Monitoring and Evaluation Strategy

Sustainable Catchment Forest Management Project

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ABBREVIATIONS

ANR	Assisted Natural Regeneration
APO	Annual Plan of Operation
APRM	Annual Planning and Review Meeting
BFBP	Beat Forest Basic Plan
CEO&PD	Chief Executive Officer and Project Director
CO	Community Organizer
DMU	District Management Unit
EDC	Eco-Development Committee
FF	Field Facilitator
GB	General Body
GBM	General Body Meeting
GIS	Geographic Information System
GOI	Government of India
GoT	Government of Tripura
HPC	High Powered Committee
IT	Information Technology
JFM	Joint Forest Management
JFMC	Joint Forest Management Committee
JICA	Japan International Cooperation Agency
LC	Livelihood Coordinator
M&E	Monitoring and Evaluation
MIS	Management Information System
NA	Not Applicable/ Not Available
NTFP	Non-Timber Forest Produce
PMC	Project Management Consultant
PMF	Performance Management Framework
PMU	Project Management Unit
RDA	Range Data Analyst
RMU	Range Management Unit
SCATFORM	Sustainable Catchment Forest Management in Tripura
SDA	Sub-Divisional Data Analyst
SDMU	Sub-Divisional Management Unit
SHG	Self-Help Group
SMC	Soil Moisture Conservation
TBE	To Be Estimated
TFD	Tripura Forest Department
TFIPAP	Tripura Forest Improvement and Poverty Alleviation Project

1. BACKGROUND

The Overall Goal of the Sustainable Catchment Forest Management Project (SCATFORM) is to improve quality of forest in the targeted catchment by sustainable forest management, soil and moisture conservation and livelihood development, thereby contributing to development of forest ecosystem services and livelihood improvement of forest dependent communities in the State of Tripura.

To achieve the goal, the project adopts the following basic approaches:

a. Catchment protection
b. Developing Beat Action Plan and Micro Plan following participatory approaches
c. Ensuring access to land resources
d. Agroforestry development on demarcated RoFR lands
e. Joint Forest Management (JFM) formation for forest demarcation
f. Protection of existing forests
g. Enhanced support for group business development and developing partnerships for processing and marketing
h. Strengthening Information Technology based technologies for planning and decision making
i. Capacity development at various level
j. Support to forest communities formed in Tripura Forest Improvement and Poverty Alleviation Project (TFIPAP)
k. Well planned inter-sectoral convergence to support achieving project goal
l. Organizing ecotourism development for income generation and nature education for forest communities
m. Well organized outcome monitoring and impact evaluation
n. Gender mainstreaming

1.1 MONITORING AND EVALUATION STRATEGY

The Monitoring and Evaluation (M&E) Strategy document provides guidance in operationalizing a robust M&E plan for SCATFORM. M&E are effective tools in enhancing the quality of project planning & management and thus, assisting project partners track the progress throughout the project period. The M&E Strategy would define broad guidelines for evaluating and assessing the outcome and output indicators as identified in the project Log-frame.

Monitoring helps project managers understand whether the project is progressing as per schedule and ensure if project inputs, activities, outputs and external factors are proceeding as planned. Evaluation, on the other hand, is a tool to help project managers assess the extent to which the projects have achieved the objectives set forth in the project documents.

1.2 SCOPE OF MONITORING AND EVALUATION STRATEGY DOCUMENT

To put it briefly, the document will guide project stakeholders especially Project Management Unit (PMU) to

- define and execute long term and short-term goals,
- measure and monitor activities and processes,
- take corrective steps as suggested by analyzing monitoring data and,
- assess the impact programme created on the target beneficiaries.

While the document would not guide the internal Management Information System (MIS) of the project, the M&E reports will utilize the data/ information collected from MIS. It is expected that the MIS information is collected and stored in a fashion that reports can be generated at will and therefore will be useful for regular monitoring.

Figure 1 - The logic model

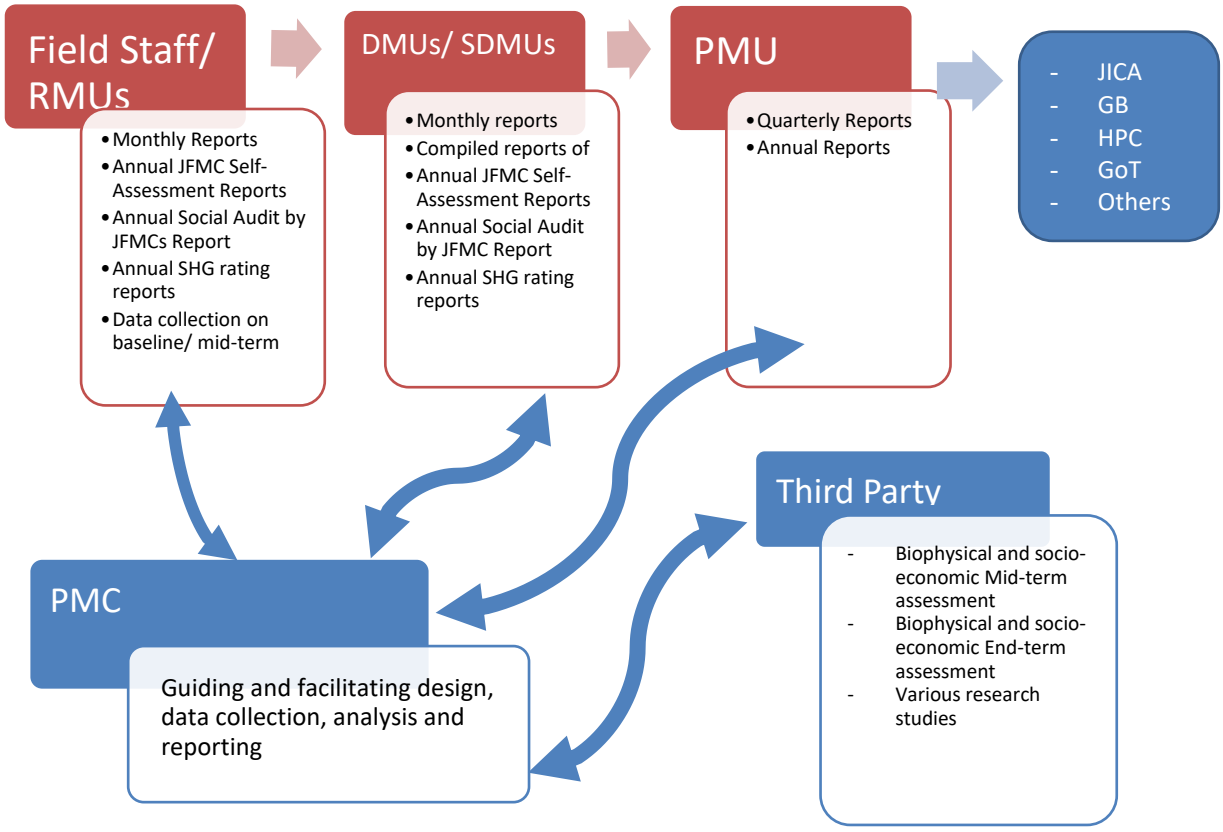
The M&E strategy framework is different from MIS in the sense that where MIS is focussed on tracking inputs and activities, M&E strategy framework is focused on assessing the outputs, outcomes and impacts. While there is a direct and close link between MIS and M&E and M&E strategy framework uses information collected in the MIS for informing some of the indicators, it does not provide details of MIS system i.e. what information the MIS system should collect what should be the processes etc. However, in this strategy document, effort has been made to link the broad activities to their respective outputs and outcomes.

2. AUDIENCE

Six different types of stakeholders benefit from the information collected in this M&E strategy document:

- Japan International Cooperation Agency (JICA) - Mainly interested in overall direction of the program, outcomes and impacts
- PMU - Use information as basis for any strategic/ operational adjustments or decisions, tracking progress
- District Management Units (DMUs)/ Sub-Divisional Management Units (SDMUs) - use information for operational adjustments/ tracking progress
- Range Management Units (RMUs) - Use information for tracking progress
- Field Staff - Use information for tracking progress
- Government of Tripura - Use information for any policy uptake

3. Accountability, Responsibility and Roles



- **PMU**
  Mostly coordinates, reviews aggregated data from the DMUs, accountable for the overall strategy and leadership for the project.
- **Project Management Consultant (PMC)**
  Facilitates and guides the M&E process at different levels to ensure the outputs.
- **DMUs/ SDMUs**
  a. Responsible for implementation of the project activities especially bio-physical activities in project beats and review of work of field personnel on livelihood improvement
  b. Review and aggregation of reports from RMUs and field staff on bio-physical and livelihood aspect
- **RMU**
  a. Responsible for implementation of the project activities especially bio-physical in concerned project range
  b. Support and monitor field staff for institutional development and livelihood activities
  c. Collecting data on different aspects related to institution development and livelihood improvement for MIS, monitoring and evaluation
- **Field Staff (Livelihood Coordinator (LC), Community Organizer (CO) and Field Facilitator (FF))**
  a. Implementation of institutional development and livelihood activities
  b. Collecting data on different aspects related to bio-physical, institution development and livelihood improvement for MIS, monitoring and evaluation

- **Third Party**
    c. Geographic Information System (GIS)
    d. Socio-economic surveys
    e. Research on various aspects like water, biodiversity etc.

4. MONITORING AND EVALUATION PLAN

MIS is a system which provides information for monitoring, evaluation and other aspects (physical and financial tracking). An online MIS is proposed in the project which will provide almost real time information on different aspects in the project[1]. Besides the information from MIS, qualitative and other information will be provided by field staff at RMU level and monitoring reports will be drafted.

4.1 IMPLEMENTATION

The project implementation will be primarily undertaken by Forest Department with support from field staff and Project Management Consultants. The implementation will focus on achieving the outputs which are linked to the outcomes and strategic impact of the project. The project implementation will happen in batches in which the bio-physical work will be carried out in three batches.

