

**Project for Improvement of Himachal Pradesh  
Forest Ecosystems Management & Livelihoods**

*Guidelines for*  
**Forest Ecosystems Management Plan**

Himachal Pradesh Forest Department (HPFD)

## **Foreword**

Microplan is the key document for implementation of the Project for Forest Ecosystem Management and Livelihoods (PIHPFEM&L). All Microplans need to have two major ingredients, one is CDLIP and second is FEMP. In order to prepare the effective FEMP for all the Microplans, a need for a comprehensive manual was realised and that's why this document. The manual has been prepared for the Project in order to guide the field staff for better understanding of processes to be followed and formats to be filled up during Forest Ecosystems Management Plan (FEMP) formulation. It will help the Project and field staff in appreciating the purpose and scope of Forest Ecosystems Management Plan (FEMP) and further assist them to follow some basic steps and processes to enhance the participation of VFDS and BMCs in its preparation.

FEMP is a participatory plan to be prepared jointly by the Forest Staff and Village Forest Development Society (VFDS)/Biodiversity Management Committee (BMC) Sub Committee members that include Forest Development, Soil & Water Conservation, Biodiversity Conservation and associated Livelihood issues their planning, implementation and monitoring details/works.

The efforts and inputs of Ms. Meera Sharma, IFS, CF and PD, with her Vast experience of working with many international projects (GTZ funded, "Indo German Changar Project, World Bank funded, "Mid Himalayan Watershed Development Project" and KFW German Development Bank funded, "HP Forest Ecosystems Climate Proofing Project Project") in compiling this FEMP manual for this project are tremendous. The Micro planning guidelines of KFW Project have been of immense help in formulating these FEMP guidelines and we acknowledge the same.

Hope this manual proves to be guiding document for the field staff and the VFDS/BMC sub committees while preparing the FEMP.

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## Abbreviations & Acronyms

<b>ADMU</b>	Assistant Divisional Management Unit
<b>ANR</b>	Assisted Natural Regeneration
<b>BO</b>	Block Officer
<b>FEMP</b>	Forest Ecosystem Management Plan
<b>EC</b>	Executive Committee
<b>CD&amp;LIP</b>	Community Development & Livelihood Improvement Plan
<b>CIG</b>	Common Interest Group
<b>DMU</b>	Divisional Management Unit
<b>SMS</b>	Subject Matter Specialist
<b>FCCU</b>	Forest Circle Coordination unit
<b>Fgd</b>	Forest Guard
<b>FTU</b>	Field Technical Unit
<b>GIS</b>	Geographic Information System
<b>FD</b>	Forest Department
<b>GOHP</b>	Government of Himachal Pradesh
<b>GP</b>	Gram Panchayat
<b>Ha.</b>	Hectare
<b>HHs</b>	Households
<b>HP</b>	Himachal Pradesh
<b>HPFD</b>	Himachal Pradesh Forest Department
<b>IFMS</b>	Integrated Forest Management System
<b>IGA</b>	Income Generation Activities
<b>INR</b>	Indian Rupees
<b>JICA</b>	Japan International Cooperation Agency
<b>MIS</b>	Management Information System
<b>MM</b>	Mahila Mandal
<b>NR</b>	Natural Regeneration
<b>NTFP</b>	Non-Timber Forest Produce
<b>O&amp;M</b>	Operation and Maintenance
<b>PFM</b>	Participatory Forest Management
<b>PIHPFEM&amp;L</b>	Project for Improvement of Himachal Pradesh Forest Ecosystems Management & livelihoods
<b>PMC</b>	Project Management Consultant
<b>PMU</b>	Project Management Unit
<b>PRA</b>	Participatory Rural Appraisal
<b>RO</b>	Range Officer
<b>SHG</b>	Self Help Group
<b>SS</b>	Social Staff
<b>SWC</b>	Soil Water Conservation
<b>TOT</b>	Training of Trainers
<b>VFDS</b>	Village Forest Development Society
<b>YM</b>	Yuvak Mandal
<b>WHS</b>	Water Harvesting Structure
<b>MS</b>	Member Secretary



# 1. Introduction

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## 1.1 Project Brief

### **Project Title: Project for Improvement of Himachal Pradesh Forest Ecosystems Management and Livelihoods**

**Objective:** The objective of the Project is to manage and enhance forest area ecosystems in the project area, by sustainable forest ecosystem management, biodiversity conservation, livelihoods improvement support and strengthening institutional capacity, thereby contributing to environmental conservation and sustainable socio-economic development in the project area in the state of Himachal Pradesh.

**Project Cost:** The JICA mission and HPFD agreed that the entire cost of the Project is estimated as INR. 800 Crore (13,921 million Japanese Yen), out of which INR. 640 Crore (11,136 million Japanese Yen) is to be covered by the loan for the Project. The coverage ratio by the Loan is 80%.

**Project Target:** The JICA mission and HPFD agreed that project activities under non-departmental mode shall be undertaken by Village Forest Development Society (VFDS) that also includes Joint Forest Management Committee (JFMC) based on Participatory Forest Management Regulation and Biodiversity Management Committee (BMC) sub-committee based on Biological Diversity Act, 2002 at Ward level. Both sides also confirmed that any fund for the project activities shall be transferred directly from Divisional Management Unit (DMU) to VFDS/BMC sub-committee.

**Focus on Participatory Forest Management:** HPFD emphasized that the Project should prioritize Participatory Forest Management (PFM) Mode over Departmental Mode, as involvement of communities is a key for sustainability of forest management. The JICA mission and HPFD agreed that PFM mode should be selected on priority.

The JICA mission and HPFD agreed that three criteria namely *location, needs and willingness, and technical requirement* would be suitable criteria for selection of PFM or departmental modes.

**Micro Planning:** Forest Ecosystem Management Plan/Community Biodiversity Management Plan and Community Development & Livelihoods Improvement Plan would be parts of one Micro Plan, which would be prepared over a specified period of time in a participatory manner. For the VFDSs and BMCs/BMC Sub committees wherever the Micro Plans were already in existence, the same shall be amended incorporating the activities proposed under the project, duly involving all the stakeholders in a participatory and democratic manner as this will ensure strengthening of the existing Micro Plans and avoid duplication of works.

## 1.2 Forest Management Plan (FEMP, CD&LIP ) and Micro plan

The FEMP is the forestry related part of a Micro plan to achieve the Project objectives. The proposed interventions are to be clearly shown on aerial photo maps and described in text and tables with combinations of various models in a document called FEMP.



A draft FEMP will be prepared by FD staff and social staff after having series of meetings and through discussion with villagers / stakeholders/ groups/castes/vulnerable families/women, dependent on forest resources and having usage right. All sections of society would be involved in the Micro planning process and included in the VFDS to protect the forests effectively.

Keeping in view changes of forest interventions emerging from the social process in line with the project guidelines and the funds availability, the FEMP will be finally prepared by ACF/SMS in each Division. The FEMP will be technically approved by the DFO and financially approved by PMU. The Micro plan must be approved by the General House of the VFDS before sending to DMU for approval. CD&LIP would be prepared by FTU Co-ordinators and GP Mobilisers, ward facilitators with assistance from SMS /Social expert at Division /PMU level.

During 2019-20,75 FEMP-CD&LIP (Micro-Plans) are planned to be completed. The analysis of the experiences of these 75 Micro-Plans must be used to formulate the final version of the Micro-Planning-guidelines if needed.

### **1.3 Joint Forest Management in HP**

After the June 1<sup>st</sup>1990 Resolution of the GoI, the GoHP adopted the JFM mode for development and protection of forests and issued its own state level resolution in 1993. Since then several State, Central and Externally funded schemes based on JFM have been implemented in the state. Most of these schemes were more Rural Development focused and Integrated (with other departments) schemes and hence were village oriented. In 2000 and 2002 supplementary guidelines were issued that highlighted the need to work on good forest areas and provided some guidance for preparing micro-plans both in areas with Working Plans and areas without working plans. These guidelines dated 21.02.2000 suggested that

- States evolve flexible guidelines for preparation of local need based micro plans
- Micro plans are prepared by the Forest Officers and VFDSs after detailed PRA exercise
- They utilise locally available knowledge and strengthen the local institutions
- And cover local consumption, market linkages, environmental function and biodiversity conservation

The guidelines issued on dated 24.12.2002 emphasized on three aspects;

- Signing of MoU, short term and long-term role and responsibilities, implementation of work program, pattern of usufruct sharing and conflict resolution
- Suggesting a relationship with Panchayats, JFMCs as guardian of Forests, benefits from NTFP sale should be shared with all members of the gram Sabha including the JFM committees
- Capacity building for managing Non-Timber Forest Produce (NTFPs)
- Recognizing importance of NTFP management in good forest areas for sustainability and local benefits, propose capacity building for:
  - Non-destructive harvesting (in accordance with working plans)
  - Equity in sharing
  - Institutional reforms
  - Strengthening the set-up of NTFP management

The present JICA assisted project in Six Districts of HP is a forestry work dominated project. In this attempt are being made to initiate the process of changing open forests into moderately dense and moderately dense forests into dense forests. But in doing so, the fullest involvement of villagers'

dependent on forests is needed and their involvement in planning, implementation and subsequent maintenance of assets created or developed is needed.

The earlier JFM schemes/Projects were multi-sectoral projects or watershed development projects involving line department activities and were more focused on poverty and poor people, while in the last 4-5 years forestry projects focussing only on forestry activities to be implemented by Stakeholders dependent on forests are being implemented in Himachal Pradesh. JICA project in Kullu, Mandi, Bilaspur, Shimla, Lahaul & Spiti and Kinnaur Districts and KFW Project in Chamba & Kangra District focuses more on 'degraded forests' and the stakeholder's dependent on these.

## 1.4 Concept of JFM

Joint Forest Management (JFM) means a partnership between the Forest Department (FD) and the local communities that live within or on the edges of the forest, esp. those villagers who are dependent on the forest to sustain their livelihoods. This is seen as necessary because without the co-operation of the local people, it is not possible to either protect or sustain forests. On the other hand, if forests continue to deteriorate or get degraded, the livelihoods of the forest dependent people will worsen. Through JFM the twin objectives of sustaining forests as well as forest related livelihoods are sought to be achieved.

## 1.5 The Purpose of this Manual

- 1) To acquaint the Project/Forest field staff and the officers at divisional level, as well as the Social staff about key issues relating to JFM and its history in HP.
- 2) To serve as a guideline during the FEMP planning process
- 3) To provide step-wise approach in developing a Forest Ecosystems Management plan (FEMP)
- 4) To provide formats or tables for collection of different kinds of information and Developing FEMP.

### Other topics covered under this manual are:

- 1) Prerequisite for FEMP preparation, criteria for selection of Project intervention area, identification of PFM or Departmental mode, surveying & mapping of Intervention areas, identification and selection of target communities, planning process of FEMP etc.
- 2) Practical field work
- 3) Process of enrolling members of the VFDS or Conducting election of the Executive Committee and record maintaining
- 4) Recording proceedings of a General Body & EC meeting
- 5) Conducting field visits by members of EC, Micro planning Group and others and recording modifications / suggestions
- 6) Writing of the process and to draft the FEMP & CD& LIP
- 7) Discussions on draft FEMP with EC members, presentation & revisions to FEMP
- 8) Presentation to GH and getting ideas on Community Development & Livelihood activities, recording GH approval of the MP (FEMP & CD&LIP)
- 9) Finalisation of the FEMP and CD& LIP & MoU with EC members and submission to DMUs
- 10) Prioritizing the activities in FEMP and CD&LIP for 5 years keeping in view 10 years vision and also making one-year implementation schedule with the Forest Guard for the EC along with budget.

**In Micro plan** the social mobilization process and its documentation is to be carried out. This

process includes awareness building (about the project) with local forest dependent people, especially women and their representatives in the panchayat and also with other stakeholders, NGOs or institutions working in the area. This involves constitution or reconstitution of Village Forest Development Society and the election of its Executive Committee as prescribed in the PFM Rules of the state. It involves the formation of different User Groups in the participating villages, detailing the roles, responsibilities in implementation, maintenance and protection of the forest and assets created, as well as the benefit sharing arrangements agreed to. These are to be detailed in the MoU which is signed by the VFDS and the In charge DMU.

The field staff of the Forest Department and the Social staff have a direct role in developing a **Micro-Plan**. When the EC has been constituted, a GH Meeting is called to finalise the FEMP-and CD&LIP. In this meeting the details of the various works / norms or models are to be explained to the EC and the User groups by the forester, the ACF/SMS and other social staff. The groups then come to know about the treatment plots they are connected and will be responsible. This meeting should be followed by a field visit by at least the micro planning group and the leaders of different User Groups to see and understand the ground conditions and proposals. After field visits and incorporation of valid changes or modifications suggested by EC & group members, all the plots indicated on the map needs to be GPSed, then these are to be plotted on Google Earth Pro and area of each plot or sub-plot is to be measured on Google Earth or by GPS. The details of various plots, models, area to be treated, cost norms applied and total cost of each FEMP etc should be shown in tabular form for easy understanding.

**The Micro Plan is made up of two parts.** One Part is a technical **Forest Ecosystem Management Plan (FEMP)** developed by the Forest staff and the SMS Forestry. Other part consists of **CD&LIP activities** showing the roles and responsibilities of VFDS, EC and different User Groups in execution and maintenance of treatment plots assigned to them and agreed to by them.

Points to be remembered during FEMP/Micro planning:

1. Understanding village caste, class and group dynamics is required to resolve conflicts and make people co-operate with each other
2. It is important to listen to people and their various groups and to understand their problems and issues with forest use and conservation. This has been a general weakness in micro planning.
3. People should not be promised 'things' which the department or government cannot deliver
5. The interests of the poor and marginal groups must be addressed to get support from them (often these are the most forest dependent people)
6. In Himachal, women are the biggest users (and potentially most conservation oriented) of forests and forest produce, but poorly represented; their voice and interests are often ignored, and in public forums like the panchayats
7. Because the FD is male dominated, more women forest guards need to be deployed in JFM work
8. FD staff and officers need training and hands-on exposure to understand the social aspects of forest development and change. In addition, they need proficiency in use and application of GPS and GIS and using maps for planning, recording and monitoring
- 9 VFDS should frame informal rules/bye laws for management of forests – including rotational grazing, rotational lopping, green fodder (leaf and grass) collection, etc. are good practices which can help balance forest conservation and the intangible benefits from forests with local subsistence requirements.

## Guidelines for Forest Ecosystems Management Planning

### 2.1 Prerequisite for FEMP Preparation

Under the PIHPFEM&L, the FEMP and the CD&LIP are to be developed more or less simultaneously at the selected site, if old micro plans exist, it will be considered and updated keeping in view JICA Project guidelines.

In PIHPFEM&L the unit of planning has to be the WARD OR GROUP OF WARDS/ BMC sub committees.

- 1) There will be a Micro Plan that will guide and specify implementation works and details. This is the document that will be monitored under this project.
- 2) The Micro-Plan will incorporate the technical Forest Ecosystem Management Plan (FEMP) and CD&LIP.
- 3) The old Micro-Plan will be consulted or upgraded while preparing FEMP by technical / forest personnel.
- 4) CD& LIP will include activities relating to community development and which could improve primary stakeholders' Livelihoods
- 5) The Micro plan will be approved both by the General House of the VFDS and the In charge - DMU
- 6) A MoU (Understanding or Understanding) is then signed between the FD (In charge DMU) and the President of EC of the VFDS, to make the Micro Plan ready for implementation.

### 2.2 Criteria for selection of Project Intervention Area

Broad Parameters	Data Type	Criterion	Data Layers
1.Contiguous Degraded Area	Scrubs + Open Forest <i>(for Forest development)</i>	Altitude below 3,500 meters Contiguous patches having 5 ha or more	FCM & Fragmentation
	Grassland development	Contiguous patches having 5 ha or more	Veg. Richness & Revenue Records
	Dry alpine Pastures and Dry alpine scrubs <i>(for Pastures development)</i>	Altitude above 3,500 meters Contiguous patches having 5 ha or more	Veg. Richness
	Soil and water conservation required areas	Numbers and density of gullies and rills	Remote-sensing data Field verifications
2.Contiguous Dense Forest Area and Forest Covers which Require Further Quality Development	Moderately Dense Forest, Mono-culture forest stand, invasive species infested area, niche species area	Contiguous patches having 10 ha or more	FCM & Fragmentation Veg. Richness
3.Operational Efficiency	Approachability by road	Within a buffer of 5 km of nearest road and/or buffer of 2 km of habitation	Road Layer, Scrubs + Open Forest, Habitation Locations
4.Population Pressure on Resources	Vicinity to habitation		

Identification of potential intervention areas shall include key concerned forest areas such as forest areas

infested with invasive species and/ or monoculture forest stands which conversions to multi-layers/species stands are required.

### 2.3 Identification of PFM mode or Departmental mode

The identified areas shall be divided into “Participatory Forestry Management (PFM) Mode” and “Departmental Mode”. In case identified potential interventions, areas are away from communities but interventions are required for the purpose of the Project, such interventions are to be conducted in the departmental mode. However, PFM mode should be selected where applicable from the viewpoint of sustainability.

The modes to be adopted for the actual project interventions shall be preliminary identified based on following principles:

- 1) Locations (e.g. remoteness from surrounding communities) of interventions sites required for the project interventions,
- 2) Needs and willingness by surrounding communities of the intervention sites
- 3) Technical feasibilities for such project interventions.

For the identification process, the followings shall be carried out during Preparatory Phase:

- 1) Finalization of identification criteria by PMU in the Preparatory Phase
- 2) Field inspection of selected intervention area by FTU
- 3) Proposal of appropriate implementation mode by FTU
- 4) Recommendation of implementation mode by DMU
- 5) Approval of the mode by PMU

### 2.4 Surveying and Mapping of Intervention Areas

For preparation of accessing to the community for identification and selection of target communities and further planning of project activities, Base Maps shall be prepared at ward level with preferably 1:15,000 scale or better. The information Base Maps should cover ranges from natural and social environment condition to the area of forest intervention and fire patrol. The details of maps are shown in the Table below. Mapping works shall be outsourced if necessary. Preparation of Base Maps shall be initiated after potential target communities are identified through prioritization exercise as described in below, so Maps don’t have to be prepared for all the wards but only for prioritized wards. During the micro planning process, the maps may be updated with more details, if required. For making those maps, the followings shall be carried out;

- 1) Finalization of TOR and preparation of bidding document
- 2) Outsourcing survey and mapping of intervention area identified above
- 3) Preparation of “Land Use/ Land Cover (LULC) map”, “Forest Density Maps”, “Elevation/ Contour Maps” and “GP and Ward boundary “of Base Map for all potential project target wards
- 4) Preparation of “Treatment Map” of the wards in the Batch 1 by the end ----- and the wards in the Batch 2 and 3 by the end of -----
- 5) Verification of potential site for intervention on map by PMU/HPFD GIS Cell
- 6) Updating/digitizing treatment map in GIS environment for future usage and M&E purposes.

#### Preparation of Base Maps for Community Selection and Micro Planning

Base Maps	Broad Classes		Options of Mapping
1. Land Use/ Land Cover (LULC) map	-Forest -Grassland -Pasture -Agriculture -Orchard	-Lake/pond -Stream -Village/hamlet location -Assets/utilities	-In-house data -BhuvanPanchayat -Bhuvan/ Google Earth Images
2. Forest Density Maps	-Forest Density (High Dense, Mod.	-Forest Regeneration	- Forest Cover Map (FCM) of FSI supplemented by field inputs

Base Maps	Broad Classes	Options of Mapping
	Dense, Open Forest)	
3. Elevation/ Contour Maps	Contours	-Cartosat (Bhuvan)
4. GP and Ward boundary		
5. Treatment Area Map	-Proposed sites for forest plantation and protection with suitable models -Proposed treatment sites for soil and water conservation measures -Fire Lines	-Identification of potential sites for intervention on maps (LULC, FCM, Elevation Map) and validation in the field by the field staff and VFDS members.

## 2.5 Identification and Selection of Target Communities

### i. Identification of clusters of VFDSs in the Target Ranges

In each targeted range, a cluster of wards for intervention shall be identified spatially. Gram Panchayats having 3 or more contiguous wards in need of treatment in the potential area shall be selected as the priority. Further to avoid duplication of interventions, the wards coming under the BMCs to be assisted by the Project shall not be considered for the interventions by VFDSs. The followings are showing the steps to be taken:

- 1) Finalization of the criteria for prioritization in “Table: Indicative Criteria for Ward Prioritisation – Sustainable Forest Management” shown below by PMU and its confirmation by FTU
- 2) Preparation of manual for ward identification and consensus building
- 3) Identification of potential cluster area in the selected intervention area by PMU/DMU
- 4) Scoring the wards in the identified clusters through field level data collection including the first consultation of stakeholder such as *gram Pradhan*, ward *Panch* and local representatives such as chair persons of *Mahila Mandal* and *Yuvak Mandal*, who may be identified by gram Pradhan, for sensitisation and consensus building by DMU Subject Matter Specialist/ FTU Coordinator
  - The consultation shall be held more than once so that the stakeholders would have sufficient opportunities to develop rapport with the project personnel and understanding on the nature of the project interventions and their roles in implementation.
  - During the exercise, maps of the identified intervention areas are to be shared with the stakeholders.
  - During the consensus building, ward prioritisation criteria and the score obtained by the ward shall be discussed with the stakeholders.
  - The outcome of the stakeholder consultation is shown in “Table: Points to be Discussed and Expected Outcome of the Stakeholder Consultation”.
- 5) Interaction with the potential wards in the Batch 1 to determine their choice of species for afforestation works in order to start raising nurseries in Winter time in 2018
- 6) Confirmation of the scoring by FTU

### Indicative Criteria for Ward Prioritisation – Sustainable Forest Management

Exclusion Criteria			
Exclusion Criteria	The households having rights of the intervention areas constitute less than 70% of the total number of households in the ward. The ward does not come under the potential BMCs for project intervention.		
Prioritization Criteria			
	Criteria	Score	Description
1	Total area for treatment	1-5	1-10 ha=1/ 11-20 ha=2/ 21- 30ha=3/ 31-40ha=4/ 41<=5

2	Contiguity of treatment areas	1-3	1-2 patches* =3/ 3-4 patches=2/ more than 5 patches=1
3	Degraded areas**	1-5	0-20%=1/ 21-40%=2/ 41-60%=3/ 61-80%=4/ 81-100%=5
4	Distribution of commercially important NTFP/ MAP species	1-3	1=less than 2 species/ 2= less than 4 species/ 3more than 5 species
5	Accessibility by the all weather road from the main road	1 or 2	No access =1/ Have access=2
6	Accessibility by the kaccha road	1 or 2	No access =1/ Have access=2
7	Time required to reach the community from the range office	1-3	More than 3 hours =1/ <2hours =2/ 2>=3
	Maximum Score	23	

\* "patch" in this context is a segment of forest area.

\*\* "degraded area" in this context is areas under "scrub" and "open forest" as per the India State of Forest Report (ISFR)

### Points to be Discussed and Expected Outcome of the Stakeholder Consultation

Points to be discussed/ Information to be shared	Outcome of the discussion
<ul style="list-style-type: none"> <li>➤ Project objectives and approaches to implementation – Some activities</li> <li>➤ Implementation structure – various implementation units and their roles and responsibilities</li> <li>➤ Potential intervention areas identified by the project</li> <li>➤ Wards prioritization criteria and the score obtained by the Ward</li> </ul>	<ul style="list-style-type: none"> <li>➤ Stakeholders understand and give consent to the objectives and approach of project implementation</li> <li>➤ Constitution/ reactivation of VFDS</li> <li>➤ Finalised list of wards where the interventions are to be implemented</li> </ul>

#### ii. Batch selection

In principle, the selected wards (VFDSs) shall be divided into three batches. For grouping exercise, following concept shall be taken into consideration;

- 1) The seedling raising period of potential major species to be planted by each VFDS shall be taken into consideration; less than 1.5 years for Batch 1, ~2.5 years for Batch 2 and ~3.5 years for Batch 3 for smooth and effective implementation.
- 2) At least one VFDS per Division shall be grouped in each Batch in order to equally enhance the field implementation capacity throughout the implementation period.
- 3) The capacity to cover project wards at each Range and Division shall be considered based on available human resource.
- 4) In consideration of overall schedule of required preparatory works, 1st batch VFDSs shall be selected by the second quarter of Year 1, 2<sup>nd</sup> and 3<sup>rd</sup> batch by the second quarter of Year 2. Tentatively, 75, 175 and 150 VFDSs are assumed to be selected for 1st batch, 2nd batch and 3rd batch. The actual selection of VFDSs and their batches will be conducted by FTU with thorough consultation/confirmation with concerned VFDSs.

