks	NARL MAK Farmers NARO , PRELNOR LG	2017		Lobbying from movement and Development partners Well wishers PLENOR, NUSAF 3 and NUFLIP
Best practices documented	Functional data base in place Operational SLM website in place	Reports Blogs about SLM	Practicing farmers willing and able to share SLM practices	Proposal writing Donor funding Grants Cost sharing Individual farmers Banks Partnerships	NARL MAK Farmers NARO , PRELNOR LG	2017		Lobbying from movement and development partners Well-wishers PLENUR, NUSAF 3 and NUFLIP
Increased farmer involvement in SLM	Number of farmers practicing SLM	Reports	Change in Mind sets towards use of SLM practices for increased production		NARL MAK Farmers NARO , PRELNOR LG	2017		

3.1 Day One Workshop Evaluation

Each participant was given three cards (pink for what went well, Green for what did not go well and yellow for areas for further improvement to evaluate the day's activities). The outcomes from the cards is presented in the table below.

What went well(Pink card)	What did not go well(Green card)	Areas for Improvement (yellow card)
• Training is participatory/ Good • New learning with new knowledge • Selection and involvement of key stakeholders • Facilitators were good • Course contents worth giving • Presentations by facilitators • Facilitators knowledgeable • Presentations very relevant and educative • Focus of the project is pro-positive change as per the content • Grouping style • Introduction and presentation on SLM • Issues discussed touch the development of Northern Uganda • DLG chairs / Policy makers attended • Sessions completed • Food • Room organization • Adequate participation by all (participants and facilitators) • Good turn of the political leaders and the technocrats • The way time was managed at the end was good. • Facilities were good • All activities up to Lunch • Great Inception • Good interactions and good	• Time was not followed • Participants were up and down • Meeting started late • To compacted workshop • Group work (project description) • Programme not followed • Insufficient time allocated to group work • Some words used are beyond farmer understanding • No handouts • Facilitators not acquainted with the Local language and need an interpreter • Hot water soda • Presentations done in Hurry thus creating information gaps • Some contents rushed • Break tea was served late	• Manage time(mentioned more than 29 times) • Provision of reference materials/handouts(mentioned quite more than 15 times • Needed adequate time- like 2 days • More trainings • Generate preamble to generate a common understanding of technical concepts • Presentations be forwarded to our emails • Signing of Implementation of Moue with districts • Time table –schedule of events • Explanation of key issues • Methods of consulting workshop • Projector used is faster • Limited time to exhaust all the content • Incorporate northerners the team to facilitate in the local language • More time for group exercises • Working in set up groups • Give space to react • Handouts before presentations • Sitting arrangement to be re-arranged • Invitations should be copied to participants and not leaving it to CAO's only • Get all the telephone contacts

presentations • Good venue • Appropriate meals presented program outline seems promising • SLM and group work plans • Evaluation using cards • Presentations in line with SLM		for all participants for follow up • More case studies be given • All areas in the region should have been taken satellite Images

3.2 Workshop Closure day one

Workshop closure was done by Lapayen Emnauel chairman Kitgum- thanked participants for being patienc e and working hard this morning and pleged those who will remain the seckn day to finish the workshop well

3.3 Facilitators and NEG meeting after Day 1 evaluation. Next actions on emerging issues and days activity.

- Days evaluation : went well , we met our objectives (group work on understnding of SLM, presentations and key issues raised by participants during exepectations and fears) but time wa not managed well.
- We need to plan and hold a one day writeshop/meeting of NEG members to harmonise the inception outputs with NEG workplan which was discussed discussed in the NEG meeting in october 2016
- Share the report by email or through local leaders as requested by particicipnats
- Plan to manage time on the second day as this was observed by facilitaors and participants in most of their evaluation cards

4.0 Day 2: Group work on SLM practices and action plans

Day two started with a prayer followed by a recap facilitated by Adeline and Doreen**.** The recap of day one focused on what was learnt by the stakeholders on the first day. The facilitators started by asking participants of what they learnt yesterday.

What you did you learn yesterday? I/We/About……

- That we need to conserve our environment so that they are not degraded
- We leant about agroforestry practices, how to plant crops and trees so that our soils are not degraded

- Action planning. The process is a cycle with outputs continuing through to understand on how you will be measure the outputs. Planning is not a simple thing
- That the critical problems in Acholi and Lango sub-region in respect to degradation are due to our activities
- Intercropping crops on land with coffee and banana with legumes increases production
- Learnt about SLM practices and what good practices can be promoted.
- Learnt about extension and how it's important for SLM in Acholi region
- How to put information in logical frame work
- Different approaches used in SLM that can be incorporated in different systems
- Marketing and commercial Agriculture.
- Some sub-counties were doing wrong things- Charcoal burning
- SLM is still low and there is a big gap to be filled.
- Climate change. The more stakeholders are able to adopt to climate change the less they are vulnerable to poverty. SLM is coming in to support climate change

What are the 3 things people did not like bout the workshop and activities on day 1

- Time management
- Presenters referring to Omolo and Gulu only and not other districts
- Sitting arrangement

Question: So how do we move the technologies to farmers and how are we going to package these SLM technologies for people to understand them and use them. What issues are coming up and how can the different categories can do to scale up the SLM technologies.

To address this, the stakeholders were divided into 4 groups to answer the following questions

Day 2: Friday 18th November, 2016. Group Work (9:00 – 10:30 p.m.) – Good SLM practices and knowledge management systems – Combined

- **Instructions:**
- In the groups of Extension, Policy, Research and Farmers.
- Write down the composition of the group members, indicating their names, organization and designation.
- Identify a group leader and note taker who will write the notes on the flipcharts.
- Identify one member of the group to present the findings of the group

Questions the group work

- State any existing and potential good SLM practices and interventions?

- What are the existing SLM knowledge and information management systems both indigenous and introduced (sources/messages/channels and pathways of identifying, disseminating and receiving feedback/organising/packaging/indicators) at the different levels of farm, community/watershed, district and national levels?
- Identify any gaps, needs or challenges experienced in disseminating SLM knowledge and information?
- Are there any opportunities that the project could partner with or utilise in disseminating the knowledge and information?
- Suggest areas of intervention that the project could consider for SLM knowledge and information management and dissemination?
- Are there any existing knowledge and information products for SLM? Which ones are they e.g. SLM training manual, SLM platforms etc.
- Develop action plans (on specific areas of capacity building, research, policy and others) suggest time frames, who, where and how) in order to identify, assess and disseminate SLM practices?

Day 2 presentations

Figure 7: A member of farmers group makes presentation to participants on day 2.

Farmers

Question 1: Existing SLM technologies (farmers)

- Fallows
- Agrfororestry
- Crop rotation
- Afforestation intercroping
- Contour grass strips-introduced

Question 2: **Information management systems**

Sources : Indigenous knowledge from elders, oral rituals and stories and some are Introduced through news papers, radio , TV, manuals and training materials

Question 3: SLM dissemination gaps

- Illiteracy
- Traditional norms
- Absence of strong policies
- Use of rudimentary agricultural equipment's
- Few extension workers to disseminate the information
- Land wrangles to enable effective dissemination
- Some places are hard to reach
- Laziness of those people charged with disseminating information
- Limited capital to develop relevant dissemination materials

Question 4.Oppotunities

- Existence of partners to support dissemination
- Contact people/ Farmers
- Strengthened existing groups
- Existing government SLM programmes
- Existing SLM dissemination materials
- Trained farmers

6. Existing Knowledge products

- Farmer field schools
- Demonstrations
- Exchange visits

7 Action plan: Farmers

Activity	target	Method	Responsible	Location	Time frame
Contour grass strips	Annual crop farmers on crop land	Plant grass according (aid A-frame	Lead farmers e.g. Otto	Abwoch	Jan –June 2016
Soil erosion control	Annual crop farmers on annual and perennial cropland	Dig trenches	Lead farmer Uluru	Acoyo village	March –July 2-16
Creates shelter belts	Forest (land control fire from bush burning	Create vegetable free belts on forest land	Village LC with elders, lead farmer	Opok forest reserve	Nov –Dec 2017

Extension

Question 1: Existing SLM technologies

Practice existing	**Farm**	**Watershed**	**District**	**National**
Fallowing	✓	✓		
Tree planting/Agroforestry	✓	✓	✓	✓
Crop rotation	✓	✓		
Intercropping	✓	✓		
Mulching	✓			
Ridges /bands	✓			
FMNR of indigenous trees	✓	✓		
Correct stocking rates	✓	✓		
Controlled grazing	✓	✓		
Setting of fire lines	✓	✓		
Agricultural zoning	✓	✓	✓	✓
Planting calendar	✓	✓		
Wetland conservation	✓		✓	✓
Pests and disease e control	✓	✓	✓	✓

Question 3: SLM dissemination gaps

- Underfunding of SLM Activities
- Inadequate knowledge on SLM
- Inadequate personnel to disseminate SLM
- Mindset of the people
- Lack of record on existing SLM practices –data

- Inadequate political will on SLM
- Lack of logistical support- Transport
- High poverty level

Question 4.Oppotunities

- Government projects and programmes
- Existing extension systems
- Upcoming commercial farmers under PP
- Existing CBO and NGO'
- Legal framework which supports SLM

Question 5: Areas of intervention

- Capacity building of stakeholders on SLM
- Operation wealth creation
- Funding and dissemination
- Networking
- Up scaling good practice
- Establishment of one stop dissemination centers

Question 6: Existing KM and information products

- Policies and laws,
- Training manuals and
- Tree talk group

Extension: Action plan

Activity	target	Method	Responsible	Location	Time frame
Community mobilization and sensitization	Framers, local leaders	Meetings, radio talks shows, brochures	LG, PLELNOR, NUSAF3, OWC CSO's	Sub-counties Local FM stations	Quarterly
Capacity building of stakeholders	Framers, extension workers	Training, exchange visits, documentaries	NARO, ULN, Universities, NUMEC, and LG	Sub-county, DHQ	January 2017
Establishment of demonstrations	Farmers	Exchange visits, field visits , training, provision of inputs	NARO, ULN Universities, NUMEC and LG	Sub-county, parishes, villages	March 2017

Discussions

- Need to group and come up with which source of practices is coming from indigenous or Introduced
- How can the project help you to disseminate information (data base, manuals, training of trainers?)
- Need more activities on facilitating access to information and package information

Research Group

Question 1: **Existing SLM technologies**

- Crop residues left in the field
- Crop rotation
- Intercropping
- Fallowing
- Agroforestry (small scale)

Question 2: Sources of messages

- Extension workers
- Media (FM stations, Newspapers)
- Cultural institutions
- Community meetings
- Church
- CSOs

Pass messages on:

- Food security
- Climate change
- Livelihoods
- Renewable energy
- Tree planting
- Agricultural production
- Livestock management
- Maternal health
- Gender issues

Channels

- Radio/TV stations (media)
- Community meetings/ Barazas

Question 3: SLM dissemination gaps

- Challenges of developing information education and communication (IEC) materials
- Issues of developing ECO content
- Poor strategies for dissemination (limited media access)
- Poor coordination and networking among partners (conflicting messages to farmers)

Question 4: Opportunities

- Free airtime for government information sharing on media
- Presence of partners (Take advantage of existing NGOs in livelihood activities in northern Uganda
- Integrated water resource government programme
- Projects implementing similar work e.g. livelihoods (REDD plus project)

Question 5: Areas of intervention

- Development of a clear strategy for coordination and networking
- Carry out baseline survey to identify SLM concerns using satellite imagery
- Develop IEC materials in local language
- Develop indicators for M&E and learning
- Develop information database (MIS)

Question 6: Existing knowledge and information products for SLM

- IEC materials
- Scripts, spot-on messages on radios
- Videos on SLM technologies
- Manuals under NUSAF III for water catchment development

Q7: Action plan for Research

No	Activity	Who is targeted	Method	Responsible	Location	Time frame
1	Surveys (land use, soil, vegetation cover)	NARO ULN Universities Consultants	Participatory research	ULN Universities Consultants	Communities	December 2016
2	Development and strengthening of SLM platforms for technologies through needs assessment	NARO ULN Universities	Extension Training	ULN Universities Consultants	Research stations	April 2017 (after surveys)
3	Demonstrations/ Trainings /Needs assessments / capacity building for SLM	NARO Local Governments Farm Institutes	Community meetings Workshops	ULN Universities Consultants	Farm level	April – December 2017
4	On farm trials / validation of technologies	NARO Local Governments Farm Institutes	Demonstrations Exhibitions	Local governments Farm institutes	Farm level	April – December 2017
5	Packaging/ dissemination	NARO	Brochures IEC materials	Local government	Research station	December 2017
6	Dissemination of technologies	NARO Local Governments	Workshops Trainings On-farm demonstrations	Local government	Research station Community level	December 2017

Policy Group

Existing practices

Farm level

Bush burning to clear land for farming during the dry season; crop rotation; use of appropriate technology; fallowing; drip irrigation

Policy issues

Bush burning done in dry season (November-December) and it is controlled and restricted to farm land

Crop rotation is encouraged at household level to improve land productivity and increase crop yield

Non monetary labour sources popularized

Intercropping for diversification e.g beans and maize/millet and peas

Community

Cooperative farming groups

Commercial cultivation (e.g. awak, Alaya, and Dira) – this provided a safety net for the lazy people too.

Clan policy to ensure that its members live responsibly and productively by providing a cushion and direction)

Policy on protecting farm land from fire especially done after harvest

Burning is mostly associated to hunting to supplement household with meat requirements and for pastures

National

Policies may exist but there is a huge gap in knowledge and restricted understanding on them especially at the lower level

Policy makers have low capacity and less exposed to national policies and direction translating to blockage of technocrats from enforcement

SLM is not a Parliament darling

SLM Knowledge

Sources

Past experience/indigenous

Rainfall patterns

Wind systems

Bird movements

Flowering of some plants

Shedding of leaves from certain tree species

Message

When to, where to, what to plant

Channel

Mobilization by Rwot Kweri, elders

Cease some activities

Drumming, blowing of horns

Radios/TVs, posters, brochures, fliers, bill boards, scheduled meetings, extension services

Gaps

Funding

Commitment gap

Capacity from the lower levels

Indifference and mind set

Opportunities

Meetings/dialogue

Radio/TV

MDD

Existing policies

Intervention

Fund mobilization

Create package on SLM

Translate the information into local dialects

Disseminate

Discuss and internalize and choose correct medium

Capacity building of stakeholders

Fund mobilization

Existing knowledge products

None on SLM

Proposed Policy Work plan

No	Proposed policy	Who is targeted	How delivered	Who offers similar support	Location	Time frame
1	Policy on bush burning	Community Clans and their leaderships Traditional leaders Religious leaders	Training Sensitization Manual Songs/MDD	Local government at a lower scale	All districts in project area	Immediate
2	Wetland policy regulation, regulation and enforcement	District leaderships, responsible ministries and local leaders	Training Circulars	Ministry of Water and Environment NEMA Local Government	All districts in project area	Immediate
3	Policy on charcoal production	Households Communities	Strengthen natural resource management Capacity building Sensitization on NRM policies Bye laws on NRM Posters, burners, flyers, local newspapers	Local government at a lower scale	All districts in project area	Immediate

Note: Emphasize bottom-up approach on the process of policy formulation

4.1 Way forward:

- Consensus on implementing the action plan developed during the inception workshop.

4.2 Day Two: Workshop Evaluation

What went well(Pink card)	What did not go well (Green card)	Areas for Improvement (yellow card)
• Good venue • Appropriate meals • Presented outline appears promising • Presentations by all groups	• Time allocated not adequate • Project did not differentiate between a consultative and dissemination meeting	• Invitations should be sent to focal point persons not CAO's • Handouts /Reading materials • Early planning • Early hotel arrangement • Time management on the part

• Active participation of facilitators and participants • Elaborate presentations by groups • Well facilitated • Good methodology for conducting workshops • What was talked about is relevant to our day today experiences • Action planning • Detailed knowledge on SLM gained • Time management • New information and ideas • New things on process of formulating policies(bottom top rather than top-bottom	• Allocate 0-15 minutes to group presentations • Poor time management • Too much group work • Overloading adults with too much work within a short time • Politicians should have been involved in today's sessions- on policy issues • Attendance was low compared to yesterday's meeting • Participants being in two parallel meetings should be discouraged. It's a shame. • Sitting arrangement- not good • Breakfast was cold	of participants • Increase on the area of coverage in terms of categories of people to be invited(elders and farmers) • Limited presence of Politicians • Giving enough time to groups to discuss throuroghy • Language(terminologies used in the questions) • Presentations to spice group work • Group work to have few questions • Simple in giving questions • Coordinate with ministries and other departments so that there is not collision for the meeting as today • Expedite the process of implementation • Program not attached to Invitation letters • Remain focused and circulate workshop objectives

5.0 Workshop Programme

SESSION	TIME	TITLE	PRESENTER/ PANELIST	SESSION CHAIR	RAPPORTEUR
Session 1	7.30-8.30 am	Arrival and Registration- Rick , Edidah and Field Officer			
	8.30-9.15	**Introduction of Participants** setting the scene – Introductions and expectations Objectives of the workshop	National Project Coordinator	Mathias / Adeline	Rick
	9.15-9.25am	Opening Remarks • Uganda Land care Network • Head , PMU PRELNOR	Chair, ULN PRELNOR	Mathias	Rick
	9.25-9.40am	**Key Note presentation on SLM for increased resilience and role of Extension**	Chair, NEG	Peter	Rick
	9.40-9.55 am	Official Opening – LC V Chairman Gulu	Peter/ Walter	Alfred	Rick

	9.55-10.25am	Tea Break and Group Photo			
Session11	10.25 -10.45 am	**The status of SLM in Acholi region**	Mathias	Joy	Rick
	10.45-11.00 am	**Scaling Up SLM overview**	Joy	Mathias	Rick
	11.00 -12.00 am	Group work (4)	Adeline	Joy	Rick
	12.00-1.00 pm	Group Presentation	Adeline	Joy	Rick
	1.00-2.00pm	LUNCH			Rick
Session 111	2.00-2.30 pm	**Log frame Presentation**	Mathias	Adeline	Rick
	2.30-3.00 pm	Group Work	Adeline	Mathias	Rick
	3.00-4.00 pm	Group Presentation & Way forward	Adeline	Mathias	Rick
	4.00-4.30 pm	Evaluation	Rick	Mathias	Adeline

5.1 Day 1: Participants list

No	Name	Title	District	Telephone
1	Leku James	LC 5 Adjumani	Adjumani	0787930220
2	Daliki R.K Moses	D/CAO-Adjumani		0772699002
3	Opiira Lucy	Farmers	Omoro	-
4	Kamugisha Rick Nelson	ULN member	Kampala	0772638166
5	Adeline Muheebwa	Facilitator	Kampala	0772415029
6	Uhuru Santo	Farmer	Omoro	0772602653
7	Joseph Tamale	NARO		0773425810
8	Ochola Andrew -Omolo	DNRO-Omolo		0779750633
9	Okwiir Robert	DCAO	Pader	071111117
10	Cola Courage Allan	CAO -KDLG	Kitgum	0774579385
11	Okello Martin	DNRMO		0782682785
12	Ajok Doreen Lanyero	DNRO		0775721314
13	Apwonya David	ACAO	Omoro	0772902468
14	Wasajja Emmy	SLM specialist		0780805191
15	Otto Mathew	Senior Land Management Officer	Kitgum	0772512709
16	Layemu Emanauel	CCV	Kitgum	
17	Komaketch Richard	DNRO	Lamwo	0772480668
18	Obwor Peter	ACAO	Kitgum	0772934360
19	Odonokra Geoffrey	Driver DCDO		0779214867
20	Okello Kindi Sam	Ag. DAO	Agago	0782437711
21	Aeka Everline	Environment officer	Nwoya	0777482657
22	Lamaro Milly Otim	LC 5 chairman(for)	Nwoya	0714745909
23	Acaye Alphonse	DPO	Gulu	0772686659
24	Ojara Martin Mapenzi	Chairman LC5	Gulu	0777763640
25	Bismarck Olanya	DEO	Gulu	0784051102

26	Otto Bosco		Gulu	0773392188
27	Odur Walter	Production officer	Gulu	0775296273
28	Kumakech D. Charves	CAO	Lamwo	0772370868
29	Dr Odongo Bosco Agana	DPO	Lamwo	0783756840
30	Okello Okido Sam	Ag DPO	Agago	0782437711
31	Obwor Peter	ACAO	Agago	0772934360
32	Ojok George Oling	DNRO	Agago	0772649100
33	Ocana Morish	LCV chairman	Agago	0774341112
34	Okello Peter Douglas	LCV Chairperson	Omoro	0782925451
35	Oyet Godfrey Jomo	DPMO	Omoro	0777367393
36	Ochola Andrew	DNRO	Omoro	0779750633
37	Olinga Largo Godfery	LCV Chairperson	Pader	0782389814
38	Tooyerong Joel	Daily Monitor	Gulu	0782877056
39	Lakony Michael	LCV	Amuru	0782777855
40	Okello Peter	CAO	Amuru	0774266876
41	Obina Geofrey	DPO		
42	Ajok Doreen Lanyero	DNRO	Amuru	0775721314
43	Joy Tukahirwa	ULN	Kampala	0772786816
44	Moses Tenywa	ULN. Makerere University	Kampala	0701827710
45	Mathias Wakulira	ULN	Kampala	0772631836
46	Edidah Kanyunya	ULN	Kampala	0772875833
47	Kamugisha Rick	ULN	Kampala	0772638166
	Day 2: Participants list			
1	Peter Odongkra	DPO	Pader	0774106882
2	Okello Martin	NRO	Pader	0782682785
3	Ojok George Oling	DNRO	Pader	0772649100
4	Opiira Lucy		Omoro	077501240
5	Oyet Godfrey Jomo	DPMO	Omoro	0777367393
6	Ochola Andrew	DNRO	Omoro	0779750633
7	Giyaya Charles Roda	DNRO	Adjumani	0772543284
8	Anthony Mugyenyi	DPMO	Adjumani	0772493168
9	Otto Mathew	SLMO	Kitgum	0772512709
10	Dr Otto Alfred Best	PO	Kitgum	0772969939
11	Dr Odongo Bosco Agena	DPO	Lamwo	0783756840
12	Opii Moses	PO	Lamwo	0777484733
13	Komakech Richard	DNRO	Kitgum	0772480668
14	Obina Godfrey	DPO	Amuru	0789815595
15	Ajok Doreen Lanyero	DNRO	Amuru	0775721314
16	Acca Evelyne	Environment officer	Amuru	0777487657
17	Otto Bosco	Local farmers Association/GDFA	Amuru	0773392188
18	Uhuru Santo	Farmer	Amuru	0772602653
19	Aho Farmansa Kigabo	DEO	Gulu	0772309689

Appendix 3: Participatory mapping and stakeholder analysis report

Scaling-up Sustainable Land Management (SLM) practices by smallholder farmers: working with agricultural extension services to identify, assess and disseminate SLM practices

Participatory Mapping and Stakeholder Analysis Report
(October 23-29, 2016)

Report Preparation:

Edit Level:	FINAL REPORT
Author:	Charles-Lwanga Malingu (SLM Specialist)
Field Officer:	Walter Odur (HANDLE NGO, Gulu)
ULN Task Supervisor:	Mathias Wakulira (Extension Specialist)
Project Coordinator:	Joy Tukahirwa (ULN-WOCAT Focal Person)
Overall Project Direction:	Francis Byekwaso (ULN Chair, Chief Executive)

Key Partnerships:

Ministry of Local Government, Uganda
Uganda District Local Governments of Adjumani, Agago, Amuru, Gulu, Kitgum, Lamwo, Nwoya, Omoro, and Pader
Project for the Restoration of Livelihoods in Northern Uganda (PRELNOR)

Useful links

ULN: www.ugandalandcare.org
CDE: www.cde.unibe.ch
WOCAT: www.wocat.net
IFAD:: http://operations.ifad.org/web/ifad/operations/country/project/tags/uganda/1681/project_overview

IMPLEMENTATION PARTNERS' MANDATES

WOCAT's vision is that of improving land resources and ecosystems including soils, water, flora, and fauna and people's livelihoods by sharing, enhancing, and using SLM knowledge.

WOCAT mission is to support adaptation, innovation, and decision making around SLM. This includes enhancing land productivity and water use efficiency, improving visioning of ecosystem goods and services, suitable use of biodiversity and contribution to food security, climate change adaptation, mitigation, and reducing disaster risks and land and water conflicts. Collectively these should facilitate cost effective investment in SLM and scaling up of SLM, gradually reducing land degradation

ULN vision is Land resources sustainably managed to improve the quality of life.
The mission ULN is to provide a national platform for generation and sharing of knowledge, building national SLM capacity, and resource mobilization for sustainable land resource management. Overarching objectives include (i) improvement of knowledge management for natural resource management outcomes among communities, policy makers, technocrats and partners; (ii) building the capacity of ULN member organizations and other stakeholders; (iii) development of institutional mechanisms for land care in Uganda; (iv identification of community development and SLM conservation partners and linkage with local communities to enhance natural resource management; and (v) catalysis of dialogue on trans-border natural resource management.

Acknowledgements

The participatory mapping and stakeholder analysis was one of the project inception activities of the WOCAT-ULN project titled "Scaling-up Sustainable Land Management (SLM) practices by smallholder farmers: working with agricultural extension services to identify, assess and disseminate SLM practices." Valuable inputs were provided by Francis Byekwaso and Joy Tukahirwa both of ULN management in planning and preparation of background technical information that was required to make a meaningful map of the very extensive project area. Walter Odur and Bernard Lakony of the HANDLE field office in Gulu arranged the courtesy calls and field visits, including providing off-road transport to hard-to-reach areas. The PRELNOR Project Management Unit (PMU) staff led by Ivan Ebong and Peter Oulanya provided support in planning and implementation of the participatory mapping and Stakeholder analysis

The author would also like to acknowledge the long hours of frank technical discussion held with the district natural resources and agricultural officers of Adjumani, Agago, Amuru, Gulu, Kitgum, Lamwo, Nwoya, Omoro, and Pader.