Figure 2 - Project Implementation Plan

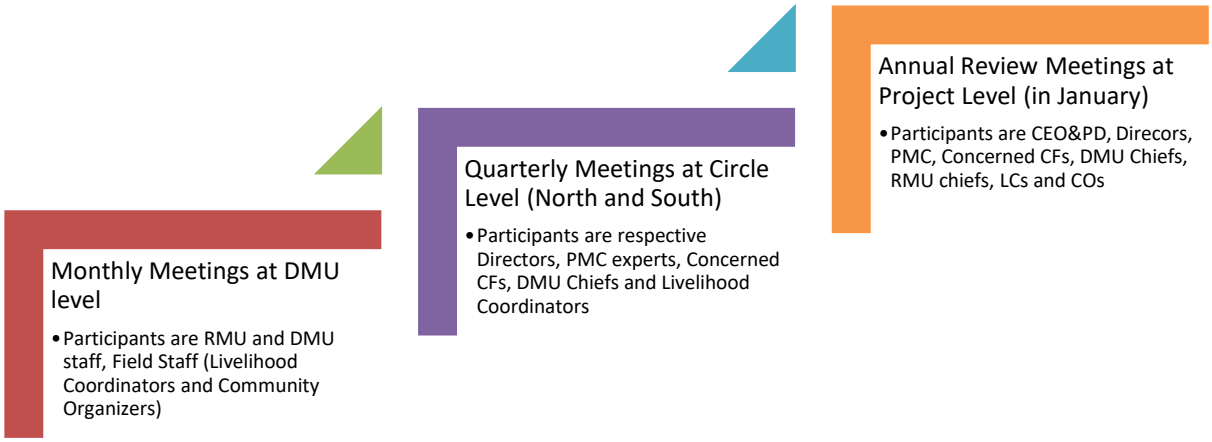
Batch	No. of VPs	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Batch 1	106 JFMCs and 13 EDCs	Preparatory works	Plantation Activities/ Livelihood Improvement	Plantation Activities/ Livelihood Improvement/ Aftercare	Plantation Activities/ Aftercare/ Livelihood Improvement	Aftercare/Livelihood Improvement	Livelihood Improvement/ Aftercare	Livelihood Improvement	Consolidation activities	Consolidation activities	Consolidation activities
Batch 2	211 JFMCs and 14 EDCs		Preparatory works	Plantation Activities/ Livelihood Improvement	Plantation Activities/ Aftercare / Livelihood Improvement	Plantation Activities/ Aftercare/Livelihood Improvement	Aftercare/Livelihood Improvement	Livelihood Improvement/ Aftercare	Livelihood Improvement	Consolidation activities	Consolidation activities
Batch 3	106 JFMCs			Preparatory works	Plantation Activities/ Livelihood Improvement	Plantation Activities/ Aftercare/Livelihood Improvement	Plantation Activities/ Livelihood Improvement	Aftercare/Livelihood Improvement	Livelihood Improvement/ Aftercare	Livelihood Improvement	Consolidation activities

[1] Real time information can be generated if the information collection is shifted from paper based to tablets and the data is uploaded from locations which have internet connectivity.

4.2 Monitoring and Reporting

Each expected result (output, outcome and impact) generated by activities that the SCATFORM will undertake will be measured using the logical framework indicators (Annex 1: Logical Framework). PMC, in consultation with PMU, will develop and make available user-friendly reporting tools to facilitate information collection and dissemination. Also, PMC will assist PMU in carrying out evaluation events/ studies internally or through third parties as envisaged in the indicator table. Given the scale and spread of the project as well as variety of stakeholders, periodic monitoring events are much essential. The details of such proposed periodic events are given in the following illustration.

Figure 3 - Periodic monitoring events



1. **Fortnightly meetings at RMU level:** The most frequent and critical meetings are proposed to be held at the RMU level. In these meetings, which would be a half day event, Livelihood Coordinators (LC) and Community Organizers (CO) of the particular RMU shall participate together with the concerned Beat Officers/ Forester chiefs. The RMU Chief shall preside in these meetings and his/ her absence the Deputy Ranger/ senior most Forester shall preside. The focus of the meeting will be planning and review of forestry, soil and moisture conservation, livelihood and institutional work at the activity level. The proposed agenda of this meeting will be to prepare a rolling plan for the next 30 days (a month) and assess whether the activities planned in the previous 15 days (a fortnight) were conducted and if not, the reasons thereof and what can be done to ensure that the backlog is completed in the next fortnight. The fortnightly meetings at RMU level must be conducted between 1st to 4th and 15th to 18th of each month. The responsibility of conducting these meetings regularly and on time shall be with the RMU chief. The Director, M&E shall monitor and update the PMU on the regularity of these meetings in *RAFTAR* meetings.
2. **Monthly meetings at DMU level**: Monthly meetings shall be conducted at the DMU level in each DMU between 5th to 8th of each month. DMU chief shall preside in the meeting and in his absence Sub-Divisional Management Unit (SDMU) chief or Senior RMU chief may preside in the meeting. The proposed agenda of this meeting will be to assess whether the activities planned in the previous month in each RMU under the concerned DMU were conducted or not, and if not, the reasons thereof and what can be done to ensure that the backlog and the activities in the current month are carried out in the current month. The LCs of respective RMUs shall present the monthly planning and review, share field observations, issues, achievements and opportunities related to the four project components for their respective

RMU in these meetings. These meetings may also be opportunities to discuss and smoothen any administrative or project management related issues within the DMU (forest department and contractual staff). Such meetings will help in ensuring close coordination between the department and contractual staff which is critical for achieving outcomes and impact. For the first and second year i.e. 2020 and 2021, the PMC experts/ Field Coordinators will attempt to participate in as many monthly meetings as possible. It is imperative that these meetings are held between 5th and 8th of every month so that issues can be deliberated and a monthly report from each DMU (compiled from different RMU level reports by a designated Range/Sub-Divisional Data Analyst (RDA/SDA)) can be sent by the respective DMU chief to PMU by 10th of every month. The minutes of the meetings of monthly DMU meetings will be the responsibility of designated LC and the minutes will be attached with the monthly report from DMUs to PMU. The responsibility of conducting these meetings regularly and on time shall be with the DMU chief. The Director, M&E shall monitor and update the PMU on the regularity of these meetings in *RAFTAR* meetings.

3. **Quarterly Meetings at circle level**: There are two forest circles viz. North and South in Tripura in which the project area of SCATFORM is located. Work under SCATFORM is proposed in two DMUs in North and five DMUs and one wildlife sanctuary in South circle. A day long quarterly meeting is proposed at the circle level i.e. at Dharmanagar (North circle) and Udaipur (South circle), in which all the DMUs/ SDMUs and LC/ COs of that region shall participate and present their plan vs achievements, issues and challenges, insights and opportunities etc from the previous quarter and plan for the next quarter. These quarterly meetings should be held between 10th and 14th day of the first month of each quarter (April, July, October and January). It is expected that the DMU level monthly meeting for that particular month would have been held prior to the quarterly meeting at the circle level. The quarterly meetings are proposed to be presided by the Chief Executive Officer & Project Director (CEO&PD) at least in the first year or in his absence, a senior Director from PMU may chair the meetings. From second year onwards, the meetings may be chaired by a senior Director in the PMU. It is proposed that these meetings are held in rotation in different divisions which may also provide an opportunity to visit the field area of the respective DMU for cross learning. The experts from PMC available during the dates of the quarterly meeting and Field Coordinators will also attend the meeting. The responsibility of conducting these meetings regularly and on time shall be with the Director, M&E.
4. **Annual Planning and Review Meeting**: Annual Planning and Review meeting (APRM) is proposed to be held in January every year so as to incorporate learning from the running year and finalize the annual plan in time for the next financial year. In case it is possible, the APRM can also be held in different divisions on rotational basis. The meeting shall be held in January (before 15th) so that the annual planning for the project can be timely prepared. The participants will be all the LCs, RMU, SDMU and DMU chiefs, Project Directors and PMC. The CEO&PD will preside in the meeting. The agenda of the meeting will be to review plan vs achievement in the previous year, issues and challenges, insights and opportunities. The meeting will focus on outputs and outcomes as well as activities. The meeting will be a two-day event and will also include sharing of DMU wise plans (based on the Annual Plan of Operation (APO) of JFMCs in SCATFORM project in their respective DMUs) on Sustainable Forest Management, Soil and Moisture Conservation, livelihoods and other activities. Each DMU will present their achievements and plan for the next year. The Directors at the PMU level will also present plan of key activities in their respective domains. The responsibility of conducting these meetings regularly and on time shall be with the Director, M&E.

4.3 MEASUREMENT

The measurement of the output, outcome and impact indicators will be through different tools and processes. The timing, frequency and responsibility for carrying out these processes varies and is given in Annex 2: Performance Management Framework. Detailed process is provided in this section. The trainings will be provided to stakeholders for conducting these processes and preparing these reports. These trainings will be facilitated by PMC in consultation with PMU.

4.3.1 Monitoring Reports

M.1 – DMU Monthly reports
From: DMU Chief (report will be prepared by Designated RDA/ SDA and finalized by DMU chief)
Submitted to: CEO&PD, PMU
Responsibility of submission: DMU Chief
Other Users: PMC
Frequency: Monthly, by 10th of each month
Indicators for which information provided: 1.1.a, 1.1.c, 1.2.a, 3.1.a, 3.1.b, 3.1.c, 3.1.d, 3.2.a, 3.2.b, 3.2.c, 3.3.a, 3.4.a, 3.5.a, 3.5.b, 4.1.a, 4.1.b, 4.1.c, 4.1.d, 4.1.e, 4.2.b
Proposed contents, process, methodology: DMU level monthly reports will be prepared from the RMU level information/ reports in the concerned DMU by a designated LC. The information for the contents will be provided by LCs, COs, FFs, RMU and DMU Chiefs. A format for monthly report is provided in **Annex 4: Format for DMU monthly report**. The format has two parts, one which is based on the logical framework and second which is more qualitative in nature. While the first section will require to the point description of activities conducted during the month, the second section is detailed where the FNGOs will have opportunity to describe activities, challenges, best practices photographs etc. This format may be used in conjunction with the physical and/or financial monthly reporting format currently being used by the DMUs to report to PMU on monthly basis.