## 2.6 Project models for FEMP and Project Implementation Modes

Tentative models for Forestry, soil and water conservation are attached as Annexure-5. (Project will follow HP Forest Department norms/models)

**2.6.1 Under PEM Mode:** Drainage line Treatment, Improvement/Densification of Moderately Dense Forest, Afforestation/Improvement of open/Scrub Forest area, Rehabilitation of Forest Area infested with Invasive Species, Improvement of Pasture/Grasslands (including in situ SWC works), Forest fire protection, Forestry intervention outside Forest area, are included.

**2.6.2 Under Departmental Mode:** Site specific Planning and Monitoring, Improvement of Forest Boundary Management at Project intervention areas, Improvement of Nurseries, Seedling Production, Drainage line treatment (ex situ SWC : including treatable surface erosion control),

Secondary Silvicultural operations for Improvement of Existing Forests, Improvement/Densification of Moderately Dense Forest, Afforestation/Improvement of open/Scrub Forest area, Improvement of Pasture/Grasslands (including in situ SWC works), Forest Fire Management are included.

## 2.7 Planning Process of FEMP

The planning process to make a FEMP, is summarized in table below:

**Planning Process of FEMP**

No	Steps	In-charge	Conditions	Result
1	Pre-selection of suitable sites for micro-planning,  GIS Station receives boundaries of the Selected GP and Wards of the planned FEMP	In charge DMU	Criteria: ➤ Degraded Forest areas present ➤ Forestry intervention at out- side of forest area ➤ Where forest interventions and investments like gap planting, ANR, Block plantation, Improvement of open and scrub forests, could be done ➤ Improvement of pasture land, alpine pastures and grass lands ➤ Rehabilitation of FA infested with invasive spp. (demonstrative basis in Mandi, Bilaspur and Shimla distt.)	Pre-selection of potential sites
2	Aerial photo of proposed sites	PMU-GIS Cell	GIS is working	Supporting aerial photos
3	Decision on starting FEMP and micro-planning	DMU	DMU/SMS/ADMU/ are appointed and trained	Decision on MP sites
4	1. Meeting SMS/ADMU/ FTU and his field staff, 2. Field visit to decide plot selection	SMS,ADMU/ Forest Range Staff	Trained field staff and aerial photos of selected ward/s /VFDS area available, 1. Objectives of FEMP accepted by ward Sabha/VFDS 2. Consent letter received from GP	Training imparted to staff/  Information available with staff,
5	1. Pre-selection of suitable plots, 2. <i>if possible</i> , get enlarged aerial photos from Google Earth or other source for field work	SMS, Forest Range Staff, GIS Cell	Trained field staff works with enlarges aerial photos and demarcates and describe plots	Information of staff, training



No	Steps	In-charge	Conditions	Result
6	1.Field work, demarcation and description of potential plots, 2.FEMP draft	SMS, /ADMU,RO Forest Range Staff	Trained field staff and aerial photos available, work of staff follows guidelines, Interest group/User group involved	Draft FEMP with preliminary maps, description of plots
7	Addition of social data needs to draft FEMP and CD & LIP micro planning as per MP guidelines	GP Mobilisers, Ward Facilitators, FTU Co-ordinators, Forest Range Staff	Micro-planning guidelines available with staff, trained staff co-operates	Involvement of interest group/User groups
8	Meeting SMS, ADMU, FTU Co-ordinator and FTU officers verify and decide on final plots and measures during a final inspection of the proposed plots.	Forest Range Staff, SMS, Social staff (SS)& User groups/VFDS representatives	1. pre-selection criterion is met, interventions are technically sound and cost efficient,	Final talks with GH of VFDS
9	Get all information required for FEMP as per guidelines, and as per working plans	Forest Range Staff, ADMU, SMS	All information for FEMP text is available, Forest Management planning map updated	Complete information on FEMP along with maps ready/GIS maps to be prepared by GIS Cell or outsourced agency
10	Finalize FEMP (Plan and Maps) as technical part of the Micro-plan for the Forest and Social staff will prepare CD&LIP simultaneously following all process steps.....	ADMU, SMS, GIS Cell  SMS/FTU Coordinators/Mobilisers/Fgd/	GIS maps ready, FEMP prepared as per guidelines  CD&LIP prepared as per guidelines	FEMP ready  Draft CD&LIP ready
11	FEMP & CD&LIP approval and VFDS constitution by General house of VFDS	ADMU/SMS/FTU/FTU Staff, FTU Co-ordinator, GP facilitator/ ward facilitator	Draft FEMP and CD&LIP is ready, general house of VFDS is constituted	1.approval of FEMP and CD&LIP by VFDS 2. Executive Committee of VFDS formed.
12	In -charge DMU accepts the FEMP technically and also for Community development activities and forwards it to PMU for financial	DFO, PMU /PMC	1. Qualified FEMP with maps 2. CD & LIP Activities	Approved FEMP and CD&LIP

No	Steps	In-charge	Conditions	Result
	approval			

## 2.8 Practical field work (Ground truthing)

After receiving base maps from GIS Cell or outsourced agency, these will be circulated to field staff for ground truthing.

### 2.8.1 Selected models and cost-efficiency of interventions

During the ground truthing the technical staff has to see which plantation model would be applicable or to be clubbed with other models for all potential sites/plots and which mode be will be applicable (PFM or DM ).

The sketch map of local area showing forest and different zones for management i.e. grazing, fuelwood collection, green fodder collection, no harvesting zones, etc to be noted and the intervention areas shown can be used for area calculations by digitized mapping, otherwise GPS-coordinates have to be used.

Following points can be kept in mind during selecting area for intervention:

- Use of RCC fencing is to be avoided, only in vary are circumstances can be used
- Fence types can be finalized keeping in view field situations (such as RCC along roads or places where migratory grazing pressure is high, wooden fencing where not affected by insects, living fences where communities have good experiences),
- Too small plots should be avoided, these should be either enlarged or replaced after discussion with VFDS.

### 2.8.2 Other Important issues to be covered under FEMP

For forest sites on which ward inhabitants are dependent following points should be evaluated while finalization the FEMPs:

- A short description of the state of the forest, i.e. the impact of grazing,
- The risk of fire in the forest,
- The dominant and pre-dominant species, any rare trees / species;
- Canopy cover of forest types;
- Existing water resources like natural ponds, springs, perennial streams;
- Encroachments, included cultivations and so forth.
- Conditions of Boundary pillars in the Forest areas in selected sites/wards

### 2.8.3 Coding of selected plots and models

Coding of each plot and Nallahs within the selected plot should be coded with separate codes for e.g. **P1, P2, P3** etc for plots and **n1, n2, n3 etc for Nallahs**.

**If possible, Type of fencing** required is to be mentioned in plot descriptions.

**Example:**

Plot no. 1 with 100 m RCC-fence, 350 m wooden post fence / bamboo fence. Wooden fence post

should be given preference over RCC.

For draft FEMP, the total length is estimated; but after decision of the VFDS the types of fences with their individual length must be mentioned in the FEMP or shown in the tables as separate lines.

*Norms for different models along with indicative schedule are given in attachment no. 3 as appendix 04, 05 and 06. Norms of HPFD will be applicable to the project. Indicative seedling production information for potential species for the project is mentioned in Appendix-07 for normal and tall plant seedlings. Potential species for plantation/ANR operations and Potential medicinal plant species in HP is shown under Appendix 03 of project document. (pages 167-178). List of recommended SWC Works measures are enlisted as Appendix 02 (pg. 149-166). All attached as annexure--*

While preparing preliminary map in the field and the final planning map same legends should be used by the field staff/GIS Cell. Symbols used by Forest Department for depicting various works should be preferred.

When the draft FEMP planning map is ready, all data of models (of Forest department) and costs in all plots are to be computerized, and the draft FEMP can be completed. It will be handed over to Social Staff to be discussed with the General House of VFDS first then in more detail with the Micro-planning group/User group with its members being shown at least a sample of the areas to be treated under different models. Their ideas, inputs and suggestions need to be incorporated in so far as they are in line with project objectives.

#### **2.8.4 Rehabilitation of Forest areas infested with Invasive species (lantana infested forests)**

The rehabilitation of invasive species (Lantana) infested areas intends to i) eradicate invasive species and then ii) to shade out the area with tree cover to minimise re-invasion of invasive species. Lantana removal could be taken up wherever it occurs in the selected treatment area for wards which conduct plantation activities. Treatment area shall be specified in FEMP and to be done in small scale/numbers for demonstration purposes only in Bilaspur, Mandi and Shimla districts.

#### **2.8.5 Assessment of forage gains and losses to be calculated**

During PRA/RRA a simple assessment of the forage losses (by fencing, closures, plantations etc.) and gains (fodder trees, fodder banks etc.) of forage for all livestock in VFDS area should be made. The calculation might be done for animals of the right holders, for migrating herds and for stray cattle respectively, if required.

These results and options of the forage calculation are essential for the right holders. The FEMP has to seek to adapt the project activities to the needs of the right holders and at the same time protect and regenerate as much area as possible in degraded forests.

The proposals should be discussed in the villages and get approval by the stakeholders/right holders to balance their fodder needs.

Once there is general approval of the VFDS on the draft FEMP, each of the treatment sites shown on the Forest Treatment Planning map needs to be demarcated on the ground with GPS or digitized in the GIS. Then the map can be plotted in the GIS-station.

While the ADMU / SMS/FTU Officer assisted by the field staff will make the final FEMP in their Ranges as detailed above, the Divisional SMS has to remain involved with the process as s/he will have to finally draft the entire MP (FEMP & CD&LIP).

## 2.9 Requirements for the FEMP

### 2.9.1 Maps Required for FEMP

**Forest Overview Map:** Showing forest boundaries, VFDS wards, villages, roads, administrative boundaries; Google image; Map Scale: 1:12000

**Forest Density Map:** Showing High dense, moderately Dense and Open Forests and forest regeneration, to be supplemented by field input.

**Land Use /Land Cover (LULC) Map:** Showing forest, grassland, pasture, Agriculture, Orchard, Lake/pond, stream, Village/hamlet location etc; Map Scale: 1:15000

**Social Map:** showing habitation /villages /hamlets, water bodies, paths, infrastructures etc in the intervention area or VFDS area ; Map Scale: 1:15000

**Fire & Grazing Risk Map:** Showing areas vulnerable to forest fires; grazing pressure; Map Scale: 1:15000

**Treatment Area Map:** Proposed sites for forest plantation and protection with suitable models, proposed treatment sites for soil and water conservation measures and Fire lines

The above-mentioned maps along with the required tables and plot descriptions are to be completed in the final FEMP by the ADMU/ SMS/FTU officer & FTU -coordinator.

These maps will be provided by GIS Cell or will be prepared by outsource agency well before Micro-planning. A final decision on developing the Micro-plan can be taken by the DMU in consultation with the PMU in the initial stages. Wards consulted / VFDS are to be included in the micro-planning process.

### 2.9.2 FEMP and working plan of a division

The FEMP as part of the Micro-plan cannot conflict with the Working plans. Before the in -charge DMU will approve the FEMP , the conformity with the actual working plan has to be sought.

### 2.9.3 Data for FEMP of Ward/s: (From Census, Panchayat office, FGDs)

For FEMP data collected during PRA/RRA exercises will be sufficient. The formats are discussed in Micro-planning guideline/manual prepared by the project. For FEMP abstract of all information gathered can be tabulated in following form for understanding of socio -economic conditions of VFDS and stakeholder's dependence on forest:

**Social Data for FEMP ward /s of selected VFDS**

Description	Ward 1	Ward 2	Total FEMP
No of households (HHs)/ BPL			
No of SC HHs / BPL			
No of ST HHs / BPL			
Total Population			
Male / Lit (%)			
Female / Lit (%)			
Employed			
Self Employed			
Agriculturists			
No of cows / buffaloes			

Description	Ward 1	Ward 2	Total FEMP
No of sheep / goats			
Distance from Road - km			
Cattle grazed in forest(s)			
HHs growing cash crops			
HHs collecting Herbs			
HHs collecting other NTFPs			
HHs collecting Firewood from Forest			
HHs using LPG			

Description and analysis of data collected should be written in detail, the present status and consumption pattern of Fuelwood, fodder, Timber, its deficiency and potentials available to cope up with these, in all wards of Selected VFDS has to be mentioned.

The details of potential Plots/ potential areas identified should be presented in tabular form as shown below:

#### Details of potential plots/potential areas

Plot	Area (Ha)	Model(s) proposed	Cost (Rs)
1			
2			
3			
4			
5			
4			
5			
6			
7			
<b>TOTAL</b>			

#### Details of Proposed Nallah treatment

S.NO	Name of Nallah	Code of Nallah	Treatment Veg. Check dam, dry stone/ masonry	Quantity (no)	Tentative Cost (Rs)
1					
2					
3					
4					
5					
4					
5					
7					
<b>TOTAL</b>					

## 2.10 Finalising the FEMP Document

1. A meeting with SMS & FD staff, interested stakeholders in order to explain to them the objectives and modalities of the project and the role they are expected to play in Planning, implementation and later in monitoring of project interventions.
2. The draft FEMP prepared by ADMU/SMS/FTU and staff and discussed with In-charge DMU on technical issues then discussed with VFDS General House
3. Site/plot areas selected for intervention visited (if desired) by the micro-planning group and others, interested to fully understand and appreciate what has been proposed.
4. The prescriptions / treatments of the FEMP can be changed, modified at this stage as a result of visit / consultation with local stakeholders.
5. All the finally agreed upon intervention areas will then be fully GPSed so that precise areas can be worked (on GIS format), cost norms applied and funds requirements shown. This, along with the maps, will be part of the FEMP.
6. If possible, all earlier closures, plantations, S&W conservation works, fires, operations etc. may be shown on the map and written in FEMP, so that both the department and the people are aware of the history of the forest/s and further VFDS knows its responsibility for the protection of these area too and not just the project interventions.
7. The FEMP can be sub-divided ward wise or User Group wise in order to facilitate subsequent protection and management responsibilities, this would also help in monitoring.
8. CD & LIP would also be discussed in GH of VFDS. Activities which fall outside the purview of project would be considered under Convergence with line departments.
9. For Livelihood activities, SC, ST, Vulnerable, forest dependent groups/individuals would be consulted and after collecting basic information existing SHG and CIG groups would be strengthening or if desired would be formed.

## 2.11 Formulation of the FEMP

**The FEMP of MP will have short, simple descriptions on the following aspects about site:**

- Project approach and mission
- Description of the forests (Legal position, such as protection status, physical rights of holders of land use rights, Gaddi and Gujjar rights and obligations, forest types, forest functions, i.e. water protection function),
- Target of the planning and criteria for selection of the site and the models
- Previous afforestation and forest closures by the FD
- Data and map on forest resources
- Data and maps on grazing, fire, other risks
- General status of regeneration (area, species, damages etc.)
- Social organisation, i.e. ward data, VFDS Socio economic data, CBOs at Ward level, Different Govt. program at ward level etc.
- Assessment of forage losses and gains, Timber requirement, Fuelwood requirement
- Apart from detailed work plan as in FEMP with cost tables, the FEMP will integrate

supplementary works as agreed to under the micro-plan. For example, benefit sharing arrangements, CD&LIP Details, fire prevention arrangements, monitoring and evaluation by VFDS, Conflict resolution and so forth.

After completion of the FEMP, it will be forwarded by in charge DMU to in charge FCCU for final technical consideration and thereafter to the PMU for financial approval. PMC will assist the PMU in this task. Initial 1st batch Plans are to be monitored by PMU.

## Forest Ecosystems Management Plan /Micro plan

### 3.1 Definitions

In the context of the PIHPFEM & L funded by JICA,

**Forest Field Staff or Front-Line Staff** means the Forest Guard, the Deputy Ranger and the Range Officer.

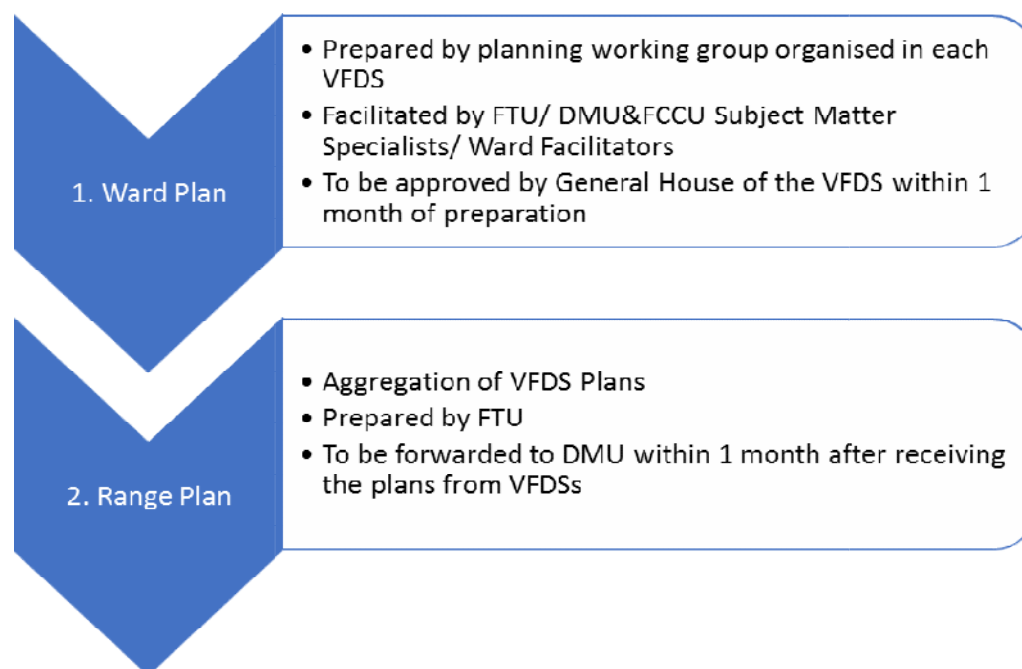
**Social Development Staff or Social Staff** means the Ward facilitator, GP Mobiliser, FTU co-ordinators and the Division level Subject matter specialist.

Where there is no FTU Co-ordinators, women Forest Guards can be trained to have a dual role in the Micro Planning process, as forest staff and also as a Community Mobiliser. This is because it is easier for women to work with villagers especially village women due to social norms and constraints. Therefore, balance in the gender composition of Forest field teams is needed for more effective outcomes both in the form of benefits for people and improved forest condition.

**Micro Plans (Forest Ecosystem Management Plan and Community Development & Livelihood Improvement Plan)**

#### 3.1.1 Overview of Community Level Plans

The Project shall have a cohesive activity plans as a Micro Plan between ward and range in order to maximise the impacts of the project interventions instead of broadcasting the project inputs in patches. The Micro Plan composed by two types of plans, Forest Ecosystem Management Plan (FEMP) and Community Development and Livelihood Improvement Plans (CD&LIP), shall be prepared by each VFDS and aggregated by FTU for each range. The facilitation of the planning shall be done by the DMU subject matter specialists/ FTU coordinator and Ward Facilitators.



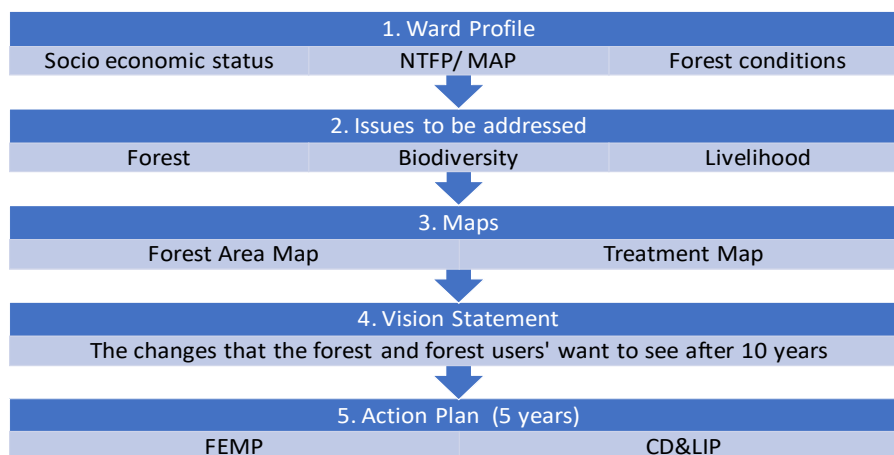
**Figure: Aggregation of FEMP and CD&LIP**



### 3.1.2 Process of Preparation of Forest Ecosystems Management Plan and Community Development and Livelihood Improvement Plan

#### Ward Plan

FEMP and CD&LIP shall be prepared by each VFDS. Both the plans are to be based on the 10 years vision and 5 year Action Plan. The annual plan shall also be prepared in each year based on the 5 year Action Plan by September every year by VFDS with the support of FTU.



**Figure: Planning Process at Ward Level**

The FEMP and CD&LIP shall be prepared by the equal number of representatives from men and women from General House members of VFDS. Separate discussions shall be held by men and women participants and based on the outputs of the discussions from each group, the plan shall be finalised in plenary. During this exercise, the topics shall not be segregated by gender (i.e. men will discuss forest management while women discuss on livelihood.) as women constitute the majority of the forest users and bear significant responsibilities in managing household economy though the economic value of their contribution might not have been tangible.

**In FEMP**, activities concerning forest and forest resource management shall be included to address the issues related to the forest and forest areas that are used by the group members. Technical inputs shall be provided by DMU subject matter specialists/ FTU coordinator.

**CD&LIP** shall contain activities that enhance community well-being and resilience of household economy. When selecting the community development activities, the activities that benefit the entire community; contribute to reduction of the dependency on the forest resources (i.e. fodder or fuel wood related activities) and women’s workload shall be given priorities. Some of the selected activities are mentioned under chapter Community Development activities on page no 36-37.

#### 3.1.3 Range Plan

FTU at a Range shall receive plans from VFDSs within its jurisdiction and harmonises its contents and reviews for effectiveness. FTU shall confirm the needs and viability of the VFDS plans by site visits and through consultation with VFDSs. Once the plans are recommended by FTU and approved by DMU, respective VFDSs will receive funds for implementation.

### 3.2. Forest working-plan

Each Territorial Forest Division in HP has a **15-year working plan**, describing for each which should

contain all relevant forest, compartment or sub compartment the relevant forests, its management history, the implemented activities and the planning for the management during the next 15 years. For each compartment a compartment history file exists, information on forests and the activities implemented so far.

The planned project activities in the FEMP have to respect the actually approved working plans. If not approved in working plans the planned project activities may be got approved from the competent authority.

***In Wild life Divisions Management plans exit, these should be consulted while preparing CBMP and CD&LIP***

### **3.3 Village Forest Development Society (VFDS)**

The rules governing the formation of VFDSs are notified in the Participatory Forest Management (PFM) Regulation of 2001 of HP and also a shorter version is notified as the Bye-Laws for the VFDSs under the JICA Forestry project. These are given at **Annexure- 6** of this manual.

