



TEACHER'S GUIDE

FARMER MANAGED NATURAL REGENERATION (FMNR) AND ENVIRONMENTAL EDUCATION FOR BASIC SCHOOLS



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PREPARED BY:
FONAR TECHNICAL TEAM

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About FONAR

Forum for Natural Regeneration LBG (FONAR) is a registered Ghanaian non-profit and non-governmental environmental organization (NGO) dedicated to the promotion of Farmer Managed Natural Regeneration (FMNR) and related climate smart agricultural practices. We work with local communities, schools, civil society organizations, local and national government agencies, and international partners to restore degraded agricultural landscapes for improved livelihoods and poverty reduction. Our approach is through advocacy, research, education, community mobilization, sharing of lessons learned and partnering with like-minded organizations to achieve more synergy.

Disclaimer

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Foreword

Dear Teacher,

You are a changemaker. In your hands is the power to shape how the next generation sees, values and cares for the environment. The Upper East Region, like many parts of Northern Ghana, faces serious challenges: degraded land, fewer trees, declining soil fertility and worsening effects of climate change. These problems affect children's health, school attendance and future opportunities. But there is hope.

Farmer Managed Natural Regeneration (FMNR) is a simple, low-cost, and proven method that farmers and children can use to bring trees back to our farmlands. It does not require planting new seedlings – it uses the living tree stumps and roots already in the ground. FMNR has restored millions of hectares across Africa.

This Teacher's Guide is designed to help you teach FMNR and environmental education in your classroom and through your school's eco-club. The lessons are practical, participatory, and linked to the Ghanaian basic school curriculum (Science, Our World Our People, Social Studies and RME).

Each lesson includes:

- Learning objectives
- Key vocabulary
- Step-by-step activities
- Questions for discussion
- Take-home tasks
- Assessment ideas

You do not need expensive materials. Most lessons use what is already around you – trees, soil, water and the students' own experiences. Let us work together to restore our landscape, one tree, one child, one community at a time.

Sumaila Seidu Saaka

Executive Director
Forum for Natural Regeneration LBG (FONAR)



How to Use This Guide

Who is this guide for?

- Primary school teachers (Grades 4–6)
- Junior High School teachers (Forms 1–3)
- Eco-club coordinators

How lessons are organized

Each unit contains:

Section	What it means
Lesson title	The main topic
Duration	How long the lesson takes (usually 40–60 minutes)
Learning objectives	What students will know or be able to do
Key vocabulary	New words to teach
Materials needed	Simple, local items
Curriculum links	Which Ghanaian school subjects connect
Step-by-step activities	What the teacher and students do
Discussion questions	To check understanding
Take-home task	Family/community activity
Assessment idea	How to know if learning happened

Tips for teaching environmental education.

- *Go outside whenever possible* – The best classroom is the schoolyard, a nearby farm or a tree.
- *Use local examples* – Talk about trees, animals and water sources that children see every day.
- *Let students lead* – Encourage them to observe, ask questions and share their own knowledge.
- *Connect to real life* – Show how FMNR affects food, energy, water and health.
- *Involve the community* – Invite a farmer, an elder or an extension officer to speak.
- *Use verbal AND non-verbal activities* – Combine talking with drawing, acting and hands-on work.



How FMNR links to the Ghanaian curriculum

Subject	Relevant topics
Science	Living things, ecosystems, plants, soil, water, climate
Our World Our People (OWOP)	Natural resources, farming, community work
Social Studies	Environment, climate change, conservation
RME	Stewardship of creation, caring for nature

UNIT 1: What is FMNR? (Introduction for Students)

Duration: 50 minutes

Class level: Primary 4–6 and JHS 1–3

Learning Objectives

By the end of this lesson, students will be able to:

1. Explain what FMNR stands for in their own words;
2. Describe how FMNR works (using existing tree stumps);
3. Name three benefits of FMNR for their community.

Key Vocabulary

Word	Meaning
FMNR	Farmer Managed Natural Regeneration
Regeneration	Growing again, coming back to life
Stump	The part of a tree left in the ground after cutting
Underground forest	Living tree roots and stumps below the soil surface

Materials Needed

- Chalkboard or flipchart
- A cut tree stump (or picture of one)
- A healthy small tree or shrub (outside the classroom)

Curriculum Links

- Science (living things, plants)
- OWOP (farming, environment)

Step-by-Step Activities

Introduction (10 minutes)

Ask students:

- "Who has seen a tree that was cut down but grew back again?"
- "What happens when you cut a cassava stem and plant it?"