Finally, special thanks are due to Mathias Wakulira of ULN project management unit for the efficient supervision of the whole six-day exercise.

List of Abbreviations

AATAS	Agricultural Technology and Agribusiness Advisory Services (MAAIF)
ACDP	Agriculture Cluster development Project (MAAIF)
ADRA	Adventist Development and Relief Agency
APFS	Agro-pastoral Field School
CAO	Chief Administrative Officer
CBO	Community Based Organization
CDO	Community Development Officer
CIAT	International Center for Tropical Agriculture
DAO	District Agricultural Officer
DCDO	District Community Development officer
DFO	District Forest Officer
DLG	District Local Government
DNRO	District natural Resources Officer
DPO	District Production Officer
DRC	Danish Refugee Council
FAO	Food and Agriculture Organization of the United Nations
FFS	Farmer Field School
FIEFOC	Farm Income Enhancement and Forestry Conservation
f.a.s.l	Feet Above Sea Level
GOAL	International Humanitarian Organization
IFAD	International Fund for Agricultural Development
IITA	International Institute of Tropical Agriculture (with NARO)
IIRR	International Institute of Rural Reconstruction
LADA	Land Degradation Assessment in Drylands
LC V	Local Council Five (District Local Council)
LWF	Lutheran World Federation
MAAIF	Ministry of Agriculture, Animal Industry and Fisheries
MoLG	Ministry of Local Government
MWE	Ministry of Water and Environment
NAADS	National Agricultural Advisory Services
NAPA	National Adaptation Action Plan (UNFCCC)

NARO	National Agricultural Research Organization
NGO	Non-Governmental Organization
NRM	Natural Resources Management
NUFLIP	Northern Uganda Farmers' Livelihoods Improvement Project (JICA)
NUSAF	Northern Uganda Social Action Fund
OPM	Office of the Prime Minister (Government of Uganda)
OWC	Operation Wealth Creation (Government of Uganda)
PCCO	Patongo Counseling Community Outreach Project
PMG	Production and Marketing Grant (MAAIF and DLGs)
PRDP	Peace Recovery Development Plan
PRELNOR	Project for the Restoration of Livelihoods in the Northern Region
RDC	Resident District Commissioner
RICE-WN	Rural Initiative for Community Empowerment – West Nile
SLM	Sustainable Land Management
SPGS	Sawlog Production Grant Scheme
TROU	Trust for Orphans in Uganda
ULA	Uganda Land Alliance
ULN	Uganda Landcare Network
UNCCD	United Nations Convention to Combat Desertification
UNEG	Uganda National Expert Group (WOCAT-ULN SLM)
UNFCCC	United Nations Framework Convention on Climate Change
UNHCR	United Nations High Commissioner for Refugees
USAID	United States Agency for International development
VODP	Vegetable Oil Development Project
VSLA	Village Savings and Loans Association
WFP	World Food Programme
WOCAT	World Overview of Conservation Approaches and Technologies
ZOA	International relief and recovery non-governmental organization

Activity summary

Table 1: Activity Summary

Activity	Lead person/s	Action taken	Time frame
Meet with ULN Management at Headquarters (Makerere University) Kampala to plan mapping exercise	Dr. Francis Byekwaso (Chair) Dr. Joy Tukahirwa (Vice Chair) Mathias Wakulira (Secretary) Charles-Lwanga Malingu	Completion of mapping approach, stakeholder category lists, approval of field tools, and task timeframe	Thursday 20-Friday 21 October, 2016
Meet and discuss with PRELNOR field office staff, Gulu	Mathias Wakulira (ULN-PMU)	Discussions held at PRELNOR field office in Gulu	Monday, October 24, 2016
Meet HANDLE staff to plan and prepare district local governments (DLG) leaders and field-level visits	Mathias Wakulira	Planning and preparation session held	Monday, October 24, 2016
Meet and discuss with DLG leaderships	Mathias Wakulira and Walter Odur (HANDLE-Gulu)	Protocol meetings held with district leaders of Adjumani, Agago, Amuru, Gulu, Kitgum, Lamwo, Nwoya, Omoro, and Pader	Tuesday 25-Wednesday 26 October, 2016
Visit land degradation hotspots and SLM conservation bright spots	Walter Odur and Bernard Lakony (HANDLE-Gulu)	Land degradation hotspots and SLM conservation bright spots visited in Gulu, Omoro, Amuru, Oyam and Pader districts	Wednesday 26-Friday 28 October, 2016
Plan and prepare for district-level meetings with natural resources and agricultural officers	Charles-Lwanga Malingu (SLM Specialist/ Consultant), Mathias Wakulira and Walter Odur	Discussion guides finalized and workshop materials procured	Thursday 27 October, 2016
Hold Key-Informant and focused group discussions with District Natural Resources (DNRO) and agricultural officers (DAO) to identify key SLM issues and stakeholders and lay ground for inception workshop	Charles-Lwanga Malingu	KI and focused group discussions held with DNROs and DAOs from Adjumani, Agago, Amuru, Gulu, Kitgum, Lamwo, Nwoya, Omoro, and Pader districts	Friday 28-Saturday 29 October, 2016
Meet for debriefing with ULN Management to receive comments from ULN team and finalize mapping report at ULN Headquarters (Makerere University) Kampala	Francis Byekwaso (Chair) Joy Tukahirwa (Vice Chair) Mathias Wakulira (Secretary) Charles-Lwanga Malingu	Draft report discussed, improvements agreed and report finalized	Monday 31 October-Tuesday 1 November, 2016
Complete mapping and stakeholder analysis report	Charles-Lwanga Malingu	Mapping and stakeholder analysis report produced	Wednesday 2-Wednaesday 9 November, 2016

Summary of field observations, conclusions, and recommendations

Following the field visits and subsequent Key Informers (KI) and focused group discussions with DNROs and DAOs, six preliminary SLM extension themes emerged. These included (i) information, communication and extension outreach; (ii) policy and governance; (iii) resource efficiency and sustainable production; (iv) the need to encourage exploration of alternative energy sources for domestic use; (v) crop diversification under SLM both for household food security and enhancement of household income; and finally (vi) the cost of financing SLM in the northern region.

Theme 1: Information, communication and outreach

Field Observations:

The key recurring issues on extension outreach were inadequate availability of extension services, credibility of extension policy and methods and the lack of enough incentive for extension workers to reach farmers.

Statement:

Traditional production chains are well-tried and farmers' indigenous knowledge of their farming systems should be acknowledged, giving them confidence that they are capable of reducing or preventing land degradation on their own, thereby emphasizing their responsibility to adopt, innovate and sustain SLM practices. The success of SLM conservation may well depend on community based facilitators rather than district or sub-county based technocrats.

Recommendations:

(i) Community FFS/APFS facilitators should be trained and equipped to accelerate farmer-to-farmer diffusion of SLM knowledge;

(ii) Farmer learning and confidence should be enhanced through the use of field observation training in agro-ecosystem analysis (AESA) methods through FFS/APFS workshops;

(iii) The main message of agricultural extension should emphasize improvement of proven production processes that effectively integrate appropriate local technologies and practices.

Theme 2: Policy and governance

Field Observation:

Many laws on land tenure and use were legislated without community input and therefore lack the necessary support to make them enforceable.

Statement:

To ensure project success, local communities working with their leaders especially parish and sub-county chiefs can ensure high adoption of SLM conservation practices through locally generated and enforced bye-laws.

Recommendations:

(i) Promote the participation of whole communities in formulation of bye-laws and district ordinances ;

(ii) Actively engage the key enforcement stakeholders, especially local parish sub-county chiefs and opinion leaders.

Theme 3: Resource efficiency and sustainable production

Field Observation:

Early adopters of FFS/APFS/SLM technologies should be taught to take a lead in what they, rather than the project, wish to accomplish. Attitudes should change from project ownership of the interventions to farmer ownership of the interventions. Co-funding mechanisms can enhance ownership of outputs and buttress inbuilt mechanism for sustainability and adoption.

Statement:

Change of attitude towards ownership of project assisted outputs will result from a clear FFS/APFS/watershed-based community model that requires communities to make their co-funding contribution before accessing assistance, and strengthen local CBOs as key SLM extension teams.

Recommendations:

(i) Use small grants mechanisms provided through CBOs to improve adoption of watershed level programs.

(ii) Link watershed enterprises to existing livelihood needs.

(iii) Avoid imposition of preconceived enterprises on land users.

(iv) Use existing production systems to demonstrate SLM best practices that improve and sustain productivity and yields.

Theme 4: Alternative energy and biomass conservation, and climate change adaptation, mitigation and resilience

Field Observation:

Charcoal burning as an economic activity was extensively cited and observed as a key land degradation driver in most parts of the project area. Many households in the project area use wood-fuel rather than charcoal.

Statement:

Charcoal burning is by far one of the key drivers of deforestation and land degradation in the project area.

Recommendations:

(i) Extension should make a strong case for funding alternative renewable energy source programs.

(ii) The project should examine payment for environmental services (PES) possibilities for watershed communities investing in SLM with off-site benefits for others.

(iii) Consider a funded scale-up of energy-saving technologies.

(iv) Enforcement should particularly target economically motivated charcoal burners

Theme 5: Diversification of livelihoods and food security

Field Observation:

Previously, cropland in the project area was considered to be suitable only for production of cereals and pulses. There is field evidence that bananas and coffee can be produced both in quality and quantity, among other cropping systems under SLM.

Statement:

Improved SLM technologies and technology also introduction of farm diversification and better extension methods will enhance farm household food security and incomes.

Recommendations:

(i) Scale up SLM based farm diversification and FSS/APFS/watershed community-based field extension services

Theme 6: Financing SLM vis-à-vis the cost of non-intervention

Field Observation:

Complacency is driving rampant, unregulated harvest of forest products and mechanized opening of land to commercial agriculture. There is a lot of development funding flowing into the region but it is mostly directed towards household income generation without due regard to sustainable agriculture.

Statement:

There exist extensive SLM knowledge gaps, information communication gaps, gaps in comparative analysis of cost/benefit between traditional agricultural extension methods and FFS/APFS/watershed community-based extension. Funding should be forthcoming in form of government co-funding, mainstreaming into sectoral budgets, or

funding by other agencies within the SLM/NRM community towards mitigating these gaps.

Recommendations:

(i) Funding mechanisms need to be identified to consolidate SLM gains within the watersheds within the project area and to scale up good practices.

Activity report

Introduction

Uganda Landcare Network (ULN) is the national partner in Uganda towards implementation of a three-country IFAD funded project implemented by World Overview of Conservation Approaches and Technologies (WOCAT) titled, "Scaling-up Sustainable Land Management (SLM) practices by smallholder farmers: working with agricultural extension services to identify, assess and disseminate SLM practices in Cambodia, Lao PDR, and Uganda." In this report, the project is simply referred to as the WOCAT-ULN SLM project. The three-year WOCAT-ULN SLM project will last from 2016 to 2019.

The National Expert Group (NEG) is comprised of selected stakeholders from line ministries, UNCCD focal points, research organizations, NGOs and national bodies involved in extension services. The NEG functions as the **core technical and policy advisory group** and supported by the project to undertake a number of tasks including (i) validation of SLM practices; (ii) carrying out desk study and survey on policies; (iii) establishing partnerships and (iv) formulating concrete action plans for scaling up SLM.

The overall goal of the WOCAT-ULN SLM project is to enhance the resilience of smallholder farmers and rural landscapes to climate change shocks as well as to pressures exerted by population growth, rapid urbanization, and economic expansion. The specific overarching objective of the project is to enhance the capacity of agricultural extension systems in the pilot countries for adoption of a sustainable land management (SLM) paradigm through building the necessary policy and incentive frameworks and capacity for the identification, assessment, documentation and scale-up of effective climate-resilient SLM practices. The expected outcomes of the project are: (i) enhanced resilience of farm households and rural landscapes to climate

extremes in the project areas; and (ii) adoption of a methodology of leveraging a SLM paradigm in the agriculture extension systems.

The WOCAT-ULN SLM project is designed to contribute to the IFAD large grant seven-year (2016-2023) project entitled 'Project for Restoration of Livelihoods in the Northern Region (PRELNOR). PRELNOR is implemented and coordinated by Ministry of Local Government (MoLG) and targets the nine Acholi region districts of Adjumani, Agago, Amuru, Gulu, Kitgum, Lamwo, Nwoya, Omoro, and Pader *(Figure 1)*.

The goal of PRELINOR is to increase income, food security and reduced vulnerability for poor rural households in the project area. The WOCAT-ULN SLM project is positioned to add value towards PRELINOR's development objective on increased sustainable production, productivity and climate resilience of small holder farmers, by enhancing profitability through access to domestic and export markets. Specifically the WOCAT-ULN SLM project targets will deliver on the following PRELNOR components by contributing to the strengthening of agricultural extension capacity: Component A: Rural Livelihoods; (i) Sub-component A1 – Community planning and capacity development; and (ii) Sub-component A2 - Priority climate resilient crop production systems.

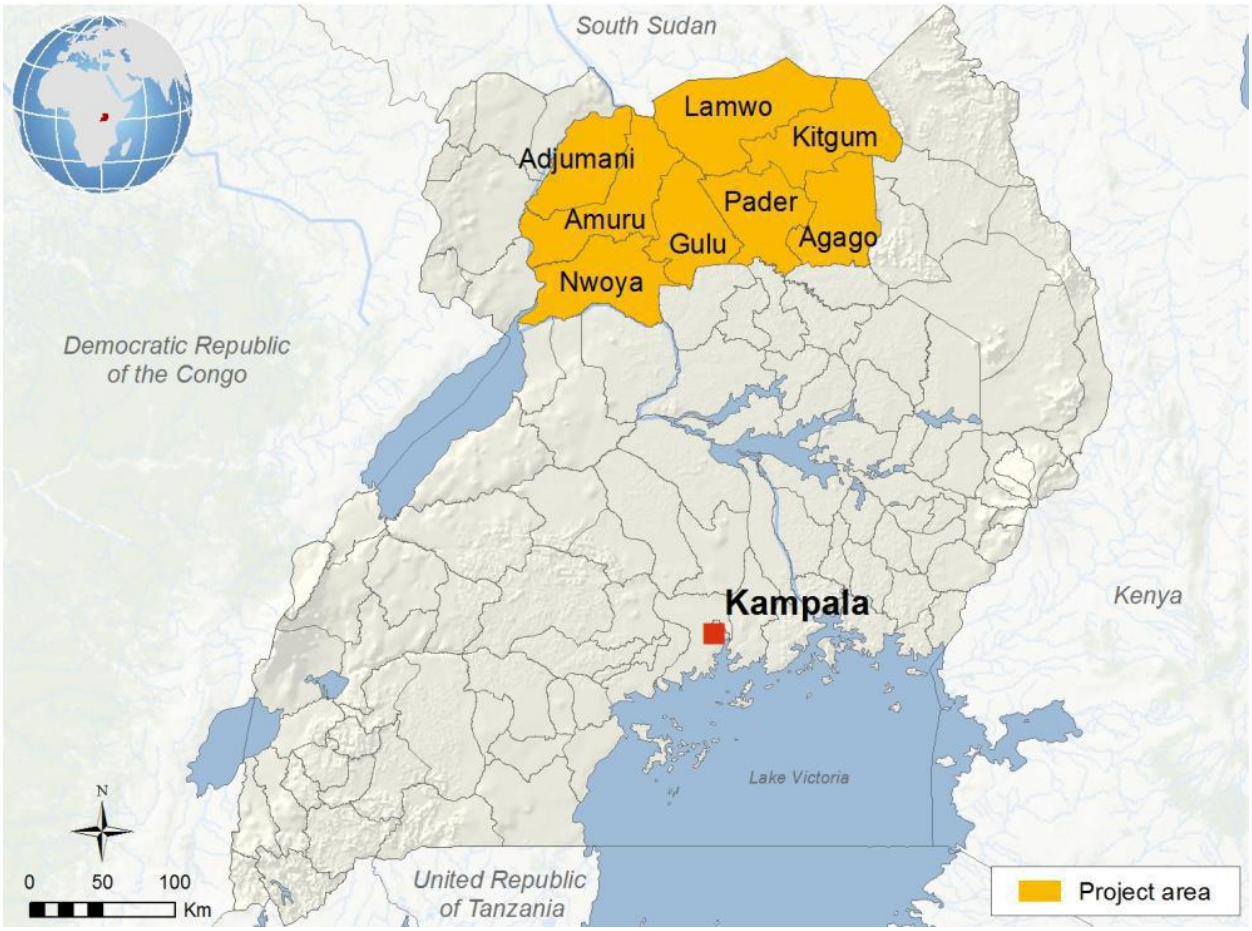


Figure 8: PRELNOR/ WOCAT-ULN Project Area

The ULN Participatory Mapping and Stakeholder Analysis Exercise (October 23-29, 2016) was a mapping exercise aimed at laying the foundation for subsequent documentation of land degradation and SLM conservation practices in the project area using as a background the standard WOCAT questionnaires on SLM technologies (QT), SLM approaches (QA) and watershed management (QW).

Key aspects of the exercise included meetings and with PRELNOR field office staff and ULN field staff to plan and prepare briefs to district local governments (DLG) leaders and plan field-level visits to map SLM sites for the WOCAT-ULN SLM activities. Subsequently, meetings were held with DLG leaderships in Adjumani, Agago, Amuru, Gulu, Kitgum, Lamwo, Nwoya, Omoro, and Pader districts. Field excursions were then organized to identify watersheds where land degradation hotspots and SLM conservation bright spots existed. The preliminary mapping visits established the discussion points for technical district-level participatory workshops with natural resources (DNRO) and agricultural officers (DAO), where key-informant and focused group discussions to agree key SLM issues were held. More community-based, district,

regional, national and international SLM community stakeholders were identified through these meetings.

Terms of reference

The scope of the field task was to prepare an A_0 print of the project-base Google Earth map on which to map the selected project sites. It was agreed that the map would be printed by ULN for use in the field. The following task activity milestones were to be targeted:

1. A delineated Google Earth print out of land use systems arrived at with groups of stakeholders from the local communities, emphasizing hotspots of land degradation and bright spots of conservation activities where good SLM practices existed;

2. Identification for possible synergies, of key civil society, government and non-government programs and projects relevant to the scaling of the ULN-WOCAT project; and

3. Categorical clarification of stakeholder interests, goals and objectives.

The field visit was designed as indicated below in order to respond to the terms of reference.

1. Meet with PRELNOR field-office staff to discuss general issues on site-selection and on-going activities in the project area

2. Arrange courtesy calls on district local government leaders to explain ULN-WOCAT presence, objectives and goals

3. Establish hand-shake with field office partners (HANDLE) and plan itinerary

4. Visit degradation hotspots and conservation bright spots to focus subsequent stakeholder discussions

5. Arrange stakeholder meetings with district natural resources and agricultural officers in order to obtain a birds' eye view of SLM activity in the project area

6. Organize KI interviews and focused group discussions with selected stakeholders

Objectives

Specific task objectives for the participatory mapping and stakeholder analysis exercise were as follows:

1. Provision of a visual representation of information on the geographical context of the project site;

2. Obtaining a deeper understanding and insight of local perceptions on the project sites, land degradation hotspots and SLM conservation bright spots;

3. Identifying relevant institutions, groups, and individuals involved in projects and programs that could contribute directly to scaling up of SLM technologies and approaches; and

4. Understanding stakeholder perspectives and interests relevant to scaling SLM interventions

These objectives were met through a two-pronged approach coupling background desk research with the field visit. Two-day meetings were also organized with District Natural Resources Officers (DNRO) and District Agricultural Officers (DAO) from the nine districts in the WOCAT-ULN/PRELNOR designated region. The guide to key informant and group discussions with the 18 local government officers were informed by a synthesis of studies summarized in ***Box 1***.

Box 1: Contextualizing the objectives: a summary of mainstream policy actions on SLM in Uganda

In February 2010, FAO wrote as follows on SLM, climate adaptation, mitigation and resilience initiatives in Uganda:

Top on the agenda of Uganda's climate change contributions to the aspirations of the UNFCCC involves integration of climate change issues into the development of planning processes and increasing awareness among its people. In response to the actions agreed at international level, Uganda prepared a National Adaptation Action Plan (NAPA), which is a policy response to immediate and urgent actions to minimize the impacts of climate change on local communities.

The Uganda NAPA priorities, in line with SLM good practices later adopted, include tree growing, land degradation prevention and mitigation, climate information dissemination, water and sanitation interventions, drought adaptation, control of pests, vectors and diseases, sustainable exploitation of natural resources, preservation of indigenous knowledge and integration of climate change into planning.

The ULN field KI tool was designed to capture the success of these policy issues on SLM in the project area *(Appendix 1: Participatory Mapping and Stakeholder Analysis Exercise Check List)*.

Mapping and analysis outputs

Bright spots of SLM conservation

During a previous reconnaissance visit, the following assets were identified in the prospective project area:

Assets for sustainable land use:

1. 1500 mm rainfall in two seasons close to each other (long rains (Feb/Mar to May) and continental/short rains (July to December)
2. Soils in most places still productive as not heavily used and still under good cover with very tall grass and tree cover
3. Land sizes are rather big, ranging from tens to hundreds of hectares per household or held in clan/community trust as a commons.
4. Land degradation is increasing except in localized hot spots has not reached high severity yet. Therefore SLM interventions could be designed to be more preventive than mitigation. Many of the areas were "protected" due to low population, low intensity of use, or due to a long insurgency that made agricultural activity and settlement insecure.
5. Skilled and innovative land users were identified
6. Markets for products (timber, crops) were seen to be available and mostly accessible.
7. The local governance institutional set up comprising of village, parish, sub-county and district, as well as family/cultural leadership were observed to be suitable for promotion of good land management.

Table 2: Conservation bright spot - Otto's microenvironment

GPS Label	Latitude	Longitude	Elevation (f.a.s.l)
269	02.6980641	032.2825193	3546.982
270	02.6980624	032.2825197	3546.982
271	02.6979429	032.2822571	3543.829
272	02.6979429	032.2822574	3543.829
273	02.6968705	032.2820948	3558.809
274	02.6969241	032.2821609	3559.600

During the mapping visit, GPS coordinates were taken. The Google Earth maps based on the GPS points show relatively intact vegetation areas of natural forest interspersed with agro-forestry cropland. Spontaneous SLM conservation technologies have continued to proliferate in the greater Acholi region. A leading champion of SLM conservation is Otto John Bosco. He practices mixed livestock and crop cultivation agriculture. He was one of the first farmers in the northern region to plant coffee and bananas as an agro-forestry SLM technology without any outside extension help.

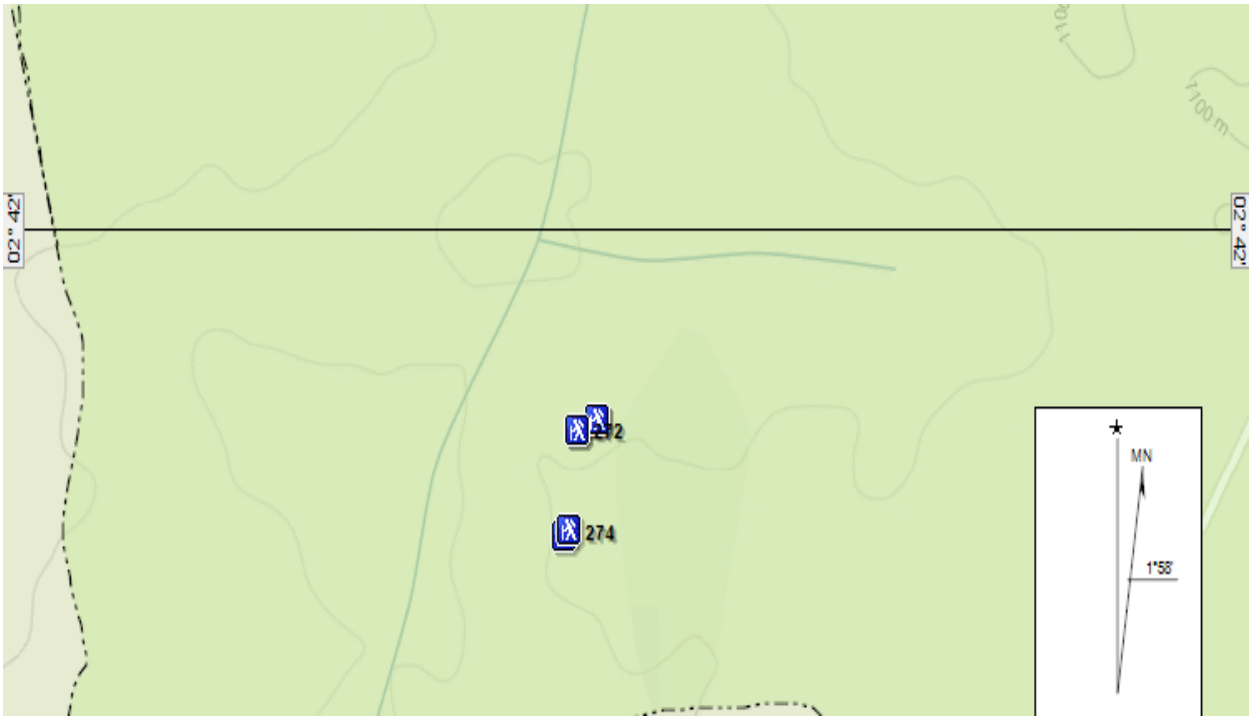


Figure 9: Abwoch parish, Ongako sub-county, Omoro district

Figure 10: A Google Earth view of Otto's mixed farm

Ingula: SLM on annual cropland

Table 3: Agro-forestry - bananas, fruit trees and planted tree groves[18]

GPS Label	Latitude	Longitude	Elevation (f.a.s.l)
288	N02.71235	E032.48201	3505
289	N02.71219	E032.48288	3478
290	N02.71219	E032.48311	3477
291	N02.71190	E032.48307	3486
292	N02.71262	E032.48229	3500
293	N02.71261	E032.48228	3498

18

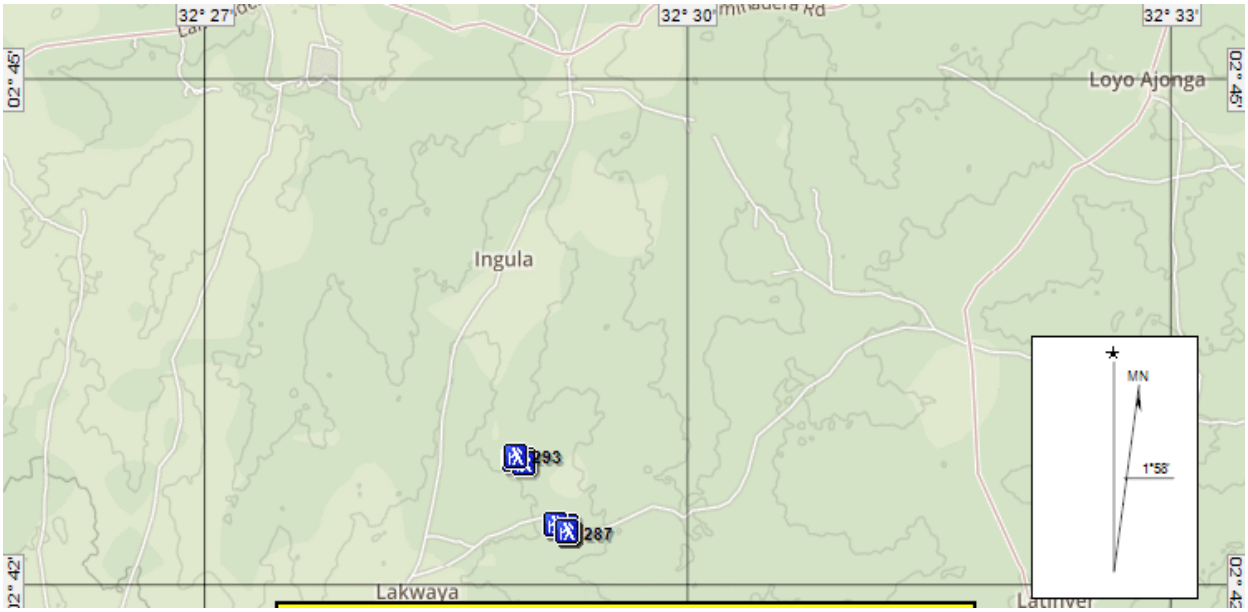


Figure 11: Ingula watershed comprized of extensive cropland

Many farmers have since followed Otto's example. They have not waited for government or project-led SLM advice to improve their farms. They have planted pine and eucalyptus tree groves to sustain their wood-fuel needs and left untouched the natural trees, which regenerated during the days of the 20-year insurgency, to continue growing undisturbed. Around their homesteads a microclimate exists.