*The sequence and process of developing a Micro Plan (FEMP& CD&LIP) are detailed in this Manual and given in a tabular format at the end of this Manual.*

### **3.4 The Role of Division Management Unit Officers**

The ADMU and the In- charge DMU have a role in the VFDS defined Rules. These include;

- Quarterly meetings with the EC of the VFDS; the Approving Authority for Micro Plans
- Both officers and their representatives need to interact frequently with office bearers and other members of the VFDS as well as the Social staff. This is especially required during the formulation of the FEMP and micro plan.
- The Divisional SMS to report directly to In -charge DMU (DFO). Since these persons are going to be new to the job, their training and mentorship depends a lot on the time and effort the In -charge DMU (DFO) can spare to bring these people to proficiency levels that are needed for this job and project.
- ADMU/FTU needs to regularly meet with members of the EC, especially the Member Secretary and the President of the VFDS in order to address issues and problems on the spot and also maintain a good working relationship with them.

### **3.5 The Role of Forest Technical Unit Staff**

During the micro planning process, the FTU (Range Officer) will, among other things, be responsible for;

- Ensuring that the due process for constitution of the VFDS and election of the EC have been followed.
- FTU Officer to preside over the election of the EC and see that representation is given to members of various groups (esp. SC, ST, Vulnerable) as per the PFM Rules.
- The Deputy Ranger will be responsible for procuring and making available various records like the record of rights of people and of migratory graziers from the Revenue department, maps and other documents to the SMS/FTU Co-ordinators. He will also submit and pursue the case for registration of the VFDS with the appropriate authorities under the HP Societies Act, 2006 and help with opening of a bank account of the Society with a Scheduled bank.

- The Forest Guard has a critical role to play in the mobilization, organization and assignment of Community members and User Groups with identified forest areas as may be agreed during the micro planning process.
- The Deputy Ranger and Forest Guard needs to be closely associated with the development of the micro plan as they are the Treasurer and member of the EC under the modified rules / Bye laws notified by HP Govt and carry out the duties assigned in that Notification.
- The Forest Guard has to work closely with the Member Secretary of VFDS to develop six monthly /yearly action plans required for implementation of micro plan / FEMP& CD&LIP, and also arrange for timely availability of plants and other materials necessary for implementation of the micro plan.

### **3.6 The Role of the Social Staff**

- The GP Mobilizers and ward facilitators and FTU Coordinators will constitute the social staff appointed under the project, and have a key role to play in the micro planning process and in the development of the micro plan (FEMP & CD&LIP).
- They have to work closely with the village women who are the main users of forest resources, in order to understand fully issues and problems related to access and use and the gaps between demand and supply / availability of various forest resources.
- The Facilitators & Mobilizers need to maintain detailed records of their interactions with villagers
- To fill prescribed formats for data collection and also to cross check that the data collected is reliable.
- The SMS/FTU co-ordinators has a major role in both the development of the FEMP as well as the CD &LIP.They have to participate and steer discussion in meetings at Ward level and of the EC and with the FD officials.
- The SMS/FTU co-ordinators has to guide Facilitator and the Mobilizers about the ward data collection and its analyses
- The SMS has an important role in putting the project aims and objectives across to the people and their representatives at Panchayat level.
- The SMS/Assist. DMU/FTU has to draft and discuss the FEMP with the FD and the EC and finally get its approval from the General House of the VFDS.
- The SMS/ Assistant DMU must ensure that the arrangements worked out with the people or User Groups are appropriately reflected in the MoU.

## FEMP PLANNING PROCESS GUIDELINES

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- 1 Once the potential intervention ward/s are identified. The inhabitants of these ward/s who use the forest area on regular basis to meet the daily needs (primary stakeholders) and those who are legal right holders, but do not use for fulfilling daily needs (secondary stakeholders) are identified.
- 2 A consent and willingness of primary stakeholders and Panchayat for taking up the area under the Project is obtained.
- 3 A resolution of the Panchayat may suffice to convey their consent, the willingness of the primary stakeholders to participate in the project should be obtained only after the Project aims and objectives have been clearly explained in a general house meeting of participating Wards/villages.
- 4 The GP, Ward Panch, Mahila Mandal representatives and other villagers should be informed what can be allowed and what cannot be allowed under the project; so that there is no confusion in their understanding in later stage.
- 5 Attention needs to be paid to ensure that the Ward Panch(es), SC/ ST and poor women attend these meetings and understand what the project is trying to do. What are the potential activities / interventions in this Project that will benefit the villagers and how 'User Groups' and SHGs /CIGs under the VFDS stand to benefit?
- 6 It is important to maintain record of all these meetings, list the attendees in each meeting, obtain their signature. The FD staff and the ward Facilitator, FTU Coordinator &SMS should also put their signatures on the meeting record.
- 7 The meetings should be held at a time that is convenient to most local people especially women.
- 8 During informal meetings / ward level meetings/ the villagers both men and women, having natural leader qualities should be preferred for various posts of office bearers.
- 9 Forest technical staff would start collecting existing forest vegetation, possible intervention and primary stakeholders' information of the selected areas/ plots. FD staff would also take the GPS Co-ordinates of the selected plots. Project Models applicable will be discussed with the villagers especially with UGs.
- 10 Social staff and FD technical staff would select the UGs of different Plots and discuss the possible interventions and what do they recommend such as species to be planted using PRA /RRA tools.
- 11 The next step is to convene a General house meeting (>60% attendance with 50% women must). It would be helpful to take the consent and support of the Pradhan, the Ward Panch of the area, and the Panchayat in calling this meeting.
- 12 During PRA/RRA meetings which would take 4-6 days the Demographic data, Social composition economic status, Available Resources, land use pattern, livestock population, civic facilities, Cropping pattern, source of fodder, source of fuel related information is collected from the villagers.
- 13 After collecting information/ data PRA team consisted of social and technical staff will move for transect walk to understand the maps prepared by villagers.
- 14 Preparation of MP will be showing FEMP and CD&LIP activities.
- 15 Sharing the draft FEMP and CD & LIP with villagers in a General House. If required field visit of

user groups to the plots they will take care of.

- 16 Incorporation of suggestions put forth by villagers /user groups.
- 17 Executive Body of the VFDS can be constituted on the same day when FEMP & CD&LIP is being approved by the General House of the VFDS.
- 18 The composition, number of different office bearers, their role and responsibilities and their 'powers' need to be understood clearly by the people present.
- 19 Before the election is held the people must understand that this EC is to represent their interests and therefore its composition must include various sections and interest groups among the different participating wards/villages. For example, if the post of Joint Secretary is reserved for a woman. The women therefore need to understand the important role of the Joint Secretary to carry out which she must be fairly educated and confident to follow project monitoring and accounting systems. She has to help the Member Secretary in maintaining VFDS proceedings and other records.
- 20 The FTU Coordinators, Facilitators and FD staff have to check that all different groups are well represented in the meeting.
- 21 The GH meeting should be convened at a convenient time for all stakeholders. *There is likely to be an issue regarding the quorum. One reason is that in any village there are old and sick people or those disabled. There are also several men who work outside the village in towns or in the services and are therefore 'Not Resident' for purposes of voting. It is therefore correct to leave out or mark such voters in the village lists and deduct their numbers from it while calculating the percentage of voters fulfilling the quorum.*
- 22 According to the HP PFM Regulations, the ACF (or at least the Range Officer) must preside over the EC election. A complete record of the process must be kept. In case of contest for any post in the EC, the presiding officer will decide the best method to conduct the election including use of ballot paper. It is very important that those members who are to be part of the EC in ex officio capacity are present.
- 23 After the EC has been elected and the office bearers known to all members, it is most useful that the FTU Coordinators ward Facilitators/ SMS or Trained trainer organize a one-day orientation for the EC members to further and fully appreciate the project objectives and how to document meeting proceedings. Member secretary and Joint Secretary has to keep the record of such trainings/ orientation.
- 24 While discussing the draft Micro-Plan with the EC and further refining aspects and implications of the Monitoring process, protection methods must be clearly known, spelt out and understood. The 'rules' for equitable benefit sharing should be articulated by the stakeholders and reflected in the MoU. The people need to spell out how they would monitor or like monitoring of project activities made and how they see the role of the FD and the EC in this.
- 25 The Role of the In-charge DMU (DFO): According to the project document, the DFO is the micro-plan approving authority. The question of his/her role during the MP exercise and later during MP approving and satisfying himself/herself that appropriate and sufficient methods have been followed and that the Micro-Plan is balanced etc., becomes very important.
- 27) The availability and use of maps of adequate scale (1:5000 or 12000) in FEMP is essential. It is obligatory for the PMU/ DMU to make available these maps before and during the Micro-Plan process to field staff.

- 28) The use of maps in the FEMP would be a good indicator of the ease of planning; later monitoring and evaluation of project interventions and impact. A Micro plan assessment criterion for finalizing and sanctioning is at *Annexure-2*
- 29 Community Development Activities: shall contain activities that enhance community well-being and resilience of household economy. When selecting the community development activities, the activities that benefit the entire community; contribute to reduction of the dependency on the forest resources (i.e. fodder or fuel wood related activities) and women's workload shall be given priorities.
- 30 Minimum 2 -3 days training is needed to be organized for the FD field staff and the Ward Facilitators and FTU Coordinators on participatory approaches and methods, Communication skills, before the micro-planning exercise is taken up. FD staff & Ward Facilitators, GP Mobilisers, FTU Coordinators must ensure that a sufficient number of people from poor and marginal sections have been adequately consulted during the micro-planning exercise and a record of such meetings / consultations must be maintained.
- 31 It is important for the SMS / FTU Coordinator to remain continuously in touch with planning process. They should be able to analyse and interpret data collected and relate it to desirable project interventions. He/ She also needs to explore what components or complementary activities can be supported from outside project funds. For example, IGA activities can be converged with the Rural Development department through NABARD.
- 32 Baseline measures of the current use of forest-based products like grass, fodder and firewood need to be accurately assessed and recorded.
- 33 People's suggestions and solutions to meet and bridge the gap in demand and supply need to be considered and adequately recorded. Similarly, people's ideas and ways to effectively protect and use assets created need to be incorporated.

## CONFLICT RESOLUTION

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This is an important role and responsibility of the EC in particular and of the Panchayat in general. There will be a Conflict Resolution Group (CRG), consisting of representatives of the concerned GP or local community-based organizations, a representative from local/migratory community and the concerned Assistant Conservator of Forests/Forest official.

An important aspect of avoiding conflict is to show on a map the forest areas that a User group /ward s) have customarily accessed for fodder and firewood collection. It is also important that other ward(s) or User Groups recognize these customary usages or limits. When resolving conflict, this information could act as a baseline / threshold for the Community resource management Groups.

Settlement of disputes and conflict resolution will be governed as laid out under para 49, 50 and 51 of the Bye Laws notified by GoHP for PIHPFEM&L, (Annex 6.)

“Conflict Resolution group” means a group consisting of representatives of the concerned Gram Panchayat, a representative of the local Non -government organizations or local community-based organizations, a representative from local/migratory community and the concerned Assistant Conservator of Forests /Forest officials.

## **PARTICIPATORY MONITORING AND EVALUATION**

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A participatory monitoring committee made up from members of the VFDS group and a member from the panchayat etc. as well as from the FD (e.g. deputy RO / Fgd). The committee will on quarterly basis review objectives, inputs and work progress and report to the whole group .Their reports will then be sent to the DMU -Cum DFO for further action.

The EC or any of its designated members will monitor progress and quality of work during execution of various works; The Member Secretary will record the date, places and names of EC members who checked the work(s) and whether works were satisfactory and any instructions given.

### **Major Reports Maintained at VFDS Level for Monitoring:**

- Statement of Expenditure (SoE)
- Quarterly Progress Report (QPR), Annual progress report
- Social audit report
- MIS Formats
- Ad-hoc status reports as needs arise as:
  - IGA Status Report
  - Training Status Report
  - Status Report on SMC and Community Development activities (CDA)
  - Gender Action Plan implementation etc.



## USUFRUCT SHARING

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**VFDS members and their groups will be entitled to the following benefits deriving after closure of patches in the forest for various project interventions:**

1. To collect the yield such as fallen twigs, branches, lopping, grass, bamboos, fruits, flowers, seeds, leaf fodder and non -timber forests products free of cost through individual or collective arrangements as decided by the society Group members responsible for protection and maintenance of different closed patches will harvest and share among themselves grass and fodder from those patches.
2. To sale proceeds of all intermediate harvest, subject to protection of forests and plantations for at least 3 years from the date of agreement.
3. To organize and promote vocational activities related to forest produce and land; and other activities such as promotion of self-help groups which may provide direct benefits, including micro-lending to women. None of the activities so promoted shall affect the legal status of the forest land.
4. Recorded rights over the forest shall not be affected by these benefits.
5. The Government shall charge no royalty on the forest produce within the selected areas.
6. After 5 years, the society may expand the area, on the basis of a fresh agreement deed, by inclusion of adjoining or nearby areas.
7. To utilize at least 40 % of the sale proceeds on forest regeneration activities including soil and water conservation.

For other regulations please see the bye laws of VFDS under PIHPFEM& L attached as *Annexure --6*.

*(Note: for the purpose of usufruct, the usufruct sharing family shall be one unit.)*

## **SOIL & WATER CONSERVATION**

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The soil conservation works such as Bio-engineering works on slopes, small streams or gully, small stream, Mechanical measures on small streams, lower streams and dry hills are explained under appendix-02 of attachment 03 (Detailed Scope of Work) of project report. Measures for landslide control triggered by weak geology can also be included but only on specific sites only.

The technical guidelines and norms will be of approved HPFD norms for various S& W Conservation works.

Landslides caused by road opening will not be covered under this project.

List of recommended SWC work measures are illustrated in Appendix -02 of the DPR. Indicative SWC works model for both PFM and departmental mode are also shown under Appendix -02 of DPR. *(Annexure-5)*

## COMMUNITY DEVELOPMENT ACTIVITIES (CDAs)

CD&LIP shall contain activities that enhance community well-being and resilience of household economy. When selecting the community development activities, the activities that benefit the entire community; contribute to reduction of the dependency on the forest resources (i.e. fodder or fuel wood related activities) and women's workload shall be given priorities. Detail of CD&LIP formation, template for CD&LIP etc is being prepared separately. Although the process of planning FEMP/CBMP and CD&LIP would remain same as these two are to be prepared simultaneously, these are interconnected and cannot be separated.

The gender budget is to be prepared and 40% of the total amount of the CD&LIP shall be spent for the activities that would address women's needs or used by women and women's group.

The activities to be funded by the Project under the Community Development shall be identified by adopting the following criteria.

- Addresses common issues in the community
- Reduces the pressure on the forest resources (especially fuel wood/ fodder)
- Improves wellbeing of the community members especially women

*A list of possible CDAs (illustrative) is given at Annexure -3*

The potential activities proposed under community development are given in the following table.

**Potential Activities under Community Development**

Type	Activities	Unit of Implementation
Alternative Energy	<ul style="list-style-type: none"> <li>● Pine needle/ biomass briquettes production</li> <li>● Production and distribution of energy efficient chuhallahs</li> <li>● Solar room/ water heating system and water pump</li> </ul>	VFDS/ BMC Sub-committee
Fodder/ Feed	<ul style="list-style-type: none"> <li>● Fodder tree/ grass cultivation<sup>1</sup></li> <li>● Silage making</li> <li>● Fodder bank</li> <li>● Production of compound feed</li> </ul>	

Other drudgery reduction measures can also be considered through convergence especially on the agriculture. CSK Himachal Pradesh Agriculture University also works on various drudgery reduction techniques/ tools for household chore, farm related activities, fodder collection etc. In case, individual households are interested in adopting some of the promoted interventions, VFDS general house members and BMC sub-committee members can access CD&LIP revolving fund to adopt project promoted technologies or devices.

Once the works are completed, FTU coordinator along with VFDS/ BMC shall carry out the site verification and keep an inventory of the assets and other interventions.

<sup>1</sup>Agriculture Department has schemes for fodder production. This may be considered for convergence.

## INCOME GENERATING ACTIVITIES (IGAs)

During Micro planning exercises main income generation activities of the villagers will be identified by the project in a participatory manner. Activities which could help local people income and sustainability aspect will be considered. Main activities can be grouped into three categories:

- NTFP related activities
- Non NTFP activities
- Service sector related activities

For these activities vulnerable, women, SC, ST, who are forest dependent will be specifically involved. Income Generating Activities, under this project, are NTFP and Non NTFP based activities. NTFP based activities will be executed by JADI Buti Cell under this Project. Non NTFP related activities will be executed by SHG/CIGs formed under VFDS. If existing CIGs/SHGs are there in project area they will be preferred. For IGAs some amount will be made available by this project to be used as revolving fund. This fund can be used by SHGs/CIGs for promoting IGAs and also by tapping funds available with the panchayats, Rural Development schemes and even through institutional finance (banks). The VFDS supported by the Social Staff and the FD need to explore possibilities of activities and schemes that help converge funds for IGAs among the User groups/SHG/CIGs formed under the VFDS. Engagement of NGOs already working in income generation areas could be useful in promoting and sustaining IGAs.

The household/ community-oriented livelihood activities which are based on other than NTFPs would be identified by CIG members during the preparation of CD&LIP, which is to be done while FEMP is prepared. As part of the planning exercise, simple business plan will be prepared using the format which comprises of the CD&LIP format developed by PMU.

The basis of identifying the indicative livelihood options include 1) activities that can be done at home and can be done during winter or lean season, 2) closely linked to existing livelihood pattern, 3) activities that have potential for being integrated into the existing marketing channel, and 4) potential for cluster formation or working with the existing clusters. Some of the activities that can be promoted in the project areas include handloom, weaving & knitting, milk product, mushroom cultivation, food processing, poultry and other skills training. However, the opportunities in the snow bound area during winter are limited and thus, the State Project Manager (Livelihood) shall explore other options during the project preparatory phase. The district wise livelihood activities that have been identified by the Study Team based on the information obtained from the Micro and Small Enterprise Development Institution, Solan is given in the following table. Where “X” is indicated, the activity is not recommended.

S.No	Potential Activities	Districts					
		Bilaspur	Kullu	Kinnaur	Mandi	Lahaul&Spiti	Shimla
1	Handloom (traditional shawls, patti, caps)	X	√	√	√	√	√
2	Weaving & knitting woollen garment	√	√	√	√	X	√
3	Readymade garments, school uniform, embroidery	√	√	X	√	X	√
4	Milk production, milk product diversification	√	√	√	√	X	√
5	Off-seasonal Mushroom cultivation	X	√	√	√	X	√
6	Vegetable and fruit processing	X	√	X	√	X	√
7	Beekeeping and honey processing	√	√	√	√	X	√
8	Wool and meat production	√	√	√	√	√	√

S.No	Potential Activities	Districts					
		Bilaspur	Kullu	Kinnaur	Mandi	Lahaul&Spiti	Shimla
9	Poultry	√	√	√	√	X	√
10	Vermi composting & bio-composting	√	√	X	√	X	√
11	Wooden furniture	√	√	√	√	X	√
12	Steel fabrication	√	√	√	√	X	√
13	Iron-grill and shutter making	√	√	X	√	X	√
14	Electrical and electronic appliances repair	√	√	√	√	X	√
15	Agriculture implement repair	√	√	√	√	√	√
16	Eco-tourism & hospitality	√	√	√	X	√	√
17	Computer typing, card designing, screen printing	√	√	√	√	X	√
18	Bio-briquetting from pine needle & agriculture waste	√	X	X	√	X	√

### Formation/ Reviving CIGs/ SHGs

Non NTFP based livelihood activities would be undertaken by the CIGs or SHGs which are newly organised or existing. These groups shall indicate keen interest to improve their livelihoods. CIGs can be comprised of the VFDS/ BMC subcommittee members whose socio economic status may vary yet share a common interest in improving livelihoods and carrying out income generation activities and/ or marketing activities of the produces collectively whereas the SHGs would be comprised of the members who are from the economically weaker section of the community and their activities would involve savings and internal credit to mitigate the economic vulnerability at household level. The VFDS/ BMC subcommittee members would be given options to organise either one of the groups. In case, a CIG or SHG already exists in the project areas and is motivated to work with the project, the project shall adopt such existing groups. Women shall be given priority in organising CIGs/ SHGs. Each of such group may be comprised of 10 members. The formation/ identification of such groups shall be done during CD&LIP preparation. In case new SHGs are to be organised, DMU subject matter specialists/ FTU coordinator shall explore linking them with SRLM for improved sustainability.

### Implementation of Household/ Community Oriented Livelihood Activities

Each CIG/ SHG shall prepare an activity plan, a simplified form of business plan during CD&LIP. The process of preparation of business plan shall be defined by PMU and necessary guidance shall be provided by FTU. PMU programme managers of livelihood and training and marketing and rural finance and DMU subject matter specialists and FTU Coordinator shall facilitate coordination with stakeholders including concerned government programmes and offices and provide technical guidance. For the implementation of the household and community oriented small scale IGAs will be assisted by the revolving fund of Livelihood Improvement Fund. Each CIG/ SHG shall be allotted of INR 100,000, which fund shall be parked with VFDS/ BMC. The modus operandi shall be defined by PMU. PMC may also provide technical inputs in designing the operation and monitoring process of the fund.

DMU subject matter specialists/ FTU coordinators shall provide the immediate assistance and handholding to the CIGs/ SHGs in procurement of the resources and implementation of the activities including marketing. Necessary capacity building (business planning, management, record keeping, marketing, skills development, product development and exposure visits etc.) shall also be undertaken by the Project. The initial cost of starting the activities can be partly assisted by the project and the rest shall be managed by members' own capital or by taking loan from the Livelihood Improvement Fund

or from other financial institutions.

Various training programmes are also available through government programmes and institutions that can enhance and diversify the means of livelihoods. The project would also facilitate the VFDS/ BMC subcommittee members especially youth members to take part in such skills development training programmes so that they have better opportunities in earning livelihoods. The Livelihood Improvement Fund can be accessed by those who are interested in accessing such training opportunities. Himachal Pradesh *Khaushal Vikas Nigam* and Micro, Small and Medium Enterprise Institute, Solan could be a potential agency to converge with as it has a mandate to extend skills training for youth between 15 – 35 years old and implementing centrally funded skills development programmes for various sectors including tourism and hospitality, beauty and wellness, food processing, agriculture, handicraft etc. Necessary facilitation can be provided through GP Mobilisers, Ward Facilitators, DMU and FTU.

### Promotion of Cluster based Livelihood Activities

PMU shall coordinate with relevant cluster-based organisations and work with the DMUs/FTUs to initiate the process of cluster-based livelihood activities. The cluster-based activities can be jointly financed by the project and other government schemes/ programmes. A lump sum budget shall be allocated for the promotion and development of the cluster-based livelihood activities. Handloom, mushroom cultivation, fruit pulping, and poultry may be promoted. The CIG/ SHGs located in the areas where the existing clusters are nearby will be encouraged to take up these activities. An indicative number of cooperatives that can be promoted for different enterprises is given in the table below. DMU/ FTU will facilitate the process of activities.

**Indicative Cluster Based Livelihood Activities**

District	No of Cooperatives	Minimum Number of Households	Districts with High Potential
Handloom & Traditional Woollen Cloth Making	3	150	Kullu, Mandi, Lahaul & Spiti
Mushroom	4	200	Kullu, Mandi, Shimla, Kinnaur, Lahaul & Spiti
Fruit Processing (Mostly pulping)	1	50	Bilaspur, Kullu, Kinnaur Mandi
Poultry	2	100	Kullu, Mandi, Shimla, Kinnaur, Lahaul & Spiti
Total	10	500	

## WILDLIFE CONFLICT MANAGEMENT

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Monkeys and Wild Boars are the 2-problematic species in the project area. In a few pockets, Nil gai is also reported to cause damage to agricultural crops. Villagers are reported to spend much time in crop protection especially when the crops are ripening. Here again, convergence will have to be arranged with crop protection and damage containment schemes / efforts of the FD and the WL Wing. The planting of tall wild fruit bearing trees in the treatment patches is another way to limit damage to crops. Possibilities of securing funds under MNREGS can also be explored.

