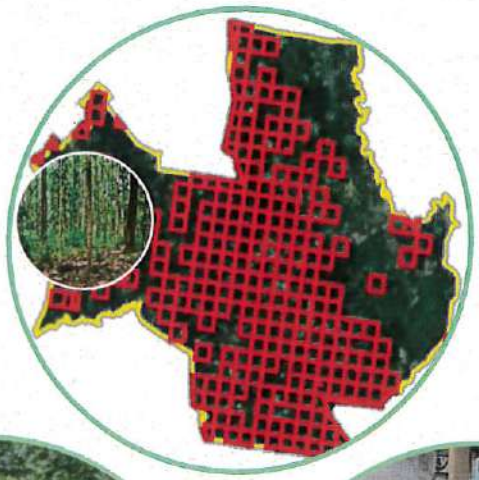
Government of Tripura
Forest Department

TRIPURA
SCATFORM
PROJECT

2020

# Beat Forest Basic Plan Preparation Manual and Templates



JICA

TRIPURA SCATFORM PROJECT

Government of Tripura
Forest Department

JICA

# Abstract

## Beat Forest Basic Plan

Beat is the lowest administrative unit of forestry in India. Treatments prescribed under working plans in the form of Felling Series/Planting Series etc. are also more or less aligned with the beat jurisdiction. As per the Minutes of Discussion(MoD), the project for Sustainable Catchment Forest Management (SCATFORM) in Tripura shall be implemented beat wise. Beats have already been prioritized for coverage under the Project on basis of i) Forest degradation ii) vulnerability to erosion iii) Prevalence of forest patta holder's iv) Prevalence of poverty v) Dependency of forest.

**Definition**

The Beat Forest Basic Plan (BFBP) is a comprehensive document prepared at the Beat level for the forest areas of beat selected for implementation of the project. It is prepared as the first document after beat is selected in order to initiate project activities. It is based upon assessment of socio economic conditions, current status of forest, vulnerability to erosion with regard to the tributaries draining the landscape, protection imperatives, potentialities based upon the scientific analysis of satellite imagery on GIS platform as well as working plan prescription for the area. This is essential requirement mandated as per the minutes of Discussion (MoD) signed between JICA, Govt. of Tripura and MoEF& CC on 13th August, 2018 for the project.

As designed the BFBP shall be for 10 years and shall form the basis for all interventions implemented through local Joint Forest Management Committees (JFMCs) as well as Departmental modes. It can be revised as required during the project period. The microplans of JFMC shall be in conformity with the BFBP. As BFBP is based upon scientific assessments of the field condition as well as the working plan prescriptions for the area, BFBP shall fill up the gap between working plan and micro plan and it makes BFBP a unique document in for forest management in India.

**Objectives**

The objective of BFBP is to identify the potential area, JFMCs, and potential activities at Beat level under the Project scale.

SCATFORM is implemented by JFMC mode, where there is potential to establish JFMC (Except: Filterstrip, Riverbank Plantation and Model III checkdams) and Departmental mode where enhancement of forest quality is needed and JFMC mode is difficult.

**BFBP preparation procedure**

For the preparation of BFBP, the following process is to be undertaken among project staff.

1. PMU will organize a kick-off workshop to prepare the plans with DFOs, SDFOs, ROs and working plan division.
2. PMU prepares GIS map data with PPA (Project Priority Area)
3. DFO will organize study team comprising SDFOs, ROs/ LCs/COs and BOs of the selected Beats and hold a workshop at DMU on the procedure of preparation of plan.
4. DFO will send the GPS coordinates of potential JFMC to PMU.
5. PMU will provide forest status data of the surrounding area of the potential JFMC to DFO.
6. SDFO will prepare the plan with ROs and BOs.
7. District Forest Project Planning Committee will be held (chaired by DFO, SDFO, RO, LC/CO, BO and representative of PMU and Working Plan Division) and approved the BFBP.
8. Approved BFBP will be shared with Panchayat Samity /Block Advisory Council (BAC).

**Work Steps:**

| Work steps | Output | Responsibility |
|---|---|---|
| Step 1- Identification of Project Priority Area | PPA Map | GIS cell, PMU |
| Step 2- Socio economic assessment of potential target villages | Village data | SDFOs, ROs ,BOs with the help of LCs/COs |
| Step 3- Identification of Potential target villages | Potential target village | SDFOs, ROs ,BOs with the help of LCs/COs |
| Step 4- Identification of Project activities for Potential target villages | Project activities for Potential target villages | SDFOs, ROs ,BOs with the help of LCs/COs |
| Step 5-Project Planning | Work plan and budget estimate | SDFOs, ROs ,BOs with the help of LCs/COs |

Step 1: Identification of Project Priority Area in the selected Beat includes Map preparation, Grid ranking and Identification of Project Priority Area (as per the Manual P.N.3-5).

Step 2: Socio economic assessment for potential target villages (as per the Manual P.N.6-7).

Step 3: Identification of Potential Target Village includes identification of Potential Target villages adjacent to Project Priority Area and village ranking to identify the target villages (as per the Manual P.N.7-8).

Step 4: Identification of Project activities (as per the Manual P.N.8-10).

Step 5: Project Planning (as per the Manual P.N.10-11).

# Table of Contents

## 1. Introduction

Beat is the lowest administrative unit of Forestry in India. Treatments prescribed under Working Plans in the form of Felling Series/ Planting Series, etc. are also more or less aligned with the Beat Jurisdiction. As per the Minutes of Discussion (MoD), the Project for Sustainable Catchment Forest management (SCATFORM) in Tripura shall be implemented by Beat wise. Beats have already been prioritized for coverage under the Project on the basis of (i) forest degradation (ii) vulnerability to erosion, (iii) Prevalence of forest patta holder families, (iv) Prevalence of poverty, and (v) Dependency on forests.

### Beat Forest Basic Plan - Definition and Purpose

The Beat Forest Basic Plan (BFBP) is a comprehensive document prepared at the Beat level for the forest areas of beat selected for implementation of the project. It is based upon assessment of socio economic conditions, current status of forest, vulnerability to erosion with regard to the tributaries draining the landscape, protection imperatives, potentialities based upon the scientific analysis of satellite imagery on GIS platform as well as working plan prescription for the area. This is essential requirement mandated as per the minutes of Discussion (MoD) signed between JICA, Govt. of Tripura and MoEF& CC on 13th August, 2018 for the project.

