Training Module No. 8

1 Day Training Program on Training on Micro- plan Implementation

Date :_____

V	enu	e:			

Participants: 30 Persons

- Staff members of Partner NGO
- Field level workers involved in direct implementation (VSS Members)
- Staff members of Partner NGO
- VSS executive body members
- Foresters/ Forest guards
- Other field level workers involved in direct implementation like community mobilisers

*Concerned forester and forest guard need to attend to facilitate the participants.

Objective of the Training

The main objective is to improve the concepts of map reading, interpretation and their usability in field implementation so that the plan on paper is properly translated to the field and executed as per the agreed terms and conditions.

Learning Outcomes

- 1. Improved confidence level of the participants on various map reading and their interpretation for field intervention
- 2. To enable the participants on translation of plan on paper to field

Participant's Requirements

The participants should have basic understanding on the project objectives, activities and outputs. In addition to these, they should have minimum level of understanding on local topography, resource base, forest condition including the biodiversity, level of dependence on forest for various purposes by the fringe habitants etc.

Instructional Requirements

- 1. White board with marker
- 2. LCD projector
- 3. Pointer (stick/ Laser)

Materials and Aids Required

- 1. Toposheet
- 2. Village map- cadastral map
- 3. Micro plan document
- 4. Maps of micro plan
- 5. Pencil with eraser & sharpener
- 6. Colour sketch pen (2-3 sets)

7. Markers

Logistics Preparedness Required

- \checkmark Inform the villages well in advance about the program
- \checkmark Vehicle for communication
- \checkmark Food and water for the team members

Duration	Aid/ Materials Required	Method	Aid/ Materials						
(Min)			Required						
Session 1: Introduction to Maps and Basic Map reading									
5	Self Introduction	Lecture &							
	• Background of the participants	Group							
	✓ Educational background of the participants	discussion							
	✓ Experience in rural development sector								
45	• Explain on various maps and their utilities	Lecture	White board						
	✓ Brief on Toposheet, its components, ways to		• Marker						
	interpret and read the map for using it in field		• White board						
	understanding		wiper						
	✓ Brief on Village sheet/ cadastral maps,		1						
	implications of the symbols used, different								
	land uses, identification of plots etc								
60	• Interpretation of Micro plan document and	Lecture	Power point						
	maps	Group	presentation						
	✓ Reading and understanding the maps	interaction	LCD projector						
	developed during the process of micro plan		• Map stand						
	development								
	✓ Decoding various symbols and summarising								
	the interventions								
	✓ Explain on various proposed interventions								
	\checkmark Identifying the plots where interventions will								
	be done and their listing								
10	Open house discussions and questions from	Group							
	participants	interaction							
Session 2: Us	ses of GPS	T	1						
10	• Brief on GPS and its utility	Lecture	• Power point						
	\checkmark What is it?		presentation						
	\checkmark Why to use GPS		• LCD projector						
	✓ Features and utilities of GPS								
20	 Use of GPS in project context 	Lecture	• Power point						
	\checkmark Location data and its utility in project context		presentation						
	✓ Use of GPS for project monitoring		LCD projector						
60	• Demonstration on GPS operation	Practical	• GPS set with						
			battery						
			• Note book						
Session 3: Micro plan implementation strategy									
20	Skills required for micro plan	Lecture	• Power point						
	implementation		presentation						
	✓ Explanation on Social skills required (refer		LCD projector						
	training materials at the end)								
	✓ Explanation on Technical skills required								
	(refer training materials at the end)								
60	Micro plan implementation process	Lecture	• Power point						

Details of Session Plan

	\checkmark Step by step approach to micro plan		presentation					
	implementation		 LCD projector 					
	(refer training materials at the end)							
10	• Open house discussions and questions from	Group						
	participants	interaction						
Session 4: Monitoring and record keeping strategy								
30	Monitoring strategy	Lecture	• Power point					
	✓ Use of GPS in data recording		presentation					
	✓ Process monitoring strategy		• LCD projector					
	✓ Indicator monitoring strategy		 Monitoring 					
			formats					
15	• Open house discussions and questions from	Group						
	participants	interaction						
30	Record keeping	Lecture	Power point					
	\checkmark How to fill up various records and frequency		presentation					
	of updating		• LCD projector					
	✓ Finance related record keeping and their uses,		 Monitoring 					
	dissemination, verification etc		formats					
15	Open house discussions and questions from	Group						
	participants	interaction						

Micro Plan Implementation

Introduction

In contrary to conventional project planning approaches, micro planning is done for a small patch aiming at the sustainable development of that particular land parcel or a group of community. It has been considered as a crucial method of development since it reflects the ground realities in details along with the strategy to overcome the local constraints.