Figure 12: Ingula Google Earth view to show well conserved farmland

In ***Box 2*** below, Otto explains that his compound has now become a place of learning for his fellow farmers as well as Universities such as Makerere and Gulu.

Box 2: John Bosco Otto's SLM conservation microenvironment

"*My compound is now a classroom on good agricultural practice and innovation. Gulu University has come, Makerere University has come, and the President himself has been here two times…*"

The hot midday sun barely touches Otto's heavily canopied compound. A thick grove of natural forest surrounds the grounds. Indeed as one approaches the nearly 100 acre mixed farm, the climate quickly turns from open grassland tropical heat to mild, humid equatorial forest. Three SLM practices are obvious: (i) agro-forestry based on conservation of natural trees and planting perennial banana and coffee crops in the cleared areas underneath; (ii) stretches of fallowed annual cropland where maize and millet have been previously grown; and (iii) well-managed pastureland (without paddocks). Otto did not get SLM extension advice from the sub-county or the district agricultural officer. He learned through trials and self-discipline…

"I do not cut down trees anyhow!" he says. "One of my trees graces the cover of the standard UPE Primary Six Social Studies text book." The tree in question is probably over 200 years old!

Lakwatomer: The labor cost in farmer-to-farmer SLM extension

Okello Titus is a young man with a young family. He owns a large stretch of land on which he grows millet, sorghum, sesame, beans and vegetables. There is still more land for an orange orchard, and a banana plantation. He has 2 acres of eucalyptus trees and 1.5 acres of pine. He is still opening more land across the swampy stream that passes through his land (alas, cutting 20-year old indigenous trees along the way).

The problem he faces is inadequate labor to tend his crops. Half of the 3 acre banana plantation is suffocating under black jack. Inadequacy of labor has been voiced in all places visited. The large tracts of land available for agricultural production keep beckoning farmers to open more and more plots. As they move on, earlier enterprises are inundated in weeds. With so much profitable work available in the greater Acholi region, it is a surprising economic dichotomy that Uganda is laden with a youth unemployment rate of nearly 80 percent!

Table 4: Extensive crop rotation - pulses and cereals at Lakwatomer

GPS Label	Latitude	Longitude	Elevation (f.a.s.l)
294	N02.69785	E032.41540	3657
295	N02.69803	E032.41535	3666
296	N02.69749	E032.41447	3665
297	N02.69779	E032.41480	3667
298	N02.69779	E032.41481	3665
299	N02.69828	E032.41499	3668
300	N02.69819	E032.41412	3643
301	N02.69808	E032.41415	3655
302	N02.69832	E032.41407	3665
303	N02.69842	E032.41347	3653
304	N02.69873	E032.41362	3635

Figure 13: Lakwatomer - SLM good practices abound on rainfed cropland

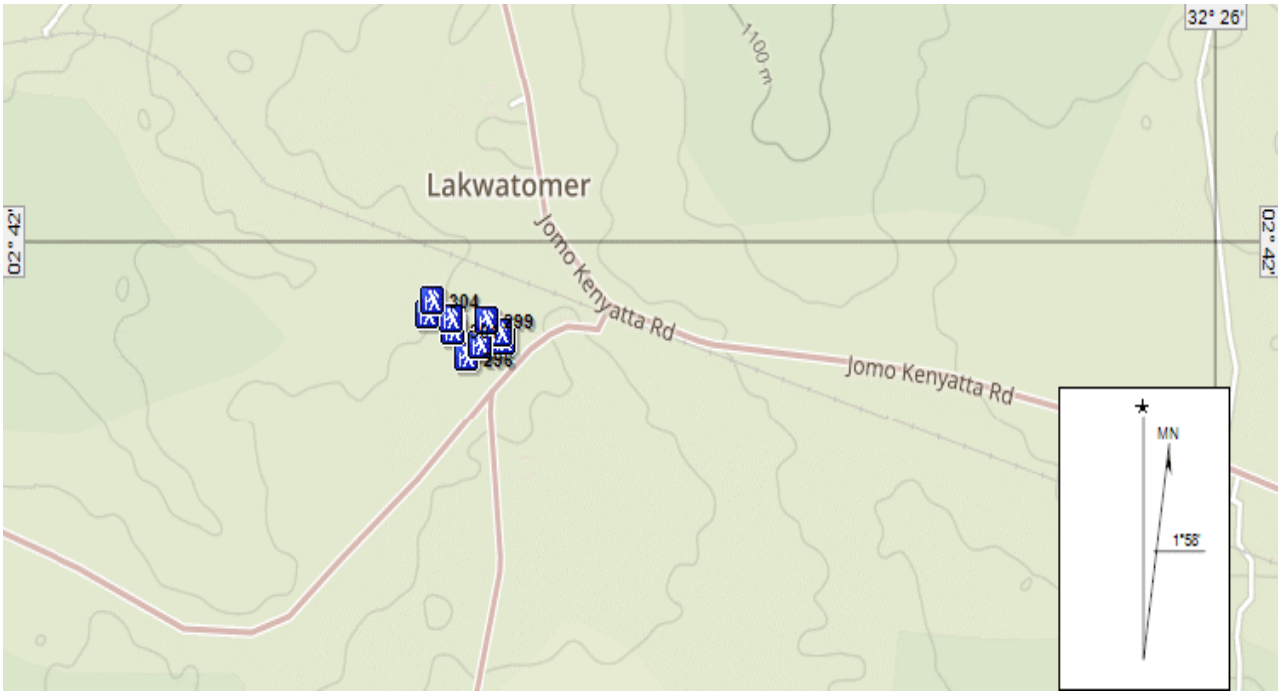


Figure 14: Lakwatomer - With proper SLM extension, land degradation will be prevented

Hotspots of degradation: the example of Abore Ibakara

Large scale farming does not necessarily translate into commercially managed production. On over 100 acres of land in Abore Ibakara, extensive fields of maize, pineapples, orange and pawpaw orchards have been cultivated. The fertility of the soils is not in question considering the abundant yields of every enterprise on the farm. The land management methods are definitely unsustainable. Tractors were used to open up the land to agriculture. Without expert advice, parts of the fragile landscapes bordering the Laminalabwo stream were compacted. When the rains came, soil erosion swept the roots from under the pawpaw crop. Extensive opening of the land next to the swampy stream is still ongoing even if the previous season's crop has been largely abandoned in the field. The case for expert extension advice is strongly in evidence on this farm.

Table 5: Mechanization without SLM could drive land degradation

GPS Label	Latitude	Longitude	Elevation (f.a.s.l)
256	N02.69829	E032.37816	3574
257	N02.69829	E032.37814	3579
258	N02.69815	E032.37801	3568
259	N02.69745	E032.37620	3587
260	N02.69635	E032.37644	3605
261	N02.69745	E032.37594	3594
262	N02.69743	E032.37568	3593
263	N02.69751	E032.37556	3584
264	N02.69756	E032.37492	3580
265	N02.69755	E032.37465	3587
266	N02.69738	E032.37431	3577
267	N02.69782	E032.37412	3577
268	N02.69797	E032.37444	3561

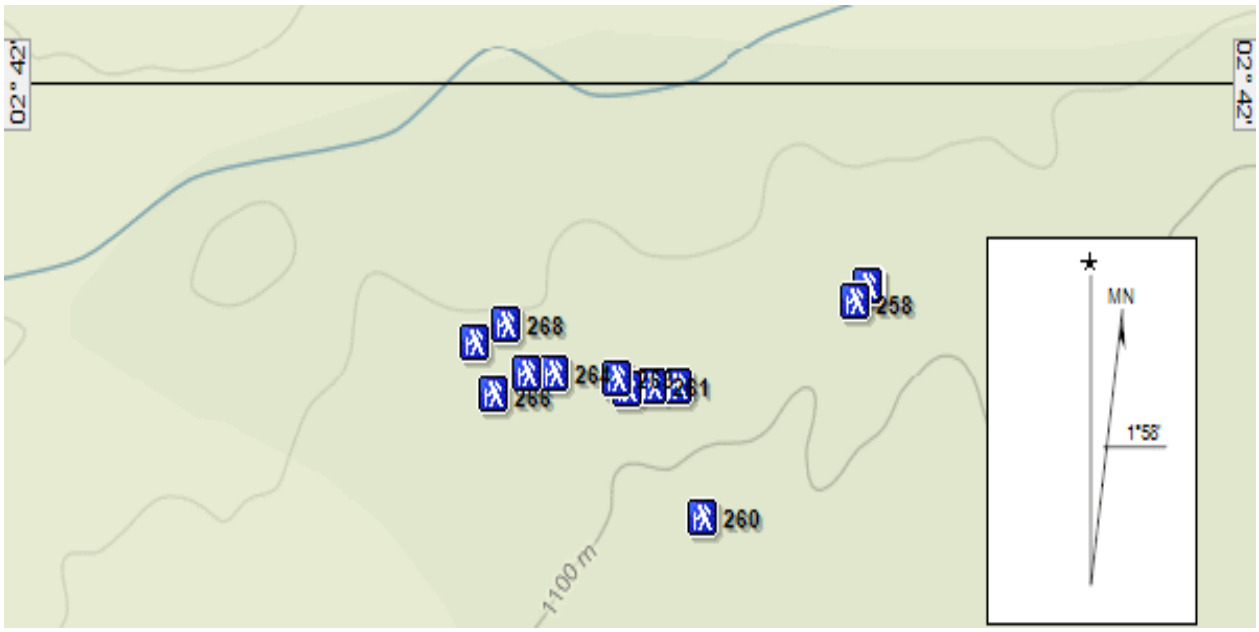


Figure 15: Next to the swampy Laminlabwo stream, extensive, mechanised opening of farmland could create a degradation hotspot

Figure 16: Mechanised opening of farmland at Abore-Ibakara in Koro sub-county, Omoro district

Degradation hotspots and SLM conservation bright spots: experts' synthesis

Information summarized in *Table 6* below was collected through stakeholder meetings with DNROs and DAOs from the nine WOCAT-ULN/PRELNOR project districts. Ten land degradation drivers were identified in the region. They included: (i) deforestation driven mainly by charcoal burning but also in part through opening land for agriculture and settlement; (ii) poor cultivation methods especially caused by extensive mechanization using heavy tractors; (iii) overgrazing; (iv) uncontrolled bush fires; (v) indiscriminate dumping of waste crude oil from oil exploration sites; (vi) wild game poaching in game reserves and parks; (vii) wetland degradation; (viii) sand mining; (ix) biodiversity degradation; and (x) unregulated use of agrochemicals.

On the brighter side, four conservation measures were observed to be taking root in the region. These are (i) tree planting; (ii) agro-forestry; (iii) long fallow (mainly as a result of non-deliberate disuse occasioned by 20 years of insurgency); and (iv) protection of wetlands through enforced ordinances and bye-laws.

Table 6: Preliminary degradation hotspots and conservation bright spots in WOCAT-ULN project area

Key:

(a) Land degradation drivers (DD) are numbered (i)-(x) as in the text above; (b) SLM conservation bright spots (SLM/BS) are numbered (i)-(iii) as in the text above; (c) Hotspots/ SLM bright spots are actual place names.

District	DD	Hotspots	Land use system	SLM/ BS	Land use system	Proposed actions
Adjumani	**(i) (iv) (vii) (ix)**	Wetlands, riverine areas and flood plains of: 1. Esia watershed: (Itirikwa-ofua, Adropi, Ciforo, and Ukusijoni; Tete in Dzaipi and Arinyapi; Adidi in Pekele; Zoka in Itirikwa and Ukusijoni); and 2. River Nile in Ukusijoni, Ciforo, Pachara, Dzaipi and Arinyapi ***(see file)***	Protected game reserves and parks, forests, wetland products and services, and cropland, settlements	**(i) (iii) (iv)**	Settlements, Cropland, woodlots, natural forest reserves, wildlife reserves, rangelands, (pastureland), wetland products and services	Open wildlife corridors, enforce tree planting, enforce ordinances on bush burning and charcoal trade; encourage SLM practices that protect river banks

Agago	**(i)** **(iv)** **(vii)**	1. Forests in Kotomor, Omot, Lamiyo, Adilang, Lapono and Arum 2. Wetlands in Kotomor, Omot, Kalongo TC, Parabongo, Lokole, Patongo TC and sub-county, Paimol and Arum	Natural forest, farmland and wetland products and services	**(iii)** **(iv)**	Natural high vegetation cover by trees and tropical grassland	Continue enforcement of statutes, ordinances and bye-laws already being carried out by DLG and NEMA; encourage good SLM practices
Amuru	**(i)** **(ii)** **(iii)** **(iv)** **(viii)** **(ix)** **(x)**	Acwero parish (Amuru SC), Labala parish (Pabbo SC), Peyero, Pawel parish (Atiak SC), Amuru TC, Bibia parish in Elegu border market, along Acwha and Unyama stream watersheds	Forest land, extensive paddy rice cropland in marginal wetland, extensive commercial farmland	**(i)** **(ii)** **(iii)**	Settlements (urbanization), cropland	Continue SLM extension already in place; scale fruit tree growing; popularize coffee-based agro-forestry; fund distribution of tree seedlings; Land wrangles may pose SLM intervention problems.
Gulu	**(i)** **(ii)** **(iii)** **(viii)**	Paicho, Omel, Palaro Mede parish, Bungatira, unyama, Patiko, Awach Paibona, Pukony, Larodo stream watershed, Pece stream watershed	Pastureland, Natural forest, cropland in marginal areas	**(i)** **(iv)**	Reserve forest, riparian wetland products and services	Require wetland demarcation by NEMA, scale DLG sensitization efforts, scale tree planting and boundary opening
Kitgum	**(ii)** **(iii)**	Pajimo parish (Akwang SC), Parbony Parish (Kitgum Matidi), Lalano (Lagoro SC), Ogwar Pekke (Mucwini SC),Akworo (Labongo Amida SC), Pugoda West (Namokora), Loha (Orom SC), Akilok, Lalekan etc. (Watersheds and valley dams mainly affected)	Pastureland and cropland	**(iii)**	Resettlement, rangelands, (pastureland)	Continue project-based SLM sensitization and education

Lamwo	**(i)** **(ii)** **(iii)**	Watersheds of Okura stream, Aringa river, Lagwel stream, Abwar rive, Limur steam, Lolcer stream: Lopalongi, Pobar, Ngacurio, Rudi, Potika, Pawach Agoro Aguu (Agoro SC); Pobura, Lawi Odung, Okol Polobek Ogil, Pololwat, Poraceile, Apyela, Palabek Kal (Madi Opei SC); Pawaja, Pologa, Bungu (Pologa SC); Lelapwot, Parapomo, Liawal Pagira (Loking SC), Padibe West, Abakadya, Lagwel, Kama, Ganga Yard (Padibe TC)	Pasture land, cropland, natural forest, forest reserve, traditional hunting grounds	**(i)** **(iv)**	Watershed marginal lands protection through enforcement (Palabek Ogili)	Support and scale SLM through demonstration, sensitization and education
Nwoya	**(i)** **(ii)** **(iii)** **(iv)** **(v)** **(vi)**	Lii SC, Koch Goma SC, Alero SC, Lungulu SC, Got Apwoyo SC, Purongo, Ayago and Aswa river watershed marginal areas, Lungulu, Anak SC	Community tenure natural forest, marginal cropland, pastureland, game reserves and game park, crude oil exploration/ drilling	**(i)** **(ii)** **(iv)**	Cropland, Game park	Support and scale SLM through demonstration, sensitization and education
Omoro	**(i)** **(iv)** **(viii)**	Idobo,Jaka-Lalogi, Odek SC, Patek, Paidongo Paluda, Abwoch, Alokolum-Ongako, Pageya, Acoyo, Labwoch (Bobi SC); Parak, Lakwana (Koro SC);	Natural forest, cropland, wetland products and services	**(i)** **(ii)** **(iii)** **(iv)**	Agro-forestry and reforestation in Lapariat East/West, Opoka Forest Reserve, Opit Forest Reserve, Otto John Bosco	Support and scale SLM through demonstration, sensitization and education
Pader	**(i)** **(ii)** **(iii)**	Pader Community Forest – Ogil, Ongang, Tyer, Kilak; Angagura	Settlements, natural forest, cropland in	**(i)** **(iv)**	Natural forest, settlements, commercial	Local communities and DLG are willing to act against

	(iv) (vii) (viii)	Community Forest and watershed – Burlobo; Latanya Hill – Golo, Negakidi; Atanga Local Forest Reserve, Jarka Local Forest Reserve, Awere Local Forest Reserve, Acholibur Local Forest Reserve	marginal stream and river bank areas, pastureland, topsoil mining		logging and charcoal burning	unsustainable harvesting of forest and other resources; Land wrangles may pose SLM intervention problems.

Policy and extension for agricultural production and marketing chains in the DLGs are planned, supervised and monitored by DPOs, DAOs, DNROs and DCDOs. Thus, they are responsible for ensuring that households within their districts meet their increasing demand for food, clean water and environmental services. With the natural resource base being constantly threatened by climate change on one hand and the food requirements for rising populations on the other, expert knowledge is going to be increasingly necessary for sustaining rural livelihoods. As clearly put in the Large Grant Design Document, "…one key strategy of achieving this balance is to establish innovative sustainable land management (SLM) practices as a viable alternative for smallholder farmers to meet market demands in a sustainable manner, while also enhancing their resilience to climate change and strengthening ecosystem services at a landscape level." In the northern region, many projects and programmes are involved in enhancing rural and urban livelihood through a plethora of interventions. Avoiding resource wastage through activity overlap has become an essential DLG planning challenge. ***Box 3*** below captures the magnitude of the problem.

Box 3: The SLM enterprise resource planning challenge in Pader

Okello Martin is the DNRO of Pader district. He observes as follows:

"There are literally scores of organizations involved in the livelihoods recovery programmes in the Acholi region. Government ministries and agencies, non-governmental organizations and community based organizations are doing the same thing. For example FAO and ZOA established FFS which are mostly inactive now. A few have transformed into VSLAs. But other organizations had the formation of VSLAs as their primary objective. The overlap is rampant."

Emerging themes on extension in the project area

Theme 1: Information, communication and outreach

Field Observations:

The challenge for agricultural extension at the beginning of the project is the absence of a continuous source of credible, trusted information and effective communication within and from outside local communities. Government employed extension officers are highly specialized and, therefore, limited in scope and have very wide areas to oversee. Besides, they are not adequately facilitated to effectively cover their designated areas.

The challenge for the farmers is lack of confidence in the knowledge they possess, to consistently apply and improve on this knowledge through some minimal research based on simple comparisons. Multiple non-Government project-based stakeholders exist and have used the multiplier effect of training of trainers (ToTs) within selected watershed communities to improve the knowledge and information and its dissemination to promote watershed restoration and good agricultural practices.

Training has emphasized (i) formation of farmer field schools (FFS) and agro-pastoral field schools (APFS), (ii) demonstration of sustainable land management (SLM) technologies and approaches to improve and sustain production on FFS/APFS owned plots, and (iii) the use of agro-ecosystem analysis (AESA) as a comparative observation tool to enable farmers appreciate good practices and their relevance to the agro-ecosystem. The basic observation is that farmers have a key indigenous understanding of their farming systems and technologies, because they have evolved and lived off them for millennia. However, this knowledge needs to be sharpened through innovative harmonization with the technical knowledge from experts.

Statement:

Farmer field school (FFS) and agro-pastoral field school (APFS) groups communicate SLM messages by demonstration and sustain production through simple, affordable technologies and approaches, thereby ensuring adoption. Trained community-based watershed facilitators can ensure daily agricultural extension services to the watershed communities. Traditional production chains are well-tried and farmers' indigenous knowledge of their farming systems should be acknowledged, giving them confidence that they are capable of reducing or preventing land degradation on their own, thereby emphasizing their responsibility to adopt, innovate and sustain SLM practices.

Recommendations:

(i) Agricultural extension should be moved away from traditional methods that depend on dissemination of expert knowledge by one or a few district-based agricultural/natural resources officers to FFS/APFS community-based farmer-to-farmer facilitation for quicker and better diffusion of both indigenous and expert knowledge;

(ii) Promote the integration of expert and indigenous knowledge through the use of field observation and training (agro-ecosystem analysis (AESA)) and FFS/APFS training of trainers (ToT) workshops and programs;

(iii) The main message of agricultural extension should be about technologies and approaches for improvement of proven production processes that effectively integrate appropriate local or indigenous technologies and practices, rather than change from traditional cropping and livestock lines to ones developed elsewhere.

Theme 2: Policy and governance

Field Observation:

Many good laws, ordinances and bye-laws exist on land resources, including land tenure, and land resources management and extending to natural resources held in trust for the people of Uganda by the Government such as swamps and game parks. However, most of the laws were legislated without community input and therefore lack the necessary support to make them enforceable.

On the other hand, community/watershed level bye-laws have no basis in common law, their main strength deriving from social morality. Lack of adherence rarely attracts a penalty. Sub-county chiefs can be actively involved in the process of formulation of watershed bye-laws and their roles and responsibilities harmonized with those of Local Councils to enhance enforcement and adherence. While involvement of political leadership of the Local Councils is useful, their shorter terms of tenure make political positions on key SLM/watershed management issues fragile, while that of chiefs who are civil servants and have no tenure limits is more stable and effective.

Statement:

To ensure project success, SLM "development gazers" who create pockets of non-adopters and may cause reversals of gains at watershed level should be dissuaded through strong enforcement and community action; FFS/APFS and community-based watershed facilitators alone cannot adequately enforce community bye-laws on SLM.

Local leaders especially parish and sub-county chiefs can be actively involved to ensure high adoption of SLM conservation practices.

Recommendations:

(i) Promote the participation of whole communities in formulation of bye-laws by ensuring that information, education and communication (IEC) campaigns reach the remotest community members.

(ii) Actively engage the key enforcement stakeholders, especially local parish and sub-county chiefs and political leaders, in the full process of formulation of watershed management bye-laws and ordinances, and ensure harmonization of roles and responsibilities of chiefs and local leaders in the enforcement, to ensure better enforcement and increase adherence.

Theme 3: Resource efficiency and sustainable production

Field Observation:

A community member pointed to a demonstration plot in Omoro district that had been since abandoned and said "that belonged to project A!" Another to a water cabbage destruction pit in Kitgum district and said "that was for project X!" This implies that farmers do not own project outputs in their communities. Learning from this, FFS/APFS/SLM activities should be facilitated by local community-based organizations (CBOs) (which are not going to disappear with the end of the ULN-WOCAT project) rather than large national and international NGOs alone. Adopters of FFS/APFS/SLM technologies should be taught to take a lead in what they, rather than the project, wish to accomplish. Attitudes should change from project ownership of the interventions to farmer ownership of the interventions. Co-funding mechanisms can enhance ownership of outputs and buttress inbuilt mechanism for sustainability and adoption.

Statement:

The change of attitude towards ownership of project assisted outputs will result from a clear FFS/APFS/watershed-based community model that requires communities to make their co-funding contribution before accessing assistance, and strengthen local CBOs as key SLM extension teams.