As designed, the BFBP shall be for 10 years and shall form the basis for all interventions implemented through local Joint Forest Management Committees (JFMCs) as well as in Departmental modes. and JFMC micro-plans shall be in conformity with the BFBP. As BFBP is based upon a scientific assessment for the field condition as well as the Working Plan prescriptions for the area, BFBP shall fillup the gap between Working Plan and Micro-plan and that's what perhaps makes BFBP an unique and innovative approach in forest management in the country.

Beat Forest Basic Plan (BFBP) is to be prepared for the selected Beats as per socio-economic and topographical conditions. The objective of BFBP is to identify the potential area, JFMCs, and potential activities at Beat level under the Project scale. The project activities are identified as per forest land potential, socio economic conditions of the villages, and current conditions of existing JFMCs. BFBP is prepared as the first document after Beat is selected in the order to initiate project activities. The period of BFBP is for ten years and can be revised as required during the project period.

The scope of the BFBP includes: 1) Forest Land Assessment, 2) Socio-economic Assessment (including Agroforestry and Forest Practices, SMC, and JFMC), 3) Village selection by Ranking Assessment, and 4) Making Plans.

SCATFORM is implemented by JFM mode wherever there is a potential to establish JFMC (except for Filter Strip, River bank Plantation and model 3 check dams).

The project may be implemented directly by TFD (Department mode) where enhancement of forest quality is needed and JFM mode is difficult. The distance between target area and JFMC villages are considered to introduce Dept mode. (The distance from any village to the target area is further than 3km or severe degradation requires treatment and the distance between 2km-3km will also be considered to be done by the Dept. mode. SCATFORM will work with TFIPAP (JICA Phase 1) JFMC to support livelihood development and cluster formation.

## 2. BFBP preparation procedure

For the preparation of BFBP, the following process is to be undertaken among project staff.

1. PMU will organize a kick-off workshop to prepare the plan with DFOs, SDFOs, ROs, and Working Plan Division.
2. PMU prepares GIS map data with Project Priority Area (PPA).
3. DFO will organize study teams comprising SDFOs, ROs/LCs/Cos and BOs of the selected beats and hold a workshop at DMU on the procedure of preparation of the plan.
4. DFO will send the GPS coordinate of potential JFMC to PMU.
5. PMU will provide forest status data of the surrounding area of the potential JFMC to DFO.
6. SDFO will prepare the plan with ROs and BOs.
7. District Forest Project Planning Committee will be held (chaired by DFO, SDFO, RO, LC/CO, BO, and representatives of PMU and Working Plan Division) and approve the BFBP.
8. Approved BFBP will be shared with Panchayat samity/ Block Advisory Council (BAC).

Impotent Note:- Most of the present working Plans in Tripura is up to 2021-22. So, BFBP should not be in contravention of working Plan. DFPPC shall ensure that BFBP is in accordance with working Plan and it will be suitably adjusted when next Working Plan will be prepared. Else, even Working Plan officer will suitably adjust the BFBP in Working Plan if required.

## 3. Work steps

For the preparation of BFBP, the following five steps will be undertaken (Table 1).

**Table 1: Overall procedures of Beat Forest Basic Plan Preparation**

| Work steps | Output | Responsibility |
|---|---|---|
| Step 1: Identification of Project Priority Area (PPA) | PPA | GIS cell, PMU |
| Step 2: Socio-economic assessment for potential target villages | Village data | SDFO RO, BO with help of LC and CO |
| Step 3: Identification of potential target villages | Potential target villages | SDFO RO, BO with help of LC and CO |
| Step 4: Identification of project activities for potential target villages | Project Activities planned for Potential target villages | SDFO RO, BO with help of LC and CO |
| Step 5: Project Planning | Work plan and budget estimate | SDFO RO, BO with help of LC and CO |

### 1.1 Step 1: Identification of Project Priority Area (PPA) (Task of GIS cell, PMU)

Objectives: Identify project priority area (PPA) in the selected beat

**A) Map preparation**

PMU will prepare the following maps for the beat boundary.

1. Forest cover (canopy density) map: 1:25,000 with forest type to show scrub, open, moderately dense forest, and very dense forest based on satellite images.
2. Topography map: 1:25,000 with elevation 20m interval
3. Slope map: 1:25,000 with slope level, Less than 5%, 5-10%, 10-15%, 15%-20% and >20% based on DEM data.
4. Micro watershed map (micro watershed less than 1,000ha with river and tributary) (1:25,000 scale)
5. Vegetation map (1:25,000 scale)
6. Working plan map (1:25,000 scale)
7. Mouja and CS plot map (1:25,000 scale)
8. Forest degradation status grid map(Figure1): 1:25,000 with 10ha grid by ranking of 1-5 based on the percentage of degraded forests (scrub and open forest).

Degradation score table

| Canopy density of the grid | Score given |
|---|---|
| Below 10% | 5 |
| 10% or more but less than 20% | 4 |
| 20% or more but less than 30% | 3 |
| 30% or more but less than 40% | 2 |
| 40% or more but less than 60% | 1 |

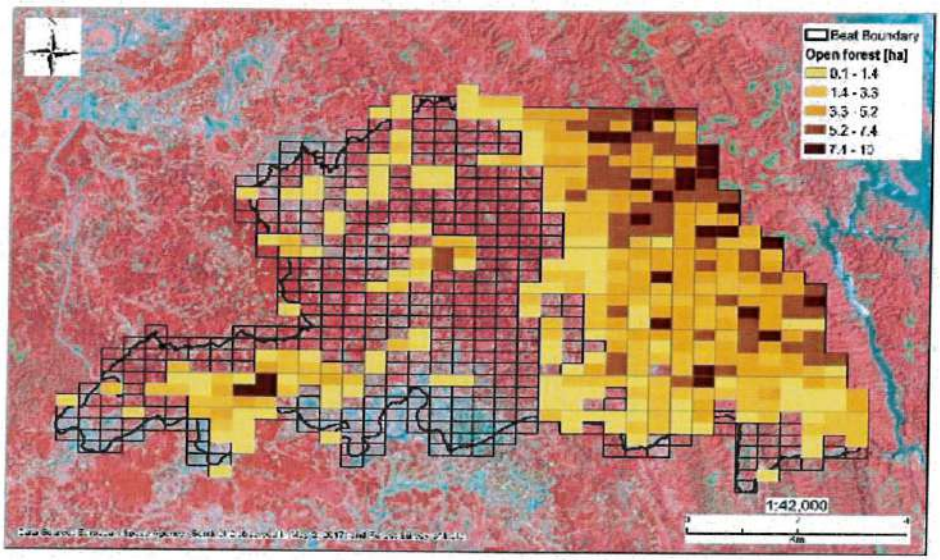



**Figure1: Distribution of Degraded Forest (Open and scrub forests)**

**(Darker is more degraded forest)**

9. Slope status grid map(Figure2): 1:25,000 with 10ha grid by ranking of 1-5 based on the ruling slope.

**Slope score table**

| Ruling Slope in the grid | Score given |
|---|---|
| 20% or more | 5 |
| 15-20% | 4 |
| 10% or more but less than 15% | 3 |
| 10% or more but less than 10% | 2 |
| Less than 5% | 1 |

