MicroPlan

Bio-Diversity Sub CommitteeHIKKIMVILLAGE

Project for ImprovementofHimachalPradesh ForestEcosystemsManagementandLivelihoods

GramPanchayat ---------- Langcha

B M CLangchaBMCSubCommittee ------ Hikam

ForestBeat

---------- Kibber

ForestBlock---------- Kibber

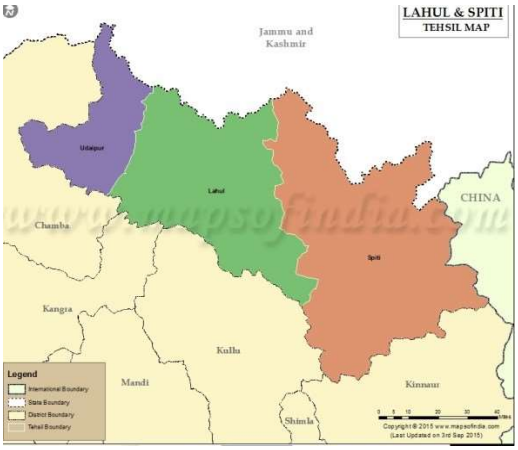
ForestRange---------- WildLife Range, Kaza

ForestDivision---------- Wild LifeDivision Spiti

ForestCircle---------- Kaza

HIMACHALPRADESHFORESTDEPARTMENT


HIMACHAL PRDESH
2001


LAHUL & SPITI
TEHSIL MAP
Jammu and Kashmir
CHINA
Chamba
Kangra
Kullu
Mandi
Shimla
Kinnaur
Legend


Spiti Sattva
Hikkim Post Office


25
Losar (4084m / 13400 ft)
19
Kibber (4270 m / 14000 ft)
Kunzum Pass
(4590 m / 15060 ft)
56
Ki
Langza (4420 m / 14500 ft)
8
Hikkim (4400 m / 14400 ft)
14
15
Kaza
(3800 m / 12500 ft)
Dhankar
48
Tabo
(3280 m / 10760 ft)
63
Nakc
106
Kalpa
(2960 m / 9711 ft)
7

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Abbreviations&Acronyms	
ADMU	AssistantDivisionalManagementUnit
ANR	AssistedNaturalRegeneration
BO	BlockOfficer
CBMP	CommunityBasedBiodiversity ManagementPlan
EC	ExecutiveCommittee
CD&LIP	Community Development&LivelihoodImprovementPlan
CIG	CommonInterestGroup
DMU	DivisionalManagementUnit
SMS	SubjectMatterSpecialist
FCCU	ForestCircleCoordinationunit
Fgd	Forest Guard
FTU	FieldTechnical Unit
GIS	GeographicInformationSystem
FD	ForestDepartment
GOHP	Governmentof HimachalPradesh
GP	GramPanchayat
Ha.	Hectare
HHs	Households
HP	HimachalPradesh
HPFD	HimachalPradesh Forest Department

IFMS	Integrated ForestManagementSystem
IGA	IncomeGenerationActivities
INR	Indian Rupees
JICA	JapanInternationalCooperationAgency
MIS	Management Information System
MM	MahilaMandal
NR	NaturalRegeneration
NTFP	Non-TimberForestProduce
O&M	Operationand Maintenance
PFM	ParticipatoryForestManagement
PIHPFEM&L	Project for Improvement of Himachal Pradesh Forest EcosystemsManagement &Livelihoods
PMC	ProjectManagementConsultant
PMU	ProjectManagementUnit
PRA	ParticipatoryRural Appraisal
RRA	RapidRural Appraisal
RO	RangeOfficer
SHG	Self Help Group
SWC	SoilWaterConservation
TOT	Trainingof Trainers
BMC	BiodiversityManagementCommittee
YM	YuvakMandal
WHS	Water HarvestingStructure

1. Introduction

1.1 Project Objectives

The objective of the "Himachal Pradesh Forest Ecosystems Management and LivelihoodsImprovement Project"(HPFESMLIP) is to manage and enhanceforest area ecosystemintheprojectarea,bysustainableforestecosystemmanagement,biodiversityconservation, livelihoods improvement support and strengthening institutional capacity,therebycontributingtoenvironmentconservationandsustainable,socioeconomicdevelopmentintheprojectarea inthe stateofHimachalPradesh.

1.2 ProjectApproachandStrategies

The project aims to sustainably manage and enhance the ecosystems of the forests in theproject area by project interventions under four components in correspondence with theproject outputs as below. Each component has the preparatory phase, implementationandphase outphases.

Output 1: Sustainable Forest Ecosystem

Management,Output2:BiodiversityConservationand

Output 3: Livelihoods Improvement Support are supported

byOutput 4:InstitutionalCapacity Strengthening

Thebasicapproachestobefollowedundertheprojecttoachievetheprojectobjectivesinclude;

Empoweringforest-fringecommunities,particularlywomen,throughsustainablelivelihoods and ensuring positive involvement of rural people in managing their ownenvironment.

Strengthening community institutions such as Village Forest Development Society (VFDS)andBiodiversityManagementCommittees (BMCs)/subcommittees.

Alleviatingpovertyoftheruralpoorthroughincomegenerating interventions.

Planning and implementing site specific technical and scientific forestry interventions,includingsoilandmoistureconservation,restockingofdegradationareasthrough appropriate Silvi-cultural operations utilization of the inherent potential of available rootstock,underplantingwithsuitable species,blockplantationsinblank patches.

Promotinginter-sectoralconvergence(ISC).

InterventionstobeplannedandimplementedbyVFDS/JFMCsandBiodiversityManagementCommittee/subcommittees(Micro planning).

Capacity Development of Himachal Pradesh Forest Department and VFDS/JFMCs.Promotingforest-basedandnon-forestbasedenterprises(suchasthevalueadditionandmarketingofmedicinal&aromaticplants, etc.)togeneratesustainableemployment,developindustriesandenhancethevalueofforests. Caring for the socially disadvantaged groups in the society, such as scheduled castes,Scheduled Tribes, forest dwellers, women and other vulnerable people through propersafeguard measures as per the JICA guidelines and applicable Indian laws and regulations.Institutioncapacity strengtheningofForest departmentand itspersonnel.

1.3 ModeofOperation

The identified areas shall be divided into Participatory Forest Management (PFM) Modeand Departmental Mode. In case identified potential interventions areas are away fromcommunities but interventions are required for the purpose of the Project and the PFMinstitutes (VFDS/BMC sub-committee) showing their unwillingness to work in these areas,such interventions are to be conducted in the departmental mode. However, PFM modeshallbeselectedwhereapplicablefromtheviewpointofsustainability.Themajoractivities tobeimplementedunderdifferent modesincludeasbelow.

PFMMode

DrainageLineTreatmentincluding ex-situSoil &WaterConservation(SWC)workDensificationofmoderatelydenseforestsbyPlantationofmulti-purposetreesindegradedforestssoastoconvertopenforestsintomoderatelydenseforestsandmoderatelydenseforeststodenseforests;gapplantationsshouldbepreferredtobemoreeffective onlargerareas.