The assurance that farmers are willing to participate and own SLM interventions lies in their willingness to contribute towards or invest in SLM activities and, thenceforth, welcome support to do better what they are already willing to do on their own.

Communities and individual households can take complete ownership of SLM efforts and outputs and then acknowledged project help, rather than considering gains as belonging to the project. Land managers should be encouraged to adopt SLM technologies and approaches to improve traditional agricultural production systems rather than be persuaded or even muzzled to adopt new cropping or livestock enterprises.

Recommendations:

(i) Use small grants mechanisms provided through CBOs, integrated with indirect farmer obligations (such as construction of a goat shed before being eligible for an SLM-linked goat) to improve adoption of watershed level programs.

(ii) Link watershed enterprises to existing livelihood needs and ensure continuous, dynamic and flexible intuitive driven innovations while deciding and undertaking the community level interventions on SLM.

(iii) Avoid imposing preconceived enterprises from outside watershed communities.

(iv) Use existing production systems to demonstrate SLM best practices that improve and sustain productivity and yields.

Theme 4: Alternative energy and biomass conservation, and climate change adaptation, mitigation and resilience

Field Observation:

Charcoal burning as an economic activity was extensively cited as a key land degradation driver in most parts of the project area. Many households in the project area use wood-fuel rather than charcoal. High carbon emissions and biomass destruction are driven by the assumption that charcoal burning cannot exhaust the extensive tree cover.

Statement:

Charcoal burning is by far the strongest driver of deforestation and land degradation in the project area.

Recommendations:

(i) Costing should be made of a hybrid solar and hydro-power rural electrification program to make a case for funding alternative renewable energy source programs.

(ii) Similarly examine local, national and international payment for environmental services (PES) for watershed communities investing in SLM with off-site benefits for others.

(iii) Consider a funded scale-up of energy-saving technologies.

(iv) Enforcement should particularly target economically motivated charcoal burners

Theme 5: Diversification of livelihoods and food security

Field Observation:

Previously, cropland in the project area was considered to be suitable only for production of cereals and pulses. There is field evidence that bananas and coffee can be produced both in quality and quantity, while improved grafted fruit trees have also been introduced. Surpluses for sale of the new crops have become common and are realistic targets for farm households.

Statement:

Improved technologies and introduction of farm diversification and better extension methods will enhance farm household food security and incomes.

Recommendations:

(i) Scale up farm diversification and FSS/APFS/watershed community-based field extension services

Theme 6: Financing SLM vis-à-vis the cost of non-intervention

Field Observation:

Acholi sub-region is still largely untouched by land degradation. The generally flat watersheds and over twenty years of fallow in most areas have contributed a fair share to the general appearance of conservation. However, complacency is driving rampant harvest of forest products and mechanized opening of land to commercial agriculture with little regard to SLM issues. There is a lot of development funding flowing into the region but it is mostly directed towards household income generation without due regard to sustainable agriculture.

Statement:

There exist extensive SLM knowledge gaps, information communication gaps, gaps in comparative analysis of cost/benefit between traditional agricultural extension

methods and FFS/APFS/watershed community-based extension. Funding should be forthcoming in form of government co-funding, mainstreaming into sectoral budgets, or funding by other agencies within the SLM/NRM community towards mitigating these gaps.

Recommendations:

(i) Funding mechanisms need to be identified to consolidate SLM gains within the watersheds within the project area and to scale up good practices

Database of district-level administrative and technical stakeholders

Table 7: Preliminary database of SLM community stakeholders in the WOCAT-ULN project area

District	Title	Name/Phone/email	Responsibility
Adjumani	Chairman LCV	LEKU JAMES (0787-930 220)	Elected political head (Policy driver)
	RDC	AKELLO AGNES ()	Central Government (Policy driver)
	CAO	MAWEJJE ANDREW (0772- 301 899)	DLG accounting officer
	DPO	Dr. MUGENYI ANTHONY (0772- 493 168)	Production systems implementation
	DNRO	GIYAYA CHARLES (0772-543 284)	Natural resources policy implementation
	DAO	ALULE JUSTINE (0774-940 784)	Agricultural (SLM) extension
	DFO	OJJA FRANCIS (0772-933 117)	Forest (SLM) extension
	DCDO	MAWADRI RAMADHAN (0772-493 168)	Community development implementation
	PRELNOR (F.P)	Dr. MUGENYI ANTHONY (0772- 493 168)	PRELNOR Supervision/Reporting
	NGO (In-Charge)	MAWADRI RAMADHAN (0772-493 168)	SLM/Climate Change Stakeholder synergies
Agago	Chairman LCV	OPIO LEONARD OJOK (0772-464 193)	Elected political head (Policy driver)
	RDC	OKWIR CHARLES RAY (0753-547 257)	Central Government (Policy driver)
	CAO	KIZITO MUKASA FRED (0772-655 373)	DLG accounting officer
	DPO	OKELLO SAMUEL OKIDI (0392-945 683)	Production systems implementation
	DNRO	OLAL DAVID CHURCHILL (0782-453 184)	Natural resources policy implementation
	DAO	ELEM SAM SAMMIE (0782-945 861)	Agricultural (SLM) extension
	DFO	N/A	Forest (SLM) extension
	DCDO	OJOK GEOFFREY (0773-436 511)	Community development implementation
	PRELNOR (F.P)	ELEM SAM SAMMIE (0782-945 861)	PRELNOR Supervision/Reporting
	NGO (In-Charge)	GOAL, WORLD VISION (0782-797 935)	SLM/Climate Change Stakeholder synergies
Amuru	Chairman LCV	LAKONY MICHAEL ()	Elected political head (Policy driver)
	RDC	JALMORO ()	Central Government (Policy driver)
	CAO	KIPLANGAT MARTIN (0772-947 783)	DLG accounting officer
	DPO	N/A	Production systems implementation

District	Title	Name/Phone/email	Responsibility
	DNRO	AJOK DEVINE (0775-721 314)	Natural resources policy implementation
	DAO	OBINA GODFREY (0789-815 595)	Agricultural (SLM) extension
	DFO	ODONGKARA AMOS (0772-945 594)	Forest (SLM) extension
	DCDO	OLUM JOHN BOSCO (0712-473 188)	Community development implementation
	PRELNOR (F.P)	OBINA GODFREY (0789-815 595)	PRELNOR Supervision/Reporting
	NGO (In-Charge)	OLUM JOHN BOSCO (0712-473 188)	SLM/Climate Change Stakeholder synergies
Gulu	Chairman LCV	OJARA MARTIN MAPENDUZI (777-763 640)	Elected political head (Policy driver)
	RDC	OKOT LAPOLO (0774-127 270)	Central Government (Policy driver)
	CAO	AJWANG DOROTHY (0772-480 054)	DLG accounting officer
	DPO	LAKOR JACKSON (0772-614 164)	Production systems implementation
	DNRO	OJERA ALEX (0774-308 804)	Natural resources policy implementation
	DAO	KOLO TOBIA (0772-343 693)	Agricultural (SLM) extension
	DFO	ABWOLA SAMUEL (0772-890 190)	Forest (SLM) extension
	DCDO	OKECH GUPETY (0782-225 608)	Community development implementation
	PRELNOR (F.P)	ODWAR SANTA (0772-594 299)	PRELNOR Supervision/Reporting
	NGO (In-Charge)	KYALIGONZA ANTSELM (0787-127 233)	SLM/Climate Change Stakeholder synergies
Kitgum	Chairman LCV	OMONA JACKSON (0772-405 974)	Elected political head (Policy driver)
	RDC	KOMAKECH WILLIAM (0392-945 739)	Central Government (Policy driver)
	CAO	LOMONGIN JOSEPH (0782-398 708)	DLG accounting officer
	DPO	ABAL PETER (0772-975 114)	Production systems implementation
	DNRO	WARYOYOK DAVID (0772-978 783)	Natural resources policy implementation
	DAO	ABAL PETER (0772-975 114)	Agricultural (SLM) extension
	DFO	ANYWAR MARTIN (0756-239 213)	Forest (SLM) extension
	DCDO	OKELLO JAMES P'OKIDI (0772-890 583)	Community development implementation
	PRELNOR (F.P)	ABAL PETER (0772-975 114)	PRELNOR Supervision/Reporting
	NGO (In-Charge)	ACAO LAKWONYERO STEPHEN OMWONY (0772-619 609)	SLM/Climate Change Stakeholder synergies
Lamwo	Chairman LCV	KOMAKECH JOHN OGWOK (0772-388 302)	Elected political head (Policy driver)
	RDC	RUTABINGWA JONATHAN (0772-651 411)	Central Government (Policy driver)
	CAO	KUMAKECH CHARLES OLUBA (0772-370 868)	DLG accounting officer
	DPO	OKOT JOE (0772-356 499)	Production systems implementation
	DNRO	KOMAKECH RICHARD (0772-480 668)	Natural resources policy implementation
	DAO	OKOT JOE (0772-356 499)	Agricultural (SLM) extension
	DFO	ODONG BOSCO AGENA (0783-756 840)	Forest (SLM) extension

District	Title	Name/Phone/email	Responsibility
	DCDO	OCAN JAKEO (0772-358 819)	Community development implementation
	PRELNOR (F.P)	KIBWOTA PAUL MULIYA (0774-884 693)	PRELNOR Supervision/Reporting
	NGO (In-Charge)	ANENA CHARITY ()	SLM/Climate Change Stakeholder synergies
Nwoya	Chairman LCV	OKELLO ORYEMA PATRICK (0775-989 803)	Elected political head (Policy driver)
	RDC	AKELLO BEATRICE AKORI (0752-233 762)	Central Government (Policy driver)
	CAO	BWAYO GABRIEL ROGERS (0781-560 782)	DLG accounting officer
	DPO	Dr. UKWIR JAMES (0772-663 649)	Production systems implementation
	DNRO	OMARA EMMANUEL (0782-484 421)	Natural resources policy implementation
	DAO	KILAMA ALFRED (0782-687 096)	Agricultural (SLM) extension
	DFO	OMARA EMMANUEL (0782-484 421)	Forest (SLM) extension
	DCDO	AKENA GEOFFREY (0772-909 960)	Community development implementation
	PRELNOR (F.P)	Dr. UKWIR JAMES (0772-663 649)	PRELNOR Supervision/Reporting
	NGO (In-Charge)	AKENA GEOFFREY (0772-909 960)	SLM/Climate Change Stakeholder synergies
Omoro	Chairman LCV	OKELLO DOUGLAS PETE OKAO (0782-925 451)	Elected political head (Policy driver)
	RDC	Capt. OKOT SANTO LAPOLO (0774-127 270)	Central Government (Policy driver)
	CAO	NSUBUGA ZIRIMENYA (0772-670 855)	DLG accounting officer
	DPO	OYET GODFREY JOMO (0777-367 393)	Production systems implementation
	DNRO	OCHOLA ANDREW (0779-750 633)	Natural resources policy implementation
	DAO	OKOT FRANCIS (0788-508 169)	Agricultural (SLM) extension
	DFO	ADONG VICKY (0777-482 433)	Forest (SLM) extension
	DCDO	AKUMU CHRISTINE (0772-605 551)	Community development implementation
	PRELNOR (F.P)	OYET GODFREY JOMO (0777-367 393)	PRELNOR Supervision/Reporting
	NGO (In-Charge)	OPWONYA DAVID (0772-902 468)	SLM/Climate Change Stakeholder synergies
Pader	Chairman LCV	LARGO OPINGA (0782-389 814)	Elected political head (Policy driver)
	RDC	LUNAGUL JUSTINE (0782-827 899)	Central Government (Policy driver)
	CAO	ADOKO GEORGE (0772-586 244)	DLG accounting officer
	DPO	OKENY S ROBERT (0772-682 038)	Production systems implementation
	DNRO	OKELLO MARTIN (0782-682 785)	Natural resources policy implementation
	DAO	ODONGKARA PETER (0774-106 882)	Agricultural (SLM) extension
	DFO	OKELLO MARTIN (0782-682 785)	Forest (SLM) extension
	DCDO	OKIDI FESTO (0789-454 449)	Community development implementation
	PRELNOR (F.P)	ASEKENE CATHERINE (0772-381 036)	PRELNOR Supervision/Reporting
	NGO (In-Charge)	1. ODONGO GEORGE (0776-633 663) *(NGO FORUM)*	SLM/Climate Change Stakeholder synergies

District	Title	Name/Phone/email	Responsibility
		2. OMWONY MICHAEL (0779-939 003) *(CLIMATE CHANGE F.P.)*	

Database of SLM Community stakeholders

Table 8 lists 38 other SLM/livelihoods stakeholders in the PRELNOR/WOCAT-ULN project area. These will probably be among the first to be invited to the inception meeting together with at least 18 DLG technocrats (2 from each of the nine districts of WOCAT-ULN/PRELNOR SLM collaboration).

Table 8: SLM community in WOCAT-ULN project area

S/N	Organization	Goals and objectives
1	**AATAS**	Government Agency (MAAIF) involved in extension services (Agricultural technology and agribusiness advisory services) with OWC in Agago, Climate Smart Agriculture in Amuru, SLM extension/upscaling in Gulu, Kitgum (with Mercy Corps, NARO-ZARDI, DLG and TreeTalk) and FFS with FAO, Lamwo (SLM demos), Omoro
2	**ACDP**	SLM/NRM extension in Amuru
3	**ADRA**	SLM extension in Agago and Pader (livelihoods enhancement and social change)
4	**CIAT**	SLM extension in Nwoya (with Delight Ltd, Vinayak)
5	**DLG**	SLM extension in Amuru, wetlands demarcation, boundary opening and tree planting in Gulu, Kitgum, Nwoya, Omoro and Pader (training, sensitization and supply of inputs)
6	**DRC**	SLM extension especially tree planting in Adjumani
7	**FAO**	Tree seedling distribution in Amuru, Gulu, Kitgum as part of SLM program (through FFS), Lamwo (Forestry tenure project), Omoro (over 50 FFS but inactive currently)
8	**FIEFOC**	Aforestation in Gulu including SLM training, Nwoya (tree seedling distribution)
9	**GOAL**	SLM extension in Agago
10	**IFAD**	SLM extension (with WOCAT and PRELNOR/DLGs) in Adjumani, Agago,Amuru, Gulu, Kitgum, Lamwo, Nwoya, Omoro and Pader
11	**IITA**	SLM extension in Nwoya (with DLG staff)
12	**IIRR**	SLM extension in Amuru together with FAO (FFS)
13	**LWF**	SLM extension especially tree planting in Adjumani; energy saving stoves in Agago, Kitgum (with TreeTalk), Lamwo (with CARITAS), and Pader (capacity building, alternative energy sources/conservation strategies)
14	**MAAIF**	Government Ministry involved in extension services: (Agricultural technology and agribusiness advisory services) with OWC in Agago, Climate Smart Agriculture in Amuru, SLM extension/upscaling in Gulu, Kitgum (with Mercy Corps, NARO-ZARDI, DLG and TreeTalk) and FFS with FAO, Lamwo (SLM demos), SLM extension

		(with WOCAT and PRELNOR/DLGs) in Adjumani, Agago,Amuru, Gulu, Kitgum, Lamwo, Nwoya, Omoro and Pader etc
15	**MoLG**	Government Ministry: SLM extension (with WOCAT and PRELNOR/DLGs) in Adjumani, Agago,Amuru, Gulu, Kitgum, Lamwo, Nwoya, Omoro and Pader
16	**MWE**	Government Ministry :Wetlands restoration in Lamwo and Pader (with ENR grant)
17	**NAADS**	Government agency: Tree seedlings distribution in Amuru
18	**NEMA**	Government agency: Wetlands demarcation in Gulu and other DLGs
19	**NUFLIP**	SLM extension in Agago
20	**NUSAF**	SLM extension especially tree planting in Adjumani, Agago, Amuru, Gulu, Kitgum, Lamwo, Nwoya (with YLP and LED),
21	**OPM**	Government Agency (Office of the Prime Minister): SLM extension especially tree planting in Adjumani
22	**OWC**	Government policy (multi-sectoral) SLM extension especially tree planting in Adjumani, Agago (fruit trees), assorted tree seedlings in Amuru (together with YLD, LED), seedling distribution with TreeTalk in Gulu, Nwoya
23	**PCCO**	SLM extension in Agago together with WOWIDET and CESVI with messages on tree planting, good agronomic practices, controlled bush burning and counseling on resettlement after war situation
24	**PMG**	SLM extension in Agago
25	**PRDP**	SLM extension in Agago
26	**PRELNOR**	SLM extension especially tree planting in Adjumani, Agago, Amuru, Gulu, Lamwo, Nwoya
27	**RICE-WN**	Tree seedling distribution in Nwoya,
28	**SPGS**	Tree planting on degraded land in Agago, Gulu (with TreeTalk), Kitgum (Sawlog grant scheme), Omoro (with a few commercial farmers)
29	**TROU**	SLM extension in Pader (with CARITAS; land rights, training of DLG, supply of seeds and seedlings, and market linkages)
30	**ULA**	SLM extension in Amuru and Pader (women land rights)
31	**ULN**	SLM extension (with WOCAT and PRELNOR/DLGs) in Adjumani, Agago,Amuru, Gulu, Kitgum, Lamwo, Nwoya, Omoro and Pader
32	**UNCCD**	SLM extension (with WOCAT-ULN and PRELNOR/DLGs) in Adjumani, Agago,Amuru, Gulu, Kitgum, Lamwo, Nwoya, Omoro and Pader
33	**UNHCR**	SLM extension in Adjumani
34	**USAID**	SLM extension (USAID/SAFE project) together with Sasakawa 2000, TreeTalk, and DLG staff in Gulu,
35	**VODP**	SLM/NRM extension in Amuru, Gulu, Nwoya,
36	**WFP**	SLM extension in Amuru (with ATAAS), Nwoya,
37	**WOCAT**	SLM extension (with ULN and PRELNOR/DLGs) in Adjumani, Agago,Amuru, Gulu, Kitgum, Lamwo, Nwoya, Omoro and Pader
38	**ZOA**	SLM extension in Nwoya (with DLG, ActionAid, Amathione and treeTalk),

Next steps

In view of the existence of multiple projects and programmes in the project area, further re-alignment of the WOCAT-ULN SLM project should involve the following activities either as part of, or immediately following the inception period:

- An integrated geographical map of the watersheds where the project activities will be concentrated
- An inventory of community sketches of their own watersheds clearly mapping institutions that they know to be working with them in the development process, highlighting their own SLM challenges and successes as they see them.
- A document of key SLM technologies and approaches that the WOCAT-ULN project will seek to demonstrate and highlight as examples of methodology in the extension curriculum
- Where possible, much effort should be directed towards formalizing action relationships with other SLM community stakeholders in the selected sites through memoranda of understanding, as a way of enhancing synergies. Activity overlaps need to be avoided as much as possible for resource efficiency.

Stakeholder sessions

Figure 17: Group photo; front Left, Mathias Wakulira (ULN) and Alfred Komakech (PRELNOR), with the team of DLG SLM specialists who will back-stop the twin SLM-Livelihoods Enhancement projects

Figure 18: Focused Group discussion with Charles Malingu (left): In northern Uganda, the WOCAT-ULN SLM interventions will be faced mostly with prevention of land degradation

Appendices

Appendix 1: *Mapping and Stakeholder Analysis Exercise Check-List*

a) Degradation Assessment

What are the hotspots of degradation / bright spots of SLM conservation? Soil (including water – lakes, rivers, streams, creeks), trees, forests, wild life, grasslands and others	Where (including land use and administrative unit – parish, sub-county, etc.)	What SLM interventions (technology, approach, extent, etc.) and by who

What are the drivers of degradation? (include direct pressures and state of degradation)

……

……

……

……

What are the drivers (causes) of SLM conservation interventions? (Include who is involved in effecting conservation – e.g. project, government extension or spontaneous by land owners/users)

……

……

……

……

What opportunities/risks exist in effecting/not effecting SLM interventions?

……

……

……

……

What is the historical evolution of degradation/SLM conservation issues?

……

……

……

……

b) Extension assessment

Who are the current extension service providers on SLM in your district? (Include CBOs, NGOs, institutions, projects/programmes, individuals)

……

……

……

……

What extension messages are being disseminated in relation to natural resources management (NRM)?

……

……

……

……

What is your view on the need to design and disseminate an SLM/NRM curriculum and manual to be used by extension and other service providers?

……

……

……

……

What challenges/risks/weaknesses/disadvantages/threats do you foresee in the delivery of SLM/NRM extension information?

……

……

……

What opportunities/strengths exist for the delivery of SLM/NRM extension in your district?

……

……

……

……...

What SLM-related project(s) are currently being executed by the following organizations in your district (include impacts so far realized or foreseen / what time horizons? Explain please):

FAO:

……

……

……

ATAAS/SLM:

……

……

SPGS (Commercial tree planting model):

……

……

Other Government programmes:

……

……

Other non-government interventions:

……

……

……

What is the status of farmer field school (FFS) / Agro-pastoral field school (APFS) activity in your district (include number, vibrancy, sustainability, etc.)

……

……

……

What is the estimate of livestock numbers (to nearest thousand livestock units – LTU) in your district? (Please include livestock related SLM technologies, degradation trends, livelihood issues)

……

……

Please draw a sketch of your district, pointing out the degradation hotspots and SLM conservation bright spots

c) DLG stakeholders

DLG Office	Name	Contact (telephone/ e-mail address)
Chairman LC V		
RDC		
CAO		
DPO		
DNRO		
DAO		
DFO		
DCDO		
PRELNOR FOCAL PERSON		
KEY NGO / NGO FOCAL PERSON		

Please comment on any other land related SLM/Livelihoods issues that, in your opinion, need to be addressed:

……

……

Appendix 2: WOCAT-LADA DESIRE Questionnaire on Land Degradation

Contributing specialists (Step1)

If several specialists are involved, write the full data of the main resource person and his/her institution below and add the name of the other person(s) with their institution(s).

Last name / Surname First name(s) Female

.... Male

Current institution and address:

Name of institution: .....

Address of institution: .....

City: Postal Code:

.....

State or District:..... Country

.....

Tel:..... Fax: ..... E-mail: .....

Permanent address: .....

City: Postal code:

.....

State or district: ..... Country:

.....

Other resource persons involved: ..... Institution ..... E-mail

.....

.....

Please confirm that institutions, projects, etc. have no objections to the use and dissemination of this information by WOCAT-LADA-DESIRE.

Date:..... Signature: .....

Thank you in advance!

Please enter the information in the online database, see www.wocat.net/databs.asp or send the completed questionnaire plus any additional materials back to the respective project / programme coordinators: WOCAT: hanspeter.liniger@cde.unibe.ch; LADA: freddy.nachtergaele@fao.org; DESIRE WB1: godert.vanlynden@wur.nl

DATA ENTRY TABLE

Please fill out one table for each mapping unit! Make copies of this table as required to fill in information for other mapping units.