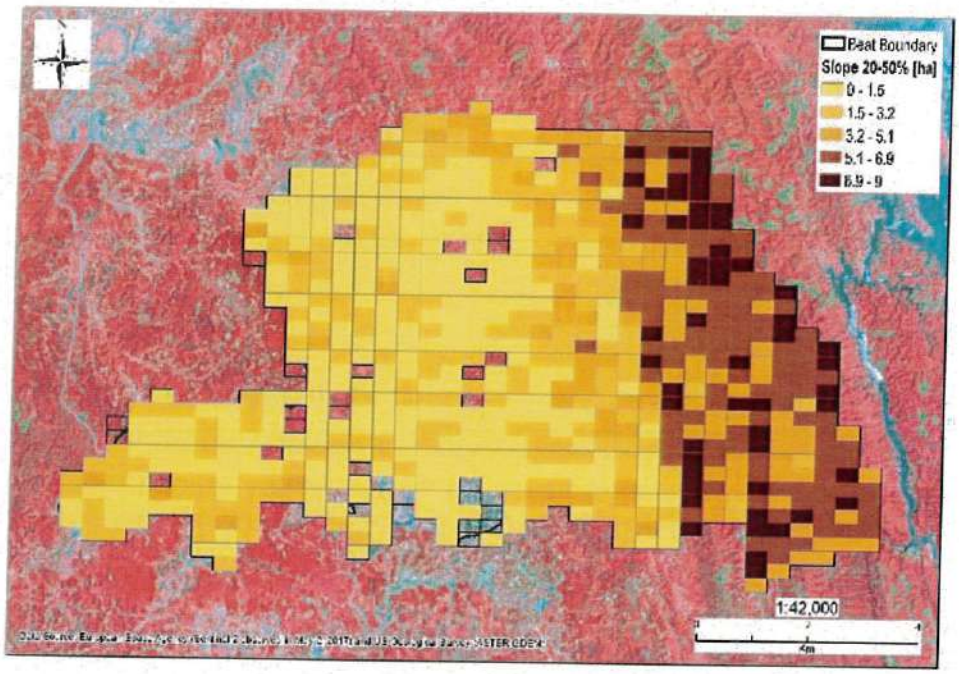



**Figure 2: Distribution of Slope (Darker is steeper)**

**B) Grid Ranking**

When 10 ha grids with degradation and slope scores are ready and calculate combined scores for the 10ha grids by the sum of the degradation score and slope scores. It makes the 10 ha grids to be ranked between 1-10 scores.

**Combined score by the sum of degradation score and slope score (an example)**

| Grid Number | Degradation score | Slope Score | Combined Score |
|---|---|---|---|
| A1 | 5 | 4 | 9 |
| A2 | | | |
| A3 | | | |
| B1 | | | |
| B2 ... | | | |

### C. Identification of Project Priority Area

Identification of Project Priority Area (PPA): Classify the 10 ha grids by combined scores. Identify the area with cluster of high combined score. The identified area is Project Priority Area (PPA) for the Beat (PPA grid map: Figure 3). PPA has a feature of larger area with degraded forests on slope in the beat.

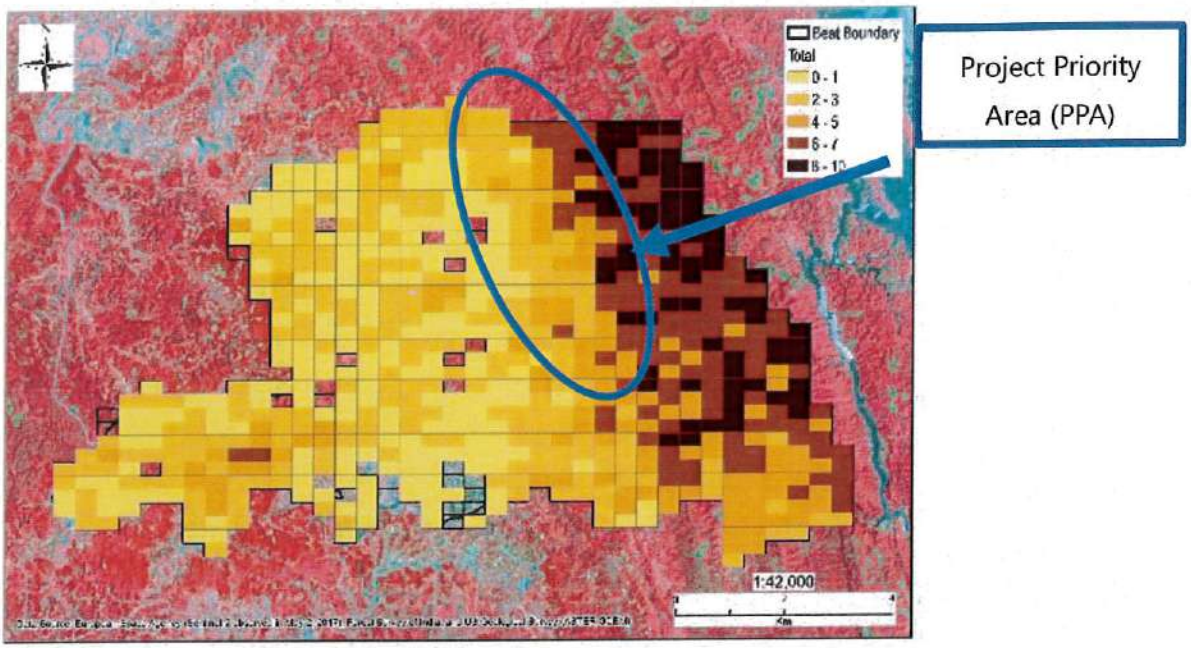



**Figure 3: Distribution of Project Priority Area (PPA)**

### 1.2 Step 2: Socio-economic assessment for potential target villages

Objective: Collect socio-economic and forest related data for potential target villages.