M.2 - PMU Quarterly Reports
From: PMU
Submitted to: JICA
Responsibility of submission: PMU
Other Users: General Body (GB), High Powered Committee (HPC), Government of Tripura (GoT)
Frequency: Quarterly, by 30th of the first month of the quarter (April, July, October, January)
Indicators for which information provided: 1.1.a, 1.1.c, 1.2.a, 3.1.a, 3.1.b, 3.1.c, 3.1.d, 3.2.a, 3.2.b, 3.2.c, 3.3.a, 3.4.a, 3.5.a, 3.5.b, 4.1.a, 4.1.b, 4.1.c, 4.1.d, 4.1.e, 4.2.b
Proposed contents, process, methodology: Besides physical and financial information, the monthly reports submitted by DMUs will be compiled at the PMU level and activities related to components of Sustainable Forest Management, Soil and Moisture Conservation, Livelihoods and Institutional Strengthening, challenges and best practices will be included in the PMU quarterly report to JICA. The report will have information related to activities as well as output indicators and in that sense, it will be a mix of MIS and monthly M&E report. A format for quarterly report is provided in the MoD (See Para 36 &Annex I of Minutes of Discussion dated 13 August 2018) however, internally the reporting may also be in the format provided in **Annex 5: Format for PMU quarterly and annual report**. Similar to monthly reports of DMUs, the format has two parts, one which is based on the logical framework and second which is more qualitative in nature. While the first section requires to the point description of activities conducted during the month, the second section is detailed where the PMU will have opportunity to describe activities, challenges, best practices photographs etc.

M.3 - PMU Annual Reports

From: PMU

Submitted to: JICA

Responsibility of submission: PMU

Other Users: Tripura Forest Department (TFD), HPC, GoT, Government of India (GoI)

Frequency: Annually, by 25th of the first month of the new financial year i.e. April

Indicators for which information provided: All the outcome and output indicators

Proposed contents, process, methodology:

The quarterly reports submitted by DMUs in the respective year will be compiled and progress on challenges and issues will be updated. The annual report will provide information to PMU on all the outcome and output indicators along with achievements and challenges. PMC experts will be responsible for providing information related to particular aspects for inclusion in the Annual Report. The annual report will form the basis for the report of PMU to JICA. A format for the Annual Report is provided in the MoD (See Para 36 &Annex I of Minutes of Discussion dated 13 August 2018) however, internally the reporting may also be in the format provided in **Annex 5: Format for PMU quarterly and annual report**.

M.4 – Joint Forest Management Committee (JFMC)/ Eco-Development Committee (EDC) Self-monitoring report

From: Community Organizers

Submitted to: DMU Chief

Responsibility of submission: Respective COs

Other Users: RMUs, PMU, PMC

Frequency: Annually, by 7th January (the activity can be undertaken in the month of December of the previous year so that the report is ready by first week of January)

Indicators for which information provided: 4.a

Proposed contents, process, methodology

Self-monitoring by JFMCs/ EDCs will be facilitated by respective COs. A criteria/ format will be developed by the M&E expert in consultation with Community Development expert of PMC. COs will be trained by Community Development expert M&E expert of PMC in facilitating self-monitoring by JFMCs/ EDCs. The focus of the self-monitoring will be on how the respective JFMC/EDC has performed on these criteria. Besides the suggested criteria, the JFMCs & EDCs/ COs will also have flexibility to include unique aspects related to the institutions and the work conducted. The COs will compile the information from all the JFMCs/ EDCs being facilitated by them and will submit the report.

M.5 - Annual Self-help Group (SHG) rating report

From: Livelihood Coordinator, Community Organizer

Submitted to: DMU Chief

Responsibility of submission: LC, CO

Other users: RMU, PMU, PMC

Frequency: Annually, the rating will be done in December every year so that the report is ready by the first week of January

Indicators for which information provided: 4.b

Proposed contents, process, methodology

The annual SHG rating will be done by FLCs in consultation with the SHGs themselves. The criteria for rating is as follows:

Well-functioning SHGs will categorised based on an index comprising of – a) regular meetings – at least 10 meetings in a year, b) attendance – at least 90% attendance rate (Cumulative Attendance x 100/ Number of Meetings Conducted x Number of SHG Members), c) regularity of savings – 100% savings rate (Total savings collected (during six months) X 100/ Monthly Savings x Total Number of members x six months), d) loan disbursement to members – 60% (Number of members having loan outstanding x 100/ Total SHG members), e) loan repayment - >= 95% (Cumulative loan collection – prepayments/ Total loan principal due on the last day of the previous month).
A rating scale will be developed by M&E expert in consultation with Livelihood expert. The LC/ COs will be trained in using the criteria to rate SHGs. Designated LC/CO at the DMU level will compile detailed rating provided by LC/COs and will prepare a rating sheet of all the SHGs at the division level. This division level sheet will be submitted to the RMU and DMU chief by the designated LC/CO. The respective DMUs will present the Annual SHG rating report in the Annual Review Meeting and will enclose the rating sheet in the DMU Annual Report.

4.3.2 Evaluation Reports

There are two key evaluation processes that will be undertaken by the SCATFORM i.e. bio-physical and socio-economic. PMU will be responsible for getting these evaluations conducted and submission of its report to JICA and other stakeholders. Besides these two processes, JICA would also conduct two post-project assessment after two years and seven years of project completion, however, these assessments will be directly conducted by JICA and are therefore not included in the M&E strategy document.

E.1 – Bio-physical baseline assessment report

From: Third Party

Submitted to: PMU

Responsibility of submission: Third Party

Frequency: Once, however as the JFMCs/ EDCs are identified and worked with in batches in the project, the construction of bio-physical baseline will also happen in batches. It is expected that the bio-physical baseline assessment will be done for the first batch of JFMCs/ EDCs in 2020 with the baseline for second and third batch happening in 2021 and 2022. The satellite image data for biophysical baseline assessment will be of the year previous to the intervention for that batch of JFMC/ EDCs.

Indicators for which information provided: 1.a

Proposed contents, process, methodology

The bio-physical baseline assessment using satellite imageries will be carried out by a third party hired by PMU. The bio-physical baseline assessment will focus on the key indicator of change in the proportion of moderate dense category forest in the targeted catchments. The baseline assessment will also combine information from other sources for bio-physical aspects for example change in water regime, no. of fire incidences, extent of the area affected by forest fires etc. Some of these parameters, like extent of the area affected by forest fire could be assessed using MODIS/ SNPP data and others like change in water regime can be assessed in a participative manner in the community.

E.2 – Bio-physical mid-term assessment report

From: Third Party

Submitted to: PMU

Responsibility of submission: Third Party

Frequency: Once, for batch 1 & 2 JFMCs/ EDCs in third quarter of 2025

Indicators for which information provided: 1.a

Proposed contents, process, methodology

As the project duration is ten years (2019-2028), besides modest increase in moderate density forest, other indicators like water regime and biodiversity may change during this period. Moreover, qualitative changes in JFMC/EDC areas (under the project interventions) like improved grass, siting of wild animals etc. may happen due to protection and can be assessed through participatory or other qualitative methods. Also, the plantation will happen in two/three batches in a JFMC and given the total duration of the project, it would not be possible to undertake mid-term assessment of all the batches. It is therefore proposed to undertake mid-term assessment for first batch plantations of only the first and second batch of JFMCs/ EDCs. The mid-term assessment for first and second batch of JFMCs/EDCs (plantation in 2020 and 2021) will happen in fourth quarter of 2025. The ToR for the third party will be prepared by GIS expert of the PMC in consultation with the relevant officials in PMU.

E.3 – Bio-physical end-term assessment report

From: Third Party

Submitted to: PMU

Responsibility of submission: Third Party

Frequency: Once in second quarter of 2028

Indicators for which information provided: 1.a

Proposed contents, process, methodology

The end-term assessment will happen in second quarter of 2028. The ToR for the third party will be prepared by GIS expert of the PMC in consultation with the relevant officials in PMU

E.4 – Socio-economic baseline assessment report

From: Third Party

Submitted to: PMU

Responsibility of submission: Third Party

Frequency: Once, however as the JFMCs/EDCs are identified and worked with in batches in the project, the construction of socio-economic baseline will also happen in batches. It is expected that the socio-economic baseline assessment will be done for the first batch of JFMCs/ EDCs by the end of 2020 with the baseline for second and third batch happening in 2021 and 2022.

Indicators for which information provided: 1.a, 1.d, 2.a, 2.b, 3.a, 3.b

Proposed contents, process, methodology

The socio-economic baseline will be conducted in batches as the JFMCs/ EDCs are not known as yet and will be formed in batches till 2022. Also considering the difficulty of terrain and dispersed population it will be a difficult proposition for an outside agency to conduct field survey in limited time and resources. Considering these aspects, it is proposed that the field baseline data is collected internally by LCs/COs with support from FF and aspects of qualitative data collection, data cleaning, analysis and report writing can be outsourced to a firm.