Afforestation/ Improvement ofOpen/ ScrubForestRehabilitationofForestAreasInfestedwithInvasive Species

Improvement of Pastures/ Grasslands (including in-situ SWC works)ForestFireProtection

ForestryInterventionatOutsideofForestAreas

DepartmentalMode

Improvement of Forest Boundary Management at Project Intervention AreasImprovement of Nurseries

Seedling Production

\DrainageLineTreatment(ex-situSWCwork:including treatable

Surface erosion Control)

Secondary Silvi-cultural Operations for Improvement of Existing ForestsImprovement/Densification of Moderately DenseForest

Afforestation/Improvementof Open/ScrubForest

Improvement of Pastures/ Grasslands (including in-situ SWC work)ForestFireManagement

In addition, the Community Development & Livelihood Improvement Plan (CD & LIP) willbe executed by PFM institutions including Common Interest Groups (CIG), User Groups,Self-helpGroups(SHGs) andExecutive CommitteeoftheVFDS.

1.4 NeedforSub-CommitteeLevelMicroPlan

All the Project activities at the BMC sub-committee level shall be undertaken afterpreparationof along-term (5-7Years)development/perspective microplan.

Microplanningshallbeconsideredasanempoweringprocessthathelps BMCsub-committeetolearnmoreaboutthemselves,theirresources,issuesandchallenges,strengths and weaknesses, and further to plan for their own development and sustainableresourcemanagement.

The implementation of PIHPFEM&L activities at the BMC sub-committee level shall beguided by an approved Micro Plan prepared by the respective VFDS/BMC sub-committee.Microplanpreparationshallbethefirststepofimplementationofthefieldactivities.

Micro Plan shall be a comprehensive development plan with a special focus on forest andlivelihood development. The micro plan shall cover both forest and non-forest areasmanaged by the BMC sub-committee. Micro plan shall integrate the needs of BMC sub-committeeintocomprehensiveplanthroughanalysisofcurrentconditions,socialassessment and interaction with the members, and with reference to the prescriptions oftheWorking Planof the Forest Division.

Micro Plan will not only focus on forestry activities and it should be comprehensive so astoincludealldevelopmentactivitiesthatmaybetakenupbyotherGovernmentDepartments and Agencies through convergence. During the preparation of micro plan theBMCsub-committeeshallinteractwithofficialsofotherdepartmentsandafterpreparation of Micro Plan, it should be shared with other Government Departments andAgenciesfordovetailingtheiractivitiesin BMCsub-committee.

A Micro Plan shall consist of two types of sub plans; i) Forest Ecosystem Management Plan(FEMP) and, ii) Community Development and Livelihood Improvement Plan (CD&LIP) andshallbeaggregatedbyFTUfor each range.

Under the Micro Plan composed by FEMP and CD&LIP, broad action plan is to be preparedfor 5 years based on the 10 year's vision. During the exercise, the achievements of theprevious year shall be assessed and identify issues and corrective measures to furtherincreasetheefficiencies andeffectivenessoftheproject implementation.

In the annual planning undertaken during 4th year, a broad action plan shall be preparedfor the fourth coming 5 years. The process of the 2-5 year action plan shall follow thesamestepasdiscussed intheabovesection.

A copy of Micro Plan, when prepared, shall be shared with the Gram Panchayat, BlockDevelopment Office (BDO) and other Line Departments for dovetailing their activities inBMCsub-committee.

Although Micro Plan shall be prepared for a period of 5-7 years it would be revisited onannualbasis.

2 Basic Information

2.1 Basic Information sheet on Microplan

	Name of the BMC Sub-Committee	**Hikkim**
	Name of the Ward	**Hikkim**
	Registration No.	**HPCD-4043**
	Name of Gram Panchayat/BMC	**Langcha**
	Name of the FTU/ Range	**Kaza**
	Name of the DMU/Forest Division	**Kaza**
	Name of the District	**Lahaul&Spiti**
	Period of Micro Plan	2022-23 to -2027-28
	Date of approval of Micro Plan by Executive Committee of BMC Sub-Committee	22/11/22
	Date of approval of Micro Plan by Head of DMU	**22/11/2022**
	Key team members engaged in Preparation of Micro Plan	Dr Pawan Kumar Attri Mr. Aman Kumar Ms. Diksha Kumari Ms. FTU Tabo chhodon Zangmo Miss. FTU Kaza Meenakshi
	Date of General house conducted &resolution passed	**16/11/2022**
	Number of participants	**Male:7 Female:5 Total:12**
	Voting Pattern followed for formation of BMC Sub-Committee EC	Nominated: Elected: 9
	Number of members in EC	Male: 7 Female:5 Total:12

2.2 GeneralProfileofBMC SubCommitteeselected.

S. No	Description	CurrentStatus
1	Date & Registration No. of BMC Sub-Committee	**03/06/2022**
2.	No.ofRevenueVillages/Ward/ Forest Villagescovered	**01**
3.	Totalnumberofhouseholds(HHs)inWard	**39**
4.	TotalNoof householdrepresentingBMC Sub-CommitteeGeneral House	**12**
5.	TotalPopulationinHikkimWard	**195**
6.	TotalGeneralCategoriesHHsinWard Hikkim	**Nil**
6	TotalOBCHHsinWardHikkim	**Nil**
7	TotalIRDP/BPLHHs	**18 HHs**
8	TotalLivestockinHikkimWard	**380**
9	Bankaccountdetails	**SavingAccount**
10	NameoftheBank	**SBI KAZA**
11	Date ofaccount opened	**30/11/2022**
12	Accountnumber/IFSC	**SBIN0003337** **A/C No 40882885817**

2.3 DetailsofECMembersofBMC Sub-Committee

S.No	Name	M/Fe	Designation	Category	Village
1	Angdugi Dorje	M	President	ST	Hikkim
2	Yangchen Butih	F	Vice-President	ST	Hikkim
3	Dikit Dolma	M	Member	ST	Hikkim
4	KungaChhewang	M	Secretary	ST	Hikkim
5	ChheringPalmo	F	Joint Secretary	ST	Hikkim
6	SonamButih	M	Member	ST	Hikkim
7	DorjeKunchonk	F	Member	ST	Hikkim
8	SharabFunchok	M	Member	ST	Hikkim
9	SuryaBhagat	F	Member	ST	Hikkim
10	SureshKumar	M	Ward-Member	ST	Hikkim
11	Asha	F	Member	ST	Hikkim
12	DorjeButil	F	SHG President	ST	Hikkim

3MicroPlanning Process

Beforestartingthemicro-planningprocess FTU-TeamConductedtheGramPanchayatAwareness Meetingin Hikkim village,In this MeetingPanchayat representative, othervillagers of Panchayat area participated.FTU team discussed about Jica Project and itsobjective with Participants in detail.After this meeting, FTU Team conducted the wardlevel awareness meeting in Hikkim ward with the help of Ward members and othersources.Thenresidentof Hikkimward agreedforjicaprojectimplementation.

Sub-committee level Micro Plan consists of Community Based Management Plan (CBMP)and Community Development & Livelihood Improvement Plan (CD&LIP). For activities tobe implemented through line department/agencies detail of Convergence activities alsoadded to the Micro Plan. The detailed process followed in preparation of micro planfocuses on information collection primary, secondary sources, ward level meetings

andothermeetingsheldwithprimaryandsecondarystakeholders.Theinformationalsocollected from different sections of the community using Participatory Rural Appraisal(PRA) and RRA techniques. During PRA focus group discussions (FGD) with the specificgroups i.e. vulnerable families OBC/Women was held. The information collected wastriangulatedwithdifferent groups and finalized ina plenarysession.