In order to identify potential target villages, socio-economic data needs to be collected by village wise in the selected beat.

① Team headed by Beat Officer collects GP/VC Data on demography, economic activities, geo-spatial information, Working Plan data/ summary of prescription for the Beat, Agro-ecology, vegetation and plantation as well as existing JFMC & activities. Details given at Format 1, 2,5,6,7.

② BO with the help of LC/ CO interviewed JFMC leaders/ village heads in the Beat and collected the data some more data for triangulation. Details given at Format 3, 4, 8, 9.

**Baseline data collection**

Beat officers (with a help of LC, CO) will collect beat data from Gram Panchayat, Tribal Welfare Department, etc.

General socio-economic information of the villages in the beat

- ✓ Demography by village (male/female, caste wise, BPL, ROFR, etc.)
- ✓ Economic activities: (occupation and number of person engaged, number of HHs main income from casual labour, monthly income less than 5k)
- ✓ Mouja, number and area of CS plot in Mouja, number and area of ROFR lands in the CS plot

- ✓ Agro-ecology, vegetation and plantations (rainfall, irrigation, jhum cultivation area)

**Beat officers (with a help of GIS cell PMU) will collect forest related data from TFD.**

- ✓ Geo-spatial information (Beat location, beat area, forest area and type, river and tributary, etc.)
- ✓ Forest compartment and Working plan prescription for each working plan circle
- ✓ Existing JFMC and activities: (Type (FDA and TFIPAP), micro plans for each JFMC, villages, number of members, area, species planted. Plantation, SMC scheme undertaken in the past)

**JFMC/Village survey**

Beat officers (with a help of LC, CO) will have interviews with JFMC leaders (or village heads) in the area covering large Project Priority Area (PPA).

**Collected data include:**

- General information of the village
- Economic activities (number of HHs main income from casual labour, monthly income less than Rs 5,000/-)
- Agricultural activities
- Dependency of villagers on forest (income from NTFP)
- RoFR land distribution (number of RoFR land holders and area of RoFR lands by CS plot)
- JFMC (Basic data) (member, area, plantations (type AR, ANR, year, area, and performance), SMC (model, status), SHGs (activities, members, performance)
- For new JFMC where village cannot be clearly identified, groups of hamlets can be considered as a village.
- Willingness to participate in SCATFORM

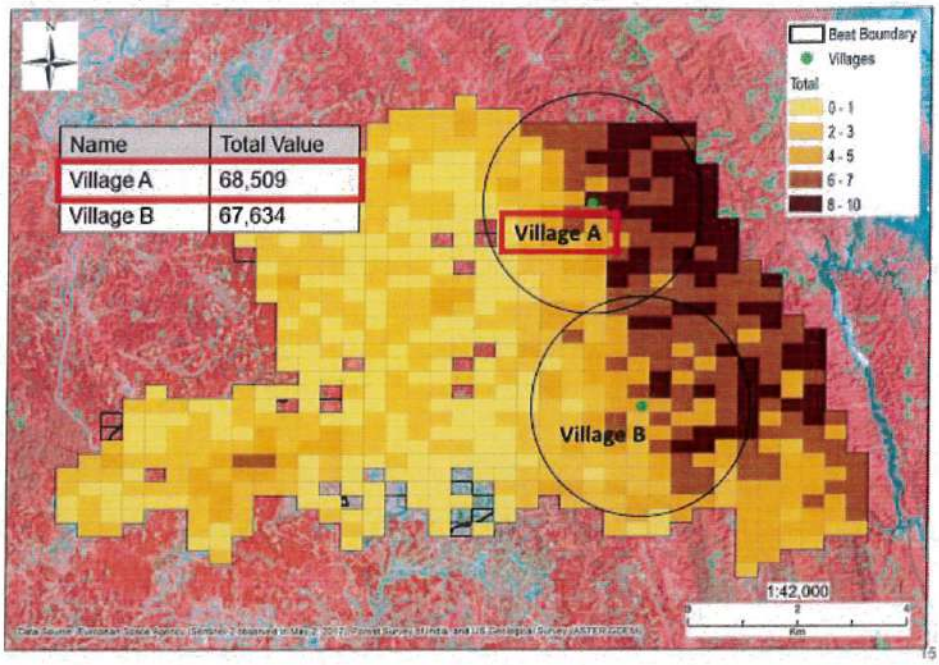
### 1.3 Step 3: Identification of potential target villages

#### A) Identification of potential target villages adjacent to Project Priority Area (PPA)

Objective: Identify the Potential target villages by analyzing PPA covering area in the vicinity of villages.

Potential target villages (or a group of hamlets) are identified based on the area covering PPA.The villages (or a group of hamlets) with maximum populations located adjacent to larger cluster of PPA (with larger degraded forests on slope) will be selected as candidates by analysing the area of PPA within the 3km circle from the centre of villages (Figure 4).

12. Comparisons of values between villages




Remark: Village A has higher value than village B; therefore village A will be selected.

**Figure 4: Project Priority Area (PPA) with potential target village (3km circle from the centre of the village)**

**B) Village ranking to identify the target villages**

Objective: assess villages as per RoFR, poverty level, forest degradation and slope status.

For the potential target villages, calculate RoFR indicator (% of number of RoFR land holders), and poverty (% of number of HHs main income from casual labor in total population) and obtain the data of the percentage of degraded forest and slope from GIS cell of PMU.

Ranks the village based on the following five indicators (Table 2). Exclude the village if villagers are not willing to participate in SCATFORM.

1. Forest degradation (% of open and scrub forests in the forest lands)
2. Risk of soil erosion (% of area under slope level 15-20% and >20%)
3. RoFR indicator (% of number of RoFR land holders in the total village population)
4. Poverty (% of number of HHs main income from casual labour in total village population)
5. Willingness to participate in SCATFORM

Select the highest ranked villages from NAP or New (No JFMC were existent). TFIPAP JFMC will not be selected for major project activities (forest management/Soil moisture conservation/livelihood development), but they can join SCATFORM for capacity development and cluster formation.