Name: _____ Country: _____

Mapping Unit Id (LUS + admin. Unit): _____

Land Use System (Step 2)		
a) LUS area trend	b) LUS intensity trend	c) Remarks (e.g. reasons for trend)

Land degradation (Step 3)									
a) Type			b) Extent	c) Degree	d) Rate	e) Direct Causes	f) Indirect causes	g) Impact on ecosystem services	h) Remarks
i	*ii*	*iii*							

Name: _____ Country: _____

Mapping Unit Id (LUS + admin. Unit): _____

Conservation (Step 4)														
a) Name	b) Group	c) Measure			d) Purpose	e) % of area	f) Degradation addressed			g) Effectiveness	h) Effect, Trend	i) Impact on ESS	j) Period	k) Ref to QT	l) Remarks

Name: _____ Country: _____

Mapping Unit Id (LUS + admin. Unit): _____

Expert recommendation (Step 5)	
Expert recommendation	Remarks and additional information

Appendix 3: Activity extraction from Annual Workplan and Budget

Component A: Operationalization of a SLM knowledge base and management system for agricultural extension service building on existing knowledge

Output 1: SLM knowledge management system elaborated for strengthening extension curricula with SLM scale-up methodology

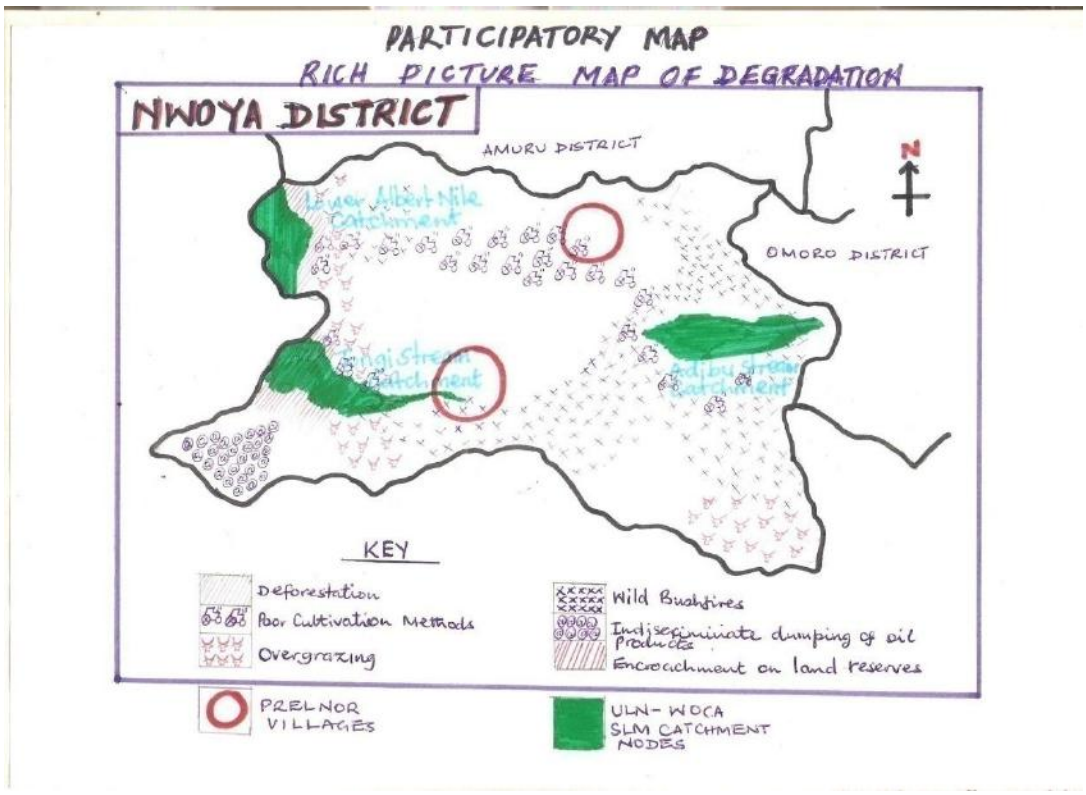
Activity	Methods	Outputs	Delivered by	Person days	Budget (US $)	Actual Timeline
1.1 Appraisal phase/ Inception activities and adaptation of WOCAT tools and methods to country context		Booklet of information with different chapters/reports				
1.1.1 Reconnaissance visit to Northern Uganda project site: Preparation to host WOCAT Director Hanspeter Liniger, mobilization at site level, booking appointments, 3-day field visit with Hanspeter Liniger, report writing and case study compilation (2 days)	Field Visit to the northern Uganda districts of Gulu, Nwoya and Amuru	Inception report and case study documentation	Coordination: PC Mobilization: FO Field Visit: CEF Report: PC	19	**2,235**	**Apr-16**
1.1.2 Conceptualize, plan, hold inception workshop with stakeholders and partners (Farmers (small, medium, large), Policy makers- LG,Private sector e.g. nursery operators, Researchers – NARO, Extension agents, NGO and Farmer groups, SLM national task force) and PRELINOR - PMU) to:	2 days inception workshop host at project site and attended by all relevant partners including PRELNOR PMU, CIAT, UNDP, FAO, NARO, HANDLE, Farmer Media, Gulu University to inform about the grant and discuss potential collaboration and linkages	Proceedings of inception workshop detailing collaboration and implementation arrangement , Synthesis report on existing SLM-related KM systems, highlighting	CM Facilitator PC FO, CEF	24	**16,967**	**Oct- 23** **To** **Oct-29 2016**

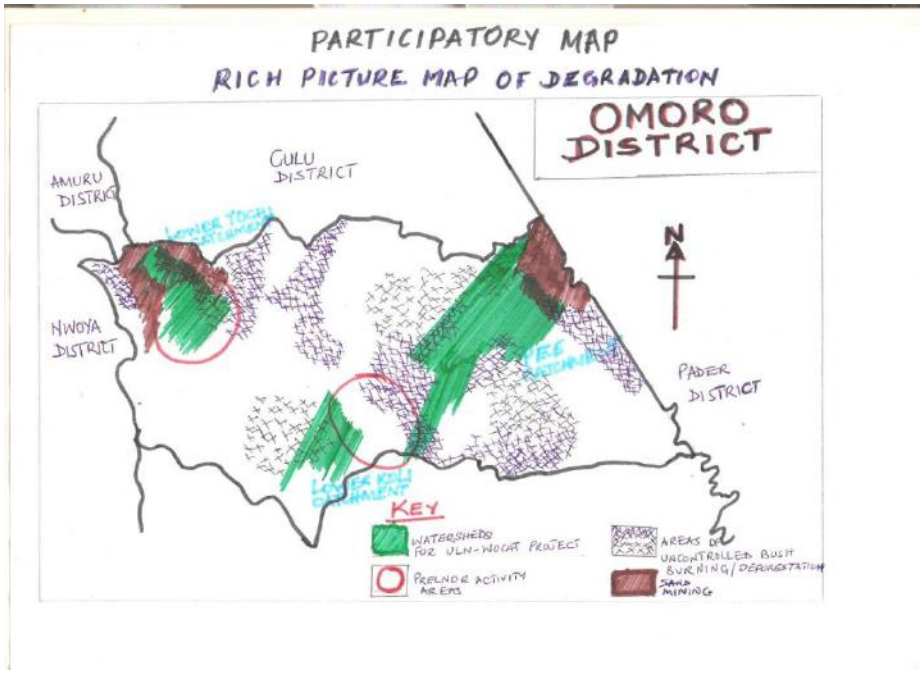
Activity	Methods	Outputs	Delivered by	Person days	Budget (US $)	Actual Timeline
i. Identify, list and meet project-relevant stakeholders /programmes /projects of national institutions, NGOs, international agencies, Universities etc ii. Identify and select existing SLM partners (Government, Non-governmental organizations, projects, researchers, innovative farmer groups, Universities) iii. Identify and list good SLM practices (existing and potential) in cropland, rangeland, mixed use, forest (external and innovative) in project area. Fill out WOCAT Inventory sheet on SLM Technologies and Approaches, share with partners (and PRELNOR team), integrate feedback. Identify and list unsustainable land management practices in the project area.	Plenary meeting where the identified stakeholders present relevant SLM activities. Group work at project site with stakeholders (PRELNOR PMU, CIAT, UNDP, FAO, NARO, HANDLE, Farmer Media, Gulu University) during the inception workshop. *(Comment: include PRELNOR staff to understand which good practices they foresee to promote.)* DPSIR assessment. Use of WOCAT Inventory sheet on SLM Technologies and Approaches.) Use participatory mapping, Google Earth or aerial images as the basis and also organize a half-day meeting in each of the districts with representatives of farmer groups, extension staff etc. to do a participatory mapping exercise. *(Comment: CDE/WOCAT can support ULN in putting together the methodology for the participatory*	potential entry points for project activities, WOCAT Inventory sheet of good practices (existing and potential) filled out, shared with partners, feedback integrated. DPSIR assessment made. Preliminary map with designated areas, preliminary selection of households based on PRELNOR baseline A harmonised workplan in place				

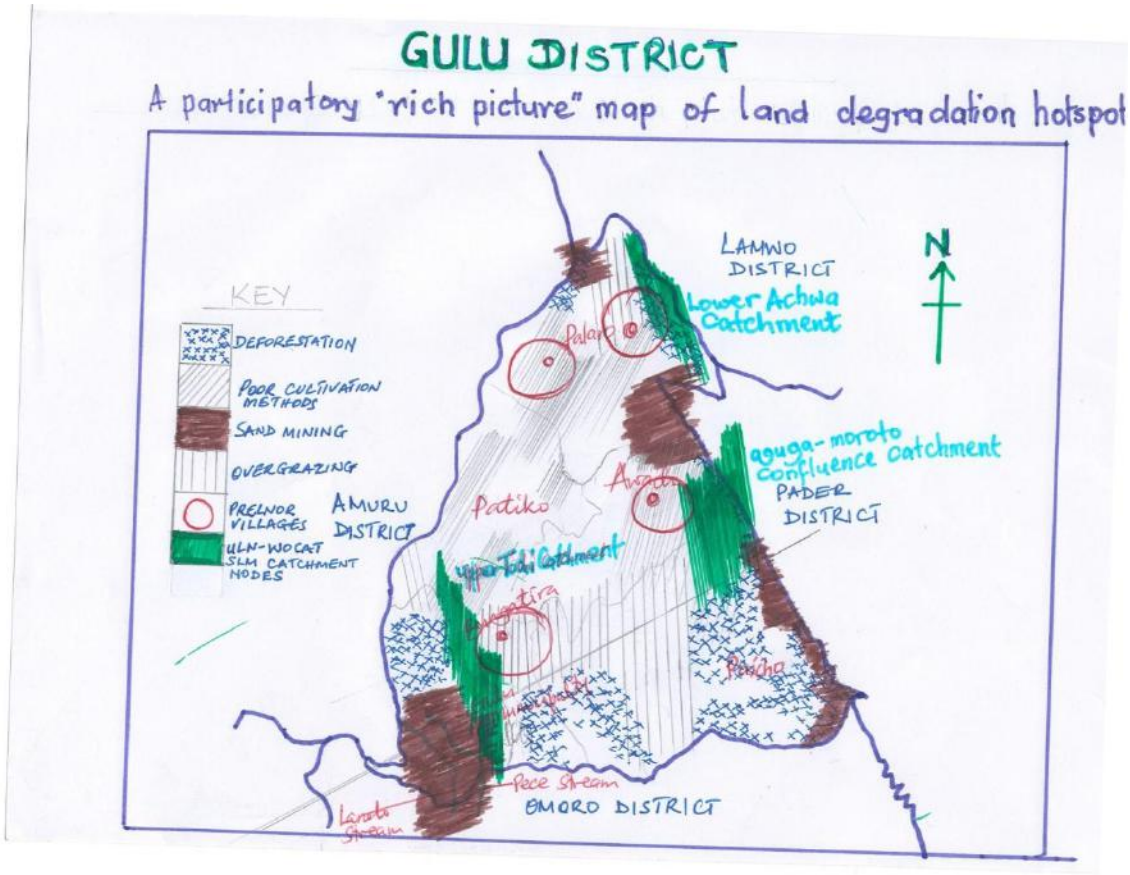
Activity	Methods	Outputs	Delivered by	Person days	Budget (US $)	Actual Timeline
Identification of driving forces for good and bad land management (e.g. by doing a rough DPSIR assessment)	*mapping exercise. Foresee also collaboration with Gulu University)* ULN-PRELNOR PMU meetings					
iv. Identification of specific areas under unsustainable land management affected by climate change and extremes; preliminary selection of potential beneficiary households (if feasible)						
v. Linking of the WOCAT grant AWPB with the AWPB of PRELNOR						

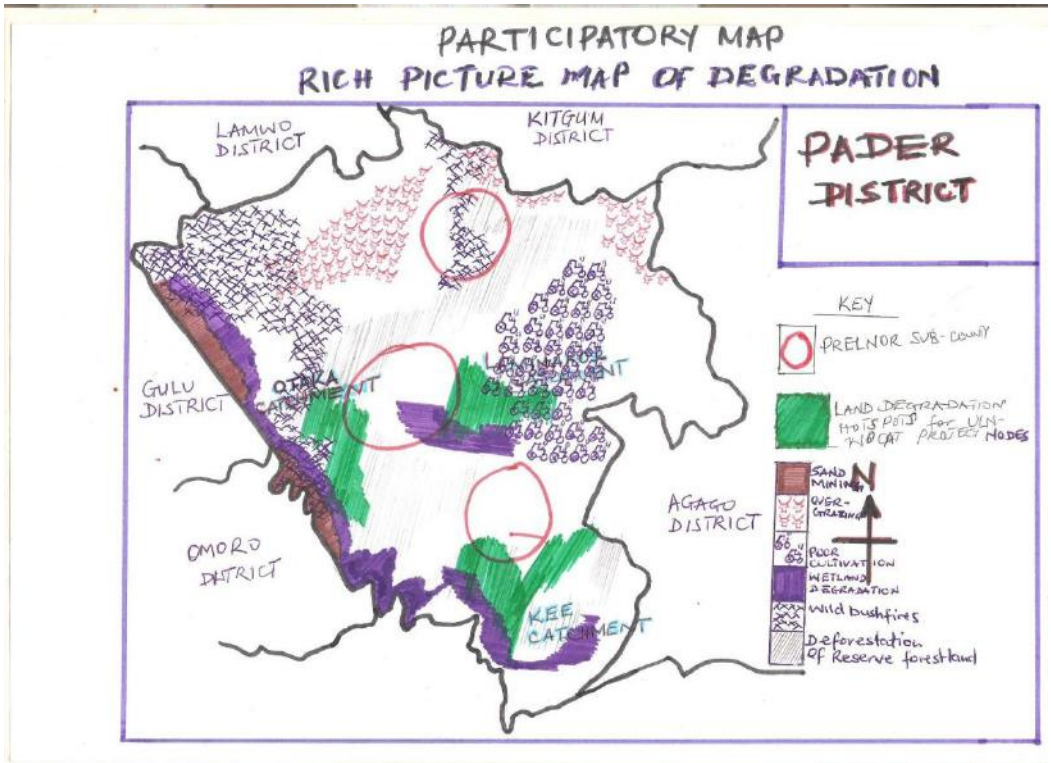
Appendix 4: Rich picture maps showing degradation Hot Spots

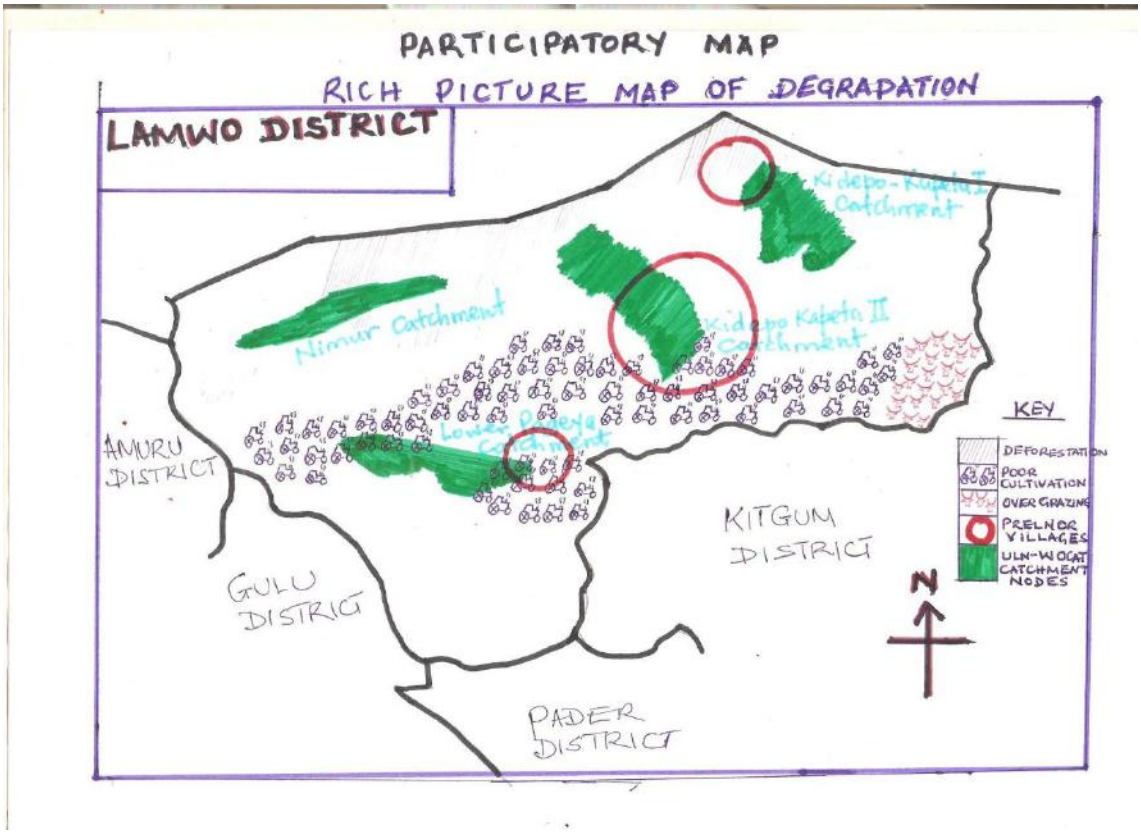
Rich maps of 9 districts, Northern Uganda




PARTICIPATORY MAP
RICH PICTURE MAP OF DEGRADATION
OMORO DISTRICT
GULU DISTRICT
AMURU DISTRICT
NWOYA DISTRICT
PADER DISTRICT
N
KEY
WATERSHEDS FOR ULN-WOCAT PROJECT
PRELNDR ACTIVITY AREAS
AREAS OF UNCONTROLLED BUSH BURNING/ DEFORESTATION
SAND MINING

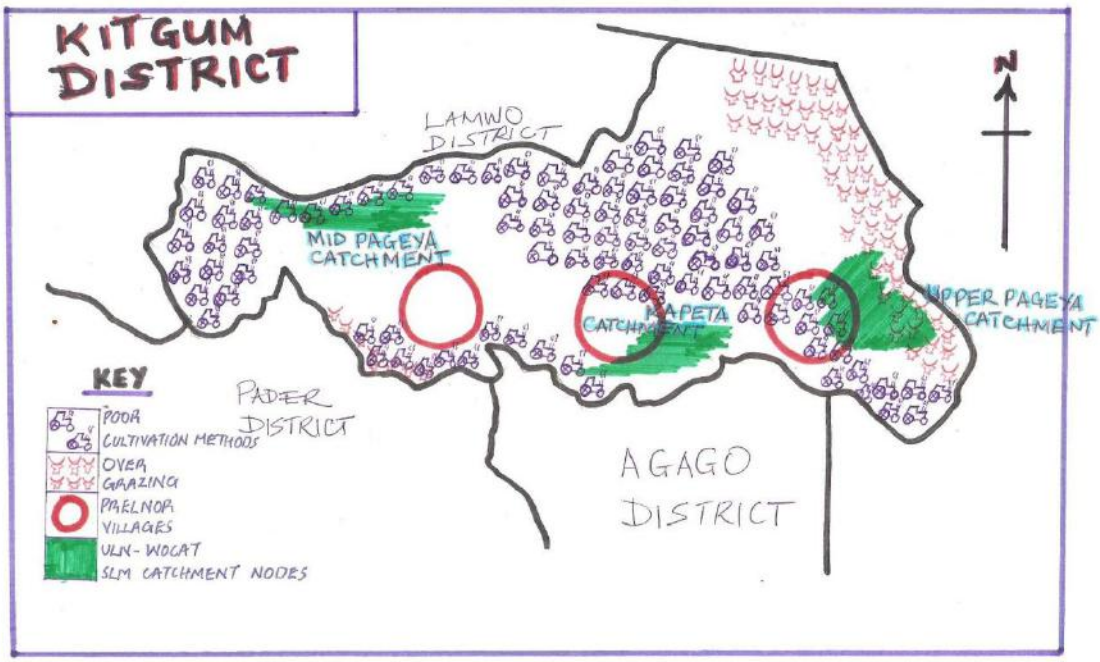

GULU DISTRICT
A participatory "rich picture" map of land degradation hotspot
LAMWO DISTRICT
Lower Achwa Catchment
N
KEY
DEFORESTATION
POOR CULTIVATION METHODS
SAND MINING
OVERGRAZING
PRELNOR VILLAGES
ULN-WOCAT SLM CATCHMENT NODES
AMURU DISTRICT
Patiko
aguga-morato confluence catchment
PADER DISTRICT
Pece Stream
OMORO DISTRICT


PARTICIPATORY MAP
RICH PICTURE MAP OF DEGRADATION
LAMWO DISTRICT
KITGUM DISTRICT
PADER DISTRICT
KEY
PRELNOR SUB-COUNTY
GULU DISTRICT
AGAGO DISTRICT
OMORO DISTRICT
KEE CATCHMENT
N
SAND MINING
OVER-GRAZING
POOR CULTIVATION
WETLAND DEGRADATION
Wild bushfires
Deforestation Of Reserve forestland


PARTICIPATORY MAP
RICH PICTURE MAP OF DEGRADATION
LAMWO DISTRICT
Kidepo-Kapeta I Catchment
Nimur Catchment
Kidepo Kapeta II Catchment
Lower Pajeya Catchment
AMURU DISTRICT
GULU DISTRIC
KITGUM DISTRICT
PADER DISTRICT
KEY
DEFORESTATION
POOR CULTIVATION
OVER GRAZING
PRELNOR VILLAGES
ULN-WOCAT CATCHMENT NODES
N

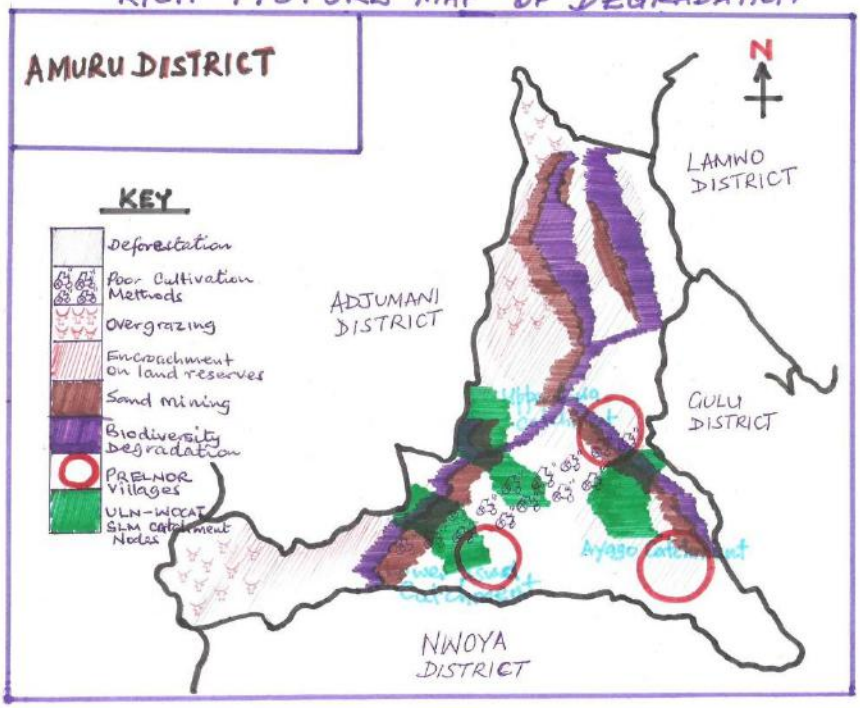
PARTICIPATORY MAP

RICH PICTURE MAP OF DEGRADATION



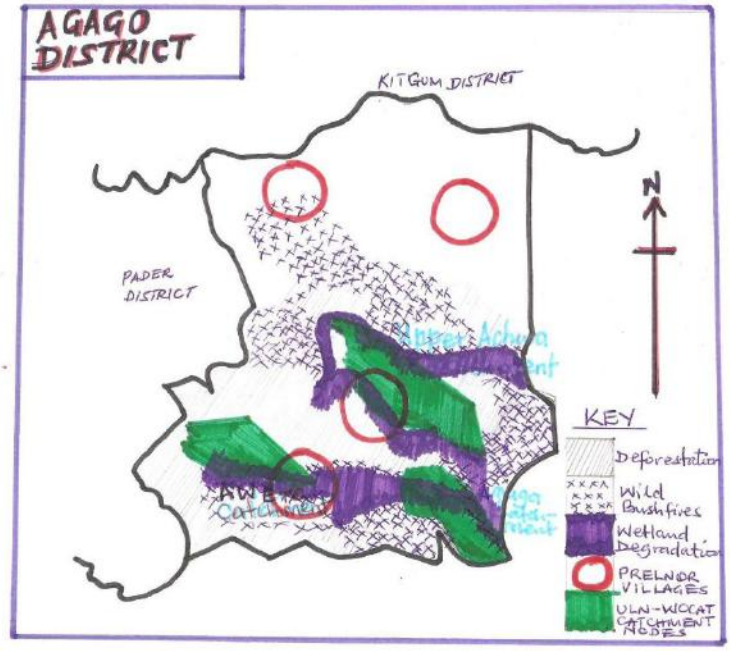
PARTICIPATORY MAP

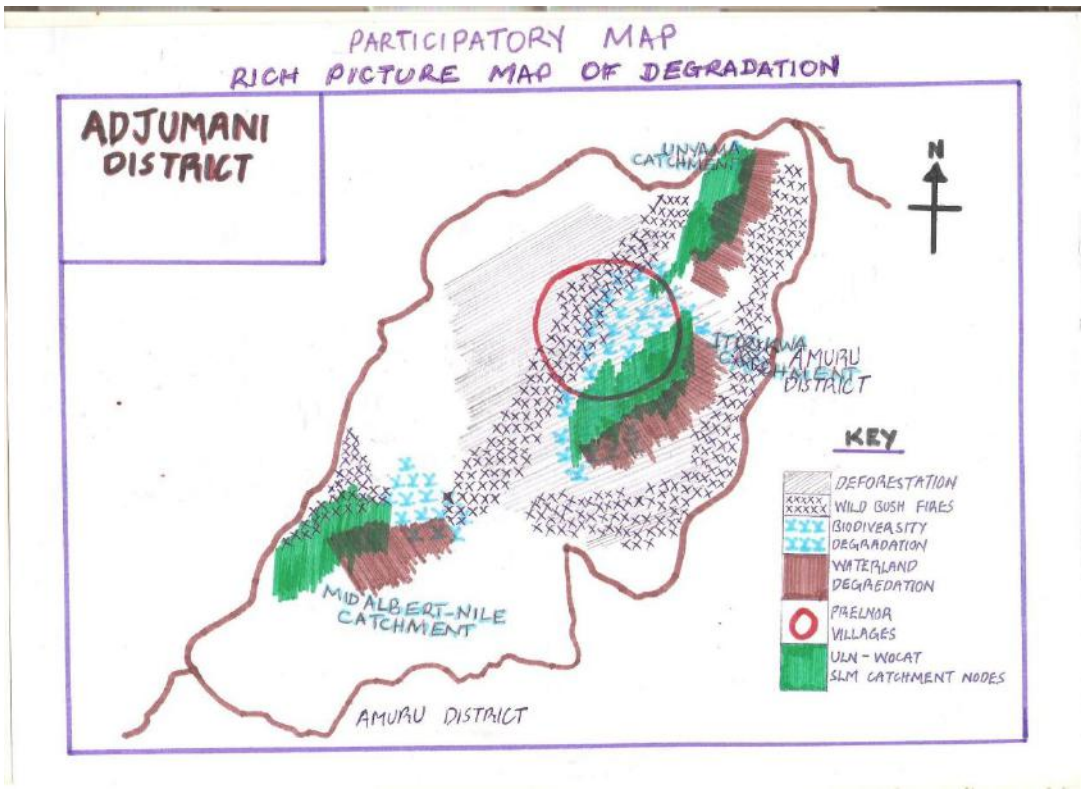
RICH PICTURE MAP OF DEGRADATION



PARTICIPATORY MAP

RICH PICTURE MAP OF DEGRADATION




PARTICIPATORY MAP
RICH PICTURE MAP OF DEGRADATION
ADJUMANI DISTRICT
UNYAMA CATCHMENT
N
ITIRIKWA CATCHMENT
AMURU DISTRICT
KEY
DEFORESTATION
WILD BUSH FIRES
BIODIVERSITY DEGRADATION
WATERLAND DEGREDATION
PRELNOR VILLAGES
ULN - WOCAT SLM CATCHMENT NODES
MID ALBERT-NILE CATCHMENT
AMURU DISTRICT

Appendix 5: Land use systems report

Land use systems map of the Acholi sub region and Adjumani

Data layers used to prepare the Land Use Systems map

Several data layers were used in the preparation of the Land Use Systems (LUS) map. Most of these were obtained from the institutions within Uganda mandated to manage the natural resource at hand or to manage such data. Table 1 below outlines the datasets used. It also indicates the metadata of each dataset.

