Natural Resources Conservation and Development

Level II

Learning Guide-47

Unit of Competence: **Facilitate Agro-forestry Practices**

Module Title: **Facilitating Agro-forestry Practices**

LG Code: **AGR NRC2 LO6-LG-47**

TTLM Code: **AGR NRC2 M10 TTLM 0919v1**

LO 6: Record and report information

Instruction Sheet	Learning Guide #47

This learning guide is developed to provide you the necessary information regarding the following **content coverage** and topics:

- Assessing all activities
- Documenting and reporting Agro forestry component interaction and management
- Reporting Problems or difficulties information
- Documenting and reporting work outcomes

This guide will also assist you to attain the learning outcome stated in the cover page. Specifically, **upon completion of this Learning Guide, you will be able to**:

- Assesse all activities for any changes

- Document and report Agro forestry component interaction management activities

- Report Problems or difficulties or hazards *information* in completing work to required standards or timelines to appropriate personnel.

- document and report Work outcomes according to organizational guideline

    Learning Instructions:

1. Read the specific objectives of this Learning Guide.
2. Follow the instructions described below 3 to 6.
3. Read the information written in the information "Sheet and Sheet 2
4. Accomplish the "Self-check 1and Self-check 2" **in page -6 and 9** respectively.
5. If you earned a satisfactory evaluation from the "Self-check" proceed to "Operation Sheet 1," **in page -10.**
6. Do the "LAP test" **in page – 11** (if you are ready).

Information Sheet-1	Assessing all activities

6.1. Assessing all activities

This module provides an overview of agroforestry systems; it also describes how to identify the most appropriate agroforestry system and to design, adapt, establish and manage it. A section on the "enabling environment" is targeted primarily at policymakers, including national and local authorities.

Agroforestry systems can contribute to biodiversity conservation and climate-change. Participatory rural assessments, other means of collecting information on stakeholders, and market analyses can help community.

Agroforestry needs specialized extension services and support to farmers together with backing from farmers' associations so that farmers learn that well-managed agroforestry practices are compatible and not in conflict with the aim of increasing agricultural production in the short and long term. The issue of germplasm for agroforestry trees is therefore fundamental, as most countries do not have enough germplasm to scale up the planting of many beneficial agroforestry species. Moreover, there is very little work on improving germplasm quality for trees, as is the case with annual crops. Farmer acceptance very often comes from a dissemination strategy based on participation by local producers.

How communities react up on agroforestry activities?

The adaptation or design of an agroforestry system is the process of choosing and arranging components spatially and temporally. Common components of an agroforestry system are: · Trees or other woody perennials – trees can provide fruit, fodder, woodfuel, timber and other products, as well as environmental services such as soil fertility replenishment, erosion control and carbon sequestration. Trees normally remain in a landscape for many years, with rotation lengths depending on species and desired end-products. · Crops or forage such as grains, tubers, roots, vegetables and even flowers. The rotation for crops is generally much shorter than for trees. · Animals – animals for

dairy, meat and egg production, as well as fish, snails and other edible organisms. The most common agroforestry systems are: · Agrosilvicultural systems (crops – e.g. annual crops and vines – plus trees) - improved fallow - taungya - alley cropping - multilayer tree gardens - multipurpose trees in croplands - plantation–crop combinations - homegardens - trees for soil conservation and reclamation - shelterbelts, windbreaks and live hedges - woodfuel production. · Silvopastoral systems (trees plus pasture and animals) - Trees or shrubs on rangelands or pastures - Protein banks (blocks or lines of trees or shrubs established and managed for fodder production) - Plantation crops with pastures and animals · Agrosilvopastoral systems (trees plus crops plus pasture and animals) - homegardens involving animals - multipurpose woody hedgerows - apiculture with trees - aquaforestry-multipurpose,-woodlots.

Maintenance is needed to ensure that an agroforestry system functions effectively. Common maintenance practices include: seedling protection, weed control, pest control animal browsing, fertilization, irrigation, thinning, pruning, coppicing, harvesting post-harvesting operations.

Agroforestry systems are dynamic; their performance, and the impacts of outside factors, should be monitored.

The management plan should be adapted to changing circumstances and in achieving production goals. Management changes may be required when, for example: trees start competing with crops for space, sunlight and nutrients; markets for products change; and there are changes in labour requirements or availability.