The baseline will be constructed at different levels and different information will be collected at each level. Level wise list of socio-economic information required (not exhaustive) is provided below

a. **Household level –** demographic information, occupation, household fuel mix, collection of forest resources, health and sanitation, human-animal conflict, migration, agriculture and horticulture production and sale, fisheries, animal husbandry, household assets, drinking water, indebtedness etc
b. **SHG member level –** besides household level information a detailed module on livelihoods will be added
c. **SHG level –** formation, membership, savings, inter-loaning, linkage with banks, trainings, part of federation etc
d. **JFMC/EDC –** formation, area, members, trainings, factors for degradation of forest, incidences of fire in last three years and its details,

Methodology

The baseline assessment will be done on sample basis by the LC/COs with support from FF. The M&E expert of PMC will design the questionnaire and provide training to all the LCs and COs on administering questionnaires. LCs will act as supervisors for the survey and will ensure that quality data is collected. Technology will be used in ensuring collection of quality data in the sense that the questionnaire will be programmed and uploaded on tablets which will be provided to LCs and COs for data collection. This will ensure better quality of data due to in-built checks and will also deliver analysable data in short time period. It is proposed to purchase tabs for the LCs/ COs in the project, which will also help the project in collecting data related to SHGs and other aspects in close to real time.

The baseline assessment will use mix-methods. Depending on the situation and available resources, a difference-in-difference research design may be used as the evaluation framework. This will require construction of a control group.

E.5 – Socio-economic mid-term assessment report

From: Third Party

Submitted to: PMU

Responsibility of submission: Third Party

Frequency: Once in 2024

Indicators for which information provided: 1.a, 1.d, 2.a, 2.b, 3.a, 3.b

Proposed contents, process, methodology

The logical framework, along with the baseline survey report, will form the foundation of the mid-term assessment. Well before the start of the mid-term assessment, issues/ themes requiring special focused studies will be identified in consultation with project stakeholders, their scope of work and terms of reference drawn up, and studies commissioned. The studies will be scheduled such that their final reports are available by the time of initiation of the mid-term impact assessment, and summary of their findings will be incorporated in the mid-term assessment report. While the project duration is ten years (2019-2028), bio-physical aspects require time to show results. The mid-term assessment will include information on all aspects of the project – participation, representation, capacity building and so forth. It will present an analysis of the project strategies, activities and their effectiveness, measured against planned or expected results; it is expected that based on the findings and discussions, project managers will be able to make suitable mid-course corrections, if needed, and reallocate resources as required.

Indicators for the mid-term impact assessment will be drawn from the logical framework developed. Findings of the mid-term evaluation will be shared and discussed in a workshop mode with project stakeholders. The mid-term assessment will be conducted by a third party.

E.6 – Socio-economic end-term assessment report

From: Third Party

Submitted to: PMU

Responsibility of submission: Third Party

Frequency: Once, second quarter of 2028

Indicators for which information provided: 1.a, 1.d, 2.a, 2.b, 3.a, 3.b

Proposed contents, process, methodology

The baseline survey report and mid-term assessment report will form the foundation for the end-term assessment. Well before the start of the mid-term assessment, issues/ themes requiring special focused studies will be identified in consultation with project stakeholders, their scope of work and terms of reference drawn up, and studies commissioned. The studies will be scheduled such that their final reports are available by the time of initiation of the end-term impact assessment, and summary of their findings will be incorporated in the end-term report.

The end-term assessment will be a mix-method study using both quantitative and qualitative data. The end-term assessment will be carried out in the last quarter of the project and will include information on all aspects of the project – participation, representation, capacity building and so forth. It will present an analysis of the project strategies, activities and their effectiveness, measured against planned or expected results. The end-term assessment will be conducted by a third party.

4.3.3 Other Reports

O.1 – Biodiversity Assessment Study Report

From: Third Party

Submitted to: PMU

Responsibility of submission: Third Party

Frequency: Thrice (2020, 2021, 2022), 2024 and 2028

Indicators for which information provided: 1.b

Proposed contents, process, methodology

Biodiversity improvement is one of the key indicators of improvement of forests. The proposed study may look at the pre, mid and post intervention scenario in terms of floral and faunal biodiversity. The scope of such a study/ intervention will be limited to the intervention plots. The study may also entail developing a biodiversity inventory and linking it to the GIS platform developed. The biodiversity database may also be shared on the public platforms like ebird etc. The scope of the study will be decided in consultation with the forestry/ biodiversity expert at PMU and the third party will be recruited to undertake the study.

It is proposed that permanent plots in proposed treatment areas in sampled beats may be laid out in the first year of formation of the JFMCs/EDCs. The mid and end-term assessment can be carried out towards the end of 2024 and second quarter of 2028 respectively. The findings from the mid and end-term biodiversity assessment will also add to the bio-physical end-term assessment.

O.2 – Soil and moisture assessment study report

From: Internal/ third party

Submitted to: PMU

Responsibility of submission: Internal/ third party

Frequency: Thrice (2020, 2021, 2022), 2024 and 2028

Indicators for which information provided: 2.1.a, 2.2.a, 2.2.b

Proposed contents, process, methodology

To assess the change in soil run-off and soil moisture in the treatment area, a before and after assessment needs to be carried out on sample basis in each project beat. A methodology for measuring Soil Moisture in Forests was given in the MoD and is attached as annexure 7. The methodology/ ToR for the assessment will be finalized by Soil & Moisture Conservation expert of PMC in consultation with the PMU.

O.3 – Survival assessment study report

From: Internal/ Third Party

Submitted to: PMU

Responsibility of submission: Internal/ Third Party

Frequency: half yearly during first three years after plantation – internally, validation of survival rate at the end of third year – third party

Indicators for which information provided: 1.1.b

Proposed contents, process, methodology

As per MoD, survival rate in all the plantations under different models need to be assessed twice a year till 3 years. Survival assessment will be conducted through the conventional method (through

field-based survey), combined with technology (using GPS and photo point locations). The report will cover plantation under different models as well and changes in growing stock, regeneration due to protection and biodiversity may be included in the report as well. The Forestry/ biodiversity expert together with M&E expert will draft the methodology for internal assessment and/or Terms of Reference for the third party and facilitate conducting of the survival assessment through the third party.

O.4 – Training Reports

From: Trainers, LC/CO

Submitted to: DMUs

Responsibility of submission: Trainers, LC/CO

Frequency: As and when trainings happen

Indicators for which information provided: 4.1.d, 4.1.e

Proposed contents, process, methodology

Capacity building is a key outcome for the project and is linked to sustainability in outcome 4. A large number of trainings are proposed to be conducted in the project as it seeks to train most of the JFMC/EDC and SHG members as well as Forest Department personnel, LCs, COs and other staff. Such huge intervention will require close tracking of the training programmes which is proposed to be undertaken through MIS and training reports. The training reports will be prepared by trainers or agencies that will be responsible for the trainings. A consolidated quarterly report on the trainings conducted in a particular quarter, based on the monthly reports of DMUs and the trainers will form the part of the quarterly report from PMU to JICA. A format for Training Feedback report is provided in **Annexure 6: Training Feedback Format**.

5. TIMING

Report No.s	Year	2020-21				2021-22				2022-23				2023-24				2024-25				2025-26				2026-27				2027-28				2028-29			
	Quarters (from April (1) to March (4))	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
	Monitoring/ MIS																																				
M.1	DMU Monthly reports																																				
M.2	PMU Quarterly reports																																				
M.3	PMU Annual Reports																																				
M.4	JFMC/ EDC Self-Monitoring Reports																																				
M.5	Annual SHG rating reports																																				
	Evaluation																																				
E.1	Bio-physical baseline assessment Report		1			2				3																											
E.2	Bio-physical mid-term assessment Report																			1																	
E.3	Bio-physical end-term assessment Report																																				
E.4	Socio-economic baseline assessment Report			1		2	2			3	3																										
E.5	Socio-economic mid-term assessment Report																			1																	
E.6	Socio-economic end-term assessment Report																																				
	Others																																				
O.1	Biodiversity assessment study report			1				2				3								1																	
O.2	Soil and Moisture assessment study report			1				2				3								1																	

Report No.s	Year	2020-21				2021-22				2022-23				2023-24				2024-25				2025-26				2026-27				2027-28				2028-29			
	Quarters (from April (1) to March (4))	**1**	**2**	**3**	**4**	**1**	**2**	**3**	**4**	**1**	**2**	**3**	**4**	**1**	**2**	**3**	**4**	**1**	**2**	**3**	**4**	**1**	**2**	**3**	**4**	**1**	**2**	**3**	**4**	**1**	**2**	**3**	**4**	**1**	**2**	**3**	**4**
O.3	Survival Assessment study report																																				
O.4	Training Reports report																																				

1 – for phase 1 JFMCs/EDCs, 2 – for phase 2 JFMCs/EDCs, 3 – for phase 3 JFMCs/EDCs

ANNEX 1: LOGICAL FRAMEWORK

Goal: **To develop forest ecosystem services and livelihoods of forest dependent communities in the State of Tripura.**

Outcome	Key Outcome Indicators	Means of Verification	Outputs	Output Indicators	Means of Verification
Sustainable Forest Management					
1. Improved quality and quantity of forests and grasslands and their management in the targeted catchment	1.a 25% increase in the proportion of moderate dense category forest[2] in the targeted catchments 1.b 10% increase in species composition in Shannon Diversity Index for both forests and grasslands in targeted catchments	1.a Bio-physical baseline/ endline report 1.b Biodiversity assessment report[3] 1.c Forest Carbon stock report 1.d Socio-economic	1.1 Increased area under forest in the targeted catchments 1.2 Increased area under grassland in the targeted catchments 1.3 Community aware about sustainable use of forest and water resources	1.1.a 42000 ha area covered under different regeneration/ plantation models in JFM Mode a. Artificial Regeneration – 5,000 ha b. Aided Natural Regeneration – 21,000 ha c. Teak Plantation – 15,000 ha d. Silvi-Pastoral Plantation – 1,000 ha	1.1.a, 1.1.c & 1.2.a – MIS 1.1.b – Internal (six monthly) and external assessment (third year) reports 1.3.a – Socio-economic baseline/ midline/ endline surveys

[2] Moderate dense category forest is tree canopy **density** of 40 percent and more but less than 70 percent (0.4 to 0.7 tree **density**). 25% increase means that if moderate density forest at the baseline stage is 20% then it is expected that in the endline it should increase to (20+(25/100)*20) = 25%.