Table 1: Land use systems data for map and database

Used for	Name	Year of measure	Year /periodicity of publication	Scale / resolution extent	Format	Availability or copyright	Producer	Metadata	Unit of measurement
Admin units	Uganda_districts_2014	2014	2015	1:50,000	(.shp) Polygons	Free	Uganda Bureau of statistics	Report	Administative units
Land cover / use based ecosystems	Acholi_LULC_2015	2015	2016	1:50,000	(.shp) Polygons	Purchased	Biomass department NFA	NFA	Classes
Livestock density 1	Livestock statistics	2015	2016		Table	Free	Districts		Numbers
Livestock density 2	Livestock statistics	2008	2009		Table	Free	Uganda Bureau of statistics	Report	Numbers
Livestock natural regions	ASTER GDEM		2009	30 M	GRID	Free	METI/NASA	METI/NASA	Meters
Protected areas	UWA_current	2002	2002-2014		(.shp) Polygons	Free	Uganda Wildlife Authority	Uganda Wildlife Authority	Protected area boundaries
Protected areas	NFA			1:50,000	(.shp) Polygons	Free	National Forest Authority	National Forest Authority	Protected area boundaries
Wetlands	UgandaWetlands	2008	2008	1:50,000	(.shp) Polygons	Free	Department of Wetland Management	Department of Wetland Management	Wetland boundaries

Note: It was not possible to obtain recent livestock data for all the districts. For four of the districts, older data was used. This has resulted in having two columns of livestock density data in the table. Effort will be made at a later stage to obtain recent data for all districts.

Resolution	30 meters (base ASTER GDEM)
Scale	1 : 50.000 based on the data (name of the data with this resolution)
Format	ESRI GRID
Precision	To ensure that all layers are well aligned and have the same extent, the procedure below was carried out in the options window of spatial analyst - In the tab general, insert the working directory - In the tab extent, select the analysis extent (probably "as …" the baseline layer) - In the tab extent, Snap extent to (probably "as …" the baseline layer) - In cell size, select the cell size (probably "as …" the baseline layer).
Validation	Results are based on experience of the work group and data from the field.The preliminary Land use systems map will be reviewed at a stakeholder's workshop by the team that will complete the LADA/Wocat forms. Results presented are not yet validated. Five districts provided up to date livestock data. For the rest of the districts, older data (2008) obtained from UBOS was used.

Land cover

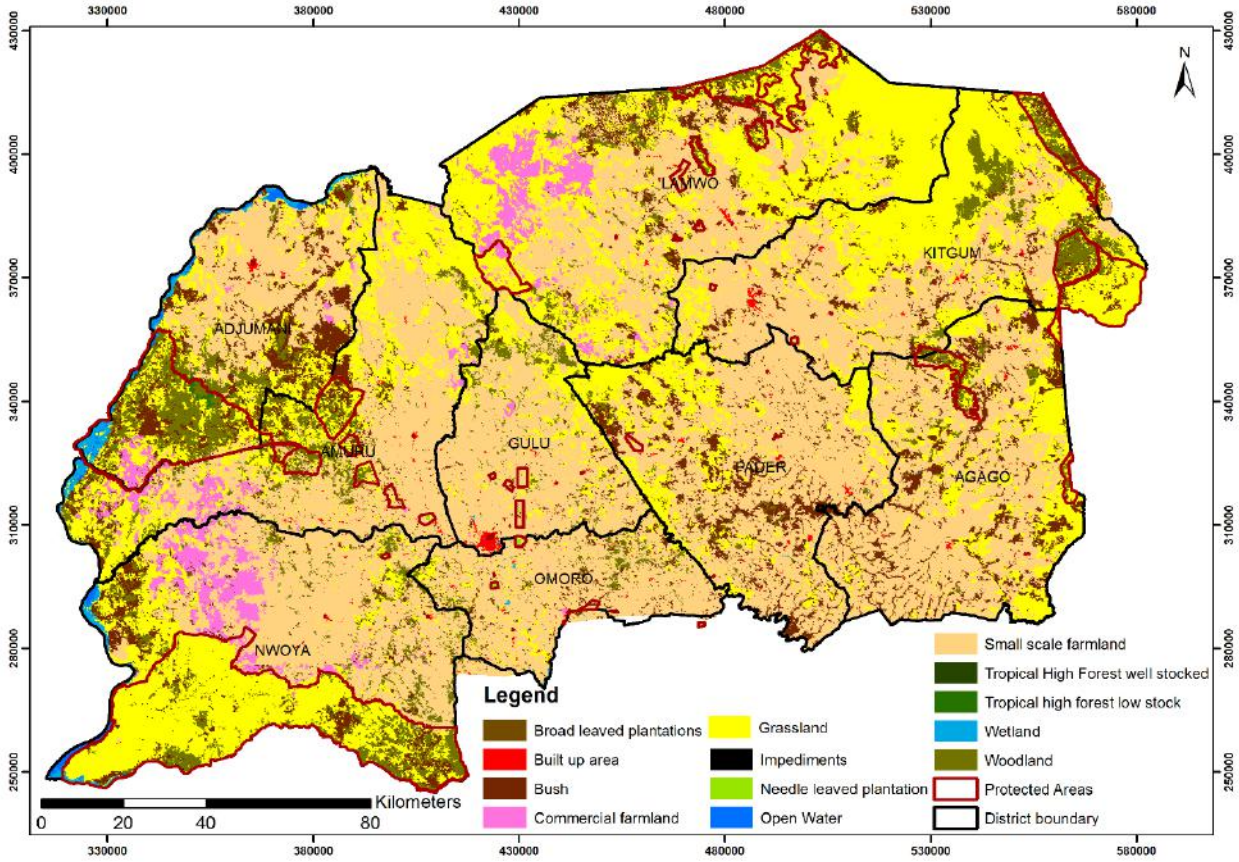


Figure 1: Land cover of the Acholi region

The area is dominated by small scale farmland followed by grassland. Commercial farmland significantly appears in two areas; the western side of the region and in the northern part in Lamwo district. The protected areas in Gulu district are under cultivation. Also most of the small protected areas are cultivated. Most of the remaining woodland is in protected areas.

Wetlands

The parent map of wetland areas was prepared by Department of Wetlands Management in 2008. Landsat images (30 m resolution) of 2008 were used. The map was ground truthed in 2009. The map presented hereafter was used during LUS preparation, without any modification. Figure 2 shows the wetlands that occur in the Acholi region.

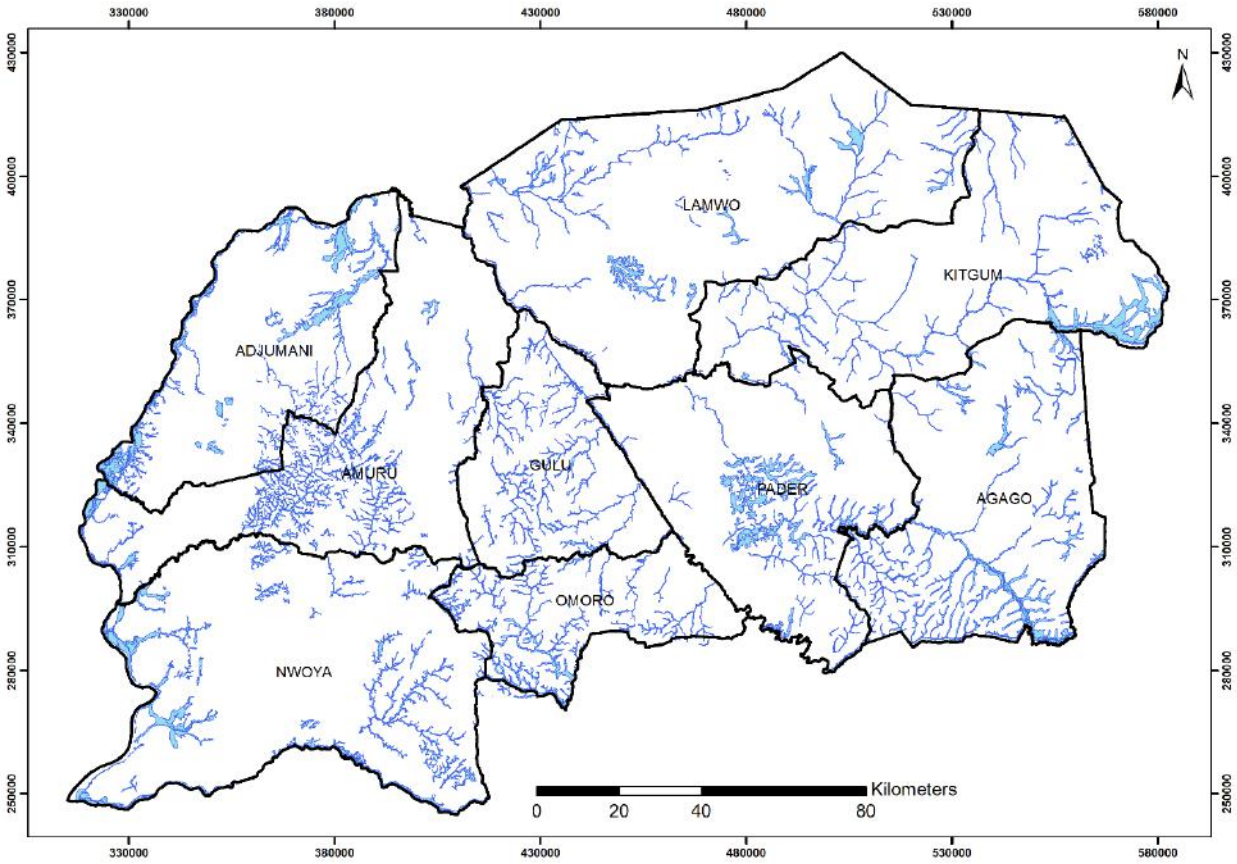


Figure 2: Wetland cover of the Acholi region. Although there are many wetlands in the region, most of them are seasonal.

Protected areas

The map of protected areas shown below (Figure 3) is a combination of protected areas managed by National Forest Authority (NFA) and those managed by Uganda Wildlife Authority. The map of the Forest Reserves was prepared by National Forest Authority (Biomass Department) in 1996 and UWA prepared the map of the areas under their management in 2002. The map presented hereafter was used during LUS preparation without any further classification.

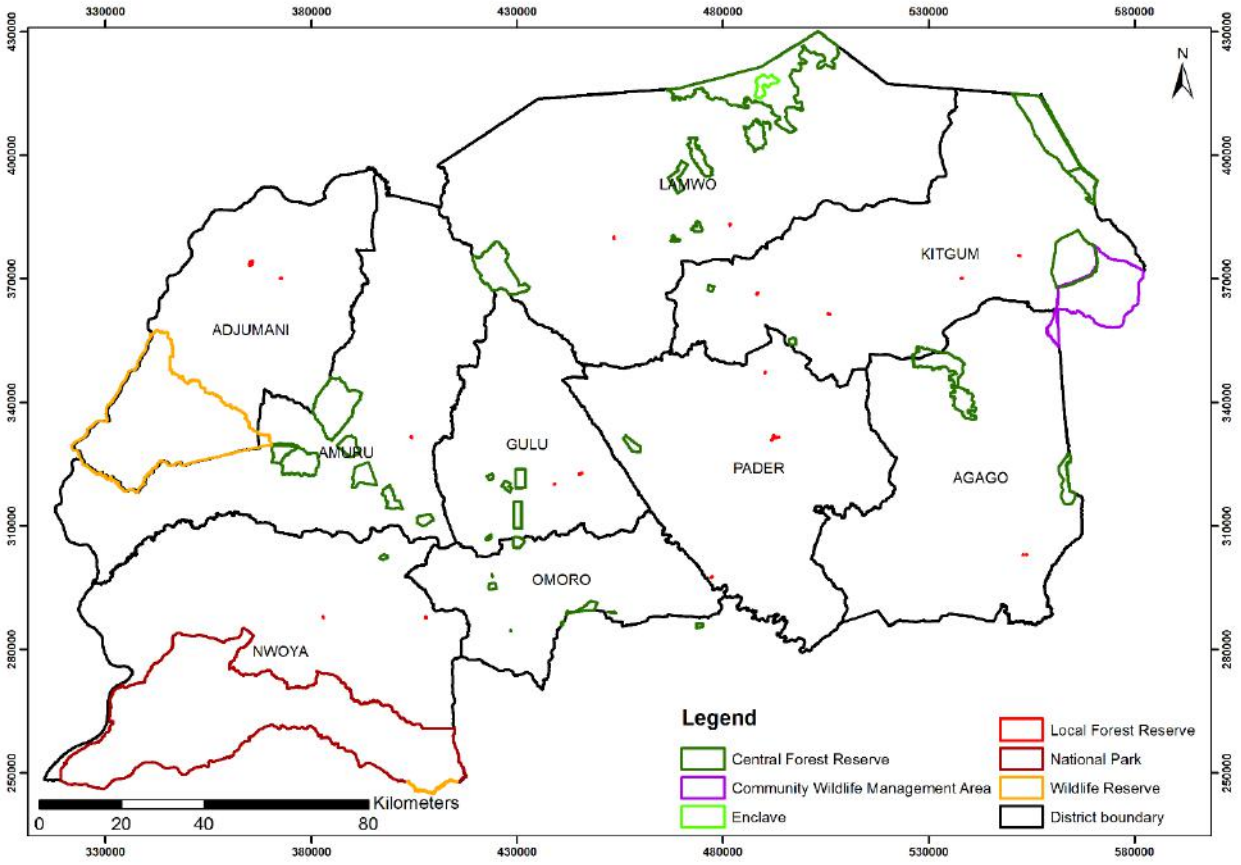


Figure 3: Protected Areas of the Acholi region.

UWA protected areas (National park, wildlife reserve and community wildlife management area) are generally spatially bigger than areas under other institutions. Local forest reserves are the smallest. Relating the protected areas to the land cover, most of the local forest reserves

and the central forest reserves in Gulu district were under agriculture. The wildlife reserve on the western side of the region has also been encroached on its southern part. There was a portion taken over for commercial farmland.

Livestock intensity

The livestock map was prepared using livestock species density data based on administrative units (districts) and the natural regions for livestock distribution and protection status. The natural regions map is, however, indicated in Figure 5.

Classification of livestock statistical data

The livestock census baseline data used in this analysis is shown in Table 2. Five of the districts were able to provide up to date data. For the rest of the districts, livestock census data collected I 2008 was used.

Table2: Livestock heads in Acholi region.

District	Cattle	Goat	Sheep	Pig	Chicken	Source
Pader	57,090	57,807	6,300	39,430	150,320	UBOS, 2008
Lamwo	47,008	89,875	8,397	8,015	160,532	District
Mwoya	33,060	67,092	9,770	19,180	142,120	UBOS 2008
Gulu	40,130	65,301	4,290	26,570	299,830	UBOS 2008
Adjumani	64,264	132,458	6,183	7,857	391,626	District
Agago	43,723	179,301	2,663	14,924	281,397	District
Kitgum	28,725	198,342	7,917	10,316	448,342	District
Amuru	15,500	113,000	3,400	8,600	24,700	District
Omoro	40,130	65,301	4,290	26,570	299,830	UBOS 2008

These data were converted into tropical livestock units (TLU) using the same conversion factors as defined by NBI-NELSAP: cattle - 0.75, goats - 0.1, sheep - 0.1, pigs - 0.2 and chicken 0.01. This was done with the aim of having comparable data between species different sizes. The results were then calibrated based on administration unit (district) extent, obtaining the TLU/km^2. The resultant values for each district are shown in Table 3 below.

Table3: Tropical livestock units (TLU) per square kilometre for the Acholi region

District	Cattle TLU/KM^2	Goat TLU/KM^2	Sheep TLU/KM^2	Pig TLU/KM^2	Chicken TLU/KM^2
ADJUMANI	16.31	4.48	0.21	0.53	1.33
AGAGO	9.31	6.07	0.09	1.01	0.95
GULU	15.55	2.21	0.15	1.80	1.01
KITGUM	5.24	6.71	0.27	0.70	1.52
LAMWO	6.48	3.04	0.28	0.54	0.54
NWOYA	5.24	2.27	0.33	1.30	0.48
PADER	12.85	1.96	0.21	2.67	0.51
OMORO	19.00	2.21	0.15	1.80	1.01
AMURU	3.17	3.82	0.12	0.58	0.08

To prepare the livestock map, additional information obtained from key informants was used. It was revealed that forest reserves become the main source of fodder for the livestock during the dry season. They were therefore designated as areas with moderate livestock. Also low lying areas close to water bodies are intensively used for livestock feeding and as access to watering points. They were, therefore designated as areas of high livestock. Figure 4 shows location of such areas.

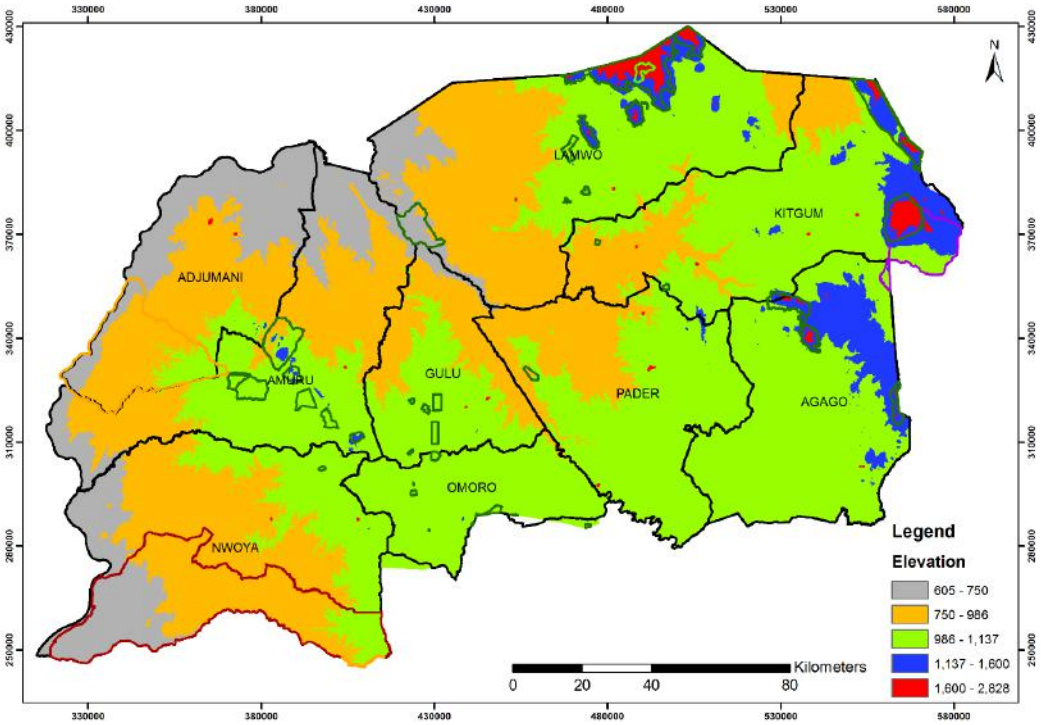


Figure 4: Natural regions of the Acholi region segmented using elevation. Highlands represent any area above 1600 m, medium altitude represents 750≤1600 and lowlands represent ≤750

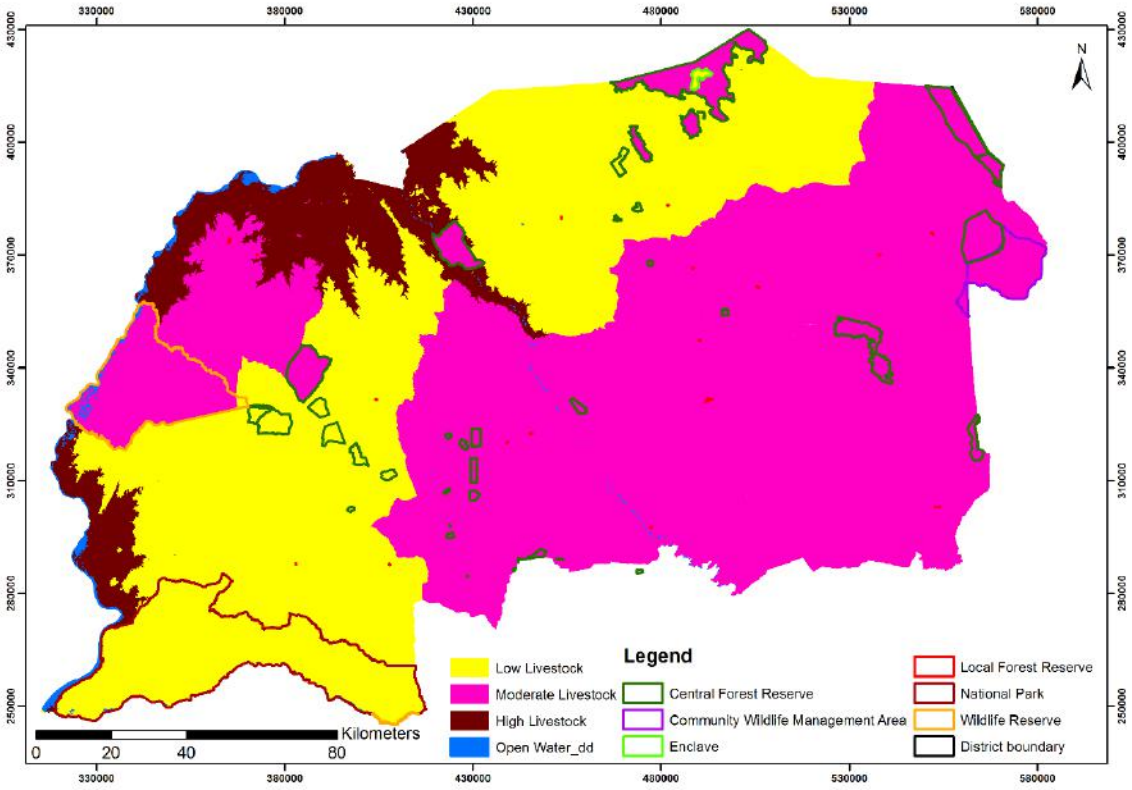


Figure 5: Livestock intensity map of the Acholi region.

Land use systems map

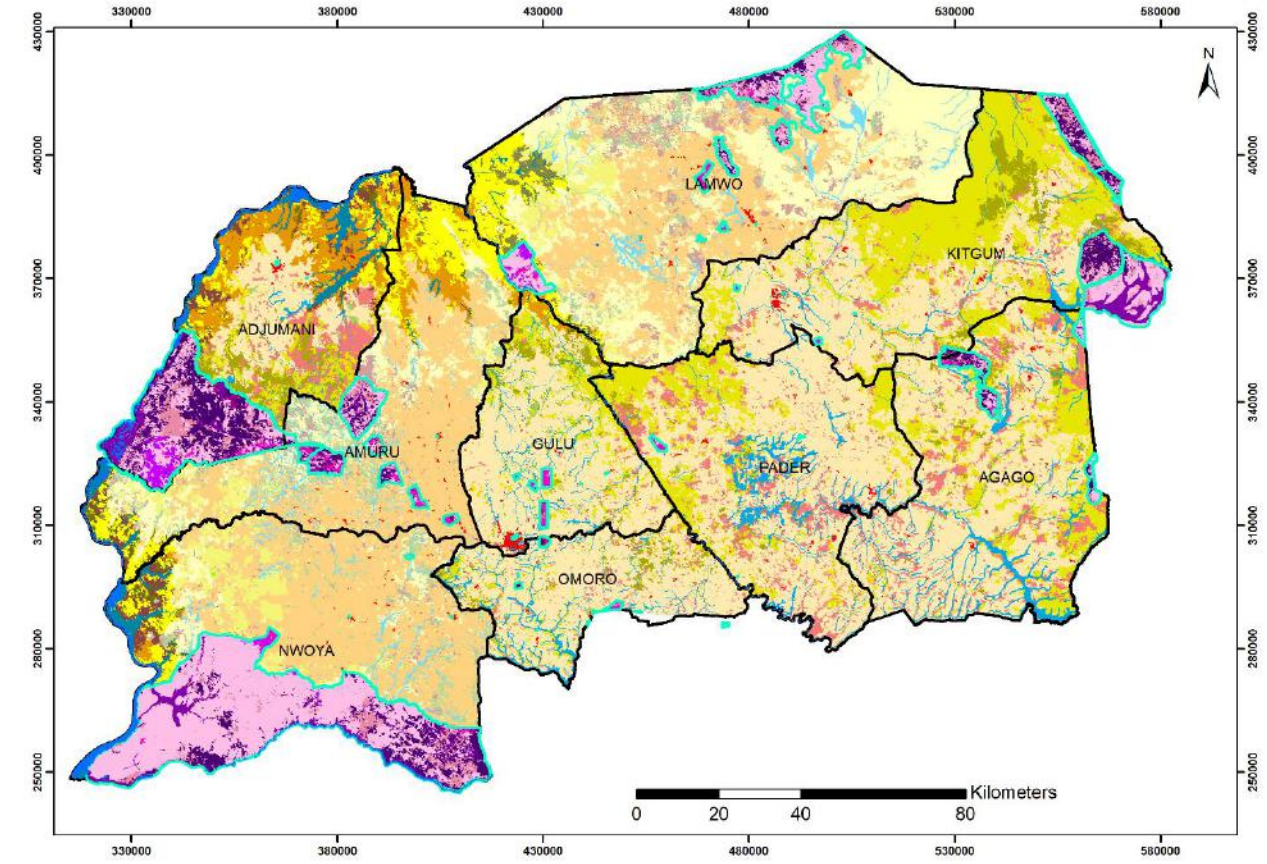
The land cover, livestock intensity, protected area, digital elevation model and wetlands data layers were used in the preparation of the livestock map. The land cover was the base layer of the map. Data were combined using the conditional command ("CON") of ArcGIS Spatial Analyst. The major land use classes obtained are shown in Table 4 below.