**Table 2: Result of JFMC Ranking Assessment, BFBP Belbari Beat**

| JFMC/ village name | JFMC Type | %RoFR/ Total HHs | % major income from casual labor /Total pop. | % of degraded forest in 3km radius | % of slope in 3km radius | Total score | Willingness to participate in SCATFORM | Rank |
|---|---|---|---|---|---|---|---|---|
| Gangia Twisa | NAP | 72 | 80 | 59 | 18 | 229 | Y | 1 |
| East Belbari | NAP | 50 | 75 | 54 | 16 | 195 | Y | 2 |
| Dhupatila Twisa | TFIPAP | 55 | 65 | 48 | 19 | 187 | Y | 3 |
| Gayacharan Para (New Proposed JFMC) | None | 41 | 83 | 38 | 20 | 182 | Y | 4 |

JFMC Type: TFIPAP, NAP or None (which will be formed as new JFMC)

### 1.4 Step 4: Identification of project activities for the target villages

Objectives: Assess the status of forest lands to identify project activities in the potential target villages

For each potential target village (JFMC), the status of forest will be assessed in the area of 3km circle from the center of village. PPA 10 ha grid as well as other degraded forest area within the 3km circle will be assessed by field survey to identify the area and type of project activities (forest management and soil moisture conservation activities) (Figure 5). The status of forest can also be checked by Google Earth.

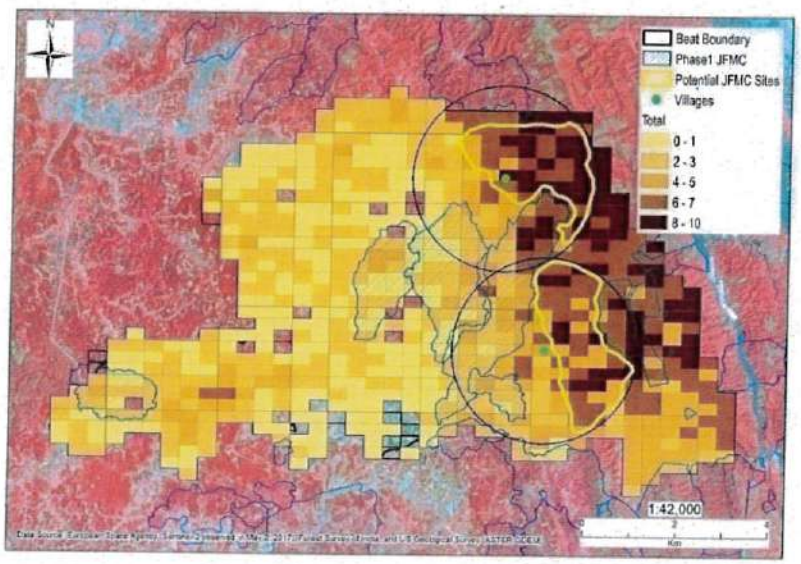



**Figure 6: Target villages with potential plantation activity area with 10 ha grid**

For each PPA grid, status of slope and forest status can be seen by typing the map (Figure6). Project activities will be identified by the current forest status (Table 3).

**Table 3: Forest status and potential project activities**

| Current forest status | Project activities | Map used |
|---|---|---|
| Scrub forest (tree canopy cover<10%) | Assisted Regeneration (AR) | Forest cover canopy density map |
| Open forest (tree canopy cover 10-40%) | Assisted Natural Regeneration (ANR) | Forest cover canopy density map |
| Degraded teak plantation(majority of trees are teak but original stems are not maintained (only coppice growth) | Teak plantation management | Forest cover canopy density map Vegetation map Working plan |
| Livestock dense area | Silvipastoral plantation | |
| Denuded/degraded steep slope area along rivers | Riverbank plantation Filter strip | River map, slope map, vegetation map |

Figure 6: PPA Grid data

| | |
|---|---|
| FID | 116 |
| Id | 0 |
| Area | 10 |
| Label | 55701 |
| Distance | 312.872967 |
| Sum_of_max | 120 |
| Sum_of_min | 89 |
| DIFF | 31 |
| Slope_Per | 9.908175 |
| SCORE_Elev | 2 |
| Label_1 | 55701 |
| MODERATE_D | 0 |
| NON_FOREST | 0 |
| OPEN_FORES | 0 |
| VERY_DENSE | 13.155727 |
| MDF_Per_55 | 0 |
| VDF_Per_85 | 11.182368 |
| OF_Per_25 | 0 |
| SUMtotal | 11.182368 |
| Percentage | 111.823682 |
| SCORE_ISFR | 5 |
| Total_Scor | 7 |

In BFBP, potential location of check dams and soil conservation measures in PPA are identified based on GIS analysis and field survey. The location of SMC facilities shall be in JFMC area. The actual location will be decided by JFMC for their purposes. The following criteria will be used (Table 4)

**Table 4: Soil and Moisture Conservation schemes and selection criteria**

| Application | Criteria | Map used |
|---|---|---|
| Location of check dams | Size of Micro catchment, slope, and topography Storage Vegetation and human use of bank Willingness of community Potential of economic activities (fishery, irrigation, etc.) | Micro watershed map, slope map |
| Contour trench and other plantation around the check dam | Slope and size of watershed in upper side of check dam | Micro watershed map, slope map |

### 1.5 Step 5: Project Planning

Interventions proposed under BFBP shall be on the basic of an in-depth analysis of (a) Socio-economic needs of the local community, (b) Site potential and (c) Working Plan prescription. Potential target villages and project activities are identified. However, they may be too large for SCATFORM. We need to adjust the scale of project activities according to the budget. Project scale (size, number, etc.) of each component are provided by the following way.

#### A) Forest management

Size of target area for each plantation scheme in the selected beat will be calculated by the average of project target area for each scheme (Table 5).

**Table 5: Average size of plantation activities per beat**

| Plantation scheme | Project target area (ha) | Average size per JFMC(ha) | Project period |
|---|---|---|---|
| Afforestation (AR) | 5,000 | 12 | 5 years |
| Assisted Natural Regeneration (ANR) | 21,000 | 50 | 5 years |
| Teak plantation management | 15,000 | 35 | 3 years |
| Silvipastoral plantation | 1,000 | 2.4 | 4 years |
| Filter stripe/riverbank plantation | 100 km | 740m per beat | 4 years |

#### B) Soil & Moisture Conservation

Number of soil and moisture conservation measures for each JFMC is summarized in Table 6.