Effective monitoring requires good baseline information and a set of relevant and measurable   criteria.

Self-Check -1	Written Test

Directions: Answer all the questions listed below. Use the Answer sheet provided in the next page:

1. What are Common maintenance practices in agroforestry?

Note: **Satisfactory rating - 8 points**   **Unsatisfactory – below 8 points**

You can ask you teacher for the copy of the correct answers.

Answer Sheet

Score = _____
Rating: _____

Name: _____   Date: _____

Short Answer Questions

   1. _____

Information Sheet-2	Documenting and reporting Agro forestry component interaction and management

6.2. Documenting and reporting Agro forestry component interaction and management

A written or printed paper is that bears the original, official, or legal form of something and **can** be used to furnish decisive evidence or information. Something, such as a recording or a photograph, that **can** be used to furnish evidence or information.

Documentation plays a crucial role in any treatment setting. **Documentation** helps assure continuity of care. Thorough **documentation** helps to assist the farmers. It's **important** for practitioners, who may serve the community down the line, have proper information.

Not all documents are records. A record is a document consciously retained as evidence of an action. Records management systems generally distinguish between records and non-records (convenience copies, rough drafts, duplicates), which do not need formal management. Many systems, especially for electronic records, require documents to be formally declared as a record so they can be managed. Once declared, a record cannot be changed and can only be disposed of within the rules of the system.

This procedure is followed to establish and maintain control procedures for identifying, maintaining and disposing of records.

Procedure:

Agro forestry component interaction and management data records are maintained in an archive so as to be retrievable as needed.

Records are preserved and archived for retrieval as needed based on the following:

1) Include records of all data and information required such as training records, results of audits and reviews, copies of monitoring (sampling) and reporting analytical results, expired permits, construction approvals, and inspection results.

2) Ensure that records are legible, identifiable and traceable to the operation/activity.

3) Ensure that records are stored and maintained so they are readily retrievable and protected against damage, deterioration or loss.

4) Ensure that the retention times of records have been established, recorded and communicated to staff.

Self-Check -2	Written Test

Directions: Answer all the questions listed below. Use the Answer sheet provided in the next page:

1. What is the importance of documenting and recording (5pts)

Note: **Satisfactory rating - 4 points   Unsatisfactory - below 4 points**

You can ask you teacher for the copy of the correct answers.

Answer Sheet

Score = _____
Rating: _____

Name: _____   Date: _____

Short Answer Questions

   1. _____

   _____.

Information Sheet-3	Reporting Problems or difficulties information

6.3.   Reporting Problems or difficulties information

Supervisors, including deparment, shall be experienced, trained or knowledgeable in the safety and health hazards to which employees and students under their immediate direction and control may be exposed, and shall be knowledgeable of current practices and safety requirements in their field.

Department, staff and students shall have or be provided the knowledge to protect themselves from hazards in their working and learning environment. Supervisors, both department and staff, shall ensure that employees and students have received appropriate training and information regarding:

- General health and safety practices of the workplace or laboratory, including emergency procedures;
- Job-specific health and safety practices and hazards;
- Recognition and assessment of health and safety risks; and,
- How to minimize risks through sound safety practices and use of protective equipment; and,
- Awareness of appropriate practices to protect the environment.
- Training shall occur when:
- An employee is hired or student is new to the laboratory;
- An employee or student is given a new assignment for which training has not previously been received; and
- New hazards are introduced by new substances, processes or equipment.

This procedure is followed to establish and maintain control procedures for identifying, maintaining and disposing of records.

Procedure:

Agro forestry component interaction and management data records are maintained in an archive so as to be retrievable as needed.

Records are preserved and archived for retrieval as needed based on the following:

1) Include records of all data and information required such as training records, results of audits and reviews, copies of monitoring (sampling) and reporting analytical results, expired permits, construction approvals, and inspection results.

2) Ensure that records are legible, identifiable and traceable to the operation/activity.

3) Ensure that records are stored and maintained so they are readily retrievable and protected against damage, deterioration or loss.

4) Ensure that the retention times of records have been established, recorded and communicated to staff.

Self-Check -3	Written Test

Directions: Answer all the questions listed below. Use the Answer sheet provided in the next page:

1. What type of training and information would be given to implementers' by supervisors?

Note: **Satisfactory rating - 4 points**   **Unsatisfactory - below 4 points**

You can ask you teacher for the copy of the correct answers.