Table 4: Main land use systems table

Code	Ecosystem based land cover	Land Use System Name
1	Wetlands	Protected Wetlands
2		Wetland High Livestock
3		Wetland Moderate Livestock
4		Wetland Low Livestock
5	Builtup	Builtup Area
6	Forest Plantation	Protected Forest Plantation
8		Forest Plantation Moderate Livestock
9		Forest Plantation Low Livestock
10	Grassland	Protected Grassland
11		Grassland High Livestock
12		Grassland Moderate Livestock
13		Grassland Low Livestock
14	Woodland	Protected Woodland
15		Woodland High Livestock
16		Woodland Moderate Livestock
17		Woodland Low Livestock
18	Bushland	Protected Bushland
19		Bushland High Livestock
20		Bushland Moderate Livestock
21		Bushland Low Livestock
22	Seasonal crop	Protected Seasonal Crops
23		Seasonal Crops High Livestock
24		Seasonal Crops Moderate Livestock
25		Seasonal Crops Low Livestock
26	Uniform Farmland	Protected Uniform Farmland
27		Uniform Farmland High Livestock
28		Uniform Farmland Moderate Livestock
29		Uniform Farmland Low Livestock

30	Tropical High Forest	Protected Tropical High Livestock
32		Protected Forest Moderate Livestock
34		Protected Impediments
35	Impediments	Impediments High Livestock
36		Impediments Moderate Livestock
37		Impediments Low Livestock
38	Open Water	Open Water

A total of thirty eight (38) major land uses were envisioned to occur in the Acholi region. On running the analysis, a total of 35 land use systems were obtained. Figure 6 provides a visual display of the distribution of the land use systems and Table 5 below shows the area of each land use system.



Legend

- Builtup Area
- Bushland High Livestock
- Bushland Low Livestock
- Bushland Moderate Livestock
- Forest Plantation Low Livestock
- Forest Plantation Moderate Livestock
- Grassland High Livestock
- Grassland Low Livestock
- Grassland Moderate Livestock
- Impediments High Livestock
- Impediments Low Livestock
- Impediments Moderate Livestock
- Open Water
- Protected Bushland
- Protected Forest Moderate Livestock
- Protected Forest Plantation
- Protected Grassland
- Protected Impediments
- Protected Seasonal Crops
- Protected Tropical High Forest
- Protected Uniform Farmland
- Protected Wetlands
- Protected Woodland
- Seasonal Crops High Livestock
- Seasonal Crops Low Livestock
- Seasonal Crops Moderate Livestock
- Uniform Farmland High Livestock
- Uniform Farmland Low Livestock
- Uniform Farmland Moderate Livestock
- Wetland High Livestock
- Wetland Low Livestock
- Wetland Moderate Livestock
- Woodland High Livestock
- Woodland Low Livestock
- Woodland Moderate Livestock
- Protected Areas
- District boundary

Figure 6: Major land uses of the Acholi region

Table 4: Area of each land use system

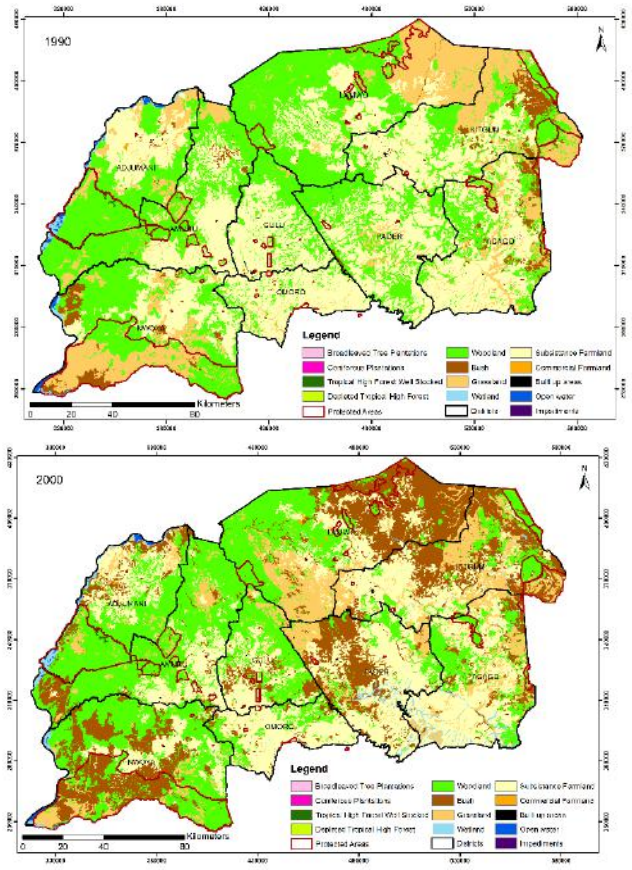
Land Use System	Area (KM2)
Builtup Area	139.01
Bushland High Livestock	215.33
Bushland Low Livestock	507.81
Bushland Moderate Livestock	1424.62
Forest Plantation Low Livestock	2.07
Forest Plantation Moderate Livestock	4.35
Grassland High Livestock	1032.90
Grassland Low Livestock	2873.25
Grassland Moderate Livestock	3293.49
Impediments High Livestock	0.40
Impediments Low Livestock	3.10
Impediments Moderate Livestock	2.54
Open Water	82.51
Protected Bushland	415.98
Protected Forest Moderate Livestock	3.75
Protected Forest Plantation	7.47
Protected Grassland	1911.53
Protected Impediments	1.32
Protected Seasonal Crops	173.86
Protected Tropical High Forest	11.99
Protected Uniform Farmland	83.99
Protected Wetlands	375.99
Protected Woodland	818.13
Seasonal Crops High Livestock	712.03
Seasonal Crops Low Livestock	4912.71

Seasonal Crops Moderate Livestock	8534.86
Uniform Farmland High Livestock	105.85
Uniform Farmland Low Livestock	718.94
Uniform Farmland Moderate Livestock	21.23
Wetland High Livestock	334.46
Wetland Low Livestock	368.03
Wetland Moderate Livestock	857.64
Woodland High Livestock	109.99
Woodland Low Livestock	523.69
Woodland Moderate Livestock	650.02

Table 4 above shows that seasonal crops has the largest coverage (8534.86 KM^2) followed by seasonal crops low livestock (4912.71 KM^2). Among the natural vegetation types, grassland moderate livestock had the highest spatial coverage (3293.49 KM^2).

Land cover/use change

Land cover/use maps of 1990, 2000, 2005, 2010 and 2015 generated by NFA were used for this analysis. Figure 7 below provides an overview of the land cover/use changes that have occurred in the Acholi region.


1990
Legend
Broadleaved Tree Plantations
Coniferous Plantations
Tropical High Forest Well Stocked
Degraded Tropical High Forest
Protected Areas
Woodland
Bush
Grassland
Wetland
Districts
Subsistence Farmland
Commercial Farmland
Built up areas
Open water
Impediments
Kilometers
0 20 40 80
2000
Legend
Broadleaved Tree Plantations
Coniferous Plantations
Tropical High Forest Well Stocked
Degraded Tropical High Forest
Protected Areas
Woodland
Bush
Grassland
Wetland
Districts
Subsistence Farmland
Commercial Farmland
Built up areas
Open water
Impediments
Kilometers
0 20 40 80

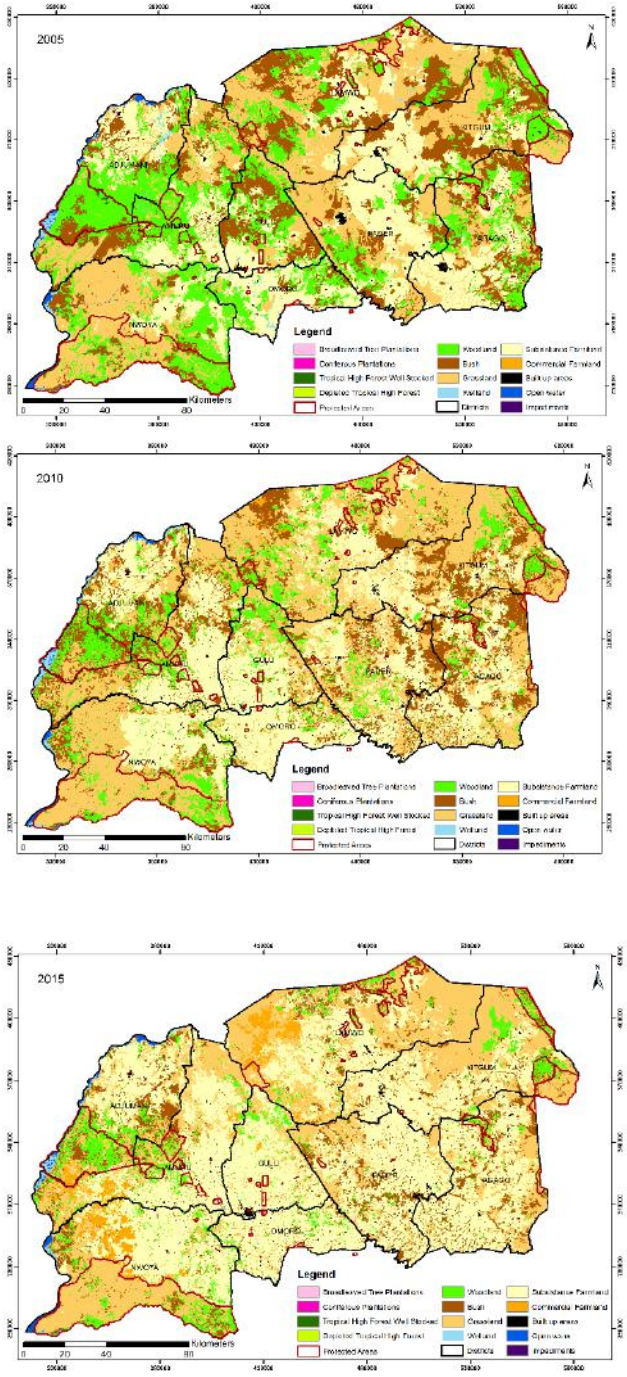


Figure 7: Maps of land cover over a period of 25 years (1990-2015) of the Acholi region

The maps show that in 1990, the area was mainly covered by woodland. Subsistence farmland was not continuous over the area and there was low coverage of bush. By 2000, bush had

increased but there were still some areas which did not have this class. By 2005, it had spread all over the area. By 2015, subsistence farmland and grassland are the most dominant. Table 5 below provides information about the actual coverage of each land cover/use type.

Table 5: Land cover/use changes between 1990 and 2005

	Year					Percentage change		
Class Name	**1990**	**2000**	**2005**	**2010**	**2015**	**1990_2005**	**2005_2015**	**1990_2015**
Broad leaved plantations	128310	96450	256860	51060	210660	100	-18	64
Needle leaved plantation	78780	1590	105420	117000	273480	34	159	247
Tropical High Forest well stocked	430170	505200	579540	642390	58860	35	-90	-86
Tropical high forest low stock	0	0	59730	164850	535800		797	
Woodland	426998940	357293340	251151990	121706760	75301740	-41	-70	-82
Bush	31462320	223235160	195900930	178945320	93250740	523	-52	196
Grassland	171070800	128957070	303876180	375718320	322086510	78	6	88
Wetland	5434830	15427290	9536820	7191570	4578300	75	-52	-16
Small scale farmland	400824150	311428710	269709510	347302500	503208120	-33	87	26
Commercial farmland	317940	1102980	193110	2468100	31806210	-39	16371	9904
Built up area	585660	1025730	4646220	3452250	4903950	693	6	737
Open Water	5253000	3651420	6059910	4446300	6249180	15	3	19
Impediments	151800	11760	660480	530280	264660	335	-60	74

Land cover/use has changed significantly over the years. In 1990, woodland had the largest spatial coverage followed by small scale farmland. In 2005, small scale farmland has the largest spatial coverage followed by grassland. Whereas needle leaved plantation has consistently increased over the years, woodland have consistently decreased. The rest of the cover types have showed inconsistent changes; decreasing at one time period and increasing in another. Most significant overall increase was for the commercial farmland (9904%), Built-up areas (737%) and needle leaved plantation (247%). Overall decrease in cover was recorded for tropical high forest well stocked (-86%), woodland (-82%) and wetland (-16%).

The decrease of spatial coverage of the tropical high forest well stocked, woodland and the wetland is an indicator of land degradation. Although there is increase in planted forest (broad leaved and needle leaved plantations), they normally have lower biodiversity than the natural vegetation. This is a pointer to biodiversity loss over the area. It is therefore important that the full scale of land degradation using the WOCAT approach is assessed over the region.

WAY FORWARD

The generated land use system map shows the main land use systems that occur in the area. These may need to be validated at w workshop where community leaders familiar with the landscape are present.

There is need to obtain up-to-date livestock data for all the districts to enable true comparability of the livestock intensity between districts.

The land cover/use of the area has changed greatly over the years. Most of the changes are caused by anthropogenic disturbance of the land. There is therefore need to gain a better understanding of how these disturbances have affected the land productivity. This underscores the need for a full land degradation assessment to establish types and causes of change in each land use system unit, and to learn of what conservation measures have in the past been used by the community to sustain productivity of the land.

Appendix 6: Consultation workshop report

END OF APPRAISAL PHASE CONSULTATIVE WORKSHOP REPORT

SCALING UP SUSTAINABLE LAND MANAGEMENT (SLM) PRACTICES BY SMALL HOLDER FARMERS: WORKING WITH AGRICULTURAL EXTENSION TO IDENTIFY, ASSESS AND DISSEMINATE PRACTICES.

Organized by Uganda Landcare Network (ULN) in partnership with World Overview of Conservation Approaches and Technologies (WOCAT)

Hotel Africana, Kampala - Uganda on 30th January 2017

ACKNOWLEDGEMENTS

Uganda Landcare Network (ULN) in partnership with World Overview of Conservation Approaches and Technologies (WOCAT) gratefully acknowledge the contributions of various institutions and individuals towards the successful execution of the end of Appraisal Phase consultative workshop held at Hotel Africana on 30th January, 2017.

The workshop organizing team deeply appreciates individuals representing key institutions involved in scaling –up project namely: WOCAT secretariat staff - Dr. Hanspeter Liniger a Senior Research Scientist and Programme Director, Nicole Harari the project coordinator and Alexandra Gavilano a Research Associate; the National Expert Group (NEG)[19] including Prof. Moses Tenywa the chairperson NEG from Makerere University (MAK), Mr. Sunday Mutabazi a Commissioner from Ministry of Agriculture Animal Industry and Fisheries (MAAIF), Ms. Beatrice N. Luzobe a focal person from Uganda Forum for Agricultural Advisory Services (UFAAS), Dr. Grace Nangendo a landscape ecologist from Wildlife Conservation Society (WCS), Dr. Drake Mubiru a senior research officer from National Agricultural Research Laboratories (NARL) under National Agricultural Research Organization (NARO) and Mr. Stephen Muwaya MAAIF staff and focal person of the United Nations Convention to Combat Desertification (UNCCD); and Mr. Ivan Ebong the Head of Project Implementation Unit (PMU) from Project for Restoration of Livelihoods in the Northern Region (PRELNOR).The consultative workshop was well attended by various organizations representing government institutions, development partners, Non Government Organizations (NGO), Consortium of International Agricultural Research Centers (CGIAR), and Private Sector involved in SLM activities in Uganda. The services of Ms. Adeline Muheebwa the lead workshop facilitator assisted by Mr. Rick Kamugisha in charge of documentation added value towards the success of the workshop

On behalf of project implementing partners, IFAD is greatly appreciated for the financial support. We remain grateful IFAD Uganda Country Office providing diligent support and guidance enabling smooth implementation of activities during the entire appraisal phase.

[19] National Expert Group function as the core technical and policy advisory group of the scaling –up project comprised of selected stakeholders from line ministries, UNCCD focal points, research organizations, NGOs and national bodies involved in extension services

Acronyms

CSA	Climate Smart Agriculture
DS	Decision Support
IFAD	International Fund for Agricultural Development
IWM	Integrated Watershed Management
MAAIF	Ministry of Agriculture Animal Industry and Fisheries
NARL	National Agricultural Research Laboratories
NARO	National Research Organization
NEG	National Expert Group
NRM	Natural Resource Management
NUSAF	Northern Uganda Social Action Fund
PRELNOR	Project for Restoration of livelihoods in Northern Region
SIF	SLM Investment Framework
SLM	Sustainable Land Management
UFAAS	Uganda Forum for Agricultural Advisory Services
ULN	Uganda Landcare Network
UNCCD	United Nations Convention to Combat Desertification
WOCAT	World Overview of Conservation Approaches and Technologies
WSC	Wildlife Conservation society
UNDP	United Nations Development Programme
FAO	Food and Agriculture Organization of the United Nations
NUSAF	Third Northern Uganda Social Action Fund
IITA	International Institute of Tropical Agriculture
MWE	Ministry of Water and Environment
WCS	Wildlife Conservation Society
IFPRI	International Food Policy Research Institute

1.0 Introduction

The consultative workshop was organized to coincide with the end of appraisal phase whose key targets included: (i) development of Annual Work Plan and Budget (AWPB) and aligning it with one of PRELNOR[20]; (ii) contractual obligations signed between WOCAT and ULN ; (iii) evaluating existing knowledge management system (KM) and identification of major gaps also training needs (iv) participatory mapping and stakeholder analysis (v) tailoring of WOCAT tools to local conditions; (v) delineating landuse systems and characterizing the project site; (vii) developing monitoring and evaluation indicators agreed upon between ULN and PRELNOR

The workshop was attended by SLM stakeholders in Uganda and WOCAT secretariat staff. In total, 36 participants (28 Men and 9 Women) attended the workshop from government lead institutions in Agriculture, Environment, Local government, office of the Prime Minister, Makerere University, Development partners including FAO, UNDP and relevant NGOs working in the project site. The workshop agenda adopted is indicated in **Annex 1**.

2.0 Welcome Remarks by the NEG Chair

The Chairman National Expert Group (NEG), Professor Moses Tenywa officially welcomed participants to the meeting thanking them all for committing their time at the start of the week and end of month. He applauded the partnership between ULN, WOCAT and IFAD working hand in hand with government of Uganda larger project PRELNOR as well as a cross section of NEG team several other institutions and NGOs relevant to scaling SLM in Uganda.

Prof. Moses Tenywa, Chair of NEG Makerere University

[20] Loan Investment project implemented by GOU- Ministry of Local Government

3.0 SLM Synthesis

The SLM synthesis was facilitated by Prof Moses Tenywa who traced the origin of soils in Northern Uganda to be Old-tertiary Tanganyika surface. He explained these soils are highly weathered and overlain by Alfisols that are characterised by fast fertility decline trends. As a result of increasing demand for produce across the neighboring countries including Southern Sudan and Kenya, northern Uganda presents an area of declining fallow period thus lots of opportunities for scaling SLM

Framework developed by IFPRI (Figure1), which guides in the understanding of issues affecting SLM at all levels: household, village, national and regional levels was brought to the attention of participants. As well as the Sustainable livelihood frameworks comprising of 5 capitals: (i) the physical such as infrastructure for irrigation; (ii) human such as provision of education; (iii) social networks and groups; (iv) access to finance; and (v) natural resources.

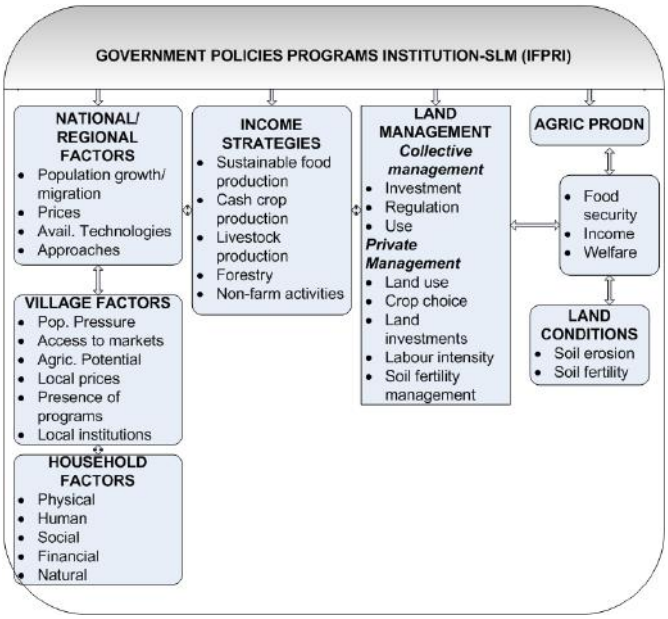


Figure 19: SLM Framework developed by IFPRI

In reference to Figure 2, Prof Moses articulated scaling up of SLM requires collaboration among multiple actors while isolating key elements for scaling SLM that include: Promotion of education through provision of timely and relevant data and information all stakeholders; Understanding the livelihood strategies; the role collective action towards effective SLM implementation and facilitating better governance, planning and management across scales.

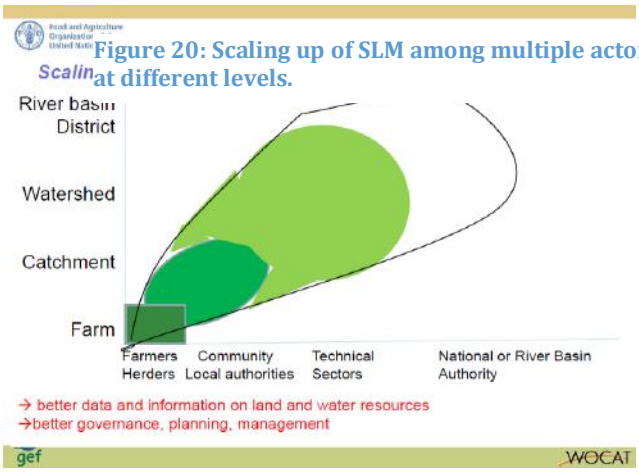


Figure 20: Scaling up of SLM among multiple actors at different levels.

4.0 Introduction to the Scaling up project

A WOCAT staff Dr. Hans, Peter introduced the project facilitated the session on scaling up the project defining WOCAT as a global network of specialists working in the field of SLM. Peter emphasized that the main target groups are SLM specialists at

- Field level including the technical staff, extension workers, agricultural advisors, project implementers.
- Sub-national or National level, including the planners, project designers, decision makers, and researchers.
- Regional and global level, including the international programme planners, and donors.

Dr. Peter Hans, WOCAT Secretariat

Peter outlined the ultimate target group & beneficiaries as land users and public benefitting from more secure ecosystem services. WOCAT tools and methods were introduced: (i) Standardized questionnaires; (ii) Global database; (iii) Mapping tool and (iii) Decision support tool

Peter clarified that WOCAT website hosts Decision Support (DS) Tools supported with user-friendly guide through the Decision Support (DS) process. He then shared the three parts of integrating knowledge in a Decision Support process as:-

- Part I: Identification of problems and possible solutions participatory g approach).
- Part II: Documentation & Assessment of Land Degradation and SLM practices.
- Part III: Evaluation & Selection of most promising SLM Ts&As (stakeholder workshop: setting criteria → scoring → ranking)

He concluded by highlighting the importance of SLM as the key for food security, Solving Water Scarcity and Conflicts and addressing all the three (3) UN Conventions on focus Desertification, Climate Change and Biodiversity. He urged the participants to check the WOCAT website on https://qcat.wocat.net/ mindful WOCAT is the recognized UNCCD database.

5.0 Appraisal Phase Results and Discussions

The Appraisal phase results were shared by Joy Tukahirwa. She started by appreciating all the partners and institutions for their commitment towards the SLM project and informing them that they are "BIG stakeholders" with a role to be played in the scaling up of SLM. Joy explained that by design, Scaling up SLM project is positioned to harness synergies with a 'Project for the Restoration of livelihoods in the Northern Region (PRELNOR) implemented by Ministry of Local Government operating in Northern Uganda**.**

Dr. Joy Tukahirwa, ULN

Joy highlighted progress on the project activities as :-

- The establishment of National Expert Group
- Participatory mapping and stakeholder analysis
- Training needs assessment
- Identification of degradation hotspots and SLM sites
- Harmonization of PRELNOR and Scaling –up project workplans
- Desk studies conducted comprising of: Policy Mechanisms; the status of Extension; SLM Synthesis and SLM Catalogue and Database hosting.