## **MEMORANDUM OF UNDERSTANDING (MOU)**

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During the micro-planning process, several agreements, understanding between different groups and the EC, group formation and arrangements for benefit sharing will be arrived at. It is important to document these along with the other records of the process. All these will later be incorporated in a MoU which is to be agreed to by the GH of the VFDS and then agreed to and signed by both the President of the VFDS and the DFO.

A draft of such MoU is given *at Annexure 4* for guidance of the VFDS and the FD.





## SEQUENCE AND PROCESS OF MICRO-PLAN PREPARATION (INCLUDING FEMP & CD&LIP) (DAYS INVOLVED 30-35 DAYS)

### Checklist for FEMP Preparation

S. No	STEPS in the PROCESS	PURPOSE	WHO WILL DO
1	<p>Identification and Selection of Intervention areas(GPs)</p> <ol style="list-style-type: none"> <li>1. GIS data /Remote sensing technique based field BASE map by GIS Cell of PMU or by outsource agency</li> <li>2. Field verification or authentication of selected sites by DMU/FTU</li> <li>3. Surveying and mapping of intervention areas</li> <li>4. Identification and selection of target communities</li> <li>5. Stakeholder Consultation</li> </ol>	<p>Selection of intervention area as per criterias</p> <p>Shortlisting of potential areas and sending GPS coordinates to GIS cell for preparing digitized ward boundaries, or VFDS area</p> <p>Prepare Land use map, Forest Density maps, Elevation and countour map, GP and ward boundary map, Treatment area map.</p> <p>Identification of cluster of VFDSs in the target ranges</p> <p>Stakeholders give consent to the project Constitution and reactivation</p> <p>Finalise list of wards where interventions are to be implemented.</p>	<p>Forest Dept staff, RFO, SS</p> <p>GIS Cell</p> <p>DMU/ADMU/FTU</p> <p>GIS Cell or outsource agency</p> <p>By GIS Cell of PMU or outsource agency</p> <p>DMU, FTU</p> <p>DMU, AMU, FTU, FTU Cordinator</p>
2.	<p>Meeting with Panchayat Pradhan, ward panches to explain about the project. Obtain consent / Resolution of the Panchayat showing its willingness to work with project in the selected forest and participate in its rehabilitation. SS presence must to get introduced with the Pradhan &amp; Secretary.</p>	<p>Awareness meeting with Panchayat about JFM &amp; the project.</p> <p>If GP /Ward selected ready to work with project next step will follow, otherwise drop the GP/WARD and select next from the score list.</p>	<p>ADMU/FTU/FTU co-ordinators /Deputy ranger and Forest guard</p>
<b>FTU Coordinator &amp; Forest Guard to Maintain Record of all Meeting</b>			
3	<p>Visit to Panchayat office to meet the Pradhan and Secretary , obtain ward level data, get the phone nos. and names of all office bearers of the</p>	<p>To get secondary data about the selected wards and to get familiar with Pradhan and Secretary, as they can help /</p>	<p>Social Staff (SS)</p>

S. No	STEPS in the PROCESS	PURPOSE	WHO WILL DO
	Panchayat. Or attend a Panchayat meeting to meet all panchayat members.	support the project activities later	
<b>FTU Co-ordinator to Maintain Record of this Meeting also Showing Data Collected</b>			
4	Meeting at Division Level of social development staff (SS) and the SMS to discuss and fully understand the project aims and objectives. Also, how people will benefit from the project.	To ensure that conflicting and contradictory messages are not conveyed to the villagers by different staff. Benefits are clearly explained to them.	SMS at Division level, with the SS and forest guard/Deputy Ranger
5	SS visit to ward/s to start PRA exercises; to collect social data. During PRA /RRA ask about their families, livelihoods, livestock, children and general problems they face like electricity, gas supply, water and health facilities, groups already existing in wards, women daily routine, time line etc.	1.To get familiar with the wards, people there; 2.to assess the socio-economic situation; 3.to know who are the forest dependent HHs; 4.to identify women and men who could be useful for project work and responsibilities. 5.To get an idea of the number of women and men willing to work in project activities.	Social Development staff (SS)
<b>The FTU Co-ordinator should get the Notes of ward facilitators and GP mobilisers together, Consolidate them and make Record of this Visit</b>			
6	After each ward visit the SS should sit together and talk about what they have learnt and understood about the ward. The data collected to be consolidated and entered in the prescribed formats. The ward Facilitators should start developing a list of all the adult members of the HHs. It is important to find out how many of the adults (men & women) can or are willing to work in project activities.	This will help in common understanding about the ward among the SS and improve their confidence when they go next time to the village.	SS with FTU Co-ordinator
7.	In the next visit during PRA the SS should discuss with forest dependent HHs / with poor HHs project purpose again and note down questions that might be asked. Questions about forest related problems and possible solutions be	The purpose is to gain a deeper understanding of the situation in the ward/s, esp of forest dependent HHs or poor HHs. What their main occupation is, sources of their income?	SS with forest guard & SMS if possible

S. No	STEPS in the PROCESS	PURPOSE	WHO WILL DO
	<p>discussed. Grazing, fodder collection, Fuelwood collection done by which HHs in the forest and fodder, fuelwood deficiency assessment etc. After the visit, the SS should again sit down together and make a detailed note of what they have learnt and understood. This note should be shared with all the staff &amp; SMS. The data collected be added in prescribed formats.</p> <p>Repeat above for all wards identified.</p>	<p>Fuelwood, fodder consumption and deficit assessment .</p>	
<b>The FTU CO-rdinator &amp; SMS to Consolidate Information of all wards on prescibed formats.</b>			
8	<p>During the next visits to the ward (s), the SS need to organize Focus group discussions with women group, SC, ST, Poor vulnerable families, FRA group, Migratory graziers etc is required to be done to asses their situation. This is to be done by the SS.</p>	<p>The purpose of this exercise is to mobilize the women and other under prevailaged group, make them understand why their participation is important and to assess their problems and solutions and their priporities to solve the problem</p>	SS & SMS
<b>The SMS &amp; FTU coordinator to make Detailed Record of this Meeting &amp;fill the formats.</b>			
9	<p>Meeting amongst the SS, SMS and Technical staff. In this the data will be consolidated by entering or correcting in the prescibed formats and gaps found to be filled later.</p> <p>Potential User groups can be identified and noted.</p> <p>Discussions about situation in the ward can be finalized and a note made by the SMS in consultation with other SS.</p>	<p>This is to give all the SS and Technical staff a common and shared understanding of the ward/s, their concerns and doubts and potential of ward women to actively participate and benefit from project activities. Different Forest compartments where areas for treatment and management are to be taken can be allocated / divided among these groups, ward-wise. Data collected is put together in a computer.</p>	SS & ADMU/ SMS/ FTU /FTU CO-ordinator Forest Guard / Dy Ranger
10	<p>While the above process is being carried out by the SS, the ADMU/FTUalong with the forest guard and the DR to carry out meetings with men of these wards and also with elected people of the Panchayat. The timing of this meeting</p>	<p>This is to keep the men folk abreast of the developments, answer their questions, clear doubts and prepare them for participation in the FEMP development and VFDS. Also, express interest in</p>	Forest staff & Range Officer & SMS

S. No	STEPS in the PROCESS	PURPOSE	WHO WILL DO
	should suit most men of the village.	Groups they would may join	
<b>The Record of these Meetings will be made by the Forest Guard and SMS date-wise</b>			
11	In case a new VFDS is to be constituted, then at this stage a GH meeting is to be planned in consultation with the various groups and men / women. The role and functions of the VFDS and the EC has to be explained well to both the men and women members. In this GH meeting at least 60% attendance is required with 50% of this 60% being women. The FD and SS have to visit the HHs again prior to the GB meeting and both men and women groups persuaded to attend the GH.	The purpose is to: Elect the Executive Committee (EC) of the VFDS. The persons to be elected are: President, Vice President (one post for woman on rational basis), Member Secretary, Joint Secretary (woman), 4 members ( two females) , EX-OFFICIO: Deputy Ranger (Treasurer), Beat Forest Guard, Ward Panch, President mahila mandal,3 members from village level committeescontituted by other departments. The VFDS is then to be registered under the section 3 of the Societies registration Act, 1860 (Act No 21 of 1860) as per the PFM Regulation 2001.	The election should be presided over by an ACF or even DFO. The SMS, the SS and the FD staff should be present. The Pradhan and Panches should also be invited.
<b>Detailed Record of the General House Meeting with list of attendees made by Member Secretary and FTU/SMS. FTU officer will take action to Register the VFDS</b>			
12	The above process can take about 20 to 25 days for all villages in the FEMP. In the meanwhile, the FEMP draft would be ready. A meeting of the EC of the VFDS with participation open to all members. The FEMP approach and draft will be explained in this meeting. Thereafter, groups both of men and women need to be formed to visit the FEMP areas. The time required and dates fixed for this field visit. Working lunch needs to be provided by the PROJECT for the field visit.	The purpose is to ensure that there is good representation of both men and women in the field visit and that they understand what is being proposed in the FEMP and how they stand to benefit. Also, which group will be responsible for which work. Suggestions and modifications made during the field visit should be noted by the FD staff and the ADMU/SMS for inclusion in the FEMP later. Consensus on the various interventions proposed should be aimed at during this visit.	FD staff, SMS and SS

S. No	STEPS in the PROCESS	PURPOSE	WHO WILL DO
<b>The Record of this Meeting will be Made by the Forest Staff &amp; Social Side Staff/SMS</b>			
13	After visit to the FEMP site, a meeting of the Micro-planning group and the EC along with the FD & SS staff to finalize the FEMP. The revised draft FEMP should be discussed and agreed to. Also, other issues related to the micro-plan like responsibilities and benefit sharing arrangements should be agreed to and suggestions for CDAs, Wildlife Conflict management, monitoring mechanisms etc. discussed and agreed to in this meeting.	This meeting will vet the revised interventions (if any) proposed in the FEMP and also agree to provisions and arrangements agreed for the micro plan in the meeting.	EC, FD and SS
<b>All decisions will be recorded by the FTU Cordinator/ Fgd/ MS and the SMS for incorporation into the micro-plan and the MoA.</b>			
14	The draft final FEMP and CD&LIP will then be merged into the draft MP by the ADMU /SMS and the micro planning group of the EC, FD and SS who may want to be associated. Once ready a <b>GH meeting will</b> be convened by the Member Secretary (MS). The SS and the FD must ensure that there is 60% attendance of all eligible members in this GH.	The draft FEMP & CD&LIP will be presented to the GH and their approval (by voice vote) sought. The draft MoU or MoA will also be presented in this meeting for approval of the GH. Members and staff associated with the making of the FEMP can offer suggestions also.	The In charge DMU , ADMU, FTU and other field staff of the FD, all the SS including the SMS and the EC and MS.
<b>Records to be kept by FTO Co-ordinator , SMS with help of FTU staff. MS will also keep record of this meeting.</b>			
15	The approved FEMP along with the MoA will be then consolidated into a single document and sent to the DFO by the EC through FTU/SMS. The Incharge DMU will scrutinize the FEMP, CD&LIP of MP as per indicators developed before acceptance and approval of the FEMP technically and also seek financial approval for it from the PMU	To finalize the FEMP and submit for approval of competent authority. The final MP(FEMP,CD&LIP) will include all required annexures and records of General House meetings and process documentation made by the SS and the FD staff.	Principally this would be the responsibility of the ADMU/SMS.
16	VFDS Registration under Societies Registration Act ,1860 ( Act No 21 of 1860)	Legal sanctity to VFDS	VFDS and FD staff
17	VFDS account opening	Two accouts In Nationalized bank or Scheduled Bank, /Co-operative bank or post office by president in the name of VFDS to be operated	President, secretary treasurer and other FD staff

S. No	STEPS in the PROCESS	PURPOSE	WHO WILL DO
		by joint signature of President & Treasurer of VFDS.	

### 13.1 Records to be Maintained at Each Step of FEMP Planning Process

#### Records to be Maintained during FEMP Planning Process

Steps	Records to be Made/Formats to be Used, ALL DATE WISE
1, 2 & 3	Names, mobile numbers of Pradhan, Panchayat Secretary, Panches of different Wards to be noted; List of wards in Gram Panchyat; Population: Male, Female, SC, ST, ; Ward wise BPL HHs; Govt infrastructure available like schools, dispensary, post office, forest area, grazing area etc.
4	Internal meeting of PMU/DMU , SMS, Forest Staff and SS. Project Aims and Objectives to be discussed and main points written down for use by field staff. List of benefits to people to be developed.
5	SS to Collect data using PRA /RRA ; Fill Register of Adult members HH wise, giving name and age ; <b>Use Format No 1</b> Ask about their families, castes, their livelihoods, livestock, children and general problems they face like electricity, gas supply, water and health facilities, groups already made in the village(s) etc. Time spend by women on work daily, Tree species they prefer for fodder, do they sell milk, vegetables etc. <b>Fill data in Prescribed formats in Microplanning guidelines.</b>
6	Internal meeting of SS with SMS/ADMU to assess the situation ward-wise. Discuss on gaps in people understanding about project and in the data collected? Number of HHs that are dependent on forests, list of forest produce they collect, for consumption or for marketing and in which seasons? How many women and men are willing to work in project related activities ward-wise?
7	SS during PRA exercises list the main Forest Dependent HHs and discuss with them resource available and utilization details and deficiency details with groups; views of women and men on forestry aspects be discussed separately and finalized in plenary. <b>Update Formats related to FEMP preparation.</b> <i>Also add left out HHs to the Register of Adult members for each ward; <b>FORMAT No 1</b></i>
8	<b>DATA TO BE RECORDED ON THE FORMAT</b> prescribed in Microplanning guidelines by FTU C-ordinators for women's groups and other groups ; Register of Adult members to be checked and consolidated. Data on tentative groups to be collected by SS.
9	Internal meeting in which the Forest & SS will discuss and tentatively constitute various groups to take up different areas for plantation work / management and the intervention plots allocated tentatively. Microplanning incomplete formats to be completed in this meeting.
10	Data on consultations with Men also to be recorded in FEMP formats by the FTU officer/ Forest Guard/ FTU Co-ordinator.
11	The GS meeting to be presided by ADMU/FTU. The record of the election, minutes of points / issues discussed, the formalization of different User Groups and names and signatures of all adult members attending recorded by the FTU Co-ord., SS and Forest staff. The full list of all members and of those who attended and voted must be attached with this record and signed by SMS&FTU.

Steps	Records to be Made/Formats to be Used, ALL DATE WISE
12	This is the first meeting of the EC and others interested members with the FD & SS. The record will be kept by the forest guard and the FTU Coordinators. EC Proceedings are to be maintained <i>as per format no.3</i> .
13	This Step has 2 parts. One is the field visit to the FEMP treatment sites and the second is the discussions and agreement with the EC to finalize the FEMP and amend it. The record of comments / suggestions / modifications suggested by EC and other members will be recorded treatment plot No wise, by the FD staff and the SS. The FTU, SMS&FTU Co-ordinator must be present during this field visit. The next day a meeting is to be held with the EC and the Micro Planning group to discuss and agree to changes in the FEMP. Responsibilities of each User Group and benefits accruing to them should be understood and agreed to in this meeting. Other issues like CDAs, Wildlife conflict mitigation, Forest dwellers plan, /VSTP, Monitoring and reporting etc. should also be discussed, doubts removed and agreement reached. This is an IMPORTANT meeting and its record should be kept by both the FTU and the SMS with help of their staff. The MS will keep the record on behalf of the EC.
14	The draft final FEMP and the draft final CD&LIP are merged / consolidated into one document – the MP. This is to be done by the ADMU/SMS with the help of FD and SS. The FEMP will include all the data collected and consolidated in Tables, the maps required for the FEMP, the composition of various User Groups, the roles and responsibilities of each group and the areas allocated to them plotwise, the arrangements for benefit sharing. The MP (FEMP& CD&LIP) will have a detailed budget as per norms for various activities along with maintenance cost. The FEMP is then okayed by the EC and presented in a GH meeting for approval of the General House. The quorum of 60% attendance of members is necessary in this meeting to approve the FEMP. The record of this meeting will be made by the SMS, SS and FD staff.
15	The MP(FEMP& CD&LIP) approved by the GH will then be sent to the DFO for approval, by the EC of the VFDS
16	VFDS Registration by FTU Staff
17	VFDS account opening by President VFDS and FD staff <i>Two accounts are to be opened one for implementing FEMP activities and second account for implementing CD&amp; LIP (Community Development &amp; Livelihood activities Plan)</i>

### 13.2 Formats for Record Maintenance of FEMP Planning Process

All formats required for preparing FEMP have been described in Micro plan templates / Micro planning guidelines issued by this project earlier. In addition, some formats which are shown below can help in preparing FEMP part of Micro Plan.

#### Format No. 1: Register of Adult Members

Name of ward	S No	Name of Head of HH	Name of Adult (s)	SEX (M/F)	DOB/ Age
Ward 1	1				
	2				
	3				



**Format No.2 : record of Committee members**

.....VFDS/BMC Sub committees GP.....  
 Ward..... Tehsil.....Range .....

Division.....District.....

S. No.	S. no. of membership	Date	Name of Member/name of Father/ Spouse	Caste	Gender	Date of birth	Age	Profession	Signature
1	2	3	4	5	6	7	8	9	10

**Format No 3: Proceedings Register of EC**

.....VFDS; Name of Beat.....  
 Division.....Date of Proceeding.....  
 Time..... Venue.....

Agenda	Description of Discussion	Decision
1.	1.	1.
2.	2.	2.
3.	3.	3.

**List of EC Members**

S No	Name and Designation	Signature
1		
2		
3		
4		
5		

Signature Stamp

Signature

Member Secretary

President / Vice P

**Format No 4: Receipt for membership fees or any other income**

.....Village Forest Development Committee

Receipt Number..... Date.....

Received of Rs ..... from Sh/Smt/km ..... Son/Wife/Sh.  
.....

For membership fee/penalty/forest produce sales.

Treasurer/Member Secretary

# Annexures

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## HP Participatory Forest Management Regulations (2001)

(Authoritative English text of this Department Notification No. Fts-II (B)-15-10/87 Dated 23.8.2001 as required under clause (3) of Article 348 of the Constitution of India)

### Notification

No. Fts. II (B) 15- 10/87

Dated 23.08.2001

In exercise of the powers conferred under Sections 80 read with section 81 of the Indian Forest Act, 1927 (Act No. XVI of 1927), the Governor of Himachal Pradesh is pleased to make the following regulations, namely:

### 1. Short title, application and commencement

- a. These regulations may be called the Himachal Pradesh Participatory Forest Management Regulations, 2001.
- b. They shall apply to such Government forests and such Government lands including the common land, which shall be selected jointly for Participatory Forest management by the Society and the Department.
- c. They shall come into force from the date of publication in Rajpatra, Himachal Pradesh.

### 2. Definitions- In these rules, unless there is anything repugnant in the subject or context,

- a) “**Act**” means The Indian Forest Act, 1927, (Act No.16 of 1927) as amended in its application to Himachal Pradesh;
- b) “**Conflict Resolution Group**” means a group consisting of a representative of the concerned Gram Panchayat, a representative of the local non-government organizations or local community based organizations and the concerned Assistant Conservator of Forests;
- c) “**Common land**”, “**family**”, “**Gram Panchayat**”, “**Panch**”, “**Pradhan**”, “**Village**” and “**Ward**” shall have the meanings respectively assigned to them in the Himachal Pradesh Panchayati Raj Act, 1994 (Act No.4 of 1994);
- d) “**Department**” means the Himachal Pradesh Forest Department.
- e) “**Divisional Forest Officer**” means the forest officer in-charge of a territorial or wildlife forest division of the Department;
- f) “**Executive Committee**” means executive body of the Society;
- g) “**Forest Officer**” means a Forest Officer as defined under sub-section (2) of section 2 of the Act;
- h) “**General House**”, means General House of the Society;
- i) “**Government**” means Government of Himachal Pradesh;
- j) “**Grazier group**” means a group of persons, whether resident members or migratory graziers, who are dependent on the grazing resource in the selected area for meeting their livelihood needs;
- k) “**Micro-plan**” means a holistic forest management and development plan of the area selected for participatory management;

- l) **“participatory forest management”** means management of Government forest and Government land including common land managed jointly by the Society and by the Department;
- m) **“selected area”** means any Government forest and Government land including common land selected under regulation 3 of these Regulations;
- n) **“self-help group”** means any organized group of persons, who collectively by mutual help are able to enhance their economic status through resource based activities;
- o) **“site specific plan”** means a sub component of the micro-plan which is a technically appropriate plan for the site;
- p) **“Society”** means village forest development society registered under section 3 of the Societies Registration Act,1860 (Act No.21 of 1860) (or HP Societies Registration Act, 2006) for participatory forest management;
- q) **“sustainable forest management”** means management which is economically viable, environmentally benign and socially beneficial, and which balances present and future needs; and
- r) **“user group”** means a group of persons dependent upon a common natural resource for sustaining its livelihood need

### 3. Intent of Participatory Forest Management

- 1 On an application made to the Divisional Forest Officer signed by at least 50 percent of the voters of a Gram Panchayat Ward, any Government forest and Government land including common land may be brought under participatory forest management. The land so identified shall be known as selected areas.
- 2 In accordance with the wider objectives and plans of Government for sustainable forest management, the selected area shall be managed jointly by the Society and the Department on the terms and conditions of an agreement to be entered between the Society and the Department.

### 4. Village Forest Development Society.

- 1 There shall be a Society for a Gram Panchayat Ward. However, where the Ward is not compact and the hamlets within it do not have common forests, common grazing lands, common rights and concessions, more than one Society may be formed for each cluster of hamlets. The Society shall be registered under section 3 of the Societies’ Registration Act, 1860 (Act No.21 of 1860).
- 2 All voters of a Gram Panchayat Ward shall be entitled to be enrolled as members of the Society.

### 5. Constitution of Executive Committee of the Society. The Executive Committee shall consist of

(a)	President	-	to be elected by General House;
(b)	Vice President	-	to be elected by General House;
(c)	Four Members	-	to be elected by General House
(d)	Treasurer	-	to be nominated by the elected members from amongst the members of the Society;
(e)	Joint Secretary (woman)	-	-do-
(f)	Ward Panch	-	ex-officio member;
(g)	President– Mahila Mandal	-	-do-
(h)	Representative - Local women group	-	-do-

(i)	Three Members	-	to be co-opted from the village level committees constituted by other departments of the Government, societies registered under the Societies Registration Act, 1860, (Act No.21 of 1860); user groups, self-help group and grazier group;
(j)	Member-Secretary	-	to be elected by the General House.

Provided that at least 7 members of the Executive Committee shall be amongst the women. Joint Secretary shall assist the Member-Secretary.

6. **Term of office of members of the Executive Committee.** Elected members of the Executive Committee shall hold office for a period of two years from the date of assumption of office.
7. **Powers of the Executive Committee:** Elected members of the Executive Committee shall hold office for a period of two years from the date of assumption of office.
8. **Usufruct Sharing:** The Society shall be entitled to the following benefits, namely:
  - (a) to collect the yield such as fallen twigs, branches, loppings, grass, fruits, flowers, seeds, leaf fodder and non timber forests products free of cost;
  - (b) to the sale proceeds of all intermediate harvest, subject to protection of forest and plantations for at least 3 years from the date of agreement;
  - (c) to organize and promote vocational activities related to forest produce and land; and other activities such as promotion of self-help groups which may provide direct benefits, including micro-lending to women. None of the activities so promoted shall affect the legal status of the forest land;
  - (d) recorded rights over the forest shall not be affected by these benefits;
  - (e) the Government shall charge no royalty on the forest produce within the selected area;
  - (f) after 5 years, the Society may expand the area, on the basis of a fresh agreement deed, by inclusion of adjoining or nearby areas;
  - (g) after 20 years from the date of agreement and, based on the principles of sustained forest management, 75 percent of the net sale proceeds from the selected area shall be put into the account of Society and the remaining 25 percent of the net sale proceeds shall go to the concerned Gram Panchayat; and
  - (h) to utilize at least 40 percent of the sale proceeds on forest regeneration activities including soil and water conservation.