**Table 6: Number of soil and moisture conservation measures for each JFMC**

| Item | Purpose | Quantity/JFMC |
|---|---|---|
| Check dam | Water conservation, domestic water use, fishery and irrigation | Model1: 3 dams<br>Model 2: 2 dams<br>Model 3: 0.2 dams |
| Brushwood check dam | Erosion protection in gullies | 3 dams on average |
| Contour trench | Erosion protection on hillsides | 2 ha per Model 1 and brushwood check dam |
| Mulching and plantation around the SMC structures | Erosion protection around SMC structures | 2 ha per check dam and brushwood check dam |

#### C) Livelihood development

Livelihood development scheme will be decided several conditions. The following things are considered.

- The performance of ongoing livelihood development activities by TFIPAP SHGs are assessed by the JFMC leader interviews and ideas of potential LD activities are identified. Grouping of TFIPAP SHGs engaged in NTFP processing (e.g. Broom grass) will be elaborated to form clusters.

- Revolving fund will be provided to SHGs in new JFMCs (100,000 INR per SHG).
- Livelihood development activities in TFIPAP SHGs will be supported by follow-up trainings.
- CCFC or Mini CCFC established in TFIPAP will be reviewed. GPS coordinate will be taken and SHGs exist within 10km radius from CCFC or Mini CCFC will be identified to form cluster in the future.

**D) Work plan and budget estimate**

- Work plan and estimated budget will be described in the tables (Form 10-7).

**Annexure BFBP Template**

**Government of Tripura**
**Tripura Forest Department**

Beat Forest Basic Plan
(for the period: Year 1 to Year 2)
for

_____ Beat

Range: _____

Forest sub-division: _____

District: _____

TRIPURA SCATFORM PROJECT

Project for Sustainable Catchment Forest Management in Tripura
(Tripura JICA Project)

**Contents**

**Introduction**

Beat is the lowest administrative unit of Forestry in India. Treatments prescribed under Working Plans in the form of Felling Series/ Planting Series, etc are also more or less aligned with the Beat Jurisdiction. As per the Minutes of Discussion (MOD), the Project for Sustainable Catchment Forest management (SCATFORM) in Tripura shall be implemented by Beat wise. Beats have already been prioritized for coverage under the Project on the basis of (i) forest degradation (ii) vulnerability to erosion, (iii) Prevalence of forest patta holder families, (iv) Prevalence of poverty, and (v) Dependency on forests. _____ Beat is one of the selected Beats for implementation of SCATFORM, the rank in the priority list being _____.

Beat Forest Basic Plan (BFBP) is to be prepared for the selected beats as per socio-economic and topographical conditions. The objective of BFBP is to identify the potential area, JFMCs, and potential activities at Beat level under the Project scale. The project activities are identified as per forest land potential, socio economic conditions of the villages, and current conditions of existing JFMCs. BFBP is prepared as the first document after beat is selected in order to initiate project activities. The period of BFBP is for ten years and can be revised as required during the project period.

The Scope of the BFBP includes: 1) Identification of Project Priority Area (PPA), 2) Socio-economic Assessment for potential target villages, 3) Identification of potential target villages, 4) Identification of project activities in the target villages, and 5) Project Planning.

**Part-I: Current Status**

A. **Socio-economic Profile of the Beat**

**Format 1: General information**

**Format 1-1: General information**

| Sl.No. | Item | Contents |
|---|---|---|
| 1 | Name of the District | |
| 2 | Subdivision | |
| 3 | Block (RD) | |
| 4 | Range | |
| 5 | Beat | |
| 6 | Panchayat | |
| 7 | No. of villages | |
| 8 | ADC area | Yes or No |
| 9 | Regroup villages (No.) | |

**Format 1-2: Existing JFMCs**

| 1 | Existing JFMCs formed by TFIPAP | Members | Area (ha) |
|---|---|---|---|
| | 1 | | |
| | 2 | | |
| | 3 | | |
| 2 | Existing JFMCs formed by other scheme | | |
| | 1 | | |
| | 2 | | |
| | 3 | | |

**Format 2: Demography**

| Category/ social class | SC | ST | General | OBC | Total |
|---|---|---|---|---|---|
| Total household | | | | | |
| Total population | | | | | |
| ROFR Holders | | | | | |
| Shifting cultivators | | | | | |
| Total male | | | | | |
| Total female | | | | | |

**Format 3: Socio-economic information**

| **Socio-economic information** | | | | | |
|---|---|---|---|---|---|
| SN | Subject | | | | |
| 1 | Name of ST group | 1 | 2 | 3 | 4 |
| 2 | Main livelihood measures | 1 | 2 | 3 | |
| 3 | Other livelihood measures | 1 | 2 | 3 | |
| 4 | Main income sources | 1 | 2 | 3 | |
| 5 | Minor income sources | 1 | 2 | 3 | |
| 6 | Average income | Per month per household | | | |
| 7 | Main market and distance | Name | | Distance (km) | |

**Format 4: Village information**

| 1. Village information | | | | | |
|---|---|---|---|---|---|
| **SN** | **Name of village** | **Village 1** | **Village 2** | **Village 3** | **Village 4** |
| 1 | Total Population | | | | |
| 2 | Male | | | | |
| 3 | Female | | | | |
| 4 | Caste wise population HH. No. | | | | |
| | SC | | | | |
| | ST total | | | | |
| | Ethnic Group 1 | | | | |
| | Ethnic Group 2 | | | | |
| | Ethnic Group 3 | | | | |
| | Ethnic Group 4 | | | | |
| | General | | | | |
| | OBC | | | | |
| 5 | HH No. ROFR holders | | | | |
| 6 | HH No. engaging in shifting cultivation | | | | |
| 7 | Main livelihood measures 1 | | | | |
| | 2 | | | | |
| | 3 | | | | |
| 8 | Other livelihood measures | | | | |
| 9 | Main income sources 1 | | | | |
| | 2 | | | | |
| | 3 | | | | |
| 10 | Minor income sources | | | | |
| 11 | Average income Per month per household | | | | |
| 12 | Main market and distance Name Distance (km) | | | | |
| 13 | Number of live stock | | | | |
| | Cattle | | | | |
| | Buffalo | | | | |
| | Goats | | | | |
| | Pig | | | | |