The process is **essentially participatory** in its approach to dissolve local issues and constraints in planned and stepped manner. It is the corner stone of the bottom to top approach of developmental interventions. It brings all the stakeholders like beneficiaries, technical staffs, donors and policy makers to a common platform to discuss, assess, understand, strategise actions and finally document the ground realities along with alternate possible solutions.

What is Micro Plan?

Micro plans are essentially detailed plans developed for a small patch of land with specific objective of implementation. Micro plans differ from project to project basing on the key objectives and agreed activities. Micro planning process involves the assessing, prioritising and documenting the needs and aspirations of the local community.

In context of forest improvement projects, micro planning is done to develop the implementation plans for small patches of forests with detailed activities intending towards the overall forest health improvement including the soil moisture conservation, biodiversity preservation & improvement, improve the productivity of the forest patch etc.

Why Micro Planning Process

- ✓ It's participatory and hence involves the community/ target beneficiaries
- ✓ It gives scope to incorporate the expectations and aspirations of the local community
- ✓ It helps in exploring the potentials of local resources like human, animal and other natural resources to their full extent
- ✓ It improves the sense of ownership of the community over the assets created through the process of implementation

The Principles of Micro Planning Implementation

- ✓ Target community/ beneficiary should be at the centre stage of implementation and hence involve the community members at each stage of implementation
- ✓ It should be a continuous process which helps in further refinement and adoptability of concepts
- ✓ It should be flexible enough to adjust the field level constraints
- ✓ It is imperative to incorporate the local skills and knowledge in micro plan implementation
- ✓ Be sensitive to local customs / traditions / conventions and practices
- ✓ Of the total possible solutions depicted in the micro plan document, the final one must be considered in consultation with the target individual beneficiary or community as a whole

Skills Required for Micro plan implementation

In principle micro planning requires less of technical skills but more of social skills. The following social skills are essential for micro plan implementation;

- ✓ How to interact with the community?
- \checkmark Identifying the key resources from the community
- ✓ How to share the responsibilities among the stakeholders and methods of monitoring as well as means of verification
- ✓ Implementation process monitoring
- \checkmark Methods and formats for indicator based data tracking
- ✓ General record keeping related to financial transactions, muster rolls etc

Apart from the social skills the team responsible for implementation, should have following basic technical skills

- ✓ Preliminary knowledge on map reading- Toposheet, cadastral maps etc
- ✓ Preliminary knowledge on tree species, their habitat, methods of regeneration, nursery management, time of plantation, pruning, thinning, water requirements etc
- ✓ Basic knowledge on use of GPS and its data utility including data recording

Steps in Micro Plan Implementation

- 1. Read the micro plan document and the related maps in details
- 2. Move to field for which the micro plan has been prepared
- 3. Gather few community members who have clear understanding on the local topography and the ownership of the land parcels
- 4. Identify the locations of various interventions and mark them suitably in presence of the community members
- 5. Explain the community on the interventions and related modalities like execution, monitoring, quality checking, record keeping etc
- 6. Follow up the implementation process time to time

Introduction on Maps

Maps are the basic tools of geography which depicts various features and phenomenon present over a piece of land. A good map contains all the features in detail which are depicted using various symbols. Legend is an essential component of a map which explains various symbols used in the map. Further, the north arrow or any sort of symbol showing various directions of the maps.

Various essential components of a Map

- Map title- It indicates the objective and goal of the map i.e., it gives an idea on why this map has been developed and its major contents
- Map scale- It shows how many units on the land is equivalent to one unit on the map sheet
- North Arrow- It helps in getting the orientation of the map
- Neat line- It represents the border line of the map
- Legend- it explains the details of symbols and colours used in the map

Some Major Types of Maps

- **Political Maps-** It shows political boundaries of various administrative units like nation, states etc. It does not contain any topographical features
- **Physical Maps-** It shows various physical landscapes of the land piece. It shows various mountains, rivers, lakes using various colours
- **Topographic Maps-**This is similar to physical maps but shows features in more detail. This map shows contour lines which shows the variations in landscape
- **Thematic Maps-** This map shows a particular theme or topic related to a particular area. Generally, thematic maps are derivative maps developed from other maps. It contains features related to a particular theme of the original map from which it has been developed. Example of thematic maps include contour maps, drainage maps, map showing surface water bodies, forest boundary map, habitation boundary maps, road maps etc

Description of Toposheet and its interpretation

Toposheets are special maps which show various topographic features of that particular area. The topographic features like contour lines, drainage lines, boundaries of various forest types and other land uses, major roads, boundaries of habitations etc are shown on the Toposheet.