[3] A biodiversity assessment in sample project sites, pre, mid and post project can be undertaken to inform this indicator.

Outcome	Key Outcome Indicators	Means of Verification	Outputs	Output Indicators	Means of Verification
	1.c % increase in the Forest Carbon stock 1.d 20 % Jhumia households stop practicing Jhum cultivation in the targeted catchments	baseline/ midline/ endline reports		1.1.b 80% survival rate after 3 years of plantation 1.1.c 3 High Tech, 7 centralized and 150 decentralized nurseries developed/ improved 1.2.a Area (in ha) covered under grassland improvement 1.3.a % households show increased awareness on sustainable forest and water management practices[4]	
Soil and Moisture Conservation					

[4] Sustainable Forest Management and Sustainable Water Management practices will be documented by concerned experts in the form of manuals/ guidelines and the community members will be trained on the same.

Outcome	Key Outcome Indicators	Means of Verification	Outputs	Output Indicators	Means of Verification
2. Improved water regime in the targeted catchments	2.a A water conservation structure within 500 meters from the centre of all the hamlet 2.b % of JFMC/EDCs reporting improvement in water regime in the streams affected by the treatment area	2.a – Microplanning and endline surveys 2.b - Microplanning and bio-physical baseline/ midline/ endline surveys	2.1 Reduced soil run-off in targeted catchments 2.2 Increased soil moisture in the targeted catchments	2.1.a 10% reduction in soil run-off in treated areas in targeted catchments 2.2.a 10% increase in soil moisture content in treated areas in targeted catchments 2.2.b 10% increase in soil organic carbon in treated areas in targeted catchments	2.1.a, 2.1.b and 2.1.c – Internal and/or external sample based studies
Livelihood Improvement					
3. Improved Livelihoods of the Communities in the targeted catchments	3.a 20% increase in the income of JFMC members from sale of NTFPs 3.b Livelihoods[5] of 50% SHG members in	3.a and 3.b Socio-economic baseline/ midline/ endline surveys	3.1 Institutions of Non-Timber Forest Produce (NTFP) based livelihoods created and/or strengthened	3.1.a no. of NTFP collection/ primary processing centres established 3.1.b no. of advanced processing and value addition units established	3.1.a, 3.1.b, 3.1.c, 3.1.d, 3.2.a, 3.2.b, 3.2.c, 3.3.a, 3.4.a, 3.5.a and 3.5.b – MIS

[55] Livelihoods will include income, expenditure, savings, loans and assets

Outcome	Key Outcome Indicators	Means of Verification	Outputs	Output Indicators	Means of Verification
	the targeted SHGs improved		3.2 Agro-forestry based livelihoods on RoFR lands strengthened	3.1.c no. of households selling NTFPs through collection centres	
			3.3 Livestock/ fisheries/ organic farming-based livelihoods strengthened	3.1.d Value of trade/ profit generated by the livelihood organizations formed under the project	
			3.4 Convergence on livelihood activities with other departments/ agencies	3.2.a Number of agroforestry plots supported under the project	
				3.2.b Area under agro-forestry plantation	
			3.5 Eco-tourism in the state strengthened	3.2.c No. of farmer's groups established for promoting agro-forestry	
				3.3.a Number of SHG members having income	

Outcome	Key Outcome Indicators	Means of Verification	Outputs	Output Indicators	Means of Verification
				from livestock/ fisheries/ organic farming-based livelihoods 3.4.a No. and value (in ₹) of activities/ programs facilitated through convergence with other departments/ projects 3.5.a no. of eco-tourism sites renovated 3.5.b Eco-tourism policy of the state comes into force	
Institutions of forest management and livelihoods strengthened					
4. Community and other institutions for forest	4.a Proportion of well-functioning JFMCs/ EDCs[6]	4.a. – JFMC/ EDC self-assessment report	4.1 Capacity of community	4.1.a No. of JFMCs/ EDCs worked with	4.1.a, 4.1.b, 4.1.c, 4.1.d, 4.1.e, 4.2.b – MIS

[6] Well-functioning JFMCs/ EDCs will be categorised based on an index comprising of – a) regular meetings of executive – at least 6 executive committee meetings and 2 GBMs in a year, b) attendance – at least 80% attendance rate in executive committee meetings and 60% attendance rate in GBM. Attendance rate = (Cumulative Attendance x 100/ Number of Meetings Conducted x Number of Members), c) women participation – at least 2/3rd of the women members in executive committee present in the executive committee meetings, at least 50% of the members present in the GBM are women (cumulative attendance of women*100/ cumulative attendance), d) JFMC has up to date relevant documents

Outcome	Key Outcome Indicators	Means of Verification	Outputs	Output Indicators	Means of Verification
management and livelihood improvement strengthened	4.b % of well-functioning SHGs[7]	4.b – SHG self-assessment report	institutions developed 4.2 Gender aspects mainstreamed in the project 4.3 Forest research on various aspects conducted	4.1.b 100% of JFMCs/ EDCs have approved micro plans 4.1.c 100% of targeted beats have approved Beat Forest Basic Plan (BFBP) 4.1.d No. of JFMC/ EDC/ SHG members (gender disaggregated) trained on different aspects of sustainable forest and water management, livelihoods improvement and strengthening institutions	4.1.b – Approved microplans 4.1.c – Approved BFBP 4.1.d & 4.1.e – Training reports 4.2.a – Gender Mainstreaming Action Plan 4.3.a Research Papers and art

(list to be added in consultation with JFM expert of PMC) related to the institutional and bio-physical aspects, d) has addressed issues of fodder and fuelwood collection emanating due to protection of the area, e) has norms and rules for forest resource management, f) the rules are enforced through a working system

[7] Well-functioning SHGs will categorised based on an index comprising of – a) regular meetings – at least 10 meetings in a year, b) attendance – at least 90% attendance rate (Cumulative Attendance x 100/ Number of Meetings Conducted x Number of SHG Members), c) regularity of savings – 100% savings rate (Total savings collected (during six months) X 100/ Monthly Savings x Total Number of members x six months), d) loan disbursement to members – 60% (Number of members having loan outstanding x 100/ Total SHG members), e) loan repayment - >= 95% (Cumulative loan collection – prepayments/ Total loan principal due on the last day of the previous month)

Outcome	Key Outcome Indicators	Means of Verification	Outputs	Output Indicators	Means of Verification
				4.1.e No. of trainees from TFD and other concerned agencies participate in different training programs 4.2.a Gender mainstreaming action plan prepared 4.2.b Number of women in leadership positions in JFMCs 4.3.a At least X no. of forest research papers are published under the project	

ANNEX 2: PERFORMANCE MANAGEMENT FRAMEWORK

The Performance Measurement Framework (PMF) presents clear guidance on who collects data on what, against which targets, how, from where and at which frequency to inform both the monitoring and evaluation functions at the facility level. Indicators and target of the PFM are identical to the results, indicators and targets of the log-frame. The different columns of the PMF have the following content:

- The first column is the unique number of the indicator and the second column is the indicator itself
- The third column indicates the baseline values, where available and applicable. In many cases this will be “To be estimated” (TBE) or “NA” for not applicable or available and Nil.
- The target values of the indicators are to be achieved by end of the project or later, a few still need to be determined is given in fourth column.
- The fifth column mentions the frequency of the measurement
- The documentation (sixth column) mentions the document which will contain the particular indicator and values measured through a process.
- The seventh column, data source, is the method/ tool/ source from where the indicator value/ information will be collected
- The column “responsibility for data collection” indicates who is responsible for collecting data. The collected data, in the form of different reports can be circulated at different levels. This does not exclude participation and contributions from other stakeholder during the process.

ID	Indicator	Estimated (Baseline)	Target		Frequency of Measurement	Documentation	Data Source	Responsibility for Data Collection
	Strategic Impact: Forest ecosystem services and livelihoods of forest dependent communities developed in the state of Tripura							
	Outcome 1: Improved quality and quantity of forests and grasslands and their management in the targeted catchment							
1.a.	Increase in the proportion of moderate dense category forest[8] in the targeted catchments	TBE	25% increase over baseline proportion		2019, 2028	Biophysical baseline and endline report	GIS/ satellite image-based analysis	GIS Cell of SCATFORM and third party
1.b	% increase in species composition in Shannon Diversity Index for both forests and grasslands in targeted catchments	TBE	10% increase over baseline index value		Baseline (2020, 2021, 2022) Endline (2028)	Biodiversity baseline report and Biodiversity endline report	Field survey on permanent plots laid in sampled treatment areas of select JFMCs.	RMU under the supervision of DMU/ experts deployed by PMU, in collaboration with Forest Research Division/ Tripura Central University

[8] tree canopy **density** of 40 percent and more but less than 70 percent (0.4 to 0.7 tree **density**)

ID	Indicator	Estimated (Baseline)	Target		Frequency of Measurement	Documentation	Data Source	Responsibility for Data Collection
1.c	% increase in the Forest Carbon stock (TENTATIVE INDICATOR)	TBE	10% over baseline value		Baseline (2020, 2021, 2022) Endline (2028)	Forest Carbon Stock Assessment Report	Field survey on sample basis	PMU, Third Party
1.d	% Jhumia households stop practicing Jhum cultivation in the targeted catchments	TBE	20% over the baseline		2020, 2021, 2022 2025 2028	Baseline Mid-term End-term	Socio-economic Survey	LC/CO under the supervision of DMU for baseline data collection. Third party for mid-term and end-term data collection
	Output 1.1 Increased area under forest in the targeted catchments							
1.1.a	Area covered under different regeneration/ plantation models in JFM Mode	NA	Total Area - 42000 ha. a. Artificial Regeneration – 5,000 ha b. Aided Natural		Monthly	DMU Monthly Progress Reports	Plantation Journal	Concerned RMU chief