Say: "Today we will learn about a special way to bring trees back to our farms without planting new seeds or seedlings. It is called **FMNR**."

Write **FMNR** on the board. Explain each letter:

- **F** = Farmer (anyone can do it – you, your parents)
- **M** = Managed (we take care of the trees)
- **N** = Natural (trees grow by themselves from underground roots)
- **R** = Regeneration (growing again)

Development (25 minutes)

Activity 1: The Stump Story (10 min)

Take students outside to a cut tree stump (or bring a picture).

Say: "This stump looks dead, but under the ground, the roots are still alive. When we cut a tree, the roots store energy (food). If we protect the new shoots that grow from the stump, a new tree will grow – much faster than planting a seed!"



Demonstrate: If possible, show a stump with new shoots growing from it.

Activity 2: FMNR vs. Tree Planting (10 min)

Draw two columns on the board:

FMNR	Tree Planting
Uses tree already in ground	Needs nursery or seeds
No cost	Costs money for seedlings
Tree grows fast	Tree grows slowly
Roots already strong	New roots must grow

Ask: "Which method is easier for a farmer with little money?" (FMNR)

Activity 3: Story – Tony Rinaudo and the “Underground Forest” (5 min)

Tell this short story:

“In 1983, a man named Tony Rinaudo was working in Niger, a very dry country in West Africa. He tried to plant trees, but most died. One day, he saw small bushes on the ground. He looked closely – they were not bushes! They were trees that had been cut but were growing back from the stumps. He taught farmers to protect those stumps. Over 20 years, farmers restored 5 million hectares of land – that’s bigger than the whole Upper East Region!”



Wrap-up (10 minutes)

Discussion questions:

- “What does FMNR stand for?”
- “Do you need to plant a seed to do FMNR?” (No – use existing stumps)
- “Why is FMNR good for a poor farmer?”

Summarize: *“FMNR is a way to bring trees back to farms using the ‘underground forest’ – living stumps and roots that are already there. It is free, easy, and works well in dry places like ours.”*

Take-Home Task

Ask students to:

- Find **one tree stump** near their home that has new shoots growing.
- Tell a family member what FMNR means.
- Draw the stump and bring the drawing to class.

Assessment Idea

- Listen to student answers during discussion.
- Check drawings of stumps.
- Ask each student to say one fact about FMNR.



UNIT 2: Ecosystems and Our Environment

Duration: 50 minutes

Class level: Primary 5–6 and JHS 1–3

Learning Objectives

By the end of this lesson, students will be able to:

1. Define an ecosystem;
2. Identify living (biotic) and non-living (abiotic) parts of their local environment;
3. Explain why ecosystems matter to people.

Key Vocabulary

Word	Meaning
Ecosystem	All living and non-living things in a place, and how they work together
Biotic	Living things (plants, animals, people)
Abiotic	Non-living things (sun, soil, water, air)
Interaction	How things affect each other

Materials Needed

- Chalkboard
- Paper and pencils for drawing
- School compound (for outdoor observation)

Curriculum Links

- Science (ecosystems, habitats)
- OWOP (our environment)

Step-by-Step Activities

Introduction (5 minutes)

Ask: “What things do you see around our school?” (List on board: trees, grass, soil, stones, birds, ants, sun, water, air)

Say: “All these things – living and non-living – work together. That is called an ecosystem.”

Development (30 minutes)

Activity 1: Sorting Biotic and Abiotic (10 min)

Divide the board into two columns: **Living (Biotic)** and **Non-Living (Abiotic)**.

Call out items (or have students suggest). Class shouts where it belongs.

Biotic (Living)	Abiotic (Non-living)
Tree	Soil
Bird	Sun
Grass	Water
Ant	Air
Teacher	Stone

Activity 2: Outdoor Observation Walk (15 min)

Take students outside. Ask them to look for:

- 3 biotic things
- 3 abiotic things
- 1 way a living thing uses a non-living thing (e.g., tree uses sunlight)

Students write or draw what they see in their notebooks.