TheinformationcollectedwasanalysedjointlywiththeactivemembersofSub-Committee and other community participants. A meeting was conducted to share theprimary information collected. The changes were incorporated based on the participants'consensus.

The participants were divided into different sub-groups such as farmers, women, youth,poor, labour, etc. to identify their problems, perceived needs and priorities. The sub-groupssuggestedthepossiblesolutionstodealwiththeirneeds&prioritieswhichemerged during the group exercises. A detailed set of perceived problems and solutionswas developed jointly by micro planning team of the project and the Sub-committeemembers. During PRA exercise women and men were given maximum opportunities tobringforward forest relatedandlivelihoodrelatedissues.

Theperceivedproblems,solutionsandinformationcollectedthroughprimaryandsecondary sources were discussed with General house of Sub-Committee. A refined set ofproblemsandsolutionsemergedtotakeitforwardforinputsfromthetechnicalstaffand

the experts to finalize the Micro Plan especially the CBMP. Executive Committee of wardwas also formed in the General house according to the HP Forestry Project guidelines. ForForestryinterventionsUserGroupwerealsoformed.

Technical staff of HPFD and Community focused on quantification and decided a tentativetarget for different interventions and prepared cost estimates based on the Project normsandlocallyprevailingrates.ThemicroplanisfinalizedinconsultationwithFieldTechnical Unit (FTU), Divisional Management Unit (DMU) and Executive Committee ofSub-Committeeandinputsfromother experts.

The details presented in the following table indicate the critical steps followed in microplanningprocess.

S. N	**SequentialStepsFollowedAdditioncanbemade asperlocallyfollowedprocess**	**date**
	Communityawarenessbuildingmeetings/workshops organisedat GP &ward Level	10.10.2021
	GP Consenttoworkwithproject	
	BMCSub-Committeeformed/Executivecommittee constituted/sub-committee Registered.	
	ActionplanpreparedwithSub-CommitteeforMicro PlanPreparation	
	Micro planning process started /PRA exercise conducted(From-To)	
	Participatory informationanalysiscarriedout(From-To)	
	Negotiation/planningprocessheld (From- To)	
	Participants involved in negotiation/planning process(Male&Female)	55-60(morethan50% werefemale)
	Presentation of the draft plan in village/ward assemblyforapproval	
	Documentingthemicro plan(From-To)	
	MOUsignedbetweenDMUandECofSub-Committee for undertakingmicroplanningand implementation	

	Problems/challengesexperienced	Gathering of people was little time taking.

4.Socio-Economic Status of HikkimGeneralDescriptionof the BMC Sub- Committee

4.1 HistoryofAreaselected:-

Hikkim Village is located in the Spiti Valley of Himachal Pradesh. It is at an elevation of4,400 meters (14,400 ft) and about 16 kilometers from the town of Kaza.(Table.1.1)Highest post office in Hikkim Situated at an altitude of 14,400 ft, this post office cameintoexistenceon November5, 1983. This small post office covers a group of about 7small villages nearby; and also serves as the residential quarters for the postmaster wholives here with his entire family. It only remains operational for about 6 months and isforcedtoshutduringwintermonthsduetoheavysnowfall.Consideringthefactthatthere is no cellphone signal or internet here, it is the only connection to the world for theresidents of Hikkim and other villages nearby. Hikkim too has a small monastery. It islocated at the far end overlooking the entire village. It is just a small monastery thoughthat does not receive many visitors because most of the tourists would head straight toTangyud Monastery; a larger and much better-known monastery located in the village ofKomic. Hikkim, like the other villages nearby, is rich in fossils. Langza is commonly knownas the fossil village but you can very easily find those in Hikkim as well, provided that youknow what you were looking for. Hikkim village was once the world's highest pollingstation and was recorded in the Limca Book of Records as such. This is a record thatHikkim held for a long time and lost it recently to the village of Tashigang, located only afew kilometers away. Accommodation in Hikkim is limited to homestays only. Tsedup'shouse is the only homestay/guest house thatformally recognizes itself as acceptingtourists.

4.2 Location ofBMCSub-CommitteeArea:-

Hikkim Sub-Committee fall under Langcha BMC/Gram Panchayat in Spiti block of Lahul &Spiti District. The selected BMC Sub-Committee area falls under Kibber beat of WL KibberRangeinWLKazaforestDivisionManagementUnit(DMU).HikkimSub-CommitteeSituatednearKibberWildLifeSanctuaryandSub-CommitteeHikkimfallsnearKibberBeatof TerritorialRangeofKaza. LocationMap is attached on **Page No.3**

Boundary: - The boundary of selected BMC Sub-Committee area is as under:-

East= komicVillage

aza

North = Langcha

VillageSouth

=Forestland

Distancefrom Forestand otheroffices:-

HikkimBMCSub-

Committeeareaislocatedatadistanceof16kmfromWLRangeoffice;Revenueblock office, DMUofficeandthe200kmdistrictheadquarterkeylong.

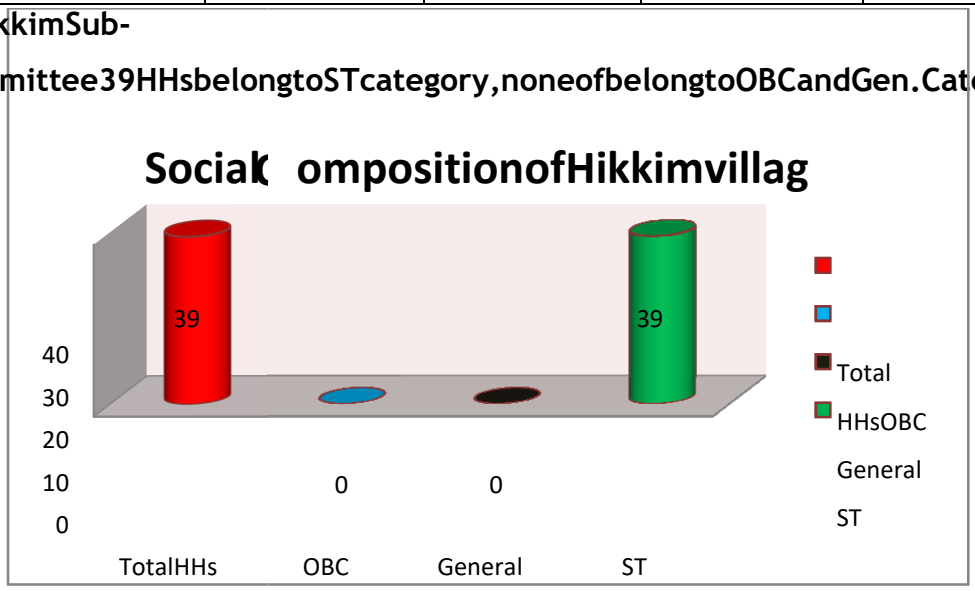
ImportantfeaturesofBMCSub-Committee:-

"World Highest post office in Hikkim"and "Fossil" found in this area under this Sub - Committee area. Tourist comes from all over India to visit this famous site during summerseasontoenjoy thescenicbeauty and climate.