She reminded participants that results from the studies would be translated into policy briefs and papers for communicating to the wider audience. Key results outlined include:

- Information, communication and extension outreach: Extension outreach inadequate; incentives for extension.
- Policy governance: Lack of community involvement hence lack necessary support to enable enforcement
- Resource efficiency and sustainable production: Project ownership, attitude change and co-financing.
- Alternative energy and biomass conservation: Charcoal burning brick firing.
- Diversification off Livelihoods and food security: Beyond cereals and pulses climate smart trees on farms.
- Cost of financing SLM in Northern Uganda: Hand-outs, short- term household income boost.

f SLM technologies in practice in Northern Uganda :-

• Improved fallows • Agroforestry • Crop rotation • Intercropping • Conservation Agriculture • Contour • grass strip • Crop residues left in fields	• Tree planting • Mulching • Mini water basins • Shelter belts • Trenches • Controlled grazing • Ridges • Fire lines

Box 1: Existing SLM Technologies in Northern Uganda

While approaches include - Byelaw and ordinance formulation, Farmer Field Schools, Farmer Managed Natural Regeneration and Agro-pastoral field schools and Learning alliances

The SLM dissemination gaps were highlighted as:-

• Inadequate Knowledge on SLM • Inadequate Personnel • Lack of a record on SLM • Inadequate political will • Lack of logistic support especially transport • Limited media access	• Challenges of developing information education materials • Poor coordination and network (conflict messages) • Illiteracy • Absence of enabling policies • Limited capital

Box 2: SLM dissemination gaps in Northern Uganda

6.0 Project Link to the PRELINOR project

Mr. Ivan Ebong, facilitated the session on the SLM Project link to PRELINOR. He mentioned that the SLM project was being supported through the PRELNOR project working in the nine (9) Districts of Adjumani, Agago, Amuru, Gulu, Kitgum, Lamwo, Omoro, Nwoya and Pader in the northern region. He mentioned that the project implements activities in 25 selected sub-counties, 100 parishes, 600 villages and 491 villages and Work with farmer groups (108) to cover about 64,000 households. He shared the overall project goal as: increased income, food security and reduced vulnerability of poor rural households in the project area and the development objective as: increased sustainable production, productivity and climate resilience of smallholder farmers with increased and profitable access to domestic and export markets.

the

Mr. Ivan Ebong
PRELINOR

The project target groups were listed as:-

i. Food insecure poor households (HHs)
ii. Food secure HHs to improve productivity & join the market
iii. Market-oriented HHs
iv. Poor & Vulnerable HHs (to be mentored)

Emphasised is r women & youth as target beneficiaries.

The PRELNOR –WOCAT / ULN linkages and synergy were highlighted as :-

- ❑ Through IFAD funding, the WOCAT / ULN project implementation is to contribute towards the PRELNOR goal and development objective.
- ❑ WOCAT/ULN is to support PRELNOR to embed SLM tools and methodologies into the existing extension work.
- ❑ It is anticipated that the support to PRELNOR will lead to adoption of SLM practices by farmers in the project area, leading to enhanced climate resilience of farm households.

7.0 Project Link to the UNCCD and activities in Uganda on Land Degradation and SLM

Mr. Stephen Muwaya facilitated the session on the project link to the UNCCD and activities in Uganda on Land Degradation and SLM. He started the session by sharing the Uganda Sustainable Land Management Strategic Investments Framework 2010 – 2010. He mentioned that the Framework has a 10 year period in which to ensure that among other commitments, there is a Land Degradation Neutral (LDN) Balance in which the losses and the gains achieve a balance.

Mr. Stephen Muwaya, UNCCD

He mentioned that the rationale for the Country SLM Investment Framework was because the land degradation is recognized as a major impediment to development but has not received the desired attention in the development agenda of Uganda. He clarified the initiatives to address land degradation are very few, poorly resourced and are implemented in a piecemeal and uncoordinated manner. It was also mentioned that land degradation is an impediment to attainment of SDGs and that the urgently needed smallholder productivity revolution in Uganda must be based on a technology change that systematically integrates Sustainable Land Management (SLM). Stephen explained the geographical coverage of the SIF was in the four land degradation hotspots across the country identified as:-The Dry Lands / The Cattle Corridor; The Highlands - Southwestern and Eastern Highlands; Eastern and Northern Uganda and Lake Victoria Crescent Region

Steven shared the goal of the Uganda SLM SIF which is to promote key sectors cooperation to improve natural resource based livelihoods and other ecosystem services; and its development objective as to strengthen sector cooperation in order to halt, reverse and prevent land degradation / desertification and to mitigate the effects of climate change and variability.

The principles for enhanced SLM approach to change communities and landscapes were highlighted as:-

✓ Landscape/ catchment approach ✓ Community ownership ✓ Community empowerment ✓ Women participation ✓ Involvement all actors ✓ Work with the local leaders and administrators ✓ Focus on the ground-byelaws ✓ Enterprise focus ✓ Legal regulatory support ✓ Targets on SLM: We need Concrete targets on SLM ✓ SLM practice – Infrastructures / measures to address SLM and see something on the ground	✓ The contours should not be the end but should not be left out ✓ How much has it secured e.g 50 ha as demonstrations ✓ Photos of SLM as evidences with leaders taking lead and with skills ✓ Expect the project to show during shows ✓ FBO's need not to be left out. Have a lot of land, good agents and are available ✓ Women and the youth need to be targeted and used.

Box 3 : Principles for enhanced SLM approach to change communities and landscapes

In conclusion, Steven noted that the women and children provide most of the farm labour and benefit from reduced drudgery and time saving under Climate Smart Agriculture (CSA). He also noted that the women play a lead role in practical skills training of CSA at the local level and therefore the trainings should include the women. It was noted that lower leaders need to be engaged and focus should be more on results and targets for the intervention.

8.0 Land Use and Degradation status in Northern Uganda

Dr. Grace Nangendo, WCS

The status on land use and land degradation in northern Uganda was presented by Dr. Grace Nangendo, who shared the results of the land use mapping for northern Uganda. She mentioned that the ddominant land cover/use was mainly subsistence farmland and grassland with the commercial farmland significantly appearing in two areas; the western side of the region and in the northern part in Lamwo district.

She mentioned that with the comparisons between 1990 and 2015 mapping, it was evident that there were differences in the land use, with the map of 1990 having the largest spatial coverage with woodland, followed by small scale farmland and in 2015, the largest spatial coverage is small scale farmland followed by the grassland. The maps further revealed that whereas needle leaved plantations have consistently increased over the years, the woodlands have consistently decreased. It was also evident that there has been overall decrease in cover recorded for tropical high forest well stocked (-86%), woodland (-82%) and wetland (-16%). The most significant overall increase was for the commercial farmland (9904%), Builtup areas (737%) and needle leaved plantation (247%). She therefore explained that the evidences were all indicators of land degradation, biodiversity loss and therefore important to fully assess land degradation occuring in the region, where it is occurring, the conservation measures that have been employed so far and how well they have performed.Grace therefore concluded by recommending where SLM should focus their work which includes:-

1. Degradation types, based on rate/degree/extent of land degradation.
2. Analysis of **impacts** of most important Land Degradation types
3. Analysis of **causes** of most important Land Degradation types

9.0 Policy Mechanisms for scaling SLM in Uganda

The session on the policy mechanisms for scaling SLM in Uganda was facilitated by Mr. Sunday Mutabazi who informed the participants that Sustainable Land Management (SLM) is at the centre of Uganda's development challenge because land degradation impedes agricultural growth, increases poverty and vulnerability, contributes to social tensions and threatens biodiversity. He clarified contribution of the SLM project is to enhance resilience to climate change shocks as well as pressure exerted by population growth, rapid urbanisation and economic growth. The Barriers for implementing and scaling SLM in Uganda were highlighted as:-

Mr. Sunday Mutabazi, MAAIF

- Inadequate institutional and policy harmonization of SLM activities at the different levels –in sectors include agriculture, environment, forest and water.
- inadequate awareness and understanding of losses and opportunities by the land users and local governments
- SLM initiatives often face difficulties in attracting investments
- Inadequate active multi stakeholder platforms for in decision making, especially for groups lack of security of land tenure.
- Inadequate policies, laws and regulations and their enforcement to address shared vision between economic growth and conservation.
- Weak partnerships (so many opportunities globally and regionally) creating hubs alongside PPP (Private Public Partnerships) that attract these opportunities

The Opportunities of entry to implement and scale SLM were cited as:-

- Existing planning frameworks, recognizes that environmental management cuts across all sectors and requires the participation of various actors at national, local government District Local Governments and grassroots.
- Good political will to support SLM initiatives as reflected in various political and oversight committees such as parliament, Local governments.

- Ongoing research and development projects relevant to SLM, MDAs, non-governmental organizations, private sector and development partners.
- Lessons and knowledge sharing on good practices and partnerships.
- The existence of extension services
- The existing favourable gendered approach to SLM and climate change adaptation *to* reduce the vulnerability groups
- Regional initiatives that encourage; sharing success stories, knowledge management etc

In conclusion, Sunday, shared the policy actions to be done during the inception phase as:- Conduct desk study for policy analysis calumniating in the high level policy dialogue; The purpose of the policy dialogue will be to stimulate mainstreaming of SLM and increase institutions committed to promote and scale up SLM. Activities would also include signing an MOU with MAAIF on scaling SLM countrywide, consolidation of a policy on SLM like other areas of critical interventions like fertilizer policy and prioritising SLM mainstreaming implementation and scaling up.

Issues for consideration:

- Need to put into consideration the recent policy on Agricultural extension policy framework (NAEP).
- Polices and byelaws need to be developed through participatory methods and collectively enforced.
- There is need to demystify and translate the policy documents so that all the actors in the policy can have an understanding of what the policy is about.

10.0 Extension Innovation for Scaling SLM

Ms. Beatrice N. Luzobe, UFAAS

Ms. Beatrice N. Luzobe, facilitated that session on the Extension Innovation for scaling SLM. She shared with participants the new extension policy, the National Agricultural Extension Policy (NAEP), whose vision is "Prosperous farmers and other agricultural actors for socio-economic transformation" and Mission which is to "Promote application of appropriate information, knowledge, and technological innovations for commercialization of agriculture". The goal of the NAEP was also shared as "to strengthen and establish a sustainable farmer-centered agricultural extension system for increased productivity and household incomes".

The Extension Strengths and opportunities for promoting SLM were articulated as:-

- Commonalities of practices, methods and extension approaches used like : vegetative strips (trees/shrubs, fodder plants, grass), mulching with straw and branches, selective clearing, fire control, improved seed multiplication, *fanya juu* terraces and ccommon approaches like : Down-Top interventions to farmer first, multi-level and multi-stakeholder input into research and development and Specific participatory methodologies for SLM.

- Eextension approaches being adopted for SLM for Contracting public extension services to NGOs and other third parties, Learning for Sustainability (LforS), Farmer Field Schools (FFS), Initiatives for supporting local innovators, Integrated watershed management (IWM) approach, Payment for Ecosystem Services (PES) and Past and ongoing initiatives of relevance to SLM approach.

- Benefits/motivation for implementing SLM including :- increased revenue and improved livelihoods; payments/subsidies, social pressure (avoiding potential trans-boundary conflicts); improving natural resources and land management, environmental awareness/health; and increased production, profitability, and learning from innovative colleagues.

Extension challenges for promoting SLM were highlighted as:-

- Institutional and governance constraints for example weak land and land-use policies that are not area-specific and do not effectively protect over 85% of the total land.
- Economic and financial constraints Worsened by lower public and private investment in extension services dealing with environment and natural resources as well as the long term and far-fetched benefits of many SLM practices.
- Technological and knowledge constraints for example lack of expertise/low capacity of extension for land management issues
- Social and behavioral constraints of the land users for example the socio-cultural, political, economic dimensions such as: community structures, gender, collective action, property rights, land tenure, power relations, policy and governance which do not address well the SLM context.

In conclusion Beatrice proposed actions for the project to effectively utilize extension for SLM, these included:-

- Engage the Extension Directorate and other actors from the different sectors on how best to integrate SLM.
- An intensive extension capacity needs assessment related to SLM up-scaling.
- Development/ adaptation/ dissemination of appropriate SLM materials for the different levels of extension.
- Support and build capacity of the extension providers in the use of WOCAT tools and methods and Identification and addressing SLM issues.
- Integrating key emerging issues: gender, CC, ICT, etc
- Invest in extension for SLM up-scaling
- Encourage a Community of Practice (CoP) on SLM for extension workers

11.0 SLM Catalogue and Database Hosting

The SLM catalogue and database hosting was facilitated by Dr Drake Mubiru, in which he shared the targets of an ongoing project on Scaling up on-the-ground activities for improved natural resource management under the NARO/ GEF SLM project, in which a total of approximately 13,000 ha of terraces, contour and grass bunds will be constructed which is estimated to impound between: 4 to 32 million cubic meters of run off; 0.4 to 1.1 million tons of soil; 65,000 to 767,000 kg of nutrients and 6 to 68 million tons of total organic matter.

Dr. Drake Mubiru NARL

Drake mentioned that the National SLM Database was to be hosted by GIS Laboratory/ National Agricultural Research Laboratories [NARL] – Kawanda, National Agricultural Research Organization [NARO] with the SLM Website registered domain name as: www.slm.go.ug. Drake guided the members though the SLM catalogue comprising of: - Soils Information System as the Home Page, Maps page, Description of the maps page, Fertilizer optimization tool, Soils description page and Feedback form.

In conclusion, Drake shared the different SLM technologies and practices and results from the responses of the different tillage practices. He then highlighted some of the SLM practices with potential in Northern Uganda as; Conservation agriculture, Natural Fallows/ Improved fallows, Agronomic/vegetative SLM practices (mulching; intercropping; rotations; integrated nutrient management; grassland improvement, and so on), Community based participatory watershed management, Construction of SWC structures [contour bunds, grass bunds, water retention channels], Afforestation; reforestation and agro-forestry, Woodlots and Water harvesting and small-scale irrigation.

He mentioned that the data collected on SLM would be posted on the SLM website and people would view it from there. He mentioned that the development of the database work was ongoing and that the data base would be ready for use by June 2017.

12.0 Agreed Actions from the discussions

The facilitator summarized the agreed actions from the discussions as:-

• Emphasis on ground level actions • Avoid duplication but complement one another. • Define and set targets to assess performance. • Build capacity at community level. • Promote community based initiatives e.g monitoring and evaluation. • Establish Platforms that bring all actors together including the private sector. • Ensure there is ownership by the communities.	• Establish and strengthen multi-stakeholder platforms-for all actors/stakeholders to actively engage. • Develop and advocate for prioritization of SLM and develop a policy on SLM. • Promote the empowerment of women and children. • Capture and document SLM success stories at all levels across the gender categories.

13.0 Closing Remarks

The workshop was officially closed by the Permanent Secretary (PS) Ministry of Agriculture, Animal Industries and Fisheries, Mr. Pius Wakhabi who represented the Hon Minister of Agriculture. In his remarks he reminded participants that Uganda has the highest population growth with the highest composition of the population between 12-18 years and this implies they will also require land to participate in Agriculture. He mentioned that the issue of optimal use of fertilizers is high and compared the exports of Vietnam of about 30 million bags of fertilizer compared to Uganda which only exports about 3.7 million bags. He explained that Ugandans were unable to optimally use these fertilizers and are dealing with the consequences of declining soil fertility and very low yields and returns. He also mentioned that there is a lot of research on soil mapping and yet nobody knows where the information is housed. He narrated that he was glad to have listened to the session of SLM catalogue and database hosting.

Mr. Pius Wakabhi, MAAIF

The PS mentioned that the ministry is currently recruiting extension workers who will require capacity building in the application of some of the approaches and methods. He

urged all SLM activities to be evidenced based on the ground. He mentioned that he would like to visit SLM demonstrations, farmers' fields and extension workers trained. He urged the participants to reduce on the workshops but move to the fields and engage with the rural communities. .

He urged the participants to focus on small scale farmers and mobilize them into organized and registered groups for ease of coordination and follow up. He mentioned that as a result of the protracted insecurity situation, majority of people in the North are no longer productive as they used to be as they were used to the handouts which must be discouraged. He concluded by thanking the organizers and partners for engaging with the Ministry and on behalf of the government and on his own behalf, officially closed the workshop.

WORKSHOP PROGRAMME

Time	Topic	Moderator/presenter
8:00-8:30	Registration	ULN
8:30-8:45	Welcome+ SLM synthesis	Moses Tenywa (Prof) NEG Chairperson MUK
8:45-9:15	Introduction to the scaling up SLM project	WOCAT secretariat
9:15-10-00	Appraisal phase results +discussions	Joy Tukahirwa(Dr). Nat. Prof. coordinator
10:00-10:10	Project link to the PRELNOR project	Ivan Ebong (Mr.) Head PMU
10:10-10:20	Project link to UNCCD &Activities in Uganda	Steven Muwaya) UNCCD
10:20-10:30	Q &Discussions	All points
10:30-10:45	Healthy break	ULN
10:45-11:00	Land use & degradation status in N. Uganda	Grace Nangendo (Dr) GIS Expert. Wildlife Conservation Society
11:00-11:20	Policy mechanisms for scaling up SLM in Uganda	Sande Mutabazi Commissioner Min. of Agric-policy
11:20-11:40	Discussion +feedback	MP Agriculture sector
11:40-12:10	Extension innovation for scaling up SLM	Beatrice Luzobe (UFAAS)
12:10-12:20	Feedback + discussions	AFAAS
12:20-12:40	SLM catalogue +database hosting	Drake Mubiru (Dr)
12:40-12:50	Feedback +discussion	SLM Team Leader UNDP
12:50-1:00	Statement from IFAD Uganda country office	Country Director
1:00-1:30	Govt of Uganda commitments on SLM	Hon minister of Agric
1:30-2:30	Lunch	ULN

LIST OF THE PARTICIPANTS

No	INSTITUTION	OFFICER NAME	TITTLE	TELEPHONE	E-MAIL
1	Ministry of Agriculture Animal Industry and Fisheries (MAAIF) www.agriculture.go.ug	Mr. Wakabi Pius	Permanent Secretary	0752670300	
2		Mr. Sunday Mutabazi (NEG)	Commissioner Agriculture Infrastructure, Mechanization &Water for Agricultural Production	0772468207	sundaymutabazi@yahoo.com
3		Mr. Stephen Muwaaya (NEG)	UNCCD Focal Point	0752642536	smuwaya@yahoo.com
4		Ms .Luvumu N. Eve	PAEC Directorate of Extension	0772663309	luvumueve@gmail.com
5		Mr. Kilimani Dan	APM/LST Project	0776122138	dankileo@yahoo.com
6		Mr. Kazomba Imelda	Senior Agricultural officer	0752619444	ikazomba@gmail.com
7	National Agricultural Research Organization (NARO) www.**naro**.go.ug	Dr. Drake Mubiru (NEG)	Senior Research Officer (SRO) National Agricultural Research Laboratories (NARL)	0782415843	drakenmubiru@gmail.com
8		Mr. James Lwasa	GIS Specialist	0777179080	lwasaj@yahoo.com
9		Ms. Jalia Namakula	Soil Fertility	0784799367	jalianamakula7@gmail.com
10	Makerere University www.**naro**.go.ug	Prof Moses Tenywa (NEG)	Soil Science / IWM	0772827710	tenywamakoona@yahoo.com
11		Dr. Yazhid Bamutaze	GIS/ NRM Department Head/ Senior Lecturer Department of Geography, Geo-Informatics and Climatic Sciences, Makerere University	0772696781	yazidhibamutanze@gmail.com
12		Mr. Denis Nseka	Geomorphology Lecturer Department Head/ Senior	0782462298	nsekadenis2006@yahoo.com

			Lecturer Department of Geography, Geo-Informatics and Climatic Sciences		
13		Mr. Rick Kamugisha	Graduate Student	0772638166	rkamu2012@yahoo.com
14		Ms. Luzobe Beatrice	Deputy UFAAS	0776801091	bnluzobe@gmail.com
15		Mr. Titus Kisauzi	Focal Person UFAAS		
16	Ministry of water and Environment (MWE) www.mwe.go.ug	Mr. Mugabi Stephen	Assistant Commissioner , Environment Affairs	0782059294	mugabisd@gmail.com
17	Farmer Media www.**farmersmedia**.org	Mr. Bukirwa Vivian	Program Director	0702414289	bukirwav@gmail.com
18		Grace Musimami	Executive Director		
19	UNDP – Uganda Country Programme www.ug.undp.org	Mr. Onesimus Muhwezi	Team Leader	0772465754	onesimus.muhwezi@undp.org
20	Northern Uganda Social Action Reconstruction 3 www.opm.go.ug	Ms. AWILI Emily	Programme Officer Office of the Prime Minister (OPM)	0772835830	awiliemily@yahoo.com
21	World Conservation Society	Dr. Grace Nangendo (NEG)	Landscape Ecologist	0782738248	gnangendo@wcs.org
22	Ministry of Local Government www.gou.go.ug	Mr. Ivan Ebong	Head, Project Implementation Unit (PMU) – PRELINOR	0772666617	ivanebong@gmail.com
23	The International Institute of Tropical Agriculture (IITA) www.iita.org	Dr. Edidah Ampaire	Project Coordinator – Policy Action for Climate Change Adaptation (PACCA)	0752787800	e.ampaire@cgiar.org
24	FAO www.fao.org	Mr. leonidas Hitimana	Project Coordinator, SPGS 111 project	0775921320	leonida.hitimana@fao.org
25	Uganda National Farmers Federation (UNEFFE)	Ms. Ayebale Prudence	PRA	0782252840	prudayebare@gmail.com
26	Conservation International (CI) www.ci.org	Mr. Mariano Mariano Gonzalez-Roglichmgonzalez-Roglich	Director of Ecosystem Analysis		mgonzalez-roglich@conservation.org

27	ULN- KADLACC	Mr. Awadh Chemangei	Chair Person, KADLACC	0772645591	chamawadh@gmail.com
28	SML ALIED solutions Private Sector	Mr John Semakula	Managing Director ,	0786166481	alliiedsolutionsltd@gmail.com
29	Watchdog Pearl1 FM	Mr. Kiyimba Bruno	Reporter/ Writer	0706538305	kiyimba.bruno@gmail.com
30	UJU	Mr. Ronnie Mayanja	Reporter	0774455457	rsmayanja29@gmail.com
31	NAADS National Agricultural Advisory Services www.naads.or.ug	Mr. Yiga Dennis	Zonal Agricultural Development Officer Buginyanya	0759444752	dennisyiga@gmail.com
32	WOCAT www.wocat. org	Ms. Alexandra Gavilane	WOCAT Headquarters		alexandra.gavilano@cde.unibe.ch
33	C/O ULN	Ms. Adeline Muhebwa	Consultant	0772415029	admuheebwa@gmail.com
34	C/O ULN	Mr. Lwanga Charles	Consultant	0782600124	clmalingu@gmail.com
35	ABC Africa	Ambrose Gahene	Editor	0752206730	rwabikinga@gmail.com
36	ULN www.ugandalandcare.org	Mr. Mathias Wakulira	Secretary, NEG	0701631836	mwakulira@yahoo.com
37		Dr. Joy Tukahirwa	National Project Coordinator	0772786816	j.tukarirwa@infocom.co.ug

SESSION QUESTIONS

Policy Issues

i. What policy/law is government putting in place to prevent charcoal burning? There is need for strong measures to discourage it and incentives to encourage clean (sustainable energy sources).

ii. Policy engagements should be led by informed politicians who are the decision makers; need to share evidence from the ground to inform policy and the other initiatives in place that one could build on for example the use of platforms.

iii. The national agricultural extension policy (launched on 6/12/2016), states clearly that the new strategic direction for extension services in Uganda is to transform extension from a system of parallel institutionally fragmented public and non-state actors to a well-coordinated, harmonized, regulated pluralistic service with multiple providers addressing diverse needs. Are there any efforts to integrate SLM within the extension system so as to effectively contribute towards the desired change?

SLM / CSA Issues

i. The role of women in SLM/CSA as regards: Food production and Gender based violence rampant in northern Uganda.

ii. Building synergies with NUSAF3 benefit from the ULN/ SLM approach.

iii. Need to share references of work with NARL Kawanda in order to build the SLM database.

iv. Need to include the small scale irrigation development projects while addressing SLM approaches.

v. Target area or SLM (great Acholi/Adjumani region) the rainfall/precipitation of 1250mm-1500mm is good enough but it should be noted that the evapotranspiration is also high hence the need to have mechanisms to make the land more sustainable productivity.

vi. Possibility of incorporating e vulnerability and resilience on communities to land degradation impacts and climate change?

vii. Possibility to come up with customized techniques of assessing land degradation?

viii. Huge projects like NUSAF3 and PRELNOR should also involve higher institutions as key stakeholders as a cheaper way to doing business.

ix. The project should engage a wider range of stakeholders including the front line-sub-county extension workers (public & those from NGOs), Farmer Associations, Parish based NGOs, Model farmers at village level and other farmers.

x. Extension is very important. To sustain the SLM efforts there is need to develop well facilitated cadre of community to support and scale up the project work.

xi. The role of extension should be recognized and the extension workers should be supported and technical capacities developed in order to provide technical assistance, document best practices, conduct monitoring & evaluation and reporting.

PRELNOR / UNCCD issues

i. Can PRELNOR work closer with some of the NUSAF3 stakeholders to support SLM in the implementing districts eg NUSAF3 desk officers at district & NUSAF3 household grant specialists located at the centre.
ii. Whether there are any plans to disseminate the achievements of the UNCCD programmes to lower communities.
iii. Whether there are any plans to scale up the activities of the PRELNOR and UNCCD programmes to other districts.
iv. Can PRELNOR and UNCCD, attach some students to collect scientific data on their work? How can the universities be part of knowledge development and growth.
v. The missing link of the extension services (workers) by UNCCD affects the sustainability of the innovations and scope of reach. The contribution of Extension is critical and offers a point of reference which is a system that offers interface of reaching many more farmers.

Issues on WOCAT

i. How often are the WOCAT tools updated?
ii. Are there sustainability strategies of the project after the project period in 2022?
iii. Did the project conduct a baseline study at the start of the project?
iv. How will the project assess success after 2022?
v. The agro-ecological zoning has not conducted updates on environmental changes and thus may have out dated data on current bio physical conditions, how can this be improved so that new updated data is made available?
vi. Is there any plan to pattern with academic institutions to provide support towards data availability through their research?
vii. How has WOCAT utilized the GIS infrastructure and technicians in the universities to support the activities?

Mr. Leonidas Hitimana,
FAO

Dr. Edidah Ampaire
IITA

The National Expert Group (NEG)