Provided that for the purpose of usufruct sharing family shall be one unit.

9. **Funds:** Funds shall be generated by the Society through contributions by members and sale of usufructs under these regulations. All funds, including those received from the Government, Gram Panchayats and non-government sources, shall be utilized through the micro-planning process.
10. **Maintenance of accounts:** The sum received by the Society shall be deposited in the name of the concerned Society in a nationalized bank or scheduled bank or co-operative bank or post office and the account shall be operated under the signatures of the President, Treasurer and Member-Secretary of the Society.
11. **Grant-In-Aid:** The department shall release Grant-In- Aid to the Society under the Grant-In-Aid Rules subject to the availability of funds and satisfactory performance of functions by the Society.

- 12. Settlement of dispute:** In case of any dispute in relation to usufruct sharing in the Society, the Deputy Ranger concerned of the Department, shall take steps to reconcile the dispute. In case the dispute is not resolved, the Deputy Ranger shall refer the dispute, along with his report to the Ranger Officer concerned of the Department. The Range Officer, after hearing the parties, shall resolve the dispute within 30 days from the date of receipt of report of the Deputy Ranger.
- 13. Appeal:** An appeal shall lie from the decision of the Range Officer the Conflict Resolution Group to be filed within 30 days from the date of decision, who shall decide the same within 60 days from the date of filing of appeal, after affording an opportunity of being heard to the parties. The decision of the Conflict Resolution Group shall be final and binding on the parties. The Conflict Resolution Group shall send a copy of the decision to the Society and the Divisional Forest Officer concerned free of cost.
- 14. Preparation of micro-plans:**
- 1 A micro-plan shall be prepared for the holistic forest management and development of the selected area, by the Society. The Department shall help the Society in preparation of the micro-plan. A micro-plan shall be operative for a period of five years from the date of its approval by the Divisional Forest Officer and may be revised after three years. The micro-plan shall be passed in the general house with at least 60 percent majority of the members present.
  - 2 The Divisional Forest Officer may approve whole or part of the micro-plan.
- 15. Powers of the Government** - Notwithstanding anything contained in these regulations, the Government shall have the powers to issue directions to the Society on participatory forest management processes, micro-planning, co-ordination, monitoring, grant-in-aid and implementation mechanisms.

**By order**

FC- cum-Secretary (Forests) to the  
Government of Himachal Pradesh

### Micro Plan Assessment Criteria for Financing and Sanctioning

DMU..... FTU.....

Beat.....

GP..... VFDS .....

S. No.	Assessment Criteria	Achievement DD/MM/Year	Status at the time Applying for Approval
	<b>Process related</b>		
1.	GP Level and ward level awareness done		
2.	GP consent /ward consent to work with project obtained		
3.	VFDS formed/Executive committee constituted		
4.	VFDS registered		
5.	MOU signed between DMU and VFDS for undertaking micro planning and implementation		
6.	EC 1st meeting held to explain their role and responsibilities.		
7.	VFDS account opened		
8.	Percent of households represented in micro planning process (App.)		
9.	Percent of women participants involved in micro planning process (App.)		
10.	Collected information crosschecked and updated in general assembly		
11.	Women, poor, youth and other communities were involved in micro planning process		
12.	VFDS involved in information analysis and finalizing key emerging activities		
13.	Micro plan (FEMP, CD&LIP) approved by VFDS in general assembly and confirmed by executive committee		
14.	Formats prescribed for MP(FEMP, CD&LIP) used by social and technical staff		
15.	Total amount of FEMP, CD&LIP and convergence mentioned in MP		
16.	Days taken to complete MP (FEMP, CD&LIP)		
17.	Micro Plan submitted by FTU to DMU		



S. No.	Assessment Criteria	Achievement DD/MM/Year	Status at the time Applying for Approval
18.	Micro plan approved by the Head of DMU		
	<b>Output related</b>		
19.	List of Executive Committee members attached		
20	VFDS contribution is there		
21	Are FEMP and CD&LIP activities in line with project objectives		
22	Livelihood activities checked for initial technical feasibility and economic viability by micro planning team		
23	Convergence activities included		
24	VFDS training and capacity building aspect included		
25	Costing of FEMP, CD&LIP Checked by DMU		
26	Micro plan includes adversely affected households/group, if any		
27	PRA tools, wellbeing analysis, VFDS resolution, maps of FEMP and other documents are annexed		
28	Sources of secondary information mentioned in the micro plan		

**Assessed by FMU**

**Recommended by DMU**

**Approved by PMU**

## POSSIBLE COMMUNITY DEVELOPMENT ACTIVITIES

- 1) **Community Farm Ponds-Cost Sharing Basis:** Community farm ponds, dug out ponds of variable size, depending of land availability, and will have a HD polythene sheet and a drainage leading into the pond to collect rain run-off. Repair and improvement of existing water tanks / bodies within the VFDS area, esp. for surplus overflow from Springs;
- 2) **Fodder & Firewood Species on Pvt. Lands-Incentivise:** Tall plants of favoured species like walnut, Reetha, Chuli, etc (fuel, fodder and Income Generating Forestry spp.) can be made available to villagers under VFDS and a token amount/ incentive can be given to the people who are interested in raising the plants on their private land.
- 3) **Improved Cook Stoves/LPG** for Poor Households/Solar Water Heaters & Cooking Devices/Hamams and Improved Tandoors etc can be provided to interested members of f high altitude areas VFDS - on Cost sharing basis. If required local NGO can be involved.
- 4) **Roof Rain Water Harvesting in VFDS villages** – On Cost-Sharing Basis: this activity can be done as a group initiative (adjoining houses can have a common tank); in School, community centre etc, this will be further taken as convergence activity with similar Rural Development schemes.
- 5) **Vermi-Composting as SHG or Individual Enterprises:** (The vermi-compost will be bought by project supported nurseries); There is also market for vermi-compost among cash crop growers and orchardists; (chir pine needles when decomposed for a few months in a pit can be made into vc; the needles collected by villagers as fire prevention measures can be used for this. The leaves of Lantana can also be used for partial composting and then vermi-composting).
- 6) **Use of Chir pine needles rolled** in nylon nets, in reducing flow of water in seasonal streams to reduce soil erosion and increase percolation. Chir needles are bundled / compacted into nylon nets about 1 or 1.5 m long and then ‘pegged’ across streams at 1 or 2 m intervals.
- 7) **Inland fisheries,** User group or individual initiatives, project to help with involving/ pursuing with Fisheries dept./ Animal Husbandry Department (Convergence possibilities).
- 8) **Briquette making:** Lantana char has been used for making briquettes. When mixed with char of species like *Acacia nilotica* (Kikar), the calorific value of the briquettes improves substantially and these can then be sold in the market. This is a good IG enterprise and SHGs can collaborate with an NGO with experience in this area.
9. **Raising grass tufts on agricultural bunds:** - Grass tufts would be supplied to interested members of VFDS on demand free of cost. This will improve fodder deficiency and add nutritional value in the available fodder to the local animals.
10. **Silage and Haylage making:** - This activity will help in providing stored fodder to animals in lean period.

**Signed MoU (VFDS and DMU-Cum-DFO)**

**Project for Improvement of Himachal Pradesh Forest Ecosystems**  
**Management and Livelihoods**

**Memorandum of Understanding**

Between

The \_\_\_\_\_ Village Forest Development Society/ BMC Sub Committee

and

The Forest Department (represented by DFO \_\_\_\_\_) for Participatory Forest Management.

Whereas

- The.....Village Forest Development Society/ BMC Sub-Committee (hereinafter called “Society”)has been constituted as per procedure described in the HP PFM Regulations notified by Govt. of HP vide No. FFE-C (9) 1/2001 dated 23.8.2001 and vide No.FFE-B-F (5) 5/2016- Part III dated 19.11.2018, by the Villagersof-----Village Forest Development Society/BMC Sub-Committeein district .....and Forest Division .....of Himachal Pradesh and has an elected Executive Committee (hereinafter called“EC”);
- as part of the Japan International cooperation Agency (JICA) supported “Project For Improvement of Himachal Pradesh Forest Ecosystems Management and livelihoods”(hereinaftercalled“Project”)the Micro plan (Forest Ecosystems Management Plan& Community Development & Livelihood Improvement Plan) for ForestManagementand Community Development(hereinaftercalled“Plan”) for Forest protection, rehabilitation and management of the specified forest areas has been jointly prepared by the SocietyandtheForest Division;
- the Plan contains details of program for conservation, management and development of forest areas, Biodiversity conservation, Livelihood improvement works and also the description of equitable distribution of usufructs obtained from allocated forest areas and public resources of the ward/village;
- the Plan has been approved by the Officer in Charge of the .....Forest Division (here- inafter called “Forest Officer”) on behalf of Government of Himachal Pradesh;

Now herewith

The\_\_\_\_\_Forest Division and the Society have mutually agreed on this MoU, and consequently, this MoU is executed with the followingarticles:

**1. Purpose of the Memorandum of Understanding**

This Memorandum of Understanding (hereinafter called “MoU”) details the responsibilities of the Society regarding management and protection of forest area(s) and village(s) resource development, in the manner specified in the Plan and for equitable distribution of benefits amongst its members. It further details payments and support to be provided by the project and the associated conditions.

**2. Responsibilities of the Society**

- 2.1. With regard to its Constitution, working, powers, duties and benefits, the Society agrees to act in accordance with the HP Government Notification No. FFE-B-F (9) 1/2001 dated 23.8.2001 and vide No.FFE-B-F (5) 5/2016- Part- III dated 19.11.2018, and other relevant Government orders andinstructions.

- 2.2. The Society agrees to provide all necessary assistance to the Forest Officer in selection of forest area(s) to be allotted to it for forest management and development so that there is no dispute regarding areas of common use of nearby villages.
- 2.3. The Society agrees to prepare and submit general house approved, quarterly physical & financial plans with budget requirements to FTU concerned for releasing funds after Plan's approval from PMU.
- 2.4. The Society agrees to identify Community Development Activities (CDAs) in conformity with the CDA guidelines, decide on these through a consultative process and implement them according to the relevant standards as applicable.
- 2.5. The Society agrees to carry out works laid out in the Plan for the forest area (such as planting, fencing, maintenance and protection) and in doing so, follow the principles of management of forest and wildlife specified therein, also taking into account the guidelines of the Government, prevalent legal provisions and technical principles. The Society will ensure that no existing acts/rules of forest/wildlife management are being violated.
- 2.6. The Society agrees to contribute membership fee through its members/user groups. The amount with interest will be available to VFDS/BMC (Sub-Committee) after project closure and can be used by VFDS/BMC (Sub-Committee) consensus. The amount deposition to be done within six months.
- 2.7. The Society agrees, after completion of the related works, to protect the forest area from fire, illicit grazing, illicit felling, illicit transport, illicit mining, encroachment and poaching and shall help the forest department in this regard.
- 2.8. The Society agrees to pass the information regarding person(s) engaged in harming the wild animals and forests or those engaged in illegal activities on to the Forest Department. The Society agrees to help forest employees in apprehending such person(s) and provide all possible assistance in protecting any seized produce etc.
- 2.9. The Society agrees to rectify any shortcomings found during review of its works by the Forest Officer/monitoring agency.
- 2.10. The Society agrees to keep accounts of income and expenditure of the funds from various sources and also to get regular annual audits done by the agency assigned by the Forest Officer.
- 2.11. The Society agrees to maintain the records specified by the project regularly and in prescribed formats.
- 2.12. The Society agrees that the distribution of products and services generated as a result of implementation of the Plan among its members/User Groups is done in an equitable manner. If the Forest Officer points out any mismanagement or irregularity in the equitable distribution of such products and services, then the Society agrees to implement the necessary corrections/improvement suggested by the Forest Officer.
- 2.13. Society agrees to ensure that there will be no mis utilization of funds provided by Forest Department for implementing project activities.
- 2.14. Society will open two accounts of VFDS/BMC (Sub-Committee), One for FEMP implementation (FE Account) and second one as revolving fund under Livelihood activities (CD&LI Account).

2.15. The funds and maintenance of account would be in accordance with Para-36 to 43 of the Bye-laws notified by Govt. on dated 19-11-2018 for VFDS under the Project.

### 3. Responsibilities of the Forest Department

- 3.1. The Forest Department will provide to the Society the related input materials required to carry out the works specified in the Plan, such as saplings, fencing materials, etc. in a timely manner.
- 3.2. The Forest Department will provide the payments specified in the Plan to the Society for implementation of works carried out in the forest area on the basis of the Plan in a timely manner. The Society to prepare and submit general house approved, six monthly physical & financial plans with budget requirements to DMU through FTU concerned for release of funds. DMU to release the fund to the VFDS/BMC (Sub-Committee)
- 3.3. Funds from other department's schemes as the Panchayat may be able to garner/ converge, may also be used for activities that help meet the project's objectives.
- 3.4. The Forest Department shall provide the necessary advice and guidance to the Society for implementation of works carried out in the forest area on the basis of the Plan.
- 3.5. The Forest Department shall NOT be responsible for any loss in any of the works related to implementation of the Plan and no claim of any sort can be presented against Forest Department.
- 3.6. Forest Department will take legal action against any mis appropriation of fund by VFDS/BMC (Sub-Committee).

### 4. Support by the Project

- 4.1. The Project will provide funds for Community Development & Livelihood activities (CDAs) identified by the Society and in conformity with the CD&LIP guidelines, which will be implemented by the Society.
- 4.2. The Project will provide to the Society if required the related input/materials required to carry out the works specified in the Plan, such as saplings, fencing materials, etc. in the required qualities and quantities.
- 4.3. The Project will provide to the Society the payments specified in the Plan for implementation of works carried out in the PFM area on the basis of the Plan.
- 4.4. The Project will provide to the Society members training and other capacity building measures, as well as support for income generating activities as specified in the Plan.
- 4.5. The funds earmarked for Plantations, soil and water conservation, Biodiversity conservation etc., will be credited into the VFDS/BMC (Sub-Committee) bank account according to six-month plan requirement (prepared from Micro plan) of VFDS/BMC (Sub-Committee). In addition, VFDS/BMC (Sub-Committee) to open an account for Livelihood activities.
- 4.6. Payment and receipt of project funds will be strictly by means of cheques online payment/RTGS etc. or bank transfers to the account of the Society. Society will further distribute fund similarly.

### 5. Rights and Benefit Sharing

- 5.1. The **Rights** of right holders as admitted in the Forest Settlement will remain unaffected due to constitution of the Society and will continue to be exercised as heretofore.

5.2. The **Benefits** which Society members and their user groups will be entitled to after closure of plots / patches in the forest for various project interventions are as follows:

- i) to collect the yield such as fallen twigs, branches, loppings, grass, bamboos, fruits, flowers, seeds, leaf fodder and non-timber forest products free of cost through individual or collective arrangements as decided by the Society;
- ii) to the sale proceeds of all intermediate harvest, subject to protection of forest and plantations for at least 3 years from the date of agreement;
- iii) to organize and promote vocational activities related to forest produce and land; and other activities such as promotion of self-help groups which may provide direct benefits, including micro-lending to women. None of the activities so promoted shall affect the legal status of the forest land;
- iv) recorded rights over the forest shall not be affected by these benefits;
- v) after 5 years, the Society may expand the area, on the basis of a fresh agreement deed, by inclusion of adjoining or nearby areas;
- vi) to utilize at least 40 percent of the sale proceeds on forest regeneration activities including soil and water conservation.

*Provided that for the purpose of usufruct, the usufruct sharing family shall be one unit.*

5.3 The Society will be entitled to their share of payments from intermediate and final felling, whenever they take place in this forest, as laid out in the PFM Regulations of HP, 2001.

## **6. Monitoring & Evaluation**

- 6.1. Monitoring and Evaluation of project activities will be done at different levels, including by the EC, a participatory monitoring committee and an independent third party apart from Project authorities.
- 6.2. The EC of VFDS/BMC (Sub-Committee) or any of its members will monitor progress and quality of work during execution of various works. The Member Secretary will record the date, places and names of EC members who checked the work(s) and whether works were satisfactory and any instructions given.
- 6.3. A participatory monitoring committee made up of members of the Society, a member from the Panchayat as well as a representative from the Forest Department (e.g. Deputy RO) will on quarterly basis review objectives, inputs and work progress and report to the whole Society. Their reports will then be sent to the Forest Officer for further action.
- 6.4. Where Society groups have carried out or are responsible for activities like social fencing, fire prevention, plantations or maintenance of plantations, annual monitoring will be carried out by Project-approved monitors (Third Party) and the results of this monitoring linked to release of payments a) for social fencing in lieu of barbed wire fencing, b) for fire prevention as specified in the Plan and c) for survival in forest plantations as given in the agreed to norms for that activity.
- 6.5. Settlement of Disputes: Settlement of disputes and conflict resolution will be governed as laid out under para 47, 48 and 49 of the Bye Laws notified by GoHP.

### Memorandum of Understanding

We are aware that the benefits mentioned in this agreement shall be available to the Society only when it discharges its duties, responsibilities and works in a satisfactory manner and this is certified by the Forest Officer every year. However, if the Forest Officer fails to fulfil conditions mentioned in para 3 and 4 of this agreement and this is a cause for the Committee not able to discharge its responsibilities and works, then it will be kept in mind while evaluating the works of the Committee every year.

I \_\_\_\_\_, President, \_\_\_\_\_ Joint VFDS/BMC (Sub-Committee), declare on behalf of the Society, that I am committed to follow all the conditions mentioned in this MoU and am signing this memo after reading/understanding all conditions mentioned herein, literally and in their original meaning.

(Name and Signature of the President)

Divisional Forest Officer

On behalf of VFDS/BMC (Sub-Committee)

\_\_\_\_\_ Forest Division  
(on behalf of HPFD)

Witnesses: Village Forest Development Society/BMC (Sub-Committee)

and

The Forest Department for Participatory Forest Management.

1.

2.

3.

4.

I, \_\_\_\_\_, \_\_\_\_\_ [position] undertake, on behalf of

\_\_\_\_\_ Forest Department, to implement all duties/responsibilities of the Forest Department mentioned in this memorandum.

(Name and Signature of the Divisional Forest Officer or other officer authorized by him) On behalf of \_\_\_\_\_ Forest Department



## **Annexure -5**

### **Project Models (Forestry and Soil & Water Conservation)**

# Potential Soil & Water Conservation Works

## 1. Basic Concept of SWC Works

Basic concept of SWC is shown below.

### 1.1 Purpose

The purposes of SWC Works are shown below.

- 1) Improve degraded forest land,
- 2) Improve soil, water and soil moisture condition of afforestation area,
- 3) Improve soil, water and soil moisture condition of forest and rangeland, and
- 4) Restore landslides

### 1.2 Necessity

There are some types of degraded forest land caused by; i) erosion, ii) dry condition, iii) land slide. The measures to improve soil, water and soil moisture condition is crucial to reverse such degraded forest land to healthy forest land.

### 1.3 Background

The forest areas in HP have mostly steep slope and vulnerable geologic character. Also, the climate condition in the central and lower regions in the State shows dry, in the medium elevation area many heavy rains in the rainy season, in the high elevation area except cold desert area the rain fall is very less and it is very dry, and mostly no rainfall and very cold climate in the cold desert area.

Due to such sever condition of topographic, geologic and climate feature in HP, the forest land is very vulnerable and damaged easily. Therefore, the human intervention to resolve the damaged forest lands is crucially important.

## 2. SWC Works

### 2.1 List of SWC Works Measures

The necessary measures are listed below based on the evaluation of all measures listed in “Manual on Soil and Water Conservation with focus on Watershed Management, HPFD, 2017”. Also, The JICA study Team observed some SWC Works in visited Divisions and check their actual condition. Based on these evaluations of SWC Works above, the necessary measures are listed as below.

**Table 2.1 List of SWC Works Measures for the Project**

Category		Place	Measures	Purpose or Functions
I. Soil and water conservation measures	(1) Bio-engineering measures	Slope	Contour wattling [live hedge, which is composed with trench, banking, planting on banking]	-Restore eroded condition -Improve water and soil moisture condition -Improve survival ratio of planted seedlings by those above
		Small stream or gully	Vegetated Palisade Wall	-Catch and save the debris behind -Generate stable condition for vegetation
		Small stream	Live check dam Brush wood check dam	-Improve water and soil moisture condition by above
	(2) Mechanical measures	Small stream	Dry stone check dam Gabion check dam	
		Lower stream	Gabion/ Masonry/ Concrete drop structure	-Catch and save the debris and water behind the dam
			Masonry/concrete drop structure with apron	-Generate stable condition for vegetation
		Silt detention structure (concrete)	-Improve water and soil moisture condition by above	

Category		Place	Measures	Purpose or Functions
I. Soil and water conservation measures	(1) Bio-engineering measures	Slope	Contour wattling [live hedge, which is composed with trench, banking, planting on banking]	-Restore eroded condition -Improve water and soil moisture condition -Improve survival ratio of planted seedlings by those above
		Dry hill	Concrete/ masonry pond	-Catch water in the pond -Improve water and soil moisture condition -Provide water to animals
II. Measures for landslide control	Land slide triggered by weak geology	Landslide	Combination of: (a) Retaining wall (b) Series of staggered retaining walls on the slope (c) Geo-jute (d) Log crib (e) Gunny bag	-Restore eroded condition -Stabilize the slope -Generate vegetation bases -Realize stable slope and recovery by the vegetation by above

Source: JICA Study Team (2017)

[SWC Works for landslide caused by road opening] & [SWC Works for typical type of landslip]

The SWC Works, which will tackle i) the landslide<sup>2</sup> caused by road opening and ii) landslip, are described in the Manual by HPFD 2017.

However, these will not be taken for the Project. The reasons are:

The landslide caused by road opening is very often found in HP state because of steep topography, vulnerable geology, and sever weather condition. The recovery of the landslide along the road is one of the most important issues of the Government.

The responsibility for restoration of the landslide caused by road opening shall be owned by the road department basically. And HPFD's responsibility is treatment of the degraded forest area instead of road area. In accordance with HPFD, the demarcation of the responsibility related to the landslide caused by the road opening is described as; the road area shall be restored by the road department, and the landslide on the forest area will be restored by the forest department.

On the other hand, based on the Manual and achievements by the forest department, the measures are considered as weak much to protect the road, because most of the structures constructed by the forest department are dray stone walls or dry stone walls with wire. These are not strong enough as measures which protect such important property includes human lives. Usually, for such protection purpose, the structures shall be constructed by concrete or masonry, at least gabion structures. However, the most of HPFD experiences of works, these have not been taken before. Additionally, the dry stone wall with GI (galvanized iron) wire is not same as gabion. The single knot of the wire, which is used by HPFD normally as stone wall with wire, can not be used for disaster prevention work in accordance with technical guideline of the Public Work Department. Generally the gabion net is prepared at factories with double knot and transported to the construction sites. Therefore, the dry stone wall with GI wire and gabion wall is quite different. *And HPFD doesn't have much experiences of construction of masonry or concrete walls on the landslide. Therefore, it is expected for the HPFD to improve their technical capacity for such civil engineering field, then start these works in the near future.*

For the typical type of the landslip, **any SWC Works will not be taken** for the Project based on the reasons below.

- Restoration of the typical type of landslip requires detail study with topographic survey, water

<sup>2</sup>The definition of "landslip" in the Manual by HPFD 2017 is called as "landslide" and the land slide in the manual is called as "slope failure" generally. However, in this report words in the manual are used.

channel observation, geology study, boring tests, analysis water flow system, slope stability analysis, comparison analysis with some case of works, etc.