**B. Forest Land in the Beat area:**

**Format 5: Geo-spatial & Physical information about the Beat**

**Format 5-1: General information**

| SN | Item | Contents |
|---|---|---|
| 1 | Beat Office Location | |
| | Latitude | |
| | Longitude | |
| 2 | Area of beat (ha) | |
| 3 | Forest Area (ha) | |

| | | |
|---|---|---|
| 4 | Legal Forest Category | |
| | Reserve Forests (ha) | |
| | Protected Forests (ha) | |
| | Unclassified Government Forests (ha) | |
| 4 | Forest areas by canopy cover | |
| | Scrub forest (ha) | |
| | Open Forest (ha) | |
| | Moderately Dense Forest (ha) | |
| | Very Dense Forest (ha) | |

**Format 5-2: Vegetation type and area**

| 5 | Forest area by Vegetation | Features | Area (ha) |
|---|---|---|---|
| 1 | Mixed deciduous forest | | |
| 2 | Bamboo forest | | |
| 3 | Mixed bamboo forest | | |
| 4 | Teak plantation | | |
| 5 | Land under agro-forestry | | |
| 6 | Area under shifting cultivation (ha) | | |
| 7 | Fallow land (ha) | | |
| 8 | Rubber plantation (ha) | | |

**Format 5-3: Slope**

| 6 | Slope level | Area (ha) | % |
|---|---|---|---|
| | 0-5% | | |
| | 5-10% | | |
| | 10-15% | | |
| | 15-20% | | |
| | >20% | | |

**Format 5-4: River and micro watersheds**

| River and watershed | | | | |
|---|---|---|---|---|
| 7 | Main River (if any) Name | | | |
| 8 | Length of the river km (within that beat) | | | |
| 9 | Tributary | Name | Length (km) | Water Availability |
| | 1 | | | |
| | 2 | | | |
| | 3 | | | |
| 10 | Micro watershed (Less than 1000ha) (no) | Name | Area (ha) | Locations |
| | 1 | | | |
| | 2 | | | |
| | 3 | | | |

**Format 6: Working Plan information**

| Working Circle | Brief prescription | Compartments in the beat | Compartments in the PPA |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

**C. Forest and Agriculture practices**

**Format 7: Forest and Agriculture practices in the village near forest lands**

**Format 7-1: Agriculture crops**

| Agriculture | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Main crop | Location of cultivation ROFR or not | Variety | Seed sowing /kani | Production /kani | Home consumption (quintal) | Rate per quintal | Total amount | Input cost |
| Kharif crop | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| Rabi Crop | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

**Format 7-2 Livestock position**

| Livestock | Number | Fodder/feed sources | Products/market |
|---|---|---|---|
| Cattle | | | |
| Buffalo | | | |
| Goats | | | |
| Pig | | | |

**Format 7-3 Agroforestry position**

| Agro forestry models | | | | | |
|---|---|---|---|---|---|
| 1 | Cultivated species under agro-forestry | | | | |
| 2 | Production of agro forestry (tons) | | | | |
| 3 | Sales from agro-forestry (INR/year/crops) | | | | |
| 4 | Number of households practicing Agro forestry | | | | |

**Format 7-4 NTFP Position**

| Utilization of NTFP | | | |
|---|---|---|---|
| Species (with parts) | Approximate quantity (Quintal) on Monthly/quarterly/ half-yearly/annually | Season of harvest | Rate (INR) |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

**Format 7-5 Plantation Position**

| Plantation established in the past | | | | | |
|---|---|---|---|---|---|
| | Plantation model | Year | Location | Area (ha) | Fund sources |
| | AR | | | | |
| | AR bamboo | | | | |
| | ANR | | | | |
| | ANR Teak | | | | |
| | ANR bamboo | | | | |
| | Filter strip (km or ha) | | | | |
| | River bank (km or ha) | | | | |
| | Silvi-pastoral (ha) | | | | |
| | Rubber | | | | |
| | Others if any | | | | |

**Format 7-6 Nursery position**

| Name | GPS coordinate | Facility | Production capacity (seedlings per year) |
|---|---|---|---|
| | | | |
| | | | |
| | | | |

**D. Soil and Moisture conservation practices**

**Format 8: Soil and Moisture conservation practices**

| General information on Land and water | | |
|---|---|---|
| 1 | Soil character | |
| 2 | Slope | |
| 3 | Annual rainfall | |
| 4 | Seasonal rainfall by month | |
| 5 | Erosion cases | |
| 6 | Landslide area (ha)and slope% | |
| 7 | Landslide prone area (ha) | |
| 8 | Surface of water body (ha) | |

| 8.1 | Existing SMC structure if any | Dimension | Construction Cost | Maintenance cost (if any) | Present condition | Cause of damage (if any) | Protective measures (if any) |
|---|---|---|---|---|---|---|---|
| | Check dam M1/ M2/M3 | | | | | | |
| | RCC check dam | | | | | | |
| | Gully plugging | | | | | | |
| | Contour trench | | | | | | |
| | Staggered trench | | | | | | |
| | Other (if any) | | | | | | |

**E. Existing JFMC/CCFC information**

Format 9-1 List of activities undertaken in Existing JFMCs

| Name of JFMC | Type TFIPAP or Non TFIPAP | Year Establishment | Area | Member |
|---|---|---|---|---|
| | | | | |
| | | | | |

Format 9-2 Records and status of plantations, SMC works and livelihood development Name of JFMC

| Plantation | Year Establishment | Area | Status | Support/action required |
|---|---|---|---|---|
| AR mix | | | | |
| AR bamboo | | | | |
| ANR bamboo | | | | |
| ANR Teak | | | | |
| SMC | Year Establishment | Number | Status | Support/action required |
| Model1 | | | | |
| Model 2 | | | | |
| Livelihood agro forestry | Year Establishment | Member | Status (crop, production, sales, etc.) | Support/action required (cluster potential) |
| Model 1-9 | | | | |
| | | | | |
| | | | | |
| Livelihood SHG | Year Establishment | Member | Status | Support/action required |
| Broom grass | | | | |
| Piggery | | | | |
| Fishery | | | | |

**Note: Repeat other JFMCs with the same format.**

**Format 9-3 CCFC and MINI CCFC**

| Name | Product | Year Establishment | Product | GPS Cordinate | Status |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |

**Part-II: Results of analysis**

A. Project Priority Area (PPA)and location of village

**Figure 1: Open forest with Potential candidate village (3km circle from the centre of the village)**

**Figure 2: candidate villages with potential JFMC project area with 10 ha grid**

**B. Micro watershed assessment of PPA**

Potential locations of check dams with micro watershed are listed.