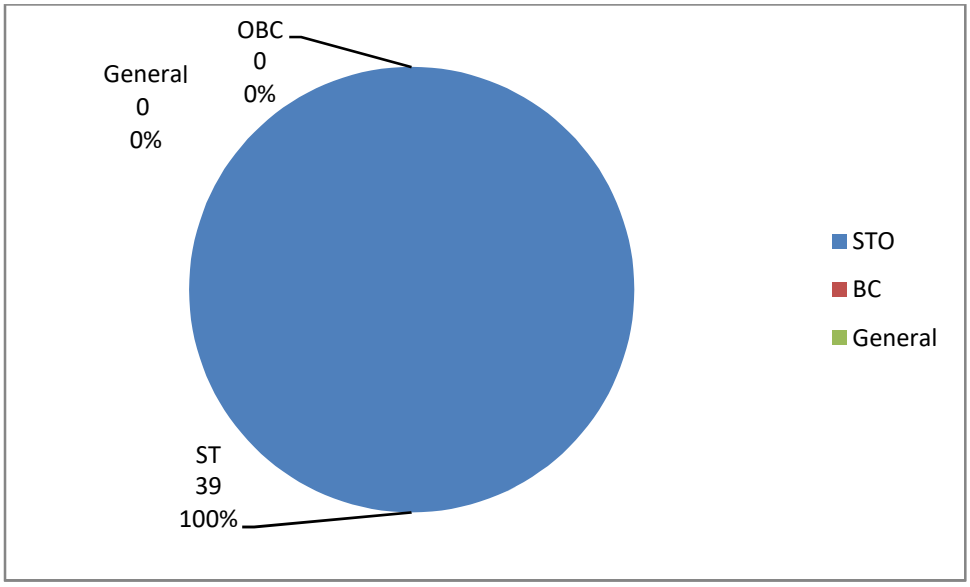
4.3 Socialcomposition

Households(HHs)	ST	OBC	General	Total
No ofHHs	**39**	**0**	**0**	**39**
% of HHs	**100**	**0**	**0**	**100%**

- **InHikkimSub-Committee39HHsbelongtoSTcategory,noneofbelongtoOBCandGen.Category.**



- **100%HHs arebelongtoST category.**



4.4 Population

Socialcategory	Population(Number)					
	Male Adults	Female Adults	Total Adults	MaleChildren	Female Children	TotalChildren
OBC	00	00	00	00	00	00
ST	86	75	161	18	16	34
Total	**86**	**75**	**161**	**18**	**16**	**34**

TotalpopulationofHikkimSub-Committeeis195.Outofthese86aremaleand75arefemale.Male children are18and female children are16

Outoftotalpopulation195allarebelongtoSTcategory,noneofwhichbelongtoOBCcategory.

EducationalStatus

4.5 EducationalStatus(Adults)

Level	Number		
	Male	Female	Total

Illiterates	**36**	**36**	**72**
Percentage(Illiterates)	**18.5%**	**18.5%**	**37%**
Primaryeducation	**0**	**0**	**0**
Middleeducation (10th)	**13**	**20**	**33**
HigherSecondary(12th)	**45**	**29**	**74**
Graduates and above	**10**	**6**	**16**
Professional courses	**0**	**0**	**0**
Totalliterates	**68**	**55**	**123**
Percentage(literates)	**35%**	**28%**	**63%**

63% people are literate. Out of these 35 % males are educated while 28% females areeducated. Where as 37 % population is iiliterate out of which 18.5% both male andfemale are iiliterates.17% are middle level educated, 38% are higher secondary level andonly8% aregraduatesand above.

EconomicCategories

4.6 Wealthrankingasper PRA exercise

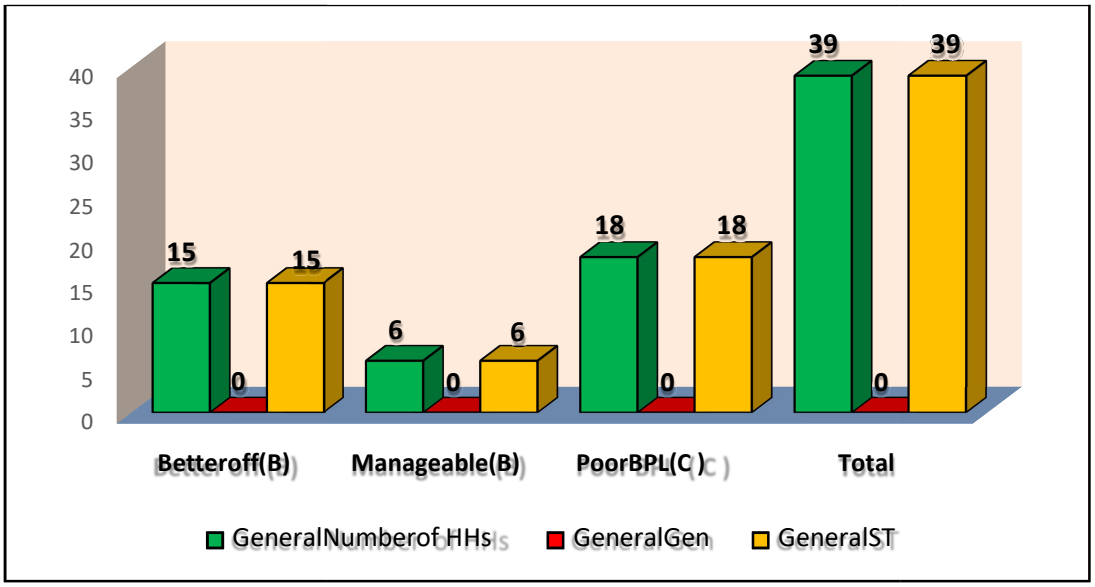
Category	**Criteria/Indicator**	**No ofHHs**	**Category code****	**CategoryWise**	
				Gen	**ST**
Better off	Govt.Job,workcharge, Small dhabhas,cafe	15	**B**	**00**	**15**
Manageable	Agriculture tourist guide.	6	**B**	**00**	**6**
Poor(BPL)	SmallFarmers, Labour	18	**C**	**00**	**18**
Total		**39**		**00**	**39**

Poorcategoryisofsmallfarmers whohave lesslandandalsodolabour work.

Manageablecategoryincludespeopleinvolvedinagriculturehavinglandbetween03to06Bighado exculsiveagriculture

BetteroffdoGovt.jobs,andarehavingagriculturelandmorethan6-11bighaandsomeshortof job like parttime worker, work chargeetc

InBMCSub-committeepeoplebelongtoBcategory53%,andpoor(BPL)withsmallholding doinglabour work forotherpeoples are47%.



HHs Above and BelowPovertyLine*(As per Government Criteria)*

Households	Total	APL	BPL
Noof HHs	39	21	18
%ofHHs	100%	54%	46%

During livelihood analysis B category HHs showed 50 % dependence on Agriculture, 50% ongovtjob work for theirlivelihoods.

Where as category B (Manageaable) HHs showed 60% dependence on Agriculture andAnimalhusbandryandLabour 40%deficiencyinmeetingtheirlivelihoodrequirement.

There isnocategoryA classfound in thisarea

4.7 AccesstoBasicFacilities/Services

Facilities/Services	Availability (%HHs)	Distance (Km)	Current status
Toilets	100%	-	Personel Local dry toilets available.