- After the detail study above, detail design work shall be taken.
- Unfortunately, HPFD doesn't have civil engineers or specialists for those works above.
- The study takes long time period with much costs.

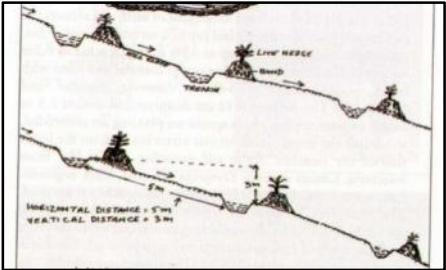

Therefore, in the Project plan, the SWC Works related to the landslide/landslip are selected with following criteria.




- SWC Works for the landslides which are located at both of upper and lower side of the major road will not be taken,
- SWC Works for the landslides which are located down side of the road with enough distance from the road can be taken,
- SWC Works without relation with road and other important properties will be taken, and
- SWC Works for the landslip will not be taken,


## 2.2 Description of SWC Works

The listed SWC Works in the Table 2.2 are described in the table below.

**Table 2.2 potential SWC Works for the Project**

Type of SWC Works	Description
<p>I. Soil and water conservation measures (1) Bio-engineering measures at slope</p> <p>Contour wattling [live hedge, which is composed with trench, banking, planting on banking]</p>  <p>(Example picture quoted from the Manual)</p>	<p>This will be used to improve the condition of water and soil moisture in the forest area or the plantation places. The tangible operations of the work are:</p> <ul style="list-style-type: none"> <li>-Excavation of trench along the plantation line</li> <li>-Banking the excavated soil under the trench</li> <li>-The seedlings will be planted on the bank in case of usage of this work with plantation work.</li> </ul>
<p>I. Soil and water conservation measures (1) Bio-engineering measures at stream or gully</p> <p>Vegetated Palisade Wall</p>  <p>(Example picture quoted from the Manual)</p>	<p>This work will be used for i) stabilization of gully/ small stream bed and ii) generating of vegetation recovery.</p> <p>Tangible operations of the work are:</p> <ul style="list-style-type: none"> <li>-Digging holes for wood sticks</li> <li>-Installation of the wood stick into the hole</li> <li>-Tie the sticks and fill the gaps</li> </ul> <p>This structure is not strong or weak for run-off water and sediment flow. Therefore, this type will be used for the stream/ gully where no usual water flows and almost no sediment flow is expected.</p>

Type of SWC Works	Description
<p>Live check dam Brush wood check dam</p>  <p>(Example picture quoted from the Manual)</p>	<p>This work will be used for i) stabilization of gully/ small stream bed and ii) generating of vegetation recovery Tangible operations of the work are:</p> <ul style="list-style-type: none"> <li>-Installation of stakes to hold the main body which is composed with wooden cross bars</li> <li>-Install the cross bars which save silt and moisture</li> </ul> <p>This structure is not strong or weak for run-off water and sediment flow. Therefore, this type will be used for the stream/ gully where no usual water flows and almost no sediment flow is expected.</p>
<p>I. Soil and water conservation measures (2) Mechanical measures</p>	
<p>Dry stone check dam</p>  <p>(Example picture quoted from the Manual)</p>	<p>This will be used for i) stabilization of gully/ small stream bed by decreasing the gradient of gully/ stream bed and storage debris and silt behind the dam, ii) generate vegetation basis behind the dam, and iii) improve water and soil moisture condition of the surrounding area. Tangible operations of the work are:</p> <ul style="list-style-type: none"> <li>-Excavation of the gully/ stream bed to install the dam basis</li> <li>-Install loose stones and boulders</li> </ul> <p>This structure is not strong compared with gabion/ masonry/concrete dams. Therefore, this will be used at small scale stream or stream with the width between 1 to 3m. the height of the dam shall be less than 1.5m including foundation.</p>
<p>Gabion check dam/ wire crate check dam</p>  <p>(Example picture quoted from the Manual)</p>	<p>This will be used for i) stabilization of gully/ small stream bed by decreasing the gradient of gully/ stream bed and storage debris and silt behind the dam, ii) generate vegetation basis behind the dam, and iii) improve water and soil moisture condition of the surrounding area. Tangible operations of the work are:</p> <ul style="list-style-type: none"> <li>-Excavation of the gully/ stream bed to install the dam basis</li> <li>-Set gabion net or wire crate</li> <li>-Install loose stones and boulders</li> <li>-Close the net or crate</li> </ul> <p>This structure is stronger than dry stone check dam but not strong compared with masonry/concrete dams. Therefore, this will be used at small to middle scale stream or stream with the width between 2 to 6m. The height of the dam will be less than 1.5m including foundation excludes spill way. (Size of Gabion check dam/ wire crate dam) 2 sizes of check dam were considered in this report.</p> <ul style="list-style-type: none"> <li>- Small size: L=6m, H=1.5m (exclude spill way)</li> </ul>

Type of SWC Works	Description
<p>Masonry drop structure Masonry drop structure with apron</p>	<p>- Middle size: L=12m, H= 1.5m (-ditto-)</p> <p>This will be used for i) stabilization of small or middle scale stream bed by decreasing the gradient of stream bed and storage debris, silt and water behind the dam, ii) generate vegetation basis behind the dam, and iii) improve water and soil moisture condition of the surrounding area. Apron will be used for water retention for animals just in case.</p> <p>Tangible operations of the work are:</p> <ul style="list-style-type: none"> <li>-Excavation of the stream bed and side to install the dam basis</li> <li>-Build stone with cement which fills the gaps between stone/boulders</li> </ul> <p>This structure is stronger than gabion check dam but not strong compared with concrete dam. Therefore, this will be used at middle scale stream or stream with the width between 2 to 6m. difference between this and gabion is porous or not and this will be used for water retention purpose to improve the dry condition at the site. The height of the dam will be between 1.5m to 3.0 m including foundation excludes spill way.</p> <p>(Size of Masonry drop)</p> <p>2 sizes of drop were considered in this report.</p> <ul style="list-style-type: none"> <li>- Small size: L=6m, H=1.5m (exclude spill way)</li> <li>- Middle size: L=12m, H= 2.5m (-ditto-)</li> </ul>
<p>Silt detention structure (concrete)</p>  <p>(Example picture quoted from the Manual)</p>	<p>This will be used for i) stabilization of middle or large scale stream/river bed by decreasing the gradient of stream bed and storage debris, silt and water behind the dam, ii) generate vegetation basis behind the dam, and iii) improve water and soil moisture condition of the surrounding area. Apron will be used for water retention and prevent erosion of the lower side of the structure.</p> <p>Tangible operations of the work are:</p> <ul style="list-style-type: none"> <li>-Excavation of the stream bed and side to install the dam basis</li> <li>-Build framework</li> <li>-Installation of concrete into the frame</li> </ul> <p>This structure is the strongest check dam among the several types. Also, this type is massive concrete without porous. Therefore, this will be used at middle or big scale stream/river with the width between 6 to 12m. This will be used for water retention purpose to improve the dry condition at the site. The height of the dam will be between 3m to 4.5 m including foundation excludes spill way.</p> <p>(Size of concrete silt detention dam)</p> <p>3 sizes of dam were considered in this report.</p>

Type of SWC Works	Description
	<ul style="list-style-type: none"> <li>- Small size: L=6m, H=1.5m (exclude spill way)</li> <li>- Middle size: L=12m, H= 2.5m (-ditto-)</li> <li>- Large size: L= 20m, H= 4.0m (-ditto-), with side wall</li> </ul>
Concrete pond	<p>This will be used for i) retention of water, ii) improvement of water and soil moisture condition of the surrounding area, and iii) water supply for animals in the dry weather area.</p> <p>Tangible operations of the work are:</p> <ul style="list-style-type: none"> <li>-Excavation of the gentle slope</li> <li>-Build framework</li> <li>-Installation of concrete into the frame</li> </ul> <p>This structure is water retention pond. The water will be retained in the pond and the overflow water will improve the water and soil moisture condition surrounding the structure. Also, it can provide water to the animals in case.</p> <p>(size of concrete pond)</p> <p>3 sizes of dam were considered in this report.</p> <ul style="list-style-type: none"> <li>- Small size: L=5.8m, Depth=1.0m</li> <li>- Middle size: L=8.8m, H= 1.0m</li> <li>- Large size: L= 15.8m, H= 2.0m</li> </ul>
<p>II. Measures for landslide control For Land slide triggered by weak geology</p>	
<p>Combination of:</p> <ul style="list-style-type: none"> <li>(a) Retaining wall</li> <li>(b) Series of staggered retaining walls on the slope</li> <li>(c) Geo-jute</li> <li>(d) Log crib</li> <li>(e) Gunny bag</li> </ul>	<p>The series of structures will be used to restore the eroded or collapsed slope.</p> <ul style="list-style-type: none"> <li>(a) Retaining wall: This will be constructed at the lowest position of the landslide. High pressure of the soil, with water in case, to the wall is expected. Therefore, the wall shall be constructed by masonry or concrete.</li> <li>(b) Series of staggered retaining walls on the slope This will reduce run-off water speed and divert the water flow, then prevent slope erosion and stabilize the slope. Also, it becomes vegetation recovery basis, because the wall can keep soil and soil moisture behind the wall.</li> <li>(c) Geo-jute This will protect the slope surface between wall to wall, and keep soil moisture, then accelerates vegetation recovery.</li> <li>(d) Log crib, (e) gunny bag It will be used to support the function of (b) above.</li> </ul>

*Source: JICA Study Team (2017) based on the information of the Manual of HPFD 2017*

### 2.3 Categorization of WSC Works applied to components of the Project

The SWC Works are planned one of the sub-components of Component 2, Sustainable Forest Management. In Component 2, the subcomponents are classified into two categories as PFM

(Participatory Forest Management Mode) and Departmental Mode.

### (1) SWC Works in PFM Mode

Simple and easy works is required for the SWC Works in PFM mode, because the local people who will work for this are assumed as normal persons without any expertise of civil engineering. Therefore, the Bio-engineering measures on the slope and small gully or stream will be taken as this category.

#### i. SWC Works ex-situ with PFM Mode

Following measures on small gully or stream with PMF mode will be used.

(Bioengineering measures): Vegetated palisade wall, live check dam, brush wood check dam

(Mechanical measure): Dry stone check dam, masonry check dam, masonry pond

#### ii. SWC Works ex-situ with PFM Mode

The contour Watling on the forest area where some forestry activities will be implemented with PMF mode.

### (2) SWC Works in Department Mode

Mostly, all works of proposed SWC Works will be taken for this mode. Additionally, the further capacity development for the HPFD staff members will be required during the preparatory stage.

#### i) SWC Works ex-situ with Department Mode

#### ii) SWC Work in situ with Departmental Mode

Basically, the same approach and method as the PFM mode will be adopted

### (3) Categorization of SWC Works in Component 1 (Sustainable Forest Management)

With consideration of the conditions above, all proposed SWC Works are categorized as below.

**Table 2.3 SWC Works Measures for Sustainable Forest Management**

<b>PFM Mode</b>				
<b>Category</b>		<b>Place</b>	<b>Measures</b>	<b>In/Ex-situ</b>
I. Soil and water conservation measures	(1) Bio-engineering measures	Slope	Contour wattling [live hedge, which is composed with trench, banking, planting on banking]	In-situ
		Small stream or gully	Vegetated Palisade Wall	Both of In/Ex-situ
		Small stream	Live check dam Brush wood check dam	
	(2) Mechanical measures	Small stream	Dry stone check dam	Ex-situ
		Dry hill	Masonry pond	
<b>Department Mode</b>				
<b>Category</b>		<b>Place</b>	<b>Measures</b>	<b>In/Ex-situ</b>
I. Soil and water conservation measures	(1) Bio-engineering measures	Slope	Contour wattling [live hedge, which is composed with trench, banking, planting on banking]	In-situ
		Small stream or gully	Vegetated Palisade Wall	Both of In/Ex-situ
		Small stream	Live check dam Bush check dam	
	(2) Mechanical	Small stream	Dry stone check dam Gabion check dam	Mostly Ex-situ



	measures	Lower stream	Gabion/ Masonry/ Concrete drop structure Masonry/concrete drop structure with apron Silt detention structure (concrete)	
		Dry hill	Concrete/ masonrypond	Both of <b>In/Ex-situ</b>
II. Measures for landslide control	Land slide triggered by weak geology	Landslide	Combination of: (a) Retaining wall (b) Series of staggered retaining walls on the slope (c) Geo-jute (d) Log crib (e) Gunny bag	Mostly <b>Ex-situ</b>

Source: JICA Study Team (2017)

#### (4) SWC Works for other component

SWC Works will be used for the other components, a) Biodiversity conservation in forest area, and b) Community development and livelihood improvement.

##### 1) SWC Works for biodiversity conservation

Water supply for animals, both of wild and livestock, is required for this component. Pond is proposed for this but concrete pond is not recommended from landscape aspect. Three sizes of pond designs are considered in this report. And the small of middle size of pond is recommended for this. The size will be determined by the condition of the site; *in general, middle size pond will be used on the grass land and small size pond will be used for small grass land in forest area or forest land.*

##### 2) SWC Works for community development

Big scale works, any measures which requires heavy equipment or special engineering knowledge are not able to be used for this component, because most of the work will be implemented by the local people. Therefore, in case the water harvesting is necessary, small size masonry check dam and/or pond are proposed.

### 3. Indicative SWC Works Models

The indicative SWC measures for the typically selected sites by the Preparatory Study Team under cold desert, dry low and normal forest areas have been covered on the following pages. The technological details covered in the tables include type of in-situ and ex-situ bio-engineering and mechanical SWC measures, number/volume of proposed works and unit cost under PFM and Departmental Modes both for different three models. The models are indicative and the actual type, designs and quantities/number of SWC works will be decided for a particular site on the basis of actual survey, planning and design.

#### 3.1 Indicative SWC model for cold desert area

The indicative soil & water/moisture conservation models in cold desert area have been suggested only for ex-situ SWC works to be taken up on typically selected sites with an area of 10 ha for plantation/afforestation at a rate of 800 seedlings/ha under PFM and departmental modes respectively.

##### Indicative PFM Mode SWC Works in Cold Desert Area (ex-situ)

SWC Measures	Specification	Quantity	Unit
Contour line wattling	100cmx30 cmx30cm @ 500 RMT/ha	5000	RMT
Brush wood check dam	Small gullies with a depth < 1meter	3	Nos
Dry stone check dam	S-size (TW-0.5m, H-1.20m, L-3.0m)	1	Nos
Gabion check dam	S-size (TW-0.5m, H-1.50m, L-5.0m)	1	Nos
Masonry pond	S-size (L-5.8m, D-1.0m)	1	Nos

### Indicative Departmental Mode SWC Works in Cold Desert Area (ex-situ)

SWC Measures	Specification	Quantity	Unit
Contour line wattling	100cmx30 cmx30cm @ 500 RMT/ha	5000	RMT
Dry stone check dam	S-size (TW-0.5m, H-1.20m, L-3.0m)	20	Nos
Gabion check dam	S-size (TW-0.5, H-1.50m, L-5.0m)	10	Nos
Gabion check dam	M-size (TW-0.5, H-1.50m, L-10.0m)	5	Nos
Masonry check dam	S-size (TW-0.6m, H-1.50m, L-10.0m)	2	Nos

### 3.2 Indicative SWC model for dry low land area

The indicative soil & water/moisture conservation models in dry low land area have been suggested for in-situ and ex-situ SWC works on 10 and 2 ha of typically selected sites for plantation/afforestation at a rate of 800 seedlings/ha under PFM mode whereas the same have been presented on 5 ha of in-situ and ex-situ SWC works each under departmental mode.

#### Indicative PFM Mode SWC Works in Dry Low Land Area (in-situ)

SWC Measures	Specification	Quantity	Unit
Contour staggered trenching with plantation	100cmx30 cmx30cm @ 500 RMT/ha	5000	RMT
Brush wood check dam	Small gullies with a depth < 1meter	10	Nos
Gabion check dam	S-size (TW-0.5, H-1.50m, L-5.0m)	2	Nos
Masonry pond	S-size (L-5.8m, D-1.0m)	1	Nos

#### Indicative PFM Mode SWC Works in Dry Low Land Area (ex-situ)

SWC Measures	Specification	Quantity	Unit
Contour staggered trenching with plantation	100cmx30 cmx30cm @ 500 RMT/ha	5000	RMT
Brush wood check dam	Small gullies with a depth < 1meter	5	Nos
Dry stone check dam	S-size (TW-0.5m, H-1.20m, L-3.0m)	5	Nos
Gabion check dam	S-size (TW-0.5, H-1.50m, L-5.0m)	2	Nos
Masonry check dam	M-size(L=6m, H=1.5m- No spill way)	1	Nos
Masonry pond	S-size (L-5.8m, D-1.0m)	1	Nos

#### Indicative Departmental Mode SWC Works in Dry Low Land Area (in-situ)

SWC Measures	Specification	Quantity	Unit
Contour staggered trenching with plantation	100cmx30 cmx30cm @ 500 RMT/ha	5000	RMT
Dry stone check dam	S-size (TW-0.5m, H-1.20m, L-3.0m)	5	Nos
Gabion check dam	M-size (TW-0.5, H-1.50m, L-10.0m)	2	Nos
Masonry check dam	M-size(L=6m, H=1.5m- No spill way)	1	Nos
Masonry pond	S-size (L-5.8m, D-1.0m)	1	Nos
Masonry pond	M-size(L-8.8m, D-1.0m)	2	Nos

#### Indicative Department Mode SWC Works in Dry Low Land Area (ex-situ)

SWC Measures	Specification	Quantity	Unit
Contour staggered trenching with plantation	100cmx30 cmx30cm @ 500 RMT/ha	5000	RMT
Gabion check dam	M-size (TW-0.5, H-1.50m, L-10.0m)	2	Nos
Masonry check dam	M-size(L=6m, H=1.5m- No spill way)	1	Nos
Concrete check dam	L-size (H-4.0m, L-20.0m)	1	Nos
Masonry pond	S-size (L-5.8m, D-1.0m)	1	Nos
Masonry pond	L-size(L-15.0m, D-2.0m)	1	Nos

### 3.3 Indicative SWC model for normal forest area

The indicative soil & water/moisture conservation models in normal forest area have been suggested for in-situ and ex-situ SWC works on 10 and 2 ha of typically selected sites for plantation/afforestation at a rate of 800 seedlings/ha under PFM mode whereas the same have been presented on 5 ha of in-situ and 4 ha of ex-situ SWC works under departmental mode.

#### Indicative PFM Mode SWC Works in Normal Forest Area (in-situ)

SWC Measures	Specification	Quantity	Unit
Contour Walting/Trenching with plantation	100cmx30 cmx30cm @ 500 RMT/ha	5000	RMT
Brush wood check dam	Small gullies with a depth < 1meter	5	Nos
Dry stone check dam	S-size (TW-0.5m, H-1.20m, L-3.0m)	5	Nos
Masonry check dam	S-size (TW-0.6m, H-1.50m, L-10.0m)	1	Nos
Masonry pond	S-size (L-5.8m, D-1.0m)	2	Nos
Masonry pond	M-size(L-8.8m, D-1.0m)	1	Nos

#### Indicative PFM Mode SWC Works in Normal Forest Area (ex-situ)

SWC Measures	Specification	Quantity	Unit
Contour Walting/Trenching with plantation	100cm x30 cm x30cm @ 500 RMT/ha	5000	RMT
Brush wood check dam	Small gullies with a depth < 1meter	5	Nos
Gabion check dam	S-size (TW-0.5, H-1.50m, L-5.0m)	5	Nos
Gabion check dam	M-size (TW-0.5, H-1.50m, L-10.0m)	2	Nos
Masonry check dam	S-size (TW-0.6m, H-1.50m, L-10.0m)	2	Nos
Masonry check dam	M-size(L=6m, H=1.5m- No spill way)	1	Nos
Masonry pond	S-size (L-5.8m, D-1.0m)	2	Nos
Masonry pond	M-size(L-8.8m, D-1.0m)	1	Nos

#### Indicative Department Mode SWC Works in Normal Forest Area (in-situ)

SWC Measures	Specification	Quantity	Unit
Contour Walting/Trenching with plantation	100cmx30 cmx30cm @ 500 RMT/ha	5000	RMT
Gabion check dam	S-size (TW-0.5, H-1.50m, L-5.0m)	2	Nos
Masonry check dam	S-size (TW-0.6m, H-1.50m, L-10.0m)	1	Nos
Masonry check dam	M-size(L=6m, H=1.5m- No spill way)	1	Nos
Concrete check dam	M-size H-2.5m, L-12.0m)	1	Nos
Masonry pond	S-size (L-5.8m, D-1.0m)	3	Nos
Masonry pond	M-size(L-8.8m, D-1.0m)	1	Nos
Landslide control measures	Dry stone/ Gabion protection wall with slope treatment	0.1	Ha

#### Indicative Department Mode SWC Works in Normal Forest Area (ex-situ)

SWC Measures	Specification	Quantity	Unit
Contour Walting/Trenching with plantation	100cmx30 cmx30cm @ 500 RMT/ha	5000	RMT
Gabion check dam	S-size (TW-0.5, H-1.50m, L-5.0m)	1	Nos
Gabion check dam	M-size (TW-0.5, H-1.50m, L-10.0m)	1	Nos
Masonry check dam	M-size(L=6m, H=1.5m- No spill way)	1	Nos
Concrete check dam	L-size (H-4.0m, L-20.0m)	1	Nos
Masonry pond	M-size(L-8.8m, D-1.0m)	1	Nos

Masonry pond	L-size(L-15.0m, D-2.0m)	1	Nos
Landslide control measures	Dry stone/ Gabion protection wall with slope treatment	0.1	Ha

## 4 Implementation Structure

### 4.1 PFM mode

The implementation of SWC Works related to PFM mode are contour wattling on slope and vegetated palisade wall, live check dam, and brush wood check dam on small stream or gully. These are simple and easy construction. Therefore, specific designs for these are not required. The sub-committee in Ward level can carry the work with assistance by the HPFD.

### 4.2 Department mode

The implementation of SWC Works related to the Department mode are all types of the structures described above. Most of the structure's construction except the bio-engineering measure require detail design work. Especially the works for landslide restoration.

Also, the construction of these works except bio-engineering works require professional work by contractors. HPFD can prepare designs and implementation by direct employment and direct material / equipment procurement. However, for the effective and efficient implementation, it is better for HPFD offices to concentrate on supervision of the contractor.

Therefore, contract out for construction work instead of direct implementation by HPFD. The detail design work for the mechanical measures and measures for landslide are specific works. Two ways are recommended for this as; i) contract out and ii) direct design work by HPFD offices after capacity development.

## Indicative Work Descriptions of ANR Operations

### 1. Types of Indicative ANR Operations

**Table 1 Indicative Planting Density and Description of ANR**

Type of Operation	Indicative Planting Density (Seedlings/ Ha)	Description
Assisted Natural Regeneration (ANR)	Without Gap Planting	Prescription of following silvicultural operations to facilitate natural regeneration: <ul style="list-style-type: none"> <li>- High-stump cutting</li> <li>- Singling of coppice shoots</li> <li>- Climber cutting</li> <li>- Clearance of weeds</li> </ul>
ANR with Seed Sowing	Sowing of Seed Patches	In addition to the above silvicultural prescriptions for ANR, regeneration is further supported through sowing of seeds of desired species in patches.
ANR with Gap Planting	Gap Planting (200~500 plants)	In addition to the above silvicultural prescriptions for ANR, gap planting/ enrichment planting of timber, fuel wood, fodder, fruit, medical and other NTFP species to be conducted.

Source: Compiled by JICA Study Team (2016) based on existing literature and interviews from concerned stake holders.

### 2. Indicative Work Schedule

The following work schedules are indicative and shall be determined as per the latest work norms and site conditions.