ID	Indicator	Estimated (Baseline)	Target		Frequency of Measurement	Documentation	Data Source	Responsibility for Data Collection
			Regeneration – 21,000 ha c. Teak Plantation – 15,000 ha d. Silvi-Pastoral Plantation – 1,000 ha					
1.1.b	Survival rate after 3 years of plantation	NA	80%		Every six months since the plantation till end of 3 years (6 assessments)	Survival assessment report	Field survey in sample plantations	RMU
1.1.c	# of High Tech, centralized and decentralized nurseries developed/ improved	NA	3 High Tech Nurseries 7 Centralized Nurseries		Monthly	DMU Monthly Progress Report	MIS	DMU/ PMU

ID	Indicator	Estimated (Baseline)	Target		Frequency of Measurement	Documentation	Data Source	Responsibility for Data Collection
			150 Decentralized Nurseries					
	Output 1.2 Increased area under grassland in the targeted catchments							
1.2.a	Area (in ha) covered under grassland improvement							
	Output 1.3 Community aware about sustainable use of forest and water resources							
1.3.a	% households show increased awareness on sustainable forest and water management practices[9]	TBE	50% over baseline		2020, 2021, 2022 Mid-term 2025 End-term 2028	Baseline	Socio-economic Survey	LC/CO under the supervision of DMU for baseline data collection. Third party for mid-term and end-term data collection
	Outcome 2 Improved water regime in the targeted catchments							

[9] Sustainable Forest Management and Sustainable Water Management practices will be documented by concerned experts in the form of manuals/ guidelines and the community members will be trained on the same.

ID	Indicator	Estimated (Baseline)	Target		Frequency of Measurement	Documentation	Data Source	Responsibility for Data Collection
2.a	A water conservation structure within 500 meters from the centre of all the hamlet	TBE	100%		2020, 2021, 2022 2025 2028	Baseline Mid-term End-term	At baseline information will be captured in the microplans during PRA Midterm Endterm	LC/CO under the supervision of DMU for microplan. Third party for mid-term and end-term data collection
2.b	% of JFMC/EDCs reporting improvement in water regime connected to the treatment area	TBE	50%		2020, 2021, 2022 2025 2028	Baseline Mid-term End-term	At baseline information will be captured in the microplans during PRA Midterm Endterm	LC/CO under the supervision of DMU for microplan. Third party for mid-term and end-term data collection
	Output 2.1 Reduced soil run-off in targeted catchments							
2.1.a	% reduction in soil run-off in treated areas in targeted catchments	TBE	10% over baseline		2020, 2021, 2022 2025 2028	Baseline Mid-term End-term	Field survey on sample sites	RMU

ID	Indicator	Estimated (Baseline)	Target		Frequency of Measurement	Documentation	Data Source	Responsibility for Data Collection
	Output 2.2 Increased soil moisture in the targeted catchments							
2.2.a	% increase in soil moisture content in treated areas in targeted catchments	TBE	10% over baseline		2020, 2021, 2022 2025 2028	Baseline Mid-term End-term	Field survey on sample sites	RMU
2.2.b	% increase in soil organic carbon in treated areas in targeted catchments	TBE	10% over baseline		2020, 2021, 2022 2025 2028	Baseline Mid-term End-term	Field survey on sample sites	RMU
	Outcome 3 Improved Livelihoods of the Communities in the targeted catchments							
3.a	% increase in the income of JFMC members from sale of NTFPs	TBE	20% over baseline		2020, 2021, 2022 2025 2028	Baseline Mid-term End-term	Socio-economic Survey	LC/CO under the supervision of DMU for baseline data collection. Third party for mid-term and end-term data collection

ID	Indicator	Estimated (Baseline)	Target		Frequency of Measurement	Documentation	Data Source	Responsibility for Data Collection
3.b	Livelihoods[10] of % SHG members in the targeted SHGs improved	TBE	50% over baseline		2020, 2021, 2022 2025 2028	Baseline Mid-term End-term	Socio-economic Survey	LC/CO under the supervision of DMU for baseline data collection. Third party for mid-term and end-term data collection
	Output 3.1 Institutions of NTFP based livelihoods created and/or strengthened							
3.1.a	No. of NTFP collection/ primary processing centres established	NA	45		Monthly	DMU Monthly Progress Report	MIS	DMU
3.1.b	No. of advanced processing and value addition units established	NA	1		Monthly	DMU Monthly Progress Report	MIS	DMU

[1010] Livelihoods will include income, expenditure, savings, loans and assets

ID	Indicator	Estimated (Baseline)	Target		Frequency of Measurement	Documentation	Data Source	Responsibility for Data Collection
3.1.c	No. of households selling NTFPs through collection centres	NA	NA		Monthly	DMU Monthly Progress Report	MIS	DMU
3.1.d	Value of trade/ profit generated by the livelihood organizations formed under the project	NA	NA		Monthly	DMU Monthly Progress Report	MIS	DMU
	Output 3.2 Agro-forestry based livelihoods on RoFR lands strengthened							
3.2.a	Number of agroforestry plots supported under the project	NA	NA		Monthly	DMU Monthly Progress Report	MIS	DMU
3.2.b	Area under agro-forestry plantation	NA	NA		Monthly	DMU Monthly Progress Report	MIS	DMU
3.2.c	No. of farmer groups established for promoting agro-forestry	NA	NA		Monthly	DMU Monthly Progress Report	MIS	DMU
	Output 3.3 Livestock/ fisheries/ organic farming-based livelihoods strengthened							

ID	Indicator	Estimated (Baseline)	Target		Frequency of Measurement	Documentation	Data Source	Responsibility for Data Collection
3.3.a	Number of SHG members having income from livestock/ fisheries/ organic farming-based livelihoods	TBE	NA		2020, 2021, 2022 2025 2028	Baseline Mid-term End-term	Socio-economic Survey	LC/CO under the supervision of DMU for baseline data collection. Third party for mid-term and end-term data collection
	Output 3.4 Convergence[11] on livelihood activities with other departments/ agencies							
3.4.a	No. and value (in ₹) of activities/ programs facilitated through convergence with other departments/ projects	NA	NA		Monthly	DMU Monthly Progress Report	MIS	DMU
	Output 3.5 Eco-tourism in the state strengthened							
3.5.a	no. of eco-tourism sites renovated	NA	NA		Annually	Annual Report	MIS	PMU

[11] If any of the activity mentioned in the micro-plan document is carried out with the help (physical, technological or financial) of other departments, programs etc, it will be considered as convergence

ID	Indicator	Estimated (Baseline)	Target		Frequency of Measurement	Documentation	Data Source	Responsibility for Data Collection
3.5.b	Eco-tourism policy of the state comes into force	NA	NA		Annually	Annual Report	MIS	PMU
	Outcome 4 Community and other institutions for forest management and livelihood improvement strengthened							
4.a	% of well-functioning JFMCs/ EDCs[12]	NA	80%		Half yearly	Half yearly report	MIS	DMU
4.b	% of well-functioning SHGs[13]	TBE	80%		Half yearly	Half yearly report	MIS	DMU
	Output 4.1 Capacity of community institutions developed							

[121212] Well-functioning JFMCs/ EDCs will be categorised based on an index comprising of – a) regular meetings of executive – at least 6 executive committee meetings and 2 GBMs in a year, b) attendance – at least 80% attendance rate in executive committee meetings and 60% attendance rate in General Body Meeting (GBM). Attendance rate = (Cumulative Attendance x 100/ Number of Meetings Conducted x Number of Members), c) women participation – at least 2/3rd of the women members in executive committee present in the executive committee meetings, at least 50% of the members present in the GBM are women (cumulative attendance of women*100/ cumulative attendance), d) JFMC has up to date relevant documents (list to be added in consultation with JFM expert of PMC) related to the institutional and bio-physical aspects, d) has addressed issues of fodder and fuelwood collection emanating due to protection of the area, e) has norms and rules for forest resource management, f) the rules are enforced through a working system

[131313] Well-functioning SHGs will categorised based on an index comprising of – a) regular meetings – at least 10 meetings in a year, b) attendance – at least 90% attendance rate (Cumulative Attendance x 100/ Number of Meetings Conducted x Number of SHG Members), c) regularity of savings – 100% savings rate (Total savings collected (during six months) X 100/ Monthly Savings x Total Number of members x six months), d) loan disbursement to members – 60% (Number of members having loan outstanding x 100/ Total SHG members), e) loan repayment - >= 95% (Cumulative loan collection – prepayments/ Total loan principal due on the last day of the previous month)

ID	Indicator	Estimated (Baseline)	Target		Frequency of Measurement	Documentation	Data Source	Responsibility for Data Collection
4.1.b	% of JFMCs/ EDCs have approved micro plans	NA	100%		Monthly	DMU Monthly Progress Report	MIS	DMU
4.1.c	% of targeted beats have approved BFBP	NA	100%		Monthly	DMU Monthly Progress Report	MIS	DMU
4.1.d	No. of JFMC/ EDC/ SHG members (gender disaggregated) trained on different aspects of sustainable forest and water management, livelihoods improvement and strengthening institutions	TBE for SHGs	JFMC – 423 x 10 = 4230 EDC – 27 x 10 = 270 SHG – 450 x 3 x 5 = 6750		Monthly	DMU Monthly Progress Report	MIS	DMU
4.1.e	No. of trainees from TFD and other concerned agencies participate in different training programs	TBE	NA		Monthly	Monthly Progress Report	MIS	PMU

ID	Indicator	Estimated (Baseline)	Target		Frequency of Measurement	Documentation	Data Source	Responsibility for Data Collection
	Output 4.2 Gender aspects mainstreamed in the project							
4.2.a	Gender mainstreaming action plan prepared	NA	NA		Annually	Annual Report	MIS	PMU
4.2.b	Number of women in leadership positions in JFMCs/ EDCs	TBE	NA		Monthly	Monthly Progress Report	MIS	PMU
	Output 4.3 Forest research on various aspects conducted							
4.3.a	At least X no. of forest research papers are published under the project	NA	NA		Annually	Annual Report	MIS	PMU

ANNEX 3: MODIFICATIONS IN THE EFFECT INDICATORS PROVIDED IN MOD

The suggested operations and effect indicators are mentioned in the MoD. However, with further time and information received after the MoD, indicators have been added, modified or not included in the final Logical Framework of the project. The indicators suggested in the MoD and their status in the Logical Framework is given in the following table.