Toiletswith flushwater	-	-	**VERY FEW -**
LPG	100%	16Km.	AVAILABLE
Improvedstove/Tandoor	100%	-	AVAILABLE
Electricity	100%		AVAILABLE
Drinking water	100%	05-1Km	AVAILABLE
Health services	100%	16 KM HQ	KAZA
Veterinary services	100%	16KM.	KAZA
Banks	100%	16KM.	KAZA
Markets	100%	16KM.	KAZA
Anganwadi	100%	100to 1000 Mtr.	Aganwariavailableinvillagewithgoodservice.
Primary schools	100%	100 to 1000 Mtr.	PrimarySchoolavailablewithin the village withgoodService
Secondary	100%	16Km	Sr.Secondary School availableinKaza.

schools			
PDS	100%	0.5-02 KM.	PDSavailablewithinHikkimVillage.
Transport	100%	03-04 KM.	Govt.BusserviceandPvtservice(Taxi) availableinLangchaVillage AND IN KAZA
Telecommunication	100%	10km	AllHHhaveMobilePhoneswithpoor networks

ResourceAnalysis

5.1 LandResources

5.1.1 LandUsePattern

Landuse	Total land	Landundercultivation	Forest land/area	Orchard	Wasteland area	Waterbodyarea	Areaunder Non-agriculture use
Area(ha)	**104.33**	**20.24**	**0**	**0**	**3.73**	**-**	**7.15**
% Area (ha)	**100%**	**19.40%**			**3.58%**	**-**	**6.8%**

5.1.2. Land OwnershipPattern

Land Ownership	Privateland	Communityland	Panchayatland	Forest land	Waste Land	Total
Area(ha)	**104.3**	**-**	**-**	**0**	**3.73**	**104.3**
% Area (ha)	**100%**				**3.58%**	**100%**

Livestock PopulationHikkam Village

No.	Cow	Sheep/goat	Yak	Donkey	Total
	230	**60**	**50**	**40**	**380**

5.2 Forest Resources5.2.1 Forest Area

5.2.1.1 SiteSelection andLocation

This site has been short listed by the DMU and his field staff. Bio-diversity ManagementCommittee Langcha had formed by Himachal Pradesh State Biodiversity Board underBiodiversity act 2002.As per guidelines of JICA, three sub-committees had to be formedunderBMC.The selectedBMC/GramPanchayatLangchahas threewards.

The Sub-Committee Hikkim area falls under Forests falling under One Forest beat ofLangcha range. The site Sub-Committee Hikkim is situated near kibber Wildlife Sanctuary.The site is approximate 16 Kms from WL Range office Kaza. Location ***Map is attachedPageNo. 03***

5.2.1.2 DatafromWildlifeForestDivisionforCommunityBasedBio-DiversityManagement Plan (CBMP)

KibberWildlifeSanctuary

Notifiedon1.11.1999comprisingareaof1400.00sqkm.Andondated28July2010it includes an area of 867 sq. Km to the existing 1400 sq km whereas 46.88 sq km area ofexcluded alongwith village Kibbrifrom existing 1400 sq km of Kibber wildlife Sanctuary .The total area of 2220.12 sq km shall now constitute the Kibber Wildlife Sanctuary afterrationalization. The sanctuary has three beats Kibber, Langcha and lalung. The area ofkibberbeat is1124.50sqkm.

Beinga highaltitude sanctuary KWS is home to a variety of rare animalslike Ibex,blue sheep, red fox, Tibetan wolly hare, Himalayan Wolf Lynx, Pika elusive snow leopard.Birds that are found here include the Himalayan snow cock, Himalayan billed chough, thebearded eagle and griffons, and the sanctuary also offers a great view of the regions'speakChau-chauKhanamo &Chau-chau Khang Nilda.

Despite being a hingh altitude cold desert, spiti boasts of more then 450 species ofmedicinalandaromaticplants.TheseincludeSeabuckthorn,Hatagirea,Aconitum,Ratanjot, Ephedra, Artemisia and other condiments. The alpine pasture on the highplateaus is home to a varity of small bushes and gresses includes Rosa sericea, Hipopheaeand Lonicera among others. Threatened plants species are *Arnebia euchroma, Berginiastracheyi,Physochlaenapraealta,Rhodiolaheterodonta.*

This area is situated within the Geo-coordinates. North Latitude 32º 45' 42" N andLongitude 78º 22' 16" E Latitude 32º 25' 00" N and Longitude 78º 32'33" ESouth latitude32º 08' 27" and longitude 78º 20'35" EWest latitude 32º 35' 38" N and Longitude 78º 47'37" E. This area falls onsurvey of Indiatopo sheet No. 52 L & 52 H of scale 1" 4 miles.Are of Wildlife Sanctuary is 2220.12 sq.km. North boundary of the Sanctuary starts from apoint on Lungher nalla follows downstream upto its confluence with Maung nalla thenacrossing malung nalla boundary meets interstate boundary of Himachal Praesh and Jammu&KashmirstatewhereitformsVshapenandthenmovesaroundthesameinterstate

boundary of Himachal Pradesh and Jammu & Kashmir upto turning point near Nurbula.East: From turning point inter state the again moves along the inter state boundary ofHimachal Pradesh and Jammu & Kashmir upto the point where that boundary ends andmeet with International boundary i.e. Gya Peak which is highest peak height 22290 feetsthen moves along international boundary of india andTibet upto top of Lingti River thenagain moves along international boundary upto the point where it forms again V shape.South: South boundary start from V shape on the International boundary and moves alonga ridge entering into Spiti Wildlife Division separating the water shed of Lingti river in thenorth and watershed of Spiti river in the south uptothe top of Kibbri nalla. West: westboundary starts from top of Kibbri nalla and then follows a ridge between Kibbri nalla andShiji Bhang nalla upto its confluence with Lingti river down stream upto village Sanglungand then across Lingti river boundary goes to Khukhe nalla leaving aside Sanglungvillageand then followsa small ridge upto the top of the nalla near Langcha village intheopposite side the follows the same nalla down stream upto its confluence with Shila nallaand then acrossing Shila nalla boundaryfollows a small nalla in oppositeto side upto itstop height Dhunbhschen 16900 feet and then followsa small nalla in the oppositesideand moves along the same nalladown stream upto its confluence with Puri Lungbhi andthen followsPuri Lungbhi up streamupto its top Prangla height 18300 feetthen boundarymoves alonga ridge separating the water shed of talking river ,Tanmu river and Kibjiriver in the south and Lungherriver and Malung river inthe North and meet in Lunghernallaatstartingpoint of Northern boundary.

5.2.1.3 Descriptionoftheforests(Sanctuaryarea)

TheentireSpitiregionisclassifiedunderthe‘Trans-HimalayanColdDesert’biogeographic zone . The vegetation in Spiti is classed as ‘Alpine scrub’ or ‘dry alpinesteppe’ vegetation. Such areas are characterised by scattered and open bush-land mainlywith herbaceous and shrub species such as *Artemisia spp., Lonicera spp*. and *Caragana*spp. The graminoids such as *Festuca* spp., *Poa* spp. and *Stipa* spp. are found in the area,but by and large their biomass seems to be depleted (Mishra 2001). Today, the twoimportant vegetation formations in the region include open or desertsteppe dominatedbygrassesandsedges(e.g.*Stipa*spp.,*Leymus*spp.,*Festuca*spp.,*Carex*spp.)ataltitudes up to 4,600 m, and dwarf shrub steppes between 4,000 and 5,000 m dominatedbyshrubssuchas*Caragana*spp.,*Artemisia*spp.,*Lonicera*spp.and*Eurotia*spp..Mesic

sites such as river valleys and areas along springs and glaciers are often covered by sedgemeadows (*Carex* spp., *Kobresia* spp.). Vegetation occurs up to 5,200 m, but becomessparseabove4,800m,andislimitedtoforbssuchas*Saussurea*spp.and*cushionoid*plants such as *Thylacospermum* spp.. The important plant families include *Graminae,Cyperaceae, Brassicaceae, Fabaceae, Ranunculaceae, and Leguminoceae*. The VillagersfromHikkimandKomicandLangchaSub-CommitteehavetheirrightsinthisForestarea .The Villagers of these areasdepend on this Forest areafor Fodder, Fuel wood andTimber. The requirement Of Fodder and Fuel wood of Villagers does not fulfill from thisForestarea sothey alsogotoSanctuary area forfulfilltheirrequirements.