Assisted Natural Regeneration (ANR) without gap planting or seed sowing

**Table 2 Indicative Work Schedule of ANR without Gap Planting**

Year	Period	Activities
Yr 0 (April- March)	May - June	<u>Followings can be also conducted in earlier years:</u> - Selection of Area for ANR, - Measurement of area, - GPS Coordinates and Polygon Formation, - Check for seedlings of desired species, <u>Followings must be conducted in this year:</u> - Remove overshadowing weeds/ grasses around desired seedlings/wildings, - Remove seedlings of undesired species, - Do soil working for aeration - In case of seed sowing, prepare soil worked patches of 45cm × 45cm, apart by removing weeds/ grasses
	July - Aug	- Plant wildlings of desired species in the gaps. - Singling of desired species to remove competition - In case of seed sowing, sowing of seeds collected from the area in the soil worked patches (2-3 seeds per patch)
	Oct - Nov	- Remove overshadowing weeds/ grasses around desired seedlings
Yr +1 (April- March)	Oct - Nov	- Remove overshadowing weeds/ grasses around desired seedlings
Yr+2 (April- March)	Oct - Nov	- Remove overshadowing weeds/ grasses around desired seedlings
Yr +3 (April- March)	May - June	- Remove overshadowing weeds/ grasses around desired seedlings, - Remove seedlings of undesired species. - Do soil working for aeration
	Oct - Nov	- Remove overshadowing weeds/ grasses around desired seedlings
Yr +4 (April- March)	May - June	- If required repeat activities of Yr +3
Yr +5 (April- March)	May - June	- If required repeat activities of Yr +3

*Note: Indicative/ suggestive in-situ SWC works are- Contour Trenching, Dry stone Check Dams/ Gully Plugs, Live Hedges and shall be determined based on site requirements*

*Source: Compiled by JICA Study Team (2017) based on existing literature and interviews from concerned stake holders*

Assisted Natural Regeneration (ANR) with gap planting

- Following work schedule assumes planting of seedlings which require 2 years of production in nursery.

**Table 3 Indicative Work Schedule of ANR with Gap Planting**

Year	Period	Activities
Yr -2 (April- March)	April- May	<u>Followings can be also conducted in earlier years:</u> - Selection of Area for ANR, - Measurement of area, - GPS Coordinates and Polygon Formation, - Decide on species - Calculate number of plants/ seedlings of each species to be raised in the nursery (keep margin of 20% extra seedlings),
	June-July	- Start nursery operations to raise seedlings
Yr -1 (April- March)	April - June	- Continue with Nursery operations, - Fence (close) the area, - Do preventive in situ SWC works,

Year	Period	Activities
		- Clean the area from undesired bushes/ weeds -Do the layout (spacing) for digging pits, - Pit digging of appropriate size (conifer – 30cm x 30cm/ BL – 45cm x 45cm),
	July – Aug.	- If required, put appropriate Live Hedge cuttings (Ipomea)/ Bulbils (Agave) along fence (inner side)
Yr 0 (April- March)	May - June	- Remove overshadowing weeds/ grasses around desired seedlings/wildings, - Remove seedlings of undesired species, - Do soil working for aeration
	July - Aug	- Transport the nursery raised seedlings to planting sites - Plant seedlings of desired species in the gaps. - Singling of desired species to remove competition
	Oct - Nov	- Remove overshadowing weeds/ grasses around desired seedlings - Do mulching, hoeing around planted seedlings.
Yr +1 (April- March)	April- May	- Remove overshadowing weeds/ grasses around desired seedlings - Do mulching, hoeing around planted seedlings. - Do repair for fencing - Do maintenance of SWC
	July - Aug	- Replace dead seedlings
	Oct - Nov	- Remove overshadowing weeds/ grasses around desired seedlings - Conduct watch and ward,
	Dec. Mar	- Remove overshadowing weeds/ grasses around desired seedlings - Do mulching, hoeing around planted seedlings.
Yr+2 (April- March)	Oct - Nov	- Remove overshadowing weeds/ grasses around desired seedlings
Yr +3 (April- March)	May - June	-Remove overshadowing weeds/ grasses around desired seedlings, - Remove seedlings of undesired species. - Do soil working for aeration
	Oct - Nov	- Remove overshadowing weeds/ grasses around desired seedlings
Yr +4 (April- March)	May - June	- If required repeat activities of Yr +3
Yr +5 (April- March)	May - June	- If required repeat activities of Yr +3

Note: Indicative/ suggestive in-situ SWC works are- Contour Trenching, Dry stone Check Dams/ Gully Plugs, Live Hedges and shall be determined based on site requirements

Source: Compiled by JICA Study Team (2017) based on existing literature and interviews from concerned stake holders

## Indicative Work Descriptions of Plantation Operation

### 1. Types of Indicative Plantation Operations

**Table 1 Indicative Planting Density and Description of ANR**

Types of plantation	Indicative Planting Density (Seedlings/ Ha)	Description
Fuelwood and Fodder plantation	~1,100 (normal plants) 200~500 (tall plants)	Fast growing species/ desired species will be planted for production of soft timber, fuel wood and fodder. Planting arrangement should ensure alternating plants of Large tree with Medium and Small tree species for formation of canopy layers in future. Inter cropping of grasses for fodder shall be also introduced based on desires of PFM institutions as well as site suitability
NTFP plantation	~1,100 (normal plants) 200~500 (tall plants)	Mixed planting of NTFP species of smaller trees and larger trees on the alternate rows shall be considered. Inter cropping of NTFPs, medicinal plants, grasses shall be also introduced based on desires of PFM institutions as well as site suitability

Other Block Plantation	~1,100 (normal plants) 200~800 (tall plants)	Plantation for timber production, special interest/ niche species, or for environmental protection.
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Source: Compiled by JICA Study Team (2016) based on existing literature and interviews from concerned stake holders.

## 1. Indicative Work Schedule

The following work schedule and designs are indicative and shall be determined as per the latest work norms and site conditions.

### **Block Plantations**

- Following work schedule assumes planting of seedlings which require 2 years of production in nursery.

**Table 2 Indicative Work Schedule of Block Plantation**

Year	Period	Activities
Yr -2 (April- March)	April- May	- Selection of Area, - Measurement, GPS Coordinates and Polygon Formation, - Map of area with features- (Drainage, Altitudinal range, Aspect, Erosion points, Gullies, Nallahs), - Decide on species and species mixtures - Calculate number of plants/ seedlings of each species to be raised in the nursery (keep margin of 20% extra seedlings),
	June- July	- Start nursery operations to raise desired
Yr -1 (April- March)	April - June	- Continue with Nursery operations, - Fence (close) the area, - Do preventive in-situ SWC works, - Clean the area from undesired bushes/ weeds or other undesired species, - Do the Layout (spacing) for digging pits, - Pit digging of appropriate size (conifer – 30cm x 30cm/ BL – 45cm x 45cm),
	July – Aug.	- -If required, put appropriate Live Hedge cuttings (Ipomea)/ Bulbils (Agave) along fence (inner side)
Yr 0 (April- March)	July - Aug	- Transport the nursery raised seedlings to plantation site - Do planting as per the design and requirement.
	Oct. – Dec	- Do mulching, weeding, hoeing, cleaning operations
Yr +1 (April- March)	April -May	- Do mulching, weeding, hoeing, cleaning operations , repair fence,
	July - Aug	- Replace dead seedlings
	Oct - Nov	- Enforce strict watch and ward, - Watering (if budget permitting), - Maintenance of in situ SWC
	Dec- Mar.	- Weeding, hoeing, cleaning operations, enforce strict watch and ward
Yr +2 (April- March)		- Repeat operations as for Yr +1
Yr +3 (April- March)		- Repeat operations as for Yr +1, - If required singling of seedlings
Yr +4 (April- March)		- If required, repeat operations as for Yr +3
Yr +5	(April- March)	- If required Repeat operations as for Yr +4

Note: Indicative/ suggestive in-situ SWC works are- Contour Trenching, Dry stone Check Dams/ Gully Plugs, Live Hedges and shall be determined based on site requirements

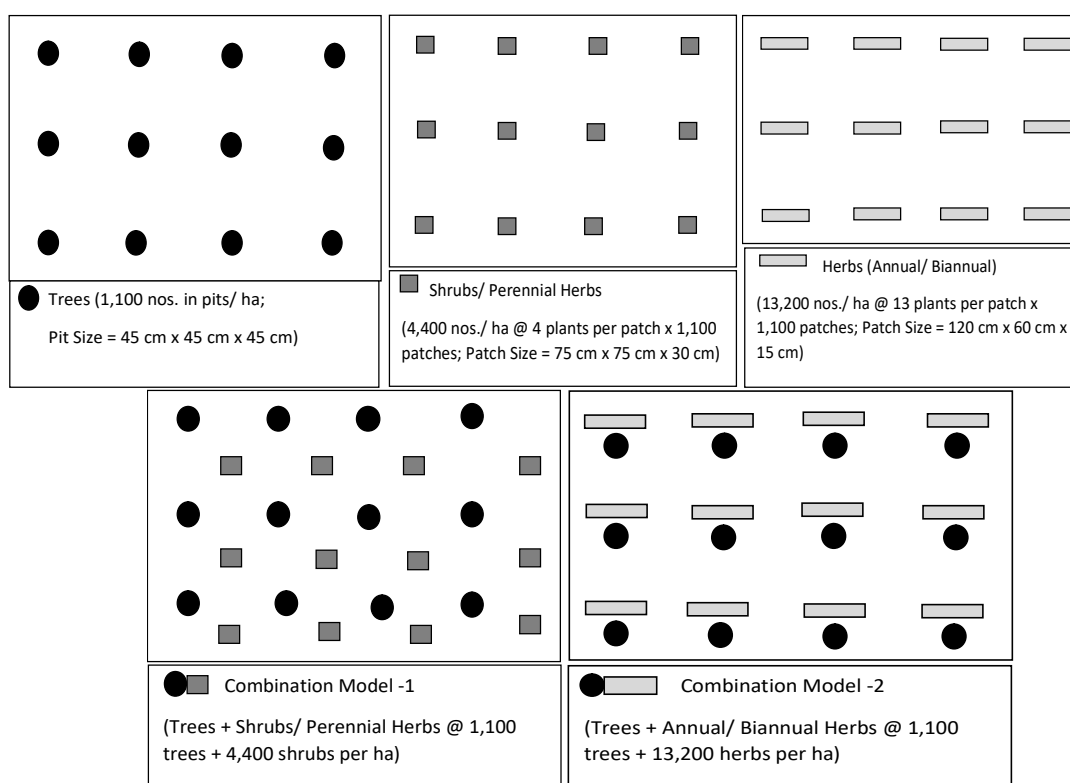
Source: Compiled by JICA Study Team (2017) based on existing literature and interviews from concerned stake holders

## Fuel and Fodder Plantations

- Basically, similar work schedule as that of the block plantation can be followed.
- In principle, this will be taken up near habitations in small areas (as per availability) with the objective of growing fast growing, short rotation, fuel and fodder species so as to meet future requirements of fuel and fodder of the nearby communities.

## NTFP Plantations

- Basically, similar work schedule as that of the block plantation can be followed.
- As per the existing cost norm in HPFD, not only the plantation establishment model, but also models for shrubs/perennial herb establishment, herb (annual/ biannual herbs) establishment, and combinations of these can be considered. Following figures illustrate indicative layouts of such models.



Source: Compiled by JICA Study Team (2017) based on existing literature and interviews from concerned stake holders

**Figure 1 Indicative Layout for NTFP Developments**

## Bamboo Plantations

- Basically, similar work schedule as that of the block plantation can be followed.
- Can be planted as part of NTFP development but in case of pure plantation establishment, indicative basic design is as follows:
  - i) Areas are fenced preventing biotic interference (human & Wild animals),
  - ii) 400-500 / Ha pits of appropriate size(45cm . 45cm) dug in desired predefined lay out(8m × 8m),
  - iii) nursery raised Poly bag seedlings of Bamboo planted in monsoon with appropriate tending operations for next 1-3 years
- Two species of hill bamboos i.e. *Arundinaria falcata* (=Sinarundinaria falcata/ Drepanostachyum falcatum) and *Arundinaria spathiflora* (=Thamnocalamusspathiflorus) occur naturally in HP. These



species, known locally as ‘nirgal’, occupy the cool and moist niches in the temperate regions in the State and are mainly put to local use for basketry purposes. This very important group of species is still to attract focused management initiatives.

- *Dendrocalamus strictus* is the only species of tropical bamboos that is found wild in the sub-tropical tracts in the State with total spread of 508 km<sup>2</sup> (SFR, 2011). However, only about 10,000 hectare of forest land in the State bears concentrated populations of bamboo and is being specifically managed under Bamboo Working Circle. In addition to the native populations of tropical bamboos, the State also has good stock of introduced tropical species like *Dendrocalamus hamiltonii* (Maggar Bans) and *Bambusa nutans* (Dharench) that form an important component of the local agro-forestry practices.
- Bamboo plantations can be raised or improvement of existing bamboo can be undertaken, such areas are in Bilaspur, Suket, Jogindernagar, Mandi and Shimla forest divisions besides potential areas of Hill Bamboo *Arundinaria falcata* and *Arundinaria spathiflora*.

### **Improvement of Existing Bamboo Stock**

In relation to bamboo development, if required, improvement operations of existing bamboo stocks to get sustained yield of bamboo and maintain the health of bamboo clumps from congestion and degradation can be also considered. Indicative work schedule is as follows.

**Table 3 Indicative Work Schedule of Bamboo Improvement**

Year	Period	Activities
Yr -0 (April- March)	Oct- Feb	<ul style="list-style-type: none"> <li>- Remove mature culms to get sustained yield, equivalent to / not exceeding no. Of culms which have come up in the last three years..</li> <li>- Do cleaning, climber cutting and decongestion of clump to maintain its health.</li> <li>- Cleaning by removing dry culms (completely dry clump to be clear felled)</li> <li>- Clumps to be worked in horse shoe manner, from middle of the clump towards periphery.</li> <li>- Rhizome not to be disturbed.</li> <li>- while removing culms, cut should be given as low as possible</li> </ul>

Source: Compiled by JICA Study Team (2017) based on existing literature and interviews from concerned stake holders

### **Special Interest/ Niche Species Plantations**

- Basically, similar work schedule as that of the block plantation can be followed. However depending of the species, longer maintenance/ tending may be required.

### **Rehabilitation of Forest Areas with Invasive Species**

For plantation establishment or gap planting to shade out the area, basically, similar work schedule as that of the block plantation and ANR can be considered. However, prior to plantation establishment, eradication of invasive species need to be conducted and continual maintenance for eradication are also required concurrently with the plantation establishment. The following tables describe indicative work schedule for eradication operations for invasive species.

**Table 4 Indicative Work Schedule of Lantana Eradication**

Year	Period	Activities
Yr 0 (April- March)	April- May	<ul style="list-style-type: none"> <li>- Identify area to be eradicated of invasive sp.</li> <li>- A strip be created around boundary by removing Lantana or other invasive sp.</li> </ul>
	Sept - Oct	<ul style="list-style-type: none"> <li>- Local grass seed (collected /procured in Sept-Oct) be mixed with soil to make pallets.</li> </ul>
	Dec- Jan	<ul style="list-style-type: none"> <li>- Lantana bushes will be removed using Cut Root Stock Methods (CRS)</li> <li>- Bushes be stacked upside down (reverse polarity )&amp; allowed to dry.</li> </ul>

	Jan-Feb	- Pallets be broadcasted in the area in the month of Jan-Feb (with the onset of winter rains).
Yr +1 (April- March)	April - June	- Remove Lantana sprouts
	July- Aug	- Broadcasting Grass Seed Pallets
	Oct-Dec	- Remove Lantana sprouts
Yr +2 (April- March)		- Repeat as for Yr+1

Source: Compiled by JICA Study Team (2017) based on existing literature and interviews from concerned stake holders

**Table 5 Indicative Work Schedule of *Parthenium/ Ageratum/ Eupatorium* Eradication**

Year	Period	Activities
Yr 0 (April- March)	Sept - Oct	- Identify area to be eradicated of invasive sp. - Complete plants uprooted (before onset of flowering), collected in heaps and burn
	Dec- Jan	- Remove new sprouts
Yr +1 (April- March)	Sept-Oct	- Remove new sprouts
	Dec- Jan	- Remove new sprouts

Source: Compiled by JICA Study Team (2017) based on existing literature and interviews from concerned stake holders

## Indicative Work Descriptions of Models for Improvement of Pastures and Grasslands

### 1. Overviews

Following models/treatments are prepared for cost estimate purposes. The actual treatments to be determined reflecting the ground situations of the concerned pastures/ grasslands.

#### **Dry Alpine Pasture:**

1. Broadcasting Method (Grass Seeds)
2. Patch/Strip Methods (Grass Tufts or Grass Seeds and Legumes Seeds)

#### **Other Grasslands:**

1. Silvipastoral Fodder Development Methods (Fodder Trees, Grass Tufts or Grass Seeds, and Legumes Seeds)
2. Patch/Strip Methods (Grass Tufts or Grass Seeds and Legumes Seeds)

### 2. Dry Alpine Pasture Models

#### **2.1 Broadcasting Method (Grass Seeds)**

Since the natural conditions are hostile and growing period is very short in dry alpine pasture areas, broadcasting of grass seeds after soil working can be introduced as the main interventions for improvement of dry alpine pastures. Following table describes year-wise major activities of this method.

**Table 2.1 Broad Casting Method for Dry Alpine Pasture**

Year	Period	Activities
Yr -0 (April- March)	April	- Selection of Area, - Measurement of GPS Coordinates and Polygon Formation, - Mapping of area with features- (Drainage, Altitudinal range, Aspect, Erosion points, Gullies, Nallahs), - Selection on species of grasses. - Calculation of quantity of seed required
	May	- Fencing (close) of the area, - Conducting preventive in-situ Soil & Water Conservation (SMC) measures

Year	Period	Activities
		- Weeding and soil working,
	June	- Broadcasting seeds of grasses
	Sept -Oct	- Fertilization: 60 Kg Nitrogen/ ha and 60 Kg Phosphate/ Ha applied in three splits [first split basal application, second after seedling reaches around 30cm and third at initiation of boot stage of grasses. - Protection work (watch and ward, weeding)
Yr +1 (April- March)	April - March	- Protection Work (watch and ward, weeding) - Fertilization
Yr +2 (April- March)	April - March	- Protection Work (watch and ward, weeding) - Fertilization

Source: Compiled by JICA Study Team (2017) based on information from Indian Grassland and Fodder Research Institute

## 2.2 Patch/Strip Methods (Grass Tufts or Grass Seeds and Legumes Seeds)

For dry alpine pasture areas where patching of grass tufts or sowing of grass seeds are feasible, either patch method or strip method will be adopted for improvement of pastures. Following table describes year-wise major activities of these methods

**Table 2.2 Patch/Strip Methods for Dry Alpine Pasture**

Year	Period	Activities
Yr -0 (April- March)	April	- Selection of Area, - Measurement of GPS Coordinates and Polygon Formation, - Mapping of area with features- (Drainage, Altitudinal range, Aspect, Erosion points, Gullies, Nallahs), - Selection on species of grasses and legumes - Calculation of quantity of seeds/tufts/ seedlings required to be raised in the nursery
	May	Patch Method: - Start nursery operations to raise desired seedlings. and procure legume seeds Strip Method: - procure legume/ grass seeds
	June	- Fence (close) the area, - Do preventive in-situ SWC - Clean the area from undesired bushes/ weeds/other sp., Patch Method: - Do the Layout (spacing) for patches, (30 × 30×10cm), 1m apart in line (along Contour); Line to line distance 4m depending upon slope. Patches should be dug in staggered manner. (approx- 1500 patches) Strip Method: - Do the Layout (spacing) for strips, 20cm wide continuous strips scratched against slope of all Scrub and weeds and soil dug (10-15 cm). Strip to strip distance 2 -4 m depending upon slope (gentle slopes distance should be 2 m).
	July – Aug.	Patch Method: - Plant grass tufts in alternate patches, 13 tufts per patch, 10cm apart from each other. Keep length of 10cm from base of seedling (remove upper portion) (10,000 tufts) - Sow legume seeds in alternate patches (6-8 grains of seeds in each patch) Strip Method:

Year	Period	Activities
		- Alternate strips to be sown with grasses and legumes seeds. (10,000 Tufts). 10kg legume seed/ Ha. Each running metre of strip should have 8-10 grains of seeds
	Sept -March	- Fertilization: 60 Kg Nitrogen/ ha and 60 Kg Phosphate/ Ha applied in three splits [first split basal application, second after seedling reaches around 30cm and third at initiation of boot stage of grasses. - Protection work (watch and ward, weeding)
Yr +1 (April- March)	April - March	- Fertilization: 60 Kg Nitrogen/ ha and 60 Kg Phosphate/ Ha applied in three splits [first split basal application, second after seedling reaches around 30cm and third at initiation of boot stage of grasses. - Protection work (watch and ward, weeding)

Source: Compiled by JICA Study Team (2017) based on information from Indian Grassland and Fodder Research Institute

### 3. Grassland Models

#### 3.1 Silvopastoral Fodder Development Method

Silvipastoral systems have been found to be viable option for obtaining a very high biomass per unit area. Some species consider for fodder trees are *Albizia lebbek*, *Bauhinia variegata*, *Grewia optiva*, *Leucaena leucocephala*, *Dendrocalamus hamiltonii*, *Quercus incana*, *Quercua leucotricophora*.

Following table describes year-wise major activities of this method.

**Table 3.1 Silvopastoral Fodder Development Methods for Other Grasslands**

Year	Period	Activities
Yr -1 (April- March)	April	- Selection of Area, - Measurement of GPS Coordinates and Polygon Formation, - Mapping of area with features- (Drainage, Altitudinal range, Aspect, Erosion points, Gullies, Nallahs), - Selection on species of trees grasses and legumes - Calculation of quantity of seeds/tufts/ seedlings required to be raised in the nursery
	May	- Start nursery operations to raise desired tree seedlings
Yr 0	June	- Continue with Nursery operations, - Fence (close) the area, - Do preventive in situ Soil & Water Conservation (SWC) - Clean the area from undesired bushes/ weeds/other sp., - Do the Layout (spacing) for Trees, 5m × 5m, pits(45× 45×45cm), patches for grasses/ legumes, (30 × 30×10cm), 1m apart in line (along Contour); Line to line distance 2-4m depending upon slope. Patches should be dug in staggered manner
	July – Aug.	- Plant Fodder Trees (approximately 200); grass tufts in alternate patches, 10-15 tufts per patch, 10cm apart from each other. Keep length of 10cm from base of seedling (remove upper portion) - Sow legume seeds in alternate patches (6-8 grains of seeds in each patch)
	Sept -March	- Fertilization: 60 Kg Nitrogen/ ha and 60 Kg Phosphate/ Ha applied in three splits [first split basal application, second after seedling reaches around 30cm and third at initiation of boot stage of grasses. - Protection work (watch and ward, weeding)
Yr +1 (April- March)	April - March	- Protection Work (watch and ward, weeding) - Fertilization

Source: Compiled by JICA Study Team (2017) based on information from Indian Grassland and Fodder Research Institute

#### 3.2 Patch/Strip Methods (Grass Tufts or Grass Seeds and Legumes Seeds)

Year-wise major activities of these methods are basically the same as that of dry alpine pasture.