**C. River assessment**

Assessment of vegetation along the river, river curve and other important structure along with the potential site of river bank plantation and filter stripe are described here.

**D. JFMC Assessment**

**Format 10: JFMC Ranking Assessment**

| JFMC Type* | %ROFR/ Total HHs | % major income from casual labour /Total pop. | % of degraded forest in 3km radius | % of slope in 3km radius | Total score | Willingness to participate in SCATFORM | Rank |
|---|---|---|---|---|---|---|---|
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

**JFMC Type: TFIPAP, NAP or new**

**The highest ranking JFMC/ Villages were selected: _____, _____, _____, _____.**

**Part-III: The Plan**

**A. Project target (Format 10-1)**

| Mode | Target beneficiary | Priority area | Name of villages | Activity**** AR, ANR TPM, SPP, FS, RBP, LD |
|---|---|---|---|---|
| JFM | New JFMC | ** | | |
| JFM | Existing JFMC* | | | |
| Department | None | *** | | |

*TFIPAP JFMCs cannot be selected for SCATFORM implementation (AR, ANR, TPS, SPP, FS, RBP, agro forestry, SHG formation, etc.). TFIPAP JFMC can be included in Training, and cluster development.

**Priority locations where new JFMCs can be formed for SCATFORM

***PPAs where JFMCs cannot be formed due to remoteness and/ or inaccessibility and where works have to be taken up in the Departmental Mode.

****AR: Artificial regeneration ANR: Aided Natural Regeneration, TPM: Teak plantation management, SPP: Silvipastoral plantation, FS: Filter Stripe, RBP River Bank Plantation, LD: Livelihood development

**B. RoFR Status**

| CS plot No | Size(ha) | No of ROFR holders | Average size ROFR lands |
|---|---|---|---|
| | | | |
| | | | |
| | | | |

**C. Forest Management (Format 10-2)**

| Mode JFM/ Dept | Type | Name of villages/ location (Grid ID) | Area (ha) |
|---|---|---|---|
| JFM | AR | | |
| JFM | ANR | | |
| JFM | TPM | | |
| JFM | SPP | | |
| Dept | FS | | |
| Dept | RBP | | |

**D. Soil & Moisture Conservation (Format 10-3)**

| Mode JFM/ Dept | Type | No. | Grid ID | Spec (water retention capacity, catchment areas, etc.) |
|---|---|---|---|---|
| | Check dam (Earthen) | | | |
| | Check dam (RCC) | | | |
| | Brushwood check dam | | | |
| | Contour trenches | | | |

| | | | | |
|---|---|---|---|---|
| | Gully Plugging | | | |
| | Riverside Plantation | | | |
| | Others | | | |

Remark: Under normal condition, Check dam (RCC) is installed by Department mode and others by JFM mode.

**E. Livelihood development (Format 10-4)**

| JFMC Name | Type | Potential Livelihood activities |
|---|---|---|
| | SCATFORM | |
| | SCATFORM | |
| | TFIPAP | |
| | TFIPAP | |
| | Others | |

Remark: Under normal condition, limited investment, only capacity development activities can be conducted for Phase 1 JFMCs.

**F. Cluster development (Format 10-5)**

| Mini CCFC/CCFC | Product | Potential JFMC/SHG to be included |
|---|---|---|
| | | |

**G. Other activities (Convergence) (Format 10-6)**

| Dept. Scheme name | Potential activities |
|---|---|
| MGNREGA | |
| Irrigation dept. | |
| Agriculture dept. | |
| Rural dev. Dept. | |

## H. Annual Work Plan &Budget (Format 10-7)

| Activity | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 |
|---|---|---|---|---|---|---|---|---|---|
| Mirco planning | | | | | | | | | |
| Forest management | | | | | | | | | |
| Artificial regeneration (ha) | | | | | | | | | |
| Aided Natural Regeneration(ha) | | | | | | | | | |
| Teak plantation management (ha) | | | | | | | | | |
| Silvipastoral platation(ha) | | | | | | | | | |
| Filter stripe (km) | | | | | | | | | |
| River bank plantation (km) | | | | | | | | | |
| Soil moisture conservation | | | | | | | | | |
| Model 1 (No) | | | | | | | | | |
| Model 2(No) | | | | | | | | | |
| Model 3 (No) | | | | | | | | | |
| Livelihood development | | | | | | | | | |
| Agroforestry (ha) | | | | | | | | | |
| IGA by SHG, revolving fund (No) | | | | | | | | | |

| Budget (INR) | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 |
|---|---|---|---|---|---|---|---|---|---|
| Mirco planning | | | | | | | | | |
| Forest management | | | | | | | | | |
| Artificial regeneration | | | | | | | | | |
| Aided Natural Regeneration | | | | | | | | | |
| Teak plantation management | | | | | | | | | |
| Silvipastoral platation | | | | | | | | | |
| Filter stripe | | | | | | | | | |
| River bank plantation | | | | | | | | | |
| Soil moisture conservation | | | | | | | | | |
| Model 1 | | | | | | | | | |
| Model 2 | | | | | | | | | |
| Model 3 | | | | | | | | | |
| Livelihood development | | | | | | | | | |
| Agroforestry | | | | | | | | | |
| IGA by SHG, revolving fund | | | | | | | | | |
| Total | | | | | | | | | |

**Part-IV: Maps**

I. Forest Cover Map (canopy density) of _____ Beat (1:25,000 scale)

II. Topography map with 20m elevation interval of _____ Beat (1:25,000 scale)

III. Slope Status Grid Map of _____ Beat (1:25,000 scale)

IV. Forest Degradation Status Grid Map of _____ Beat (1:25,000 scale)

V. Micro watershed map (with Rivers and tributaries) of _____ Beat (1:25,000 scale)

VI. Vegetation map of _____ Beat (1:25,000 scale)

VII. Working plan map of _____ Beat (1:25,000 scale)

VIII. Mouja and CS plot map of _____ Beat (1:25,000 scale)

IX. Project Priority Area Grid Map of _____ Beat (1:25,000 scale)

X. Project Priority Area Grid and location of selected villages of _____ Beat (1:25,000 scale)

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