Geology, Rock and Soil

The area is characterised by sharp changes in a combination of quartzite, shales,limestones and conglomerates. Most of the area is rich in fossils, mainly brachipods,trilobites, ammonites, bivalves and also certain corals and algae, indicating its Tethyanpast. The high altitude desert soils are predominantly sandy and shallow, derived mainlyby disintegration due to marked diurnal and seasonal fuctuations of temperature.Thesoils are mostly silty loam to silty-clay loam in texture with a slightly alkaline pH, poororganic matter and water holding capacity.The soils are low in available nitrogen,phosphorous,potassium andcarbon,howeverare better suppliedin calcium.

Terrain

All of Spiti occurs above an elevation of 3,000 m. The lowest point is where the riverflows intothe Kinnaur district nearHurling. Theriver cutsa deep gorge inthe lowerareas and opens up further upstream near Tabo where the river meanders over a vastvalley, at times close to a kilometre wide. The slopes on the right bank of Spiti are morerugged and have longer streams, while the left bank is less rugged. In fact there is a40km plateau from Kibber to Demul on the left bank, which also extends into much of themid Lingti valley, covering over 500km^2. Of the c. 7,600 km^2 covered by Spiti.There areShilla (6,132m) whichare popular climbing destinations. Apart from the access along themain Spiti River, the important passes are Pir Panjal range, the Parang la (5578m) andTakling la (5575m) with the Pare Chu Valley, on the Zanskar range, and the Kunzam la(4590m)withtheChandra Valley.

Climate

SpitioccursontheleewardsideofthePirPanjalbranchoftheHimalayathatcutofthe Monsoonal effect from the plains rendering the area dry and cold. Westerly disturbancesin the winter bring some precipitation in the form of snow. The temperatures can rangefrom – 40 in peak winter, to 30 degree Celsius in peak summer, with the minimumtemperature remaining sub zero from September to April in most places. Severe windsoccur almost every day and are further reason for the desiccated atmosphere and lack oftrees. Te overall climate is thus dry and cold with a long winter extending from mid-Novemberto March.

Precipitation,Temperature, Wind Speedand Humidity

Recentlocalreportsandmetrologicaldatasuggestamarkedchangeinwhetherpatterns in Spiti such as an increase in summer precipitation and a decline in wintersnows. Winter snows are important for both providing irrigation water through snowmeltstreams in summer as well as soil moisture for rangelands during the crucial spring andearly summer period. Late summer rains in (July-August) are seen as threats to standingcrop.

Watersources

TheSanctuaryareaiswelldrained;theSanctuaryfallsunderwatershedofLingtiRiver in the north and watershed of Spiti River in the south upto the top of Kibbri nalla.There are numerous seasonal nala are Lungher nalla, Maung nalla, Kibbri nalla, KibbrinallaandShijiBhangnalla,Shilanalla.Thesestreamsandnalasareuniformalydistributed over the sanctuary whole area are well drained and itfalls in catchment of oftalking river ,Tanmu river and Kibji river in the south and Lungherriver and Malung riverintheNorth.

Rangeofwildlife, statusdistribution andhabitat

The mammalian diversity of Spiti is not exceptionally large, but range-restricted speciesoccurhere.Teprimarylargemammalsreportedfromthelandscapearethesnowleopard, Asiatic ibex, bharal or blue sheep, Tibetan wolf and red fox.All of which arenationally threatened, and many are also internationally threatened. based on existingliterature,prominently represented inthe avifaunalcompositionareConsideringthegood representation of high altitude habitats and their potential to hold good populationsofrepresentativeavifauna,KibberWLSSnowPartridge(*Lerwalerwa*),Hume'sShort-toed

Lark (*Calandrella acutirostris*), Rosy Pipit (*Anthus roseatus*),Robin Accentor (*Prunellarubeculoides*),Brown Accentor (*Prunella fulvescens*)White-winged Redstart(*Phoenicuruserythrogaster*), Himalayan Grifon (*Gyps himalayensis*),Himalayan Snowcock (*Tetraogallushimalayensis*),SnowPigeon(*Columba leuconota*) etc.

Alpine Pastures

The entire Spiti region is classified under the 'Trans-Himalayan Cold Desert' (Zone 1)biogeographic zone with the Province 'Ladakh mountains' (1B) covering most of thesouthern bank and the 'Tibetan plateau' (1A) covering the northern bank as per theWildlifeInstitute ofIndia's biogeographicclassification.

The vegetation in Spiti is classed as 'Alpine scrub' or 'dry alpine steppe' vegetation. Suchareas are characterised by scattered and open bush-land mainly with herbaceous andshrubspeciessuchasArtemisiaspp.,Loniceraspp.andCaraganaspp.Thegraminoidssuch as Festuca spp., Poa spp. and Stipa spp. are found in the area, but by and large theirbiomass seems to be depleted. Today, the two important vegetation formations in theregion include open or desert steppe dominated by grasses and sedges (e.g. Stipa spp.,Leymus spp., Festuca spp., Carex spp.) at altitudes up to 4,600 m, and dwarf shrubsteppesbetween4,000and5,000mdominatedbyshrubssuchasCaraganaspp.,Artemisia spp., Lonicera spp. and Eurotia spp.. Mesic sites such as river valleys and areasalong springs and glaciers are often covered by sedge meadows (Carex spp., Kobresiaspp.).Vegetationoccursupto5,200 m,butbecomessparse above4,800 m,andislimited to forbs such as Saussurea spp. and cushionoid plants such as Thylacospermumspp..Theimportantplantfamiliesinclude Graminae,Cyperaceae,Brassicacea e,Fabaceae,Ranunculaceae, andLeguminoceae.

These pastures are found above the tree line up to limits of PA. A variety of medicinalherbsarefoundin these pastures.

Food, water and shelter are the primary requirements of any living being. Sufficientquantity of food and water both for animals and birds is available in the sanctuary. Someparts of the sanctuary are disturbed due to grazing of domestic and stray cattle. For wildlife this factor is very important as hiding places, shelter, nesting, resting, play, foodavailability all get disturbed and wild life avoid these areas. The food source in shape ofgrass and other biomass is present difficient quantity.Different herbivores prefer diversefoodunderdifferentcircumstancessonothingcanbesaidaboutqualityoffood

availability. Even sufficient food present may not be available for the wildlife species duetovariousfactorsthatattractorrepelwildlife.Disturbancebecomes alimitingfactor.

Available boastsof morethen450speciesofmedicinaland aromaticplants.TheseincludeSeabuckthorn,Hatagirea,Aconitum,Ratanjot,Ephedra,Artemisiaandothercondiments. The alpine pasture on the high plateaus is home to a variety of small bushesand gresses includes Rosa sericea, Hipopheae and Lonicera among others. Threatenedplantsspeciesare*Arnebiaeuchroma,Berginiastracheyi,Physochlaenapraealta,Rhodiolaheterodonta*.

Animals

Vertebrates,theirstatus,distributionandhabitats.Habitatquality,quantityandkeyareas

ThemammaliandiversityofSpitiisnotexceptionallylarge,butrange-restrictedspecies occur here.Theprimary largemammals reportedfrom the landscape arethesnow leopard, Asiatic ibex, bharal or blue sheep, Tibetan wolf and red fox , all of whicharenationallythreatened,andmanyarealsointernationallythreatenedAmongtheherbivores, ibex occupies much of the right bank and bharal, the left bank of Spiti River.Ibex also occurs on the left bank from the Lossar till near Kioto for potential distribution.Bharal extend into the Pare Chu valley also. During the field survey over 200 blue sheepwere sighted along with road extended to dumel village over 300 blue sheep in the Lingtivalley and about 25 in the Pare-Chu catchments. Ibex is mainly distributed in the narrowvalleys of the tributaries of the Spiti River along its right bank. Although snow leopardoccurs throughout the upper Spiti valley their signs were more frequent in the Lingti rivercatchments and the gorges formed by the Ula, Ratang and Guindi nala.Other animals areAsiaticibex, Bharalor Bluesheep,Tibetanwolf, Red fox,Himalayan weaseletc

It is important to analyze the resources available in the sanctuary in terms of habitat,which ultimately control and regulate the wildlife. Habitat can be analyzed in terms

ofspace,food,cover,presenceofotheranimalsandclimaticfactors.Spacemultidimensional factor is a primary prerequisite for wildlife. The length and width givesthe quantity of area available, thickness indicative of number of layers available fordifferent species. The quality and quantity of each of these dimensions gives the idea ofnourishmentof wild animals,whichis in abundance inthis PA.

5.2.2Selection ofInterventionareas,planning andtreatment:-

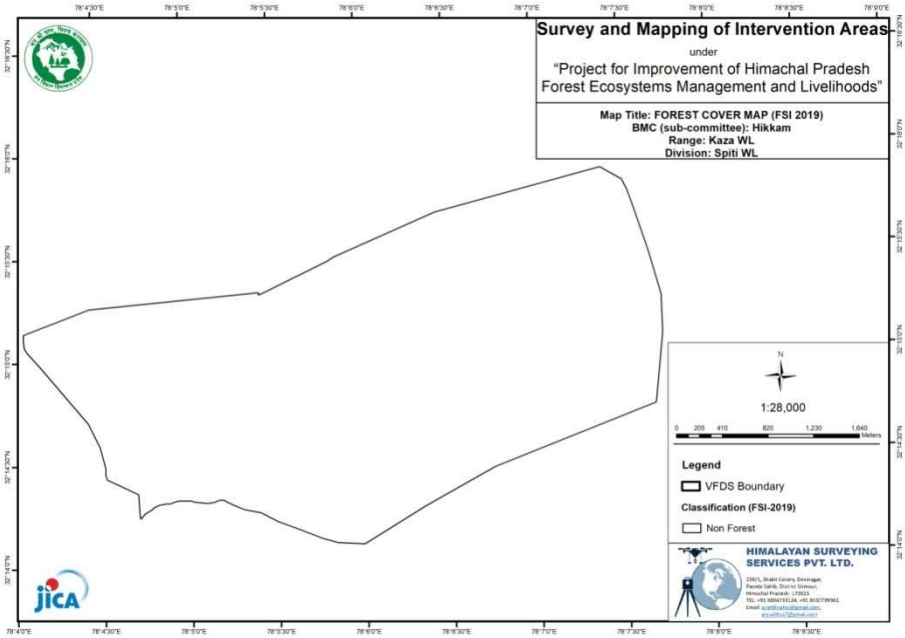
Theentireward has been selectedas site by DMU Kaza and his field stafffollowingprojectguidelineswhichincludedforestbeinginastateofdegradationtovariousdegrees, deficient to meet with the demand and supply chain to the local right holdersaroundtheforest.

ThePotential intervention areas /treatment plots have been identified during Microplanning exercises by technical staff (Fgd, Block Officer andRange officer/ACF Kaza.)The activities to be carried out stands discussed with villagers in detail during PRAexercises. The selected plots, community land/patches are either open areas or areblank, which would be planted with multipurpose species varying from 500-1000 perhectare.

5.2.2.3Map of potentialSites Selected (FOREST)

Social Map,Resource Map, Potential/intervention area Map, proposed intervention Mapsare attached as *Annexure-III, V, VI, theGoogle earth pro map of Sub-Committee area isannexed as Annex-III. **Technical maps would be prepared by Technical team to behired by JICA Forestry Project. (Land use map, Forest cover map/ Forest Densitymap,GP andWard boundarymaps,Treatment area map)***

5.2.1.7 Data and maps on grazing,fire, other risks



Livestock grazing

Cows	**39**	**6**	**230**
yak	**39**	**1**	**50**

Goats/Sheep	**39**	**2**	**60**
Horse/Mule/Donkey	**39**	**1**	**40**

As many as 230 Desi cows 60 sheep/goats , 50 yak and 40 mule/horse are reported in thisvillage. The local right holders had been allowed to graze their cattle, sheep and goats inthe past as per their rights recorded in the Settlement Report. Grazing cause problems towildlifesuchas:

Competition for

food.Disturbance.

Transmission of

diseasesSoil Erosion.

Increaseinthequantityofunpalatablegrassesandweeds.

Illegal grazing is occasionally a problem in the area as stray cattle from in and around theprotected area graze inside the sanctuary mixed with the cattle of right holders, thus,disturbingthewildlife.Thisproblemisbeingeradicatedwiththeenforcementofguidelinesreceivedfromthe MoEF&CCregarding suspensionof rights.

No grazing permits are issued for grazing of cattle in the area. Generally, the people ofthe villages situated outside the sanctuary send their redundant cattle to the forests atnightespeciallyduringrainyseason.Thevillagersalsotaketheirlivestocktohighaltitude pastures for grazing during summer season. They remain unattended and foreststaff is forced to remove them out of the sanctuary and some cattle also become prey tothewild animals.

Wildfires

Areafallsin-alpinezone,longwinterareacoveredwithsnowandglacier.

So,noi

ncidanceof firein this area.

HumanWildlifeConflict

Human –Wildlife conflicts often hamper the well –being of people and information on theissue was facilitated during the PRA exercise. Information about wild animal causingdamage to crop and livestock in the project site was gathered and is given inTable:1.13(there were 19 cases of livestock predation by snow leopards or wolves in 2015, and 28cases of livestock predation in 2016 in upper spiti area , Source :Snow Trust,NatureConservation Foundation, Mysore).

Prescriptions:

Awarenessprogramme/workshopsshouldbeorganizedforlocalpeopletomakethemawareabou tdos anddon'tsin caseofencounter with wild animals.

Thelocal peopleshould bemadeawareaboutvariousdepartmentalwelfareprogrammes,especiallyaboutthe proceduretofile compensationclaim.

Arapidresponseteamconsistingoftrainedofficialsalongwithequipment'sshouldbestationedeith eratRangeorDivision HQstodeal with any exigencies.