**Table 3.2 Patch/Strip Methods for Other Grasslands**

Year	Period	Activities
Yr -0 (April- March)	April	<ul style="list-style-type: none"> <li>- Selection of Area,</li> <li>- Measurement of GPS Coordinates and Polygon Formation,</li> <li>- Mapping of area with features- (Drainage, Altitudinal range, Aspect, Erosion points, Gullies, Nallahs),</li> <li>- Selection on species of grasses and legumes</li> <li>- Calculation of quantity of seeds/tufts/ seedlings required to be raised in the nursery</li> </ul>
	May	<p>Patch Method:</p> <ul style="list-style-type: none"> <li>- Start nursery operations to raise desired seedlings. and procure legume seeds</li> </ul> <p>Strip Method:</p> <ul style="list-style-type: none"> <li>- procure legume/ grass seeds</li> </ul>
	June	<ul style="list-style-type: none"> <li>- Fence (close) the area,</li> <li>- Do preventive in-situ SWC</li> <li>- Clean the area from undesired bushes/ weeds/other sp.,</li> </ul> <p>Patch Method:</p> <ul style="list-style-type: none"> <li>- Do the Layout (spacing) for patches, (30 × 30×10cm), 1m apart in line (along Contour); Line to line distance 4m depending upon slope. Patches should be dug in staggered manner. (approx- 1500 patches)</li> </ul> <p>Strip Method:</p> <ul style="list-style-type: none"> <li>- Do the Layout (spacing) for strips, 20cm wide continuous strips scratched against slope of all Scrub and weeds and soil dug (10-15 cm). Strip to strip distance 2 -4 m depending upon slope (gentle slopes distance should be 2 m).</li> </ul>
	July – Aug.	<p>Patch Method:</p> <ul style="list-style-type: none"> <li>- Plant grass tufts in alternate patches, 13 tufts per patch, 10cm apart from each other. Keep length of 10cm from base of seedling (remove upper portion) (10,000 tufts)</li> <li>- Sow legume seeds in alternate patches (6-8 grains of seeds in each patch)</li> </ul> <p>Strip Method:</p> <ul style="list-style-type: none"> <li>- Alternate strips to be sown with grasses and legumes seeds. (10,000 Tufts). 10kg legume seed/ Ha. Each running metre of strip should have 8-10 grains of seeds</li> </ul>
	Sept -March	<ul style="list-style-type: none"> <li>- Fertilization: 60 Kg Nitrogen/ ha and 60 Kg Phosphate/ Ha applied in three splits [first split basal application, second after seedling reaches around 30cm and third at initiation of boot stage of grasses.</li> <li>- Protection work (watch and ward, weeding)</li> </ul>
Yr +1 (April- March)	April - March	<ul style="list-style-type: none"> <li>- Fertilization: 60 Kg Nitrogen/ ha and 60 Kg Phosphate/ Ha applied in three splits [first split basal application, second after seedling reaches around 30cm and third at initiation of boot stage of grasses.</li> <li>- Protection work (watch and ward, weeding)</li> </ul>

Source: Compiled by JICA Study Team (2017) based on information from Indian Grassland and Fodder Research Institute

## **Annexure-6**

### **VFDS Bye Laws**

Government of Himachal Pradesh  
Department of Forests.

No. FFE-B-F (5)5/2016-Part-III Dated Shimla-171002

Notification

The Governor, Himachal Pradesh is pleased to notify the Bye laws of Village Forest Development Society under Project for Improvement of Himachal Pradesh Forest Ecosystems Management & Livelihoods as per annexure-A with immediate effect.

By Order *h*

Addl. Chief Secretary (Forests) to the Government of Himachal Pradesh

Endst. No. As above-Dated-Shimla-2 the, 19-11-2018

Copy is forwarded to following for information and necessary action to:-

- 1) The Additional Chief Secretaries/Pr. Secretaries /Secretaries to the Govt. of H.P., Agriculture, Environment, Sci. and Tech. / Horticulture /Animal Husbandry /Rural Development/ Tribal Development/Finance/ IPI, Shimla-2.
- 2* 2) The Pr. Chief Conservator of Forests (HoFF), Talland Shimla-1.
- 3) The Pr. Chief Conservator of Forests (WL), Shimla-1.
- 4) The Chief Project Director, Project for Improvement of Himachal Pradesh Forest Ecosystems Management & Livelihoods, Shimla-1.
- 5) The CCF, IT, O/o Pr.CCF(HoFF) he is requested to upload the above notification on the departmental website.
- 6) The Section Officer, Forest-A Section, H.P. Secretariat Shimla-2.
- 7) The Private Secretary to Hon'ble Forest Minister, H.P.
- 8) Guard File. 100

*SPR*

*1. Jurn into take pdf file prints. Based on this analogy, the bye-laws of a PZ society be approved by PCF(HoFF), if not already approved.*

*2. We need to notify a conflict resolution group.*

*3. We need to notify a conflict resolution group.*

*19/11/2018*  
*(P.S. Taak)*  
*Deputy Secretary (Forests) to the Government of Himachal Pradesh*  
*Ph. No. :- 0177-2628497*

*CFE (Proj.) 20.11*

*3209*  
*21/11/2018*

**THE BYE-LAWS  
OF  
The \_\_\_\_\_ Village Forest Development Society  
Project for Improvement of HP Forest Ecosystems Management & Livelihoods**

**NAME, ADDRESS AND AREA OF OPERATION**

- 1 The society shall be called the \_\_\_\_\_ Village Forest Development Society.  
It shall be referred to here-in-after as the society.
- 2 The registered address of the society shall be \_\_\_\_\_ Post Office  
\_\_\_\_\_ Tehsil \_\_\_\_\_ District \_\_\_\_\_.
- 3 The area of operation of the society shall cover the following village/villages:

**DEFINITIONS**

- 4 In these by-laws, unless there is anything repugnant in the subject or context
  - i **"Act"** means Indian Forest Act, 1927, (Act No.16 of 1927) as amended in its application to Himachal Pradesh.
  - ii **"Conflict Resolution Group"** means a group consisting of representatives of the concerned Gram Panchayats, a representative of the local non-government organizations or local community based organizations, a representative from local/migratory community and the concerned Assistant Conservator of Forests/Forest official.
  - iii **"Common land", "family", "Gram Panchayat", "Panch", "Pradhan", "Village" and "Ward"** shall have the meanings respectively assigned to them in the Himachal Pradesh Panchayati Raj Act, 1994 (Act No.4 of 1994).
  - iv **CD & LIP:** Community Development and Livelihood Improvement Plan refers to the plan activities that shall be included in the microplan to enhance community well being and resilience of household economy.
  - v **CIG:** Common Interest Group refers to a group of persons who have a common interest in a particular Livelihood Improvement Activity.
  - vi **"Department"** means the Himachal Pradesh Forest Department.
  - vii **"Divisional Forest Officer"** means the forest officer in-charge of a territorial or wildlife forest division of the Department.
  - viii **FEMP:** Forest Ecosystems Management Plan refers to plan activities concerning forest and forest resource management that shall be included in the microplan to address the issues related to the forest and forest areas that are managed by group members.
  - ix **"Ecosystem approach"** as defined in Convention on Biological Diversity, 2004.
  - x **"Forest Ecosystem Services (FES) approach"** is defined as the management of a particular forest ecosystem that aims to realise the best fit of combination of FES as demanded by society.
  - xi **"Forest offence"** as defined in IFA, 1927.
  - xii **"Forest Officer"** means a Forest Officer as defined under sub-section (2) of section 2 of the Act.



- xiii **“Executive Committee”** means executive body of Society.
- xiv **“General House”**, means General House of the Society.
- xv **“Government”** means Government of Himachal Pradesh.
- xvi **“Grazier group”** means a group of persons, resident members or migratory graziers, who are dependent on the grazing resource in the selected area for meeting their livelihood needs.
- xvii **“Micro-plan”** means a holistic forest management and development plan of the area selected for participatory management.
- xviii **“Participatory forest management”** means management of Government forest and Government land including common land managed Jointly by the Society and by the Department.
- xix **“Right holders”** means an individual (s)/community or group as mentioned in record of right holders in settlement record / IFA 1927/FRA 2006.
- xx **“Selected area”** means any Government Forest and Government land including common land selected under regulation 3 of these Regulations.
- xxi **“Self-help group”** means any organized group of persons, who collectively by mutual help are able to enhance their economic status through resource based activities.
- xxii **“Site specific plan”** means a sub component of the micro-plan which is a technically appropriate plan for the site.
- xxiii **“Society”** means the Village Forest Development Society registered under section 6 of the H.P. Societies Registration Act, 2006 for participatory forest management.
- xxiv **“Sustainable forest management”** means management which is economically viable, environmentally benign and socially beneficial, and which balances present and future needs.
- xxv **“User group”** means a group of persons dependent upon a common natural resource for sustaining its livelihood need.

## OBJECTIVES

- 5 The objectives of the society shall be-
- i) to manage and enhance the forest area ecosystems selected for participatory management by sustainable forest ecosystem management, biodiversity conservation and livelihoods improvements as desired by the society through a micro-planning process
  - ii) to identify and set up requisite measures and enabling conditions that support participatory planning, effective implementation of activities mentioned in the micro-plan and monitoring and evaluation processes that result in best utilization of resources
  - iii) to undertake such other activities as are incidental to or conducive to the attainment of the above objectives in a sustainable manner.

## MEMBERSHIP

- 6 Subject to the provisions of by-law 7, any individual shall be eligible for admission as a member of the society, if he is:
- i) over 18 years in age and of sound mind;
  - ii) bonafide resident in the area of operation of society;

- iii) of good character; and
  - iv) right holder (including landless right holders) according to revenue record
- 7 No individual shall be eligible for admission as a member of the society, if: -
- i) He/she has applied bankruptcy. Or
  - ii) He/she has been declared as insolvent, Or
  - iii) He/she has been sentenced for any offence; involving dishonesty or moral turpitude within 5 years preceding the date of his admission as a member.
- 8 A member may be expelled for one or more of the following reasons: -
- i) Ceasing to reside in the area of operation of society;
  - ii) Conviction of a criminal offence involving dishonesty or moral turpitude;
  - iii) Application for bankruptcy;
  - iv) An action which may be held by the general body to be dishonest or contrary to the interest, reputation and stated objects of the society.
- 9 A person shall cease to be member of the society in one or more of the following circumstances: -
- i) Death;
  - ii) Withdrawal after six months' notice to the Secretary of the society,
  - iii) Permanent insanity;
  - iv) Declaration of bankruptcy;
  - v) Ceasing to be a right holder in the Forest.

## **GENERAL BODY**

- 10 All the members of the society on a given date shall constitute the General Body of the society. New members shall get their names registered in the Membership Register, with the Secretary.
- 11 The General Body of members of the society shall meet once in six months. A meeting of the General Body shall be convened by the Secretary of the society.
- 12 In case of an emergent situation, if 20% of the total members submit a requisition/application to the President, Vice-President or any member of the executive Committee, a meeting of the General Body shall have to be called within 7 days of such requisition / application.
- 13 The Secretary shall verbally or in written inform all the members at least 7 days in advance, specifying the date, place and time and agenda of the general meeting. The written information / notice of a general shall be affixed on the walls at least two conspicuous places, designated by the General Body itself.
- 14 The quorum of the meeting shall be two- third of the total number of members, out of which 50 % should mandatorily be female members.
- 15 The decisions in these meetings will be subject to. the will of the majority. The issues for discussion/decision shall be raised either verbally by the members in the meeting or by conveying the same in written to the Secretary. In the latter case, the issue shall be: raised by the Secretary and if desired so, the name of the member conveying the issue shall not be disclosed.
- 16 The President or, in his absence, the Vice-President shall preside over meetings of the General body. When both of them are absent, the members present shall elect a Chairperson

for the meeting.

- 17 Every member of the General Body shall have one vote. Voting by proxies shall not be allowed at the general body. Unless otherwise provided in these by-laws, all questions shall be decided by a majority of votes of the members present. When the votes are equal, the Chairperson of the General Body shall have a casting vote.
- 18 Unless otherwise provided in these by-laws the ultimate authority in all matters relating to the administrations of the society shall vest in the General Body.
- 19 Without prejudice to the general provisions of the preceding by-law, the General Body shall have the following powers and duties:
  - i) to approve of the micro plan prepared by the joint forest management society for the management of forests under its jurisdiction, implementation of the project activities and sharing of the usufructs/benefits.
  - ii) to approve the amendments in by-laws framed for the society.
  - iii) the election, suspension, and removal and of the elected members of the Executive Committee.
  - iv) Amendments in the Micro plan. However, such amendments shall be valid subject to the approval by the concerned Divisional Forest Officer.
  - v) Transaction of any other business with the permission of the Chairperson of the general body;
- 20 Each member present at general meeting shall be entitled to exercise one vote only. The President shall have a casting vote.
- 21 All business discussed or decided at a general meeting shall be recorded in a proceeding register by the Secretary, which shall be signed by all the members at the end of the meeting.
- 22 A copy of the proceedings of the meeting shall be to the DFO, through the concerned Forest Guard/range Officer. Another copy shall be sent to the Gram Sabha.

### **EXECUTIVE COMMITTEE**

- 23 Executive Committee shall consist of 7 to 16 members (depending upon the population). The constitution of Executive Committee of the Society shall be as follows as per the HP Participatory Forest Management Rules:
  - i) **President** - to be elected by General House
  - ii) **Vice President** - to be elected by General House
  - iii) **Four Members** - to be elected by General House
  - iv) **Joint Secretary (woman)** - to be elected by General House
  - v) **Ward Panch** - ex-officio member
  - vi) **President** - MahilaMandal
  - vii) **Representative** - Local women group
  - viii) **Three Members** - to be co-opted from the village level committees constituted by other departments of the Government, societies register under the Societies Registration Act, 1860, (Act No.21 of 1860); forest/resource based user groups, self-help group and grazier group;
  - ix) **Local Forest Guard/Guards** shall also be the members.
  - x) **Member Secretary**- Member Secretary to be elected by General House.

- xi) **Treasurer** – The Concerned Deputy Ranger shall be Treasurer. In case of two or more Deputy Rangers, the senior most shall be Treasurer. There will be a joint account in the names of President and Treasurer. The said account will be operated jointly by both and the necessary cash book and other financial account, measurement of works will be recorded by Treasurer.
- Provided that at least 50% members of the Executive Committee shall be women. The Joint Secretary shall assist the Member Secretary in the execution of his/her functions.
- 24 The elections of the Executive Committee shall be held every two years. The elected members of the Executive Committee shall hold once for a period of two years from the date of assumption of office.
- 25 The election shall be conducted through casting single ballot by the members of the General Body or by means of General Consensus amongst the members.
- 26 The members of the Executive Committee shall meet once every month.
- 27 The information regarding the meeting shall be given to the members by the Secretary well in time.
- 28 In emergent circumstances, the meeting of the Executive Committee shall be called on the verbal/written requisition of at least 3 members of this committee. Such meeting shall be called within 3 days of submission of such requisition to the Chairperson /Secretary of the Committee.
- 29 The quorum of the meeting shall have to be two-third of the total number of members of the Executive Committee; only then the decisions taken in the meeting shall stand valid.
- 30 If the Chairperson of the meeting is a male, the vice-chairperson should be a female and vice-versa.
- 31 Executive Committee shall have the following powers and duties: -
- i) To prepare a schedule for the activities enlisted in the micro plan, to be implemented by the Society. The schedule shall include the specific distribution of funds and labour activity wise and the provision for monitoring and of the progress. The beneficiaries of a particular activity shall have to contribute in terms of labour. If the same is not possible, they shall be delegated the responsibility to supervise the progress of the ongoing works.
  - ii) To prepare a list of activities to be carried out and the corresponding budget every six months, and to get the same approved by the General Body.
  - iii) Members of the Executive Committee shall carry out the inspection of the areas in question once in a month and shall impart necessary directions or take proper action in case any drawback/irregularity is found.
  - iv) To take appropriate action under the relevant Act/Rules against an individual who violates any of the rules mentioned in the micro plans. The Executive shall summon such offender either in its meeting or in the General Body and shall initiate action against him/her as per the recorded procedure, in case the reply is not found satisfactory.
  - v) The Executive Committee shall not initiate any legal action against an individual without affording him/her an opportunity to be heard.
  - vi) Executive Committee shall not carry out any change in the micro plan on its own.
  - vii) The Executive Committee shall employ any person for a work/activity, mentioned in the

schedule and shall disburse honorarium as per prescribed project norms for such work.

The terms and conditions for the same shall be decided by the Executive Committee.

- 32** All business discussed or decided at a meeting of the Executive Committee shall be recorded in a proceeding register by the Secretary, which shall be signed by all the members at the end of the meeting.

### **POWERS OF THE EXECUTIVE COMMITTEE**

- 33** The Executive Committee shall exercise the powers of a “Forest Officer” as assigned by the Government under the Act.

### **USUFRUCT SHARING**

- 34** Society shall be entitled to the following benefits, namely: -

- i) to collect the yield such as fallen twigs, branches, loppings, grass, bamboos, fruits, flowers, seeds, leaf fodder and non-timber forests products free of cost through individual or collective arrangements as decided by the Society;
- ii) to the sale proceeds of all intermediate harvest, subject to protection of forest and plantations for at least 3 years from the date of agreement;
- iii) to organize and promote vocational activities related to forest produce and land; and other activities such as promotion of self-help groups which may provide direct benefits, including micro-lending to women. None of the activities so promoted shall affect the legal status of the forest land;
- iv) recorded rights over the forest shall not be affected by these benefits;
- v) the Government shall charge no royalty on the forest produce within the selected area;
- vi) after 5 years, the Society may expand the area, on the basis of a fresh agreement deed, by inclusion of adjoining or nearby areas;
- vii) to utilize at least 40 percent of the sale proceeds on forest regeneration activities including soil and water conservation.

Provided that for the purpose of usufruct, the usufruct sharing family shall be one unit.

- 35** That all the assets and resources created by the Society in tandem with forest department shall be properly recorded and the sharing of usufructs shall be legally binding on both parties as per the agreement executed between them in the beginning itself. Forest department shall also aim at creating alternative sources of income (in form of fire protection works/forest plantations/nursery raising/soil and water conservation/any revenue from harvesting of planted commercial forests and other resources).

### **FUNDS AND MAINTENANCE OF ACCOUNTS**

- 36** Funds shall be generated by the Society through contribution by members and sale of usufructs under these regulations. All funds, including those received from the Government, Gram Panchayats and non-government sources shall be utilized through the micro-planning process.
- 37** The sum received by the Society shall be deposited in the name of the concerned Society in a nationalized bank or scheduled bank or co-operative bank or post office and the account shall be operated under the signatures of the President and Treasurer of the Society.

- 38 The Treasurer shall maintain the account of Revenue and Expenditure of the society in a proper Account/Cash Book. The account so maintained shall be placed before the Executive Committee as well as the general body. The funds from all sources shall be utilised only on activities enlisted in the micro plan. The withdrawal of funds from the Bank account shall be effected through signing cheques / electronic transfers/ bank drafts only.
- 39 The Society shall elect an Audit & accounts Committee comprising of 3 members. This committee shall carry out the inspection of the works done and the accounts maintained by the Executive Committee and if it comes across any discrepancy/irregularity, the same shall be intimated to the General Body.
- 40 The Society shall seek the advice of certain experts on important matters. No fee shall be payable for such service; however the society can pay honorarium and travelling expenses can be disbursed to such experts.
- 41 Treasurer shall be entitled to keep an amount of Rupees 1000/- only, for expenditure in case of an emergent situation. In case of any additional income he/ she shall get the amount deposited in the bank, within 3 days of its receipt.
- 42 The Treasurer shall be entitled to spend an amount of Rupees 1000/- only in case of an emergency, with the prior permission of the President of the Executive Committee.
- 43 The accounts of the Society shall be audited by a Gov't-recognized Auditor on an annual basis, and shall be shared with forest department.

#### **PRESIDENT**

- 44 (i) To provide leadership to the Village Forest Development Society. For undertaking different responsibilities, he/she shall seek the help of the other members of the Executive Committee
- ii) To preside over the meetings of the Executive Committee and General Body
- iii) To facilitate decision-making in Executive Committee on legal matters
- iv) To sign and authenticate all documents on behalf of the Village Forest Development Society
- v) To sign the MOU with any department/agency (after due approval from Executive Committee) on behalf of the Village Forest Development Society
- vi) To prepare plan and arrange for the implementation of the micro plan with the agreement and cooperation of other members of the Executive Committee
- vii) To sign cheques (Banks) on account of expenditure duly approved by the Executive Committee and issue utilisation certificates (UCs) jointly with signatures of Treasurer.
- viii) To coordinate with other departments/agencies/non-government agencies
- ix) To carry out regular inspection of the project works such plantations, stream rejuvenation, lantana eradication, grass improvement, livelihood development, fire prevention and control etc. And to take steps for the improvement of forest and natural resources
- x) To assist and facilitate working of the forest department project authorities especially with respect to detection and investigation of forest offences
- xi) To supervise the working of the Executive Committee and to give necessary directions from time to time

## MEMBER SECRETARY

- 45 (i) To organize the meetings of Executive Meeting, General Body and other meeting Executive Committee, General Body and meetings with forest department, project authorities and other agencies and record in proceeding registers.
- ii) To affix relevant information pertaining to Society, Forest and Project works on notice boards for general awareness and to transmit relevant and necessary information to all the members of the Society especially pertaining to the decisions, plans, budgetary provision, institutional rules and regulations etc.
- iii) To assist the president in fulfilling his duties and responsibilities

## TREASURER

- 46 (i) To maintain the cash/accounts books and registers, other related record pertaining to Society. He/She shall also look after the records and files pertaining to the society and keep them with proper care.
- ii) To operate the Bank Account on behalf of the Society along with President of the Executive Committee.
- iii) To maintain all records pertaining to revenue and expenditure, profit and loss, demands, resolutions for new expenditures, bills and vouchers etc. related to Society
- iv) To assist the Executive Committee in preparation of Budget every six month.
- v) To issue receipts pertaining to revenue and expenditure and to ensure spending of money for the works for which the money has been duly approved by the Executive Committee
- vi) To ensure regular audit of the accounts of the Society from the Gov't-recognized auditors and to supply the audit report to the Forest Department with signature of the President and Member Secretary and Treasurer himself/herself.
- vii) To carry out correspondence regarding project with other departments agencies and project authorities.
- viii) to sign cheques (Banks) on account of expenditure duly approved by the Executive Committee and issue utilisation certificates (UCs) for works, jointly with signatures of President of the Society

## MISCELLANEOUS

- 47 **Grant-in-Aid.** Forest department through project shall release Grant-In- Aid to the Society under the Government of Himachal Pradesh Grant-In-Aid Rules, 2002 subject to the availability of funds and satisfactory performance of functions by the Society.
- 48 **Coordination meetings:** There shall be quarterly meeting of the executive committee of the Village Forest Development Society with Divisional Forest Office: wherein there will be review and feedback on the various project/forest related matters. The meeting will also be used to discuss, plan and coordinate various matters pertaining to the management and protection of forest areas and other relevant issues.
- 49 **Settlement of dispute.**
- i. In case of any dispute in relation to usufruct sharing in Society, the Deputy Ranger concerned of the Department, shall take steps to reconcile the dispute. In case the dispute is not resolved, the Deputy Ranger shall refer the dispute, along with his report to the

Ranger Officer concerned of the Department. The Range Officer, after hearing the parties shall resolve the dispute within 30 days from the date of receipt of report of the Deputy Ranger.

- ii) In case of any dispute between two villages or between the Society and the Forest Department, an application shall be submitted to the Conflict Resolution Committee for settlement of the same. The Committee shall resolve the dispute within 15 days of such application.

**50 Appeal.** An appeal shall lie from the decision of the Range Officer the Conflict Resolution Group to be filed within 30 days from the date of decision, who shall decide the same within 60 days from the date of filing of appeal, after affording an opportunity of heard to the parties. The decision of the Conflict Resolution Group shall be final and binding on the parties. The Conflict Resolution Group shall send a copy of the decision to the Society and the Divisional Forest Officer concerned free of cost.

### **51 Powers of the Government**

Notwithstanding anything contained in this regulation, the Government shall have the powers to issue directions to the Society on participatory forest management processes, micro-planning, coordination, monitoring, grant-in-aid and implementation mechanisms.





**Project for Improvement of Himachal Pradesh  
Forest Ecosystems Management & Livelihoods**

Himachal Pradesh Forest Department (HPFD)