Indicator proposed in MoD	**Target Year (2030)** ***Two Years After Project Completion**	**Revised indicator**
Plantation Area **(excluding agroforestry and habitat improvement)**	42,000 ha	42000 ha area covered under different regeneration/ plantation models in JFM Mode a. Artificial Regeneration – 5,000 ha b. Aided Natural Regeneration – 21,000 ha c. Teak Plantation – 15,000 ha d. Silvi-Pastoral Plantation – 1,000 ha
Survival rate of trees planted by the Project	80 % (based on resurvey report of the past plantation)	80% survival rate under different plantation models after 3 years of plantation
Transition of forest cover	25% of plantation area into the Moderate Dense Category (Based on the assumption of Assisted Natural Regeneration (ANR) treatment area taken up for the first batch, wherein forest cover is above 20%, to be 25% of total plantation area)	25% increase in the proportion of moderate dense category forest[14] in the targeted catchments

[14] tree canopy **density** of 40 percent and more but less than 70 percent (0.4 to 0.7 tree **density**)

Transition of forest composition and biodiversity	10% increase in species composition in Shannon Diversity Index	10% increase in species composition in Shannon Diversity Index for both forests and grasslands in targeted catchments
Ratio of households having accessibility to water in the target villages	100% of household in target villages	A water conservation structure within 500 meters from the centre of all the hamlet
The ratio of soil moisture in forest of project target area (*See Annex 1)	10% increase of the proportion of soil moisture at between target areas for the one in control forest in dry season	10% increase in the soil moisture content in treated areas
Forest carbon stock (Research basis)	TBE through the research	% increase in the Forest Carbon stock
Awareness on knowledge and practice of sustainable usage of forest and water resources of the target community	20% increase of the target community with awareness on knowledge and practice of sustainable usage of forest and water resources (Based on End-Term Evaluation of TFIPAP, in which it was found that 13.37% of Jhummias stopped practicing jhumming due to	20% Jhumia households stop practicing Jhum cultivation % households show increased awareness on sustainable forest and water management practices[15]

[15] Sustainable Forest Management and Sustainable Water Management practices will be documented by concerned experts in the form of manuals/ guidelines and the community members will be trained on the same.

	increasing awareness of sustainable usage of forest and water resources)	
Transition of annual household income in the project target area	At least 50% increase in the average annual income of the households over the corresponding baseline figure (Of the said figure, 25% is assumed to be due to inflation, and another 25% is assumed to due to analysis of TFD based on field experience.)	% increase in the income of JFMC members from sale of NTFPs Livelihoods[16] of % households in the project area improved

[1616] Livelihoods will include income, expenditure, savings, loans and assets

ANNEX 4: FORMAT FOR DMU MONTHLY REPORT (COMPLEMENTED BY MIS REPORT)

Summary Report

Title of the project:	**SCATFORM**
Month:	
DMU:	
Approved Annual budget for the DMU	
Approved budget for the quarter (Apr-Jun, Jul-Sep, Oct-Dec, Jan-Mar)	
Expenditure in the reporting month:	
Cumulative expenditure for the quarter till this month	
Cumulative expenditure for the year till this month	
Justification (if any) for unspent budget:	
Revised plan of action/ rectification:	
Overall Management/ collaboration innovations, good practices and challenges (in bullet points)	

Human Resources Status

RMU	Approved no. of LCs	Positions Vacant	Approved no. of CO	Positions vacant	Approved no. of FF	Positions Vacant	Approved no. of DA (DMU)	Positions vacant	Approved no. of DA (RMU)	Positions vacant
Total										

Monthly Progress Report

As per the current format shared by PMU

Daily Plan vs. Achievement – Daily logs of LC and COs

Daily Workplan and log format for monthly planning and review

Name of LC/ CO				
RMU			**DMU**	
Date	**Work planned**	**Work done**	**Reason for deviation**	**Remarks (observations)**

Narrative Report

Please mention any challenges in and achievements due to protection, plantation and maintenance of area under different plantation models (AR, ANR, Filter strip and River Bank, Silvi-pastoral, Fruit tree, Teak, weed eradication, fire line

- **improvement in grass/ tree cover, sighting of new species of plants or wild animals etc**
- **Changes in the water regime (flow of stream, damage due to flood etc) reported by JFMC/EDC**

1.1.: Please mention any achievements/ challenges reported by JFMC/EDC in their functioning.

- **Holding meetings**
- **Attendance in the meetings**
- **Issues discussed in the meetings**
- **Preparation/ approvals of microplans**
- **Implementation of forestry and Soil and Moisture Conservation (SMC) activities**

1.2.: Please mention any achievements/ innovations/ challenges related to centralized and decentralized nursery development and plantation/ seeding activities.

2: Please mention achievements/ innovations and challenges related to

- **Preparation of business plans**
- **Loan for livelihood activities to SHG/ SHG members**
- **Cluster formation and their functioning**
- **Production enhancement**
- **Collection and marketing of produce**

2.1: Please mention achievements/ innovations and challenges related to

- **Formation of SHGs and their federations**
- **Savings, inter-loaning and revolving fund**
- **Training of SHGs**

2.2.: Please write about initiatives, achievements and challenges in converging JFMCs/ EDCs activities with other development programs

3: Please mention key learning from and feedback on the training programmes conducted during the month in your area. Trainings could be on different aspects and may be given to JFMC/EDC members.

3.1.: What are the aspects on which capacities of JFMC/EDC members have been built during the month

3.2.: What are the aspects on which capacities of Forest Department and LC/CO have been built during the month

ANNEX 5: FORMAT FOR PMU QUARTERLY AND ANNUAL REPORT (INTERNAL)

ID	Indicator	What activities were planned for the quarter/ year	What activities were conducted	Justification for deviation from plan	Plan for next quarter/ year	Remarks
Strategic Impact: Forest ecosystem services and livelihoods of forest dependent communities developed in the state of Tripura						
Outcome 1: Improved quality and quantity of forests and grasslands and their management in the targeted catchment						
1.a.	Increase in the proportion of moderate dense category forest[17] in the targeted catchments					
1.b	% increase in species composition in Shannon Diversity Index for both forests and grasslands in targeted catchments					
1.c	% increase in the Forest Carbon stock (TENTATIVE INDICATOR)					
1.d	% Jhumia households stop practicing Jhum cultivation in the targeted catchments					
Output 1.1 Increased area under forest in the targeted catchments						
1.1.a	Area covered under different regeneration/ plantation models in JFM Mode					

[17] tree canopy **density** of 40 percent and more but less than 70 percent (0.4 to 0.7 tree **density**)

ID	Indicator	What activities were planned for the quarter/ year	What activities were conducted	Justification for deviation from plan	Plan for next quarter/ year	Remarks
1.1.b	Survival rate after 3 years of plantation					
1.1.c	# of High Tech, centralized and decentralized nurseries developed/ improved					
Output 1.2 Increased area under grassland in the targeted catchments						
1.2.a	Area (in ha) covered under grassland improvement					
Output 1.3 Community aware about sustainable use of forest and water resources						
1.3.a	% households show increased awareness on sustainable forest and water management practices[18]					
Outcome 2 Improved water regime in the targeted catchments						
2.a	A water conservation structure within 500 meters from the centre of all the hamlet					
2.b	% increase in land under irrigation in the targeted catchments					
Output 2.1 Reduced soil run-off in targeted catchments						
2.1.a	% reduction in soil run-off in treated areas in targeted catchments					
Output 2.2 Increased soil moisture in the targeted catchments						

[18] Sustainable Forest Management and Sustainable Water Management practices will be documented by concerned experts in the form of manuals/ guidelines and the community members will be trained on the same.