Foddertreeplantationsshallbedevelopedontheperipheryofthevillagesandstallfeeding maybepromoted.

5.2.1.9 Data andmaponinterventionAreas/Treatmentplots

Cost norms applied for calculation are as per Forest Department approved norms. Plants,pit sizes are accordingly to models prescribed and approved by Forest Department andProject guidelines. The forests have been visited by team again and again and as per thesiteconditionstreatmentplotshavebeenprescribed.Thenallatreatment,soilconservation works are applicable in this Sub Committee area. Local ghazis are quite wellmaintained one plot with patch sowing has also been prescribed. Fencing part has beencriticallyanalysedkeepinginviewlocalconditionsaswellasbioticpressureandaccordinglyp rescribed. Total6 Haccommunity landhavebeenidentified.

Table2: Plotwise details of Sub-Committee

S. No	Plot name	Plot No	Area	Latitude longitude	PFM mode	FDmode
1	**Hikkim ward**	**1**	6ha	32°45'42" 78°22'16"	**Yes**	**---**

5.2.2 TrendinCommunityDependency onForests(as perPRAexercises)

Criteria	Availability&Access inthe Past	CurrentAvailability&Access
Major speciesavaila	*Trigonella emodi, Festucarubra,*	*Aconogonum,Trigonellaemodi, Festucarubra,*

ble		

	Geranium, Cousiniathomsonii	
Major NTFPs available	*aconitum Arnebiaeuchroma,Codon opsisclematidea, Gentiana,*	*aconitum Arnebiaeuchroma,Codonopsisclematidea, Gentiana*
Fodderavailability	*Trigonella emodi, Cicerarietinum,Festucarubra,*	*Trigonella emodi, Cicerarietinum, Festuca rubra,*
Fuel wood availability	*nil*	*nil*
Timberavailability	*nil*	*nil*
Accesstoopen grazing	Easy access	Easy access
Accesstofuel wood	nil	nil
Access to fodder	Easy access	Easy access
Access to timber	nil	nil
AccesstoNTFP	Easy access but NTFP is very low	Easy access but NTFP is very low

5.2.3 HouseholdsDepending onForest(as perPRAexercises)

Category	% HHsdepending on forest				
	NTFP	Fuelwood	Fodder	Grass	Other
Primary forest users	09%	0	70%	50%	-
Secondary forest users	09%	0	70%	50%	-

forest users for fuelwood are 0% for fodder 70% and for grass collection 50%. Because of cold desert area availability of fuelwood type is very low.

5.2.4 Forestresources oftheselectedarea(as perPRAexercises)

S. No	Species (localname)	Main uses	RelativeAvailability(%)	Perceivedvalue ofplant (scaleof 1-10, 1 beinglowest)	
				Men	Women
1	*Trigonella emodi*	Fodder	8	6	8
2	*Cicer arietinum*	Fodder	6	6	6
3	*Festuca rubra*	Fodder	3	5	7
5	*Arnebia euchroma*	Medicinal	50	10	10

Relativeabundanceof*trigonella emodi*ishigh,itisoneofthemostfavouredspecies.

5.2.5 Biodiversity

MajorHabitat	InitiativeTaken
Snow Leopard	• Understandingandmanagingpeople-wildlifeconflicts • Awarenessprogrammesdirectedatschoolchildren,teachersandyouth • Helping in conservation planning andimplemenation
Bharal	Ban on Hunting, Improvement of wildlife habitat by constructingwater pond, water harvesting structure, repairof path bunkers,
Ibex	Ban on Hunting, Improvement of wildlife habitat by constructingwater pond, water harvesting structure, repairof path bunkers,
Bluesheep	PastureDevelopment,BanonHunting

HabitatManagement:

Habitatmanagementisoneofthemostimportantactivitiesofwildlifemanagement.More ideal the habitat is, better it is in terms of availability of food, cover and water towild animals.It is imperative to analyse the resources that are available in the habitat asthisisthemainfactorwhichultimatelycontrolsthewildlife.Typeofhabitatsavailableinthesanctuaryneedstobethoroughlystudied.Asthiswillensurethefuturemanagement and all management practices shall be guided by the type of habitat andavailable resources.

Objectives:-

To study the habitat with respect to availability of resources and constraints.Toassessthesuitability ofhabitatfor variouskindofwildlife.

Tocarryoutvariousactivitiesfor habitat enrichment withminimumdisturbance.

Topropagatethelocalspeciesoffruitbearingplanttoensureofavailabilityoffoodtothewildlife of thearea.

Management Prescriptions:-

- Forbettermanagementofthe habitat followingactivitiesneeds tobe carriedout.
- ImprovementofPastures.
- Maintenanceofwatersources.
- Augmentationof Salt Licks.
- ProtectionandmaintenanceofPhysicalFeatures.
- Understandingandmanaging people-wildlifeconflicts
- Helping inconservation planningandimplementation

ImprovementofPastures:

Under pasture improvement not only the quality of bushes is to be improved but in vastextensive , planting of bushes like *seabuckthorn,trigonella emodi* and other species needs to be carried out. And shall provide shelter to wild life. The localnutritious grasses need to be encouraged. Every year this village should be tackledunderthisscheme.

Maintenanceofwatersources:

The ward is deficient in water. To improve the water availability in the sanctuary, it isnecessary to construct some water harvesting structures. These structures should bespreadovertheentirearea.Everyyearfive-sixearthenwaterpondswillbeconstructedin the sanctuary. The site of proposed water ponds should be identified carefully aftervisiting/inspectingtheareabyDFO/ACFwithclearobjectives.Thedesignwillbeaccording to the site available on the spot. The cost of each structure will be as per theestimateand shallvaryfromsitetosite.

AugmentationofSaltLicks:

The wild animals mostly ungulates living in the forest area are always devoid of mineralsalts. Tofulfill this deficiency they search theplacewhere natural salts oozes outfromtherocks.These mineralsaltsare licked bythem.

Provision of artificial salt lick affect the behaviour and movement of wild animal andsometimes it also help poachers to locate the presence of the animals. Therefore, it isnecessarytoprovideduecareandprotectionwhereartificialsaltlickshavebeenprovided.It issuggestedthatall the existing artificial salt licklocations should bemapped and based on the information decision to provide new salt licks should be takencarefully. These salt lick sites should be identified carefully after visiting/inspecting thearea by DFO/ACF. During the group patrolling exercises such sites have to be identifiedand which needs to be augmented and supplemented by providing blocks of rock salts inthese places. Monolith salt blocks may also be used for this purpose which containsmixtureof manymineralsalts.

Protectionandmaintenance ofPhysicalFeatures:

All the physical features like caves, dens, cliffs; dead and dry bushes would be protectedand kept as such, as these features are used by wild animals. They are used by manybirds,insectsandsmallmammalsasresting, nesting, roostingandperchingpurpose.

Understandingandmanagingpeople-wildlifeconflicts

It will focus on the effective conservation models, especially using local supportas wellasspreadingawarenessaboutwildlife and environmental conservation.

HelpinginconservationplanningandimplementationBycreatingawarenessprogrammes directed at school, children and youth and also local capacity, planning andimplementationof conservationworks.

5.2.6 NTFPCollection*(as per PRAexercises)*

S. No	Name of NTFP(Local)	Collection time(Months)	No. of HHsengaged - approx.	Averagecollection/Season/HH/year	Quantumcollected inaseason/year	Quantumsold in aseason