Activity 3: Class Sharing (5 min)

Students share one observation. Ask: *"What happens if the sun stops shining? What happens if there is no soil?"*

Wrap-up (10 minutes)

Discussion questions:

- *"Is a dead tree biotic or abiotic?"* (It was once alive – still considered biotic in many science contexts, or discuss as "once living")
- *"Why do we need healthy ecosystems?"*
- *"How does FMNR help ecosystems?"* (It brings back trees, which helps soil, water, animals)

Summarize: *"An ecosystem is a community of living and non-living things that depend on each other. When we restore trees with FMNR, we help the whole ecosystem."*

Take-Home Task

Students draw a picture of their home ecosystem (house, trees, animals, soil, sun) and label 3 biotic and 3 abiotic things.

Assessment Idea

- Check observation notes or drawings.
- Ask students to name one biotic and one abiotic factor in the classroom.



UNIT 3: Trees on Farms – Benefits of FMNR

Duration: 50 minutes

Class level: Primary 4–6 and JHS 1–3

Learning Objectives

By the end of this lesson, students will be able to:

1. List at least four benefits of trees on farms;
2. Explain how FMNR improves food, soil and income;
3. Describe how trees help children and families.

Key Vocabulary

Word	Meaning
Benefit	An advantage or good thing
Soil fertility	How rich the soil is for growing crops
Fodder	Food for animals (leaves, branches)
Shade	Protection from hot sun

Materials Needed

- Flipchart or chalkboard
- Pictures of farms with and without trees (or draw simple diagrams)
- Locally available tree products (e.g., shea nuts, dawadawa, neem leaves)

Curriculum Links

- Science (plants, soil)
- OWOP (farming, livelihoods)
- Social Studies (food security)

Step-by-Step Activities

Introduction (5 minutes)

Ask: “Who has a tree in your home compound? What do you use it for?” (List answers: shade, fruits, firewood, medicine)

Say: “Today we will learn all the good things trees do for farmers and families.”



Development (30 minutes)

Activity 1: Brainstorm – Tree Benefits (10 min)

Divide board into 4 sections:

Food	Soil	Income	Other
Fruits	Stops erosion	Sell firewood	Shade
Nuts	Adds nutrients	Sell fruits	Medicine
Leaves (as food)	Holds water	Sell fodder	Windbreak

Ask students to fill in. Add missing benefits.

Activity 2: Case Study – A Farm with Trees vs. Without Trees (10 min)

Draw two simple pictures (or describe):

Farm A: No trees – bare soil, dry, crops look weak.

Farm B: Trees scattered – greener soil, stronger crops, animals resting in shade.

Ask:

- “Which farm will produce more food?” (Farm B)
- “Which farm will survive a drought better?” (Farm B)
- “Why do farmers sometimes cut down all trees?” (They think trees compete with crops – but with pruning, competition is reduced)

Activity 3: FMNR Benefits for Children (10 min)

Ask students: “How do trees help you directly?”

Guide them to these points:

Benefit	How it helps children
More food	Better nutrition for growth and learning
Family income	Parents can pay school fees and buy books
Less erosion	Farmland stays fertile for future
Shade	Cool place to play and study outside
Fruits and nuts	Snacks during hunger season

Say: “When you learn FMNR, you are helping your own future.”



Wrap-up (10 minutes)

Discussion questions:

- *"Name three benefits of trees on farms."*
- *"How does FMNR help a farmer's soil?"*
- *"Why should children care about FMNR?"*

Summarize: *"Trees on farms give us food, healthy soil, income and shade. FMNR is a way to get these benefits without spending money."*

Take-Home Task

Students interview one farmer or parent:

- *"What benefits do you get from trees on your farm?"*
- Write or draw the answer.

Assessment Idea

- Have each student draw a farm with trees and label 3 benefits.
- Oral quiz: *"Name two benefits of FMNR."*



UNIT 4: The Art of Pruning (Practical Lesson)

Duration: 60 minutes (including outdoor practice)

Class level: Primary 5–6 and JHS 1–3

Learning Objectives

By the end of this lesson, students will be able to:

1. Explain why pruning is important in FMNR;
2. Identify the “3 Ts” of pruning (Tools, Timing, Technique);
3. Demonstrate a correct pruning cut on a tree stump or branch.

Key Vocabulary

Word	Meaning
Pruning	Cutting off some branches or shoots
Apical dominance	When the top bud stops side buds from growing
Node	The point on a branch where leaves grow
Thinning cut	Removing a whole branch back to the trunk
Heading cut	Cutting the tip of a branch

Materials Needed

- Secateurs, sickles or a sharp cutlass (for demonstration only – teacher handles)
- A tree stump with shoots OR a cut branch with side branches
- Chalkboard and chalk

Safety Note

- **Only the teacher handles sharp tools during class.**
- Students watch and learn the technique; they can practice on dead branches or soft shoots under supervision.

Curriculum Links

- Science (plant growth, response to pruning)
- Agriculture (crop and tree management)



Step-by-Step Activities

Introduction (10 minutes)

Ask: "If a tree has too many branches, what happens to the crops growing under it?" (They get too much shade, less water, fewer nutrients)

Say: "Pruning means cutting some branches so the tree grows better and crops get sunlight. It is like giving a tree a haircut."

Development (35 minutes)

Activity 1: The 3 Ts of Pruning (10 min – classroom)

Write on board:

T	Meaning	Rule
1. Tools	Use clean, sharp tools	Dull tools damage the tree
2. Timing	When to prune	Best time: start of rainy season (April/May)
3. Technique	How to cut	Cut at 45° angle just above a node; never remove more than 1/3 of the tree

Explain apical dominance with a simple demonstration:

- Hold up a branch with a top bud and side buds.
- "The top bud sends a message to side buds: 'Don't grow too much!'"
- "When we cut off the top bud, side buds wake up and grow fast."

Activity 2: Showing Pruning Cuts (10 min – outdoor demonstration)

Take students outside with a tree stump that has shoots (or a cut branch).

Show two types of cuts:

Cut type	How to do it	When to use
Heading cut	Cut the tip of a shoot	To make tree bushy (for firewood, fodder)
Thinning cut	Remove whole shoot back to main trunk	To reduce shade and competition

Demonstrate the correct angle (45°) and position (just above a node).

Activity 3: Student Practice (15 min)

Give each student a dead branch (or allow them to practice on a few soft shoots on a live stump under supervision). They simulate the cutting motion or use safe tools (pruning shears) if available and supervised.

Walk around and correct technique.



Wrap-up (10 minutes)

Discussion questions:

- *"Why should we prune trees on farms?"*
- *"What are the 3 Ts?"*
- *"What happens if you remove too many branches?" (Tree gets stressed)*

Summarize: *"Pruning helps balance trees and crops. Cut at the right time, with the right tool, using the right technique. Never remove more than one-third of the tree."*

Take-Home Task

Students observe a tree or shrub at home and identify:

- Which branches could be pruned to reduce shade or improve shape.
- (Optional with parent permission) Help a parent prune a tree safely.

Assessment Idea

- Observe students during practice.
- Ask: *"Show me where to make a heading cut."*
- Short quiz: List the 3 Ts.



UNIT 5: Bushfire Prevention and Control

Duration: 50 minutes

Class level: Primary 4–6 and JHS 1–3

Learning Objectives

By the end of this lesson, students will be able to:

1. List three causes of bushfires in their community;
2. Describe three ways to prevent bushfires;
3. Explain why bushfires harm FMNR trees.

Key Vocabulary

Word	Meaning
Bushfire	An uncontrolled fire in grasslands or woodlands
Fire break	A strip of land cleared of vegetation to stop fire
Controlled burn	A fire set on purpose to remove dry grass (under safe conditions)
Suppression	Actions to put out a fire

Materials Needed

- Chalkboard
- Pictures of bushfire damage (or draw)
- Sand or water for demonstration.

Curriculum Links

- Science (fire, ecosystems)
- OWOP (safety, environment)
- RME (caring for creation)

Step-by-Step Activities

Introduction (5 minutes)

Ask: “Has anyone seen a bushfire near your home? What happened to the trees and animals?”

Say: “Bushfires destroy trees, kill animals, and make the land bare. FMNR trees can be killed by fire. Today we learn how to stop bushfires.”



Development (30 minutes)

Activity 1: Causes of Bushfires (5 min)

Brainstorm on board:

Human causes (95%)	Natural causes (5%)
Farmer burning field carelessly	Lightning
Hunter starting fire	Rolling stones
Children playing with matches	
Cigarette thrown	
Not putting out cooking fire	

Say: *"Most fires are caused by people. That means we can prevent most fires."*

Activity 2: Three Types of Fire Management (15 min)

Draw three columns on board:

Preventive (Stop before start)	Suppressive (Put out)	Curative (After fire)
Fire breaks	Beat with green branches	Mulch burned soil
Controlled early burning	Water (if available)	Reseed grass
Remove dry grass	Call community helpers	Do NOT cut burned trees – they may regrow
Educate community	Create backfire (trained only)	Assess damage

Explain each column with simple examples.

Activity 3: What Students Can Do (10 min)

Ask: *"What can YOU do to prevent bushfires?"*

List student ideas, add:

- Never play with matches or lighters.
- Tell an adult if you see smoke.
- Help clear dry grass around your home.
- Join a school fire patrol (with teacher supervision).
- Teach younger children about fire danger.



Wrap-up (10 minutes)

Discussion questions:

- *"What is the most common cause of bushfires?" (Human carelessness)*
- *"How can a fire break stop a fire?"*
- *"If a fire burns an FMNR tree, should you cut it down immediately?"*
(No – wait; it may regrow)

Summarize: *"Bushfires destroy our FMNR trees. Most fires are caused by people, so we can prevent them. Make fire breaks, do controlled early burning safely, and never play with fire."*

Take-Home Task

Students draw a poster: **"Stop Bushfires – Protect Our Trees"** to display at home or school.

Assessment Idea

- Review posters.
- Oral: Name two preventive measures.
- Role-play: What to do if you see a fire.



UNIT 6: Observing and Caring for Trees

Duration: 50 minutes

Class level: Primary 4–6 and JHS 1–3

Learning Objectives

By the end of this lesson, students will be able to:

1. Observe and describe a tree using their senses (sight, touch, smell);
2. Identify the main parts of a tree;
3. Explain how to care for a young FMNR tree.

Key Vocabulary

Word	Meaning
Trunk	The main stem of a tree
Canopy	The branches and leaves at the top
Bark	The outer covering of a tree trunk
Shoot	A new growth from a stump or branch

Materials Needed

- A tree in the school compound or nearby
- Notebooks and pencils
- String or rope (to make a small protection fence)
- Thorns or sticks (for demonstration)

Curriculum Links

- Science (plant structure, observation skills)
- OWOP (environmental care)

Step-by-Step Activities

Introduction (5 minutes)

Say: “Today we will become tree scientists. We will go outside, choose one tree, and learn everything about it – like a doctor checking a patient.”



Development (35 minutes)

Activity 1: Tree Observation Walk (20 min)

Take students to a tree. Ask them to observe quietly for 2 minutes, then guide them:

Sense	What to observe
Sight	Size, shape, colour of leaves, bark texture, any flowers/fruits, animals on tree
Touch	Bark (rough/smooth), leaves (soft/hard) – with permission
Smell	Leaves, flowers, bark (crush a leaf gently)
Hearing	Birds or insects in the tree

Students draw the tree in their notebooks and label:

- Trunk
- Branches
- Leaves
- Roots (underground – can draw as dotted lines)

Activity 2: How to Care for a Young FMNR Tree (15 min)

Back in classroom or at the tree site, discuss:

Care action	Why it helps
Protect from animals	Animals may eat shoots or rub against tree
Remove competing grass	Grass takes water and nutrients
Prune correctly	Shapes the tree and reduces crop shade
Water during dry season (if possible)	Helps young tree survive
Make a small fence (sticks/thorns)	Keeps livestock away

Demonstrate how to place thorns or sticks around a young tree.

Say: *"A young FMNR tree is like a baby. It needs protection to grow strong."*

Wrap-up (5 minutes)

Discussion questions:

- *"What are the main parts of a tree?"*
- *"Why is it important to protect young trees from animals?"*
- *"What did you notice about your tree today?"*

Summarize: *"To care for FMNR trees, we must observe them closely, protect them from animals and fire, and prune them well."*



Take-Home Task

Students choose a tree near their home. They observe it for 3 days and write down any changes (e.g., new leaves, birds visiting).

Assessment Idea

- Check tree drawings for labels.
- Ask students to name one way to protect a young tree.

UNIT 7: Web of Life – Everything is Connected

Duration: 45 minutes

Class level: Primary 4–6 and JHS 1–3

Learning Objectives

By the end of this lesson, students will be able to:

1. Explain that all living things depend on each other;
2. Demonstrate connections in an ecosystem using a physical activity;
3. Predict what happens when one part of the web is removed.

Key Vocabulary

Word	Meaning
Web of life	How all plants, animals, soil, water and sun are connected
Connection	A link or relationship between things
Balance	When an ecosystem is healthy and stable

Materials Needed

- Ball of string or twine (long)
- Role cards (see below) – can be paper or card.
- Open space (classroom with chairs moved or outside)

Role Cards (make 8–12 cards)

Card			
Sun	Bird	Insect	Rain
Soil	Tree	Farmer	Millepede
Water	Grass	Goat	Fish



Curriculum Links

- Science (food chains, interdependence)
- RME (respect for creation)

Step-by-Step Activities

Introduction (5 minutes)

Ask: *"What happens to birds if all the trees are cut down? What happens to the soil if there are no trees?"*

Say: *"Everything in nature is connected like a web. Today we will build a web with string and see what happens when one part breaks."*

Development (30 minutes)

Activity: Web of Life Game (25 min)

Setup:

- Students stand in a circle.
- Each student gets a role card (Sun, Soil, Water, Tree, etc.).
- The teacher holds the end of the string.

Instructions:

1. Teacher (as "Sun") holds the string and says: *"I am the Sun. I give energy to the Tree."* Tosses the ball of string to the "Tree" student while holding the end.
2. "Tree" holds the string and says: *"I give shelter to the Bird."* Tosses to "Bird."
3. "Bird" says: *"I eat insects. I am connected to Insect."* Tosses to "Insect."
4. Continue until all are connected and a web of string forms across the circle.
5. **Now remove one part:** Say, *"A bushfire destroys all the trees."* Ask "Tree" to drop their string and step back.
6. Any student whose string goes loose also drops it.
7. Observe how many connections break.

Discussion after activity:

- *"What happened when we removed the tree?"*
- *"What happens to the farmer? The bird? The soil?"*
- *"Why is it important to protect trees?"*

Wrap-up (10 minutes)

Summarize: *"The web of life shows us that everything is connected. When we cut down trees or burn the land, many other things are hurt – including us. When we restore trees with FMNR, we strengthen the whole web."*

Closing question: *"What is one thing you will do to protect the web of life in your community?"*



Take-Home Task

Students draw their own web of life with at least 5 connected things (e.g., sun → maize → person → soil → rain).

Assessment Idea

- Observe participation in the web game.
- Review drawings for logical connections.
- Ask: "What happens if there is no water in the web?"

UNIT 8: Planning an FMNR Eco-Club Project

Duration: 60 minutes (can be split into two sessions)

Class level: Eco-club members (Primary 5–JHS 3)

Learning Objectives

By the end of this lesson, students will be able to:

1. Identify a small FMNR project they can do at school.
2. Develop a simple action plan (what, where, who, when)
3. Work as a team to plan tree care activities.

Key Vocabulary

Word	Meaning
Project	A planned set of activities to achieve a goal
Action plan	A list of steps with dates and responsibilities
Nursery (optional)	A place to grow seedlings (if needed)

Materials Needed

- Flipchart or large paper
- Markers
- Tape measure (optional)
- Notebooks

Curriculum Links

- All subjects (cross-curricular project)
- Citizenship (community action)

Step-by-Step Activities

Introduction (10 minutes)

Say: "You have learned what FMNR is, how to prune, how to prevent fires, and why trees matter. Now it is time to DO something. Your eco-club will plan a real FMNR project at our school."

Ask: "What FMNR activity could we do in our school compound?" (List ideas)

Possible projects:

Project	Description
Tree stump survey	Find and count living stumps on school grounds
Protect existing shoots	Build thorn fences around young trees
Prune trees on school farm	Practice proper pruning
Create a fire break	Clear grass around school buildings
Tree observation journal	Monitor one tree weekly
FMNR awareness posters	Display around school and community

Development (35 minutes)

Activity 1: Choose a Project (10 min)

Have students vote on one project. Choose something achievable within one term.

Activity 2: Make an Action Plan (25 min)

Use this template on the board or flipchart:

Step	Action	Who	When	Materials needed
1	Survey school compound for tree stumps	All eco-club members	Next Monday	Notebook, pencil
2	Mark 5 stumps for protection	2 students + teacher	Tuesday after survey	Sticks, rope
3	Build fences around stumps	Whole club	Wednesday	Thorns, sticks
4	Take photos/drawings before and after	2 students	Wednesday	Phone/paper
5	Report to assembly	Club leader	Friday	Poster



Fill in the plan with student input.

Activity 3: Assign Roles (10 min)

Role	Responsibility
Leader	Coordinates activities
Secretary	Writes notes and plan
Materials manager	Collects sticks, rope, etc.
Reporter	Shares updates with class/assembly
Photographer/drawer	Records progress

Wrap-up (10 minutes)

Review: *"What is our project? Who is doing what? When will we start?"*

Say: *"Your eco-club can make a real difference. Even one tree protected today will give shade, fruits, and clean air for years."*

Take-Home Task

Students talk to their parents about one FMNR action the family can take at home (e.g., protect a tree stump, stop burning fields).

Assessment Idea

- Completed action plan.
- Observation of teamwork.
- Progress updates after 2 weeks.

Appendices

Appendix A: Sample Eco-Club Meeting Agenda

Item	Time
Welcome and roll call	5 min
Recap of last meeting	5 min
Main activity (e.g., pruning practice)	20 min
Discussion / questions	5 min
Action plan for next week	5 min
Closing	2 min

Appendix B: Tree Observation Sheet (Student Handout)

Tree Observation Record

Date	Time	Location
Species (if known)		
Observation	Notes	
Height (estimate)		
Number of main branches		
Leaves (colour, shape)		
Any flowers/fruits?		
Any animals on tree?		
Signs of damage (fire, cut, animals)		
Changes since last visit		

Drawing of tree:

Appendix C: FMNR Action Plan Template (for Students)

Our FMNR Project

Project name:	
School:	
Eco-club members:	
Start date:	End date:

Our goal: (e.g., "Protect 5 tree stumps on school grounds")

Step	Action	Who	By when	Done?
1				☐
2				☐
3				☐
4				☐

Materials needed:

Challenges we might face:

How we will celebrate success:

Appendix D: List of Local Multipurpose Trees in Upper East Region

Tree name (local)	Scientific name	Uses
Dawadawa	<i>Parkia biglobosa</i>	Food (seeds), medicine, shade
Shea	<i>Vitellaria paradoxa</i>	Shea butter, firewood, medicine
Neem	<i>Azadirachta indica</i>	Medicine, shade, firewood
Baobab	<i>Adansonia digitata</i>	Leaves (food), fruit, fibre
Mango	<i>Mangifera indica</i>	Fruits, shade
Kapok	<i>Ceiba pentandra</i>	Fibre, shade
Acacia	<i>Acacia spp.</i>	Firewood, fodder, soil improvement

Glossary for Students

Word	Meaning
Abiotic	Non-living things like sun, soil, water, air
Apical dominance	When the top bud stops side buds from growing
Benefit	A good thing that helps you
Biotic	Living things like plants, animals, people
Bushfire	Uncontrolled fire in bush or grassland
Canopy	The top part of a tree with branches and leaves
Conservation	Protecting and taking care of nature
Controlled burn	Fire set on purpose to remove dry grass safely
Ecosystem	All living and non-living things in a place working together
Ecosystem services	Benefits nature gives us (food, clean air, water)
Fire break	A strip of land cleared of plants to stop fire



FMNR	Farmer Managed Natural Regeneration – helping trees grow back from stumps
Fodder	Leaves and branches used as animal feed
Heading cut	Cutting the tip of a branch to make it bushy
Landscape	An area of land with its natural and human features
Node	The point on a branch where a leaf grows
Pruning	Cutting off some branches or shoots
Regeneration	Growing again
Restoration	Bringing back a damaged environment to good health
Shoot	A new growth from a stump or branch
Soil fertility	How rich the soil is for growing crops
Stump	The part of a tree left in the ground after cutting
Suppression	Actions to put out a fire
Thinning cut	Removing a whole branch back to the trunk
Underground forest	Living tree stumps and roots below the soil surface
Web of life	The connections between all living and non-living things

"The best time to plant a tree was 20 years ago. The second best time is today – but with FMNR, the tree is already there, waiting underground."