ID	Indicator	What activities were planned for the quarter/ year	What activities were conducted	Justification for deviation from plan	Plan for next quarter/ year	Remarks
2.2.a	% increase in soil moisture content in treated areas in targeted catchments					
2.2.b	% increase in soil organic carbon in treated areas in targeted catchments					
Outcome 3 Improved Livelihoods of the Communities in the targeted catchments						
3.a	% increase in the income of JFMC members from sale of NTFPs					
3.b	Livelihoods[19] of % SHG members in the targeted SHGs improved					
Output 3.1 Institutions of NTFP based livelihoods created and/or strengthened						
3.1.a	No. of NTFP collection/ primary processing centres established					
3.1.b	No. of advanced processing and value addition units established					
3.1.c	No. of households selling NTFPs through collection centres					
3.1.d	Value of trade/ profit generated by the livelihood					

[1919] Livelihoods will include income, expenditure, savings, loans and assets

ID	Indicator	What activities were planned for the quarter/ year	What activities were conducted	Justification for deviation from plan	Plan for next quarter/ year	Remarks
	organizations formed under the project					
Output 3.2 Agro-forestry based livelihoods on RoFR lands strengthened						
3.2.a	Number of agroforestry plots supported under the project					
3.2.b	Area under agro-forestry plantation					
3.2.c	No. of farmer groups established for promoting agro-forestry					
Output 3.3 Livestock/ fisheries/ organic farming-based livelihoods strengthened						
3.3.a	Number of SHG members having income from livestock/ fisheries/ organic farming-based livelihoods					
Output 3.4 Convergence[20] on livelihood activities with other departments/ agencies						
3.4.a	No. and value (in ₹) of activities/ programs facilitated through convergence with other departments/ projects					
Output 3.5 Eco-tourism in the state strengthened						
3.5.a	no. of eco-tourism sites renovated					

[20] If any of the activity mentioned in the micro-plan document is carried out with the help (physical, technological or financial) of other departments, programs etc, it will be considered as convergence

ID	Indicator	What activities were planned for the quarter/ year	What activities were conducted	Justification for deviation from plan	Plan for next quarter/ year	Remarks
3.5.b	Eco-tourism policy of the state comes into force					
Outcome 4 Community and other institutions for forest management and livelihood improvement strengthened						
4.a	% of well-functioning JFMCs/ EDCs[21]					
4.b	% of well-functioning SHGs[22]					
Output 4.1 Capacity of community institutions developed						
4.1.b	% of JFMCs/ EDCs have approved micro plans					
4.1.c	% of targeted beats have approved BFBP					
4.1.d	No. of JFMC/ EDC/ SHG members (gender disaggregated) trained on different aspects of sustainable forest and water management, livelihoods					

[21] Well-functioning JFMCs/ EDCs will be categorised based on an index comprising of – a) regular meetings of executive – at least 6 executive committee meetings and 2 GBMs in a year, b) attendance – at least 80% attendance rate in executive committee meetings and 60% attendance rate in GBM. Attendance rate = (Cumulative Attendance x 100/ Number of Meetings Conducted x Number of Members), c) women participation – at least 2/3rd of the women members in executive committee present in the executive committee meetings, at least 50% of the members present in the GBM are women (cumulative attendance of women*100/ cumulative attendance), d) JFMC has up to date relevant documents (list to be added in consultation with JFM expert of PMC) related to the institutional and bio-physical aspects, d) has addressed issues of fodder and fuelwood collection emanating due to protection of the area, e) has norms and rules for forest resource management, f) the rules are enforced through a working system

[22] Well-functioning SHGs will categorised based on an index comprising of – a) regular meetings – at least 10 meetings in a year, b) attendance – at least 90% attendance rate (Cumulative Attendance x 100/ Number of Meetings Conducted x Number of SHG Members), c) regularity of savings – 100% savings rate (Total savings collected (during six months) X 100/ Monthly Savings x Total Number of members x six months), d) loan disbursement to members – 60% (Number of members having loan outstanding x 100/ Total SHG members), e) loan repayment - >= 95% (Cumulative loan collection – prepayments/ Total loan principal due on the last day of the previous month)

ID	Indicator	What activities were planned for the quarter/ year	What activities were conducted	Justification for deviation from plan	Plan for next quarter/ year	Remarks
	improvement and strengthening institutions					
4.1.e	No. of trainees from TFD and other concerned agencies participate in different training programs					
Output 4.2 Gender aspects mainstreamed in the project						
4.2.a	Gender mainstreaming action plan prepared					
4.2.b	Number of women in leadership positions in JFMCs/ EDCs					
Output 4.3 Forest research on various aspects conducted						
4.3.a	At least X no. of forest research papers are published under the project					

Narrative Report (please describe activities undertaken in particular outcome/ outputs. Please include any positive or challenging case study, photographs etc)

Strategic Impact: Forest ecosystem services and livelihoods of forest dependent communities developed in the state of Tripura

Outcome 1: Improved quality and quantity of forests and grasslands and their management in the targeted catchment

Output 1.1.: Increased area under forest in the targeted catchments

Output 1.2.: Increased area under grassland in the targeted catchments

Output 1.3: Community aware about sustainable use of forest and water resources

Outcome 2: Improved water regime in the targeted catchments

Output 2.1: Reduced soil run-off in targeted catchments

Output 2.2.: Increased soil moisture in the targeted catchments

Outcome 3: Improved Livelihoods of the Communities in the targeted catchments

Output 3.1.: Institutions of NTFP based livelihoods created and/or strengthened

Output 3.2.: Agro-forestry based livelihoods on RoFR lands strengthened

Output 3.3.: Livestock/ fisheries/ organic farming-based livelihoods strengthened

Output 3.4: Convergence[23] on livelihood activities with other departments/ agencies

Output 3.5: Eco-tourism in the state strengthened

[23] If any of the activity mentioned in the micro-plan document is carried out with the help (physical, technological or financial) of other departments, programs etc, it will be considered as convergence

Outcome 4: Community and other institutions for forest management and livelihood improvement strengthened

Output 4.1: Capacity of community institutions developed

Output 4.2: Gender aspects mainstreamed in the project

Output 4.3: Forest research on various aspects conducted

Any other aspect

ANNEXURE 6: TRAINING FEEDBACK FORMAT

Training Title: _____ Date Attended: _____

Please select the rating for each section based on the following criteria:

5=excellent 4=good 3=average 2=fair 1=poor

1. To what extent has the training fulfilled your expectations (rate from 5 to 1)

2. Please rate the trainer(s) on the following: (rate from 5 to 1)

S. No.	**Trainer Name**	**2.1 Knowledge of the subject matter**	**2.2 Ability to explain and illustrate concepts**	**2.3 Ability to answer questions completely**
A.				
B.				
C.				
D.				

3. Open-ended comments:

3.1. What specifically did the trainer do well?

3.2. What recommendations do you have for the trainer to improve?

4. Please rate the content and structure of the training: (rate from 5 to 1)

S. No.	**4.1. Training session title**	**4.2. The usefulness of the information received in training**	**4.3. The pace of the training session**	**4.4. Improved knowledge on the subject**
A.				
B.				
C.				
D.				
E.				

5. Please rate the training facilities/ logistics (rate from 5 to 1)

5.1. Training venue
5.2. Training Aids
5.3. Quality of food
5.4. Accommodation
5.5. Transportation

Open-ended comments (use the back if you need more space):

6. What did you most like about the training?

7. What can be improved about the training?

Your Name: _____ (Optional)

Your Position: _____ (Optional)

Your Department/ Institution:

ANNEXURE 7: FOREST SOIL MOISTURE MEASUREMENT

Measurement Items:

Forest soil moisture is not only influenced by the forest cover, but also by climate in the site. Therefore, observation shall include rainfall, weather, temperature, and humidity in addition to soil moisture and forest cover/vegetation.

Control point:

It is difficult to clarify the change of the forest soil moistures with and without the plantation activitiy, because plantation soon starts after the project preparation. Therefore, two (2) control points in a Beat shall be selected. One is the center of open-forest which shall be the plantation area of the project and other is a center of the open-forest without the project activity nearby. The control points shall be same characteristics each other. In addition, both control point site shall be easily accessible for the Beat Officer.

The difference of the moisture values observed in two points is assumed as the effects of the plantation.

Depth of soil moisture observation

Soil moisture shall be observed at the different depths, for example, at the surface layer (0-10 cm) and at depth of 30 cm.

Observation at Control Point

The observation shall be conducted by 2 field officers in the Beat office twice a month. Observation at 2 control ponts should be conducted in same day. At each control point, the following measurement shall be conducted:

- Starting time
- Weather
- Temperature
- Photographs of vegetation in and around control point
- Humidity
- Moisture contents: 3 points (spacing 1m), 2 depths/point
- Ending time

Rainfall Observation:

A daily rainfall observation shall be conducted near the both control points, because rainfall has strong regional characteristics. Target area of the project will be near the mountain ridge. Therefore, it is better to install a rainfall station in the open area near village on the ridge. Observation of daily rainfall can be subleted to the villagers, after detailed explanation of reading and recording method of the instrument. If there are no villages of control points, an aoutomatic rainfall recorder with a logger shall be considered.

Analysis of Observation Results

Each Beat office shall send the observation record including the rainfall records to PMU through RMU and DMU once a year. Based on the records, PMU and PMC shall analyze the records under assistance of Forest Research Directorate of TFD. During the analysis, relationship between soil moisture and other factors shall be sudied. The analysis would be used to establish the preliminary forest hydrological model.

Other Candidate of Effect Indicator

If there is a withering fountain during dry season in the target area or on the downstream side of the target area and able to observe the withering days of the fountain in dry season, number of the withering days of the fountain become a better effect indicator of the project. Possibility of observation in respective beats shall be considered.

ANNEXURE 8 – BIO-PHYSICAL BASELINE ASSESSMENT REPORT STRUCTURE

ANNEXURE 9 – SOCIO-ECONOMIC BASELINE REPORT STRUCTURE

1. Cover Page
2. Acknowledgments
3. Foreword by CPD
4. Table of Content
5. Acronyms
6. List of Tables
7. List of Figures
8. Baseline at a glance – values of quantitative and qualitative indicators of Log-frame at the baseline stage
9. Introduction
    - Context
    - Project description
        - Project components
        - Geographical coverage
        - Project phasing
    - Objectives of the baseline assessment
10. Approach and Methodology
11. Findings from the baseline
    - Profile of the households
    - Profile of the members of the household
    - Asset ownership in the households
    - Livelihood and income profile
    - Household consumption and expenditure profile
    - Loans and savings profile
    - Capacity profile

Annexures

1. Questionnaire
2. List of JFMCs surveyed
3. Photographs

ANNEXURE 10 – NOTE ON FOREST COVER MAP PREPARATION

ANNEXURE 11 – METHODOLOGY FOR FOREST CARBON STOCK ASSESSMENT

ANNEXURE 12 – FORMAT FOR FOREST SUSTAINABILITY KNOWLEDGE TEST