Toposheets come in various scales like 1: 50,000 and 1: 25, 000. In case of the former, the contour interval is 20 m whereas in the later case it is 10m. Toposheets of 1:25,000 scale is available for limited areas. In India, Survey of India is the nodal authority to develop, publish and distribute the Toposheets. In watershed and forest improvement project context the idea on these features play an important role during planning and implementation of activities.

Some major features shown on the Toposheet

- Contour Lines- These are the lines joining points of equal elevation
- Drainage Lines- These are the lines showing the path of water flow
- Index contour- These are the thickened contour lines which makes the reading of contour value easier
- Intermediate contour- The contour lines falling between the index contour lines are called intermediate contour lines. These lines are finer and do not have their elevations given. There are normally four intermediate contour lines between index contour lines.



- **Supplementary contour-** These contour lines resemble dashes. They show changes in elevation of at least one-half the contour interval. These lines are normally found where there is very little change in elevation, such as on fairly level terrain.
- Contour Interval- It is the vertical interval between two consecutive contours
- **Spot height-** These are heights of random places. Normally the heights which do not fall on contour lines like odd heights are shown as spot heights
- **Forest area-** These represent the various forests like mixed forest, open jungle, dense jungle, open scrub etc available in the area
- Fire line- A clear pathway in the forest to prevent spread of forest fire

Colours used in Toposheet

In Toposheet, seven colours are used to show various features

- 1. **Black-** To show names, lines of latitude & longitude, broken grounds, river banks, dry rivers, surveyed trees, heights and their numbering, railway mines, telephone, telegraph lines
- 2. **Red-** Grid lines (eastings and northings), their numbering, roads, cart tracks, settlements, huts and other buildings.
- 3. Green- Forested and wooded areas, scrubs, scattered trees, orchards
- 4. Blue- Water bodies containing water like wells, rivers, etc
- 5. Yellow- cultivated areas
- 6. **BROWN-** Contour lines, their numbering, form lines, all sand features like sand dunes, sand hills, stony waste
- 7. WHITE PATCHES- Uncultivated and barren lands

Description of Village sheet/ Cadastral Map and its interpretation

Cadastre is a technical term for a set of records showing the extent, value and ownership (or other basis for use or occupancy) of a plot or land piece. It provides a ready means of precise description and identification of particular pieces of land and it acts as a continuous record of rights in land.

Using GPS for Micro Plan Implementation

GPS is a hand held device used to locate the positions of various features. It gives the latitude, longitude and elevation above mean sea level of the particular position of the device.

In addition to these, GPSs are also used for measuring the area, recording tracks, recording way points, getting altitude etc.

In case of micro plan implementation one has to be well conversant with the uses of GPS devices. This helps in speedy implementation of the process like identifying the patch of land of interest, location where a particular intervention like construction of check dams, water harvesting structures (WHS), loose boulder structures etc are to be done. The recorded location information of the point can be used for identifying the same on various other platforms like Google Earth, satellite images and other GIS environments and hence helps accurate planning and monitoring of the project components. The location information collected using GPS can be used to develop thematic maps for the project also.

Further, using GPS one can easily measure the area of the land where interventions like plantation, field bunding, terracing etc are to done. Hence it helps in saving much time as compared to conventional approach of implementation and monitoring.

References

http://www.gaorienteering.org/Education/BeginnerGuide/map_reading.htm https://icsehelpline101.wordpress.com/tag/topo-sheet/ https://sites.google.com/a/tges.org/geo-jaydeep/std-10-geography/topographical-maps http://geographyfun.weebly.com/extra-toposheet-practice.html https://en.wikipedia.org/wiki/Thematic_map http://brhectorsgeoworld.blogspot.in/2009/08/important-definitions-on-toposheets.html http://www.fao.org/docrep/006/v4860e/v4860e03.htm