Answer Sheet

Score = _____

Rating: _____

Name: _____   Date: _____

Short Answer Questions

2. _____

_____.

Information Sheet-4	Documenting and reporting work outcomes

6.4.   Documenting and reporting work outcomes

Documenting is an official paper or book that gives information about something, or that can be used as evidence or proof of something. In this case, documenting the information means, recording in an official paper about accurate information

Therefore, documenting of information is process of writing and retaining record of every step of ex-situ conservation and its recommended action. Finally reporting to responsible bodies

Report - is a statement of the results of an investigation or of any matter on which definite information is required. The following stages are involved in writing a report:

❖ clarifying your terms of reference

❖ planning your work

- ❖ collecting your information

- ❖ organizing and structuring your information

- ❖ writing the first draft

- ❖ Checking and re-drafting

Outline of a Report format

- Title page
- Acknowledgements
- Contents
- Abstract or summary
- Introduction
- Methodology
- Results or findings
- Discussion
- Conclusion and recommendations
- References
- Appendices

Introduction, which:

- gives the background
- explains the purpose, scope and methods used
- outlines the terms of reference

It should be a brief, accurate background for the body of the report

- ➢ The body, which covers the work done and what you found. It's divided into topics which are arranged in a logical order with headings and sub-headings

Methodology – methods or procedure used

Result and discussion – out puts of findings

Conclusion covers the writer's judgment based on information in the body of the report.

Recommendations:

- ✓ gives solutions to the problems

- ✓ suggests possible courses of action as a result of the conclusions,

    e.g. Who should take action?

        What should be done?

    When and how it should be done?

Appendices- contain evidence which supports the report but is not essential because it's either too long or too technical for the audience.

Bibliography -includes all sources of information used in the report and often those used for background reading as well.

Glossary- is an alphabetical list of special words, phrases and terms used in the report, accompanied by a short explanation of each.

Self-Check -3	Written Test

Directions: Answer all the questions listed below. Use the Answer sheet provided in the next page:

1. Discuss outline of reporting (10 pts)

Note: **Satisfactory rating - 5 points   Unsatisfactory - below 5 points**

You can ask you teacher for the copy of the correct answers.

Answer Sheet

Score = _____

Rating: _____

Name: _____   Date: _____

Short Answer Questions

1. _____

Operation Sheet 1	Recording data

Objective   To document information

           To identify the gap between planned and actual activities

Materials, tools and equipment: Paper, pen note pad,

Procedure:

- ➢ Wear safety cloths
- ➢ Develop format
- ➢ Record data day to day activity
- ➢ Compile information
- ➢ Report the finding
- ➢ Document

LAP Test	**Practical Demonstration**

Name: _____ Date: _____

Time started: _____ Time finished: _____

Instructions: Given necessary templates, tools and materials you are required to perform the following tasks within --- hour.

Task 1- Record data on agro forestry practices

Reference:

Azene Bekele Tesemma. 1993. Useful Trees and Shirubs for Ethiopia. Identification, Propagation and Management for Agricultural and Pastoral communities.

_____.2009. Training, Teaching and Learning Material (TTLM) on Applying Farm forestry Techniques for Natural Resource Development Technique, Soddo

Bashir Jama, Abednego Kiwia and Annah Njui. 2004. Market-oriented agroforestry: options and strategies for their dissemination in East and Central Africa. World Agroforestry Centre (ICRAF), Nairobi

Dechasa Jiru. 2006. Agro-forestry Training Manual. SUSTAINABLE LAND USE FORUM (SLUF) Part 2: Methods and Techniques for Improved Land Use (Unpublished)

Nair, P.K.R. 1993. An introduction to Agroforestry. Kluwer Academic Publishers, The Netherlands.

Young, A. 2002. Agroforestry for Soil Management. 2nd Edtion. CAB International, UK

Baumer, M. 1990. Agroforestry and Desertification. The Neatherlands.

FAO. 1978. Forestry for Local Community Development. FAO, Forestry Paper 7. FAO, Rome

Samra, J. and H. Eswaran (2000). Challenges in ecosystem management in watershed context in Asia. In:Lal, R.(Ed.) Integrated Watershed management in the global ecosystem. New York: CRS press

Surash, R. (2002). Soil and water conservation Engineering. New Delhi: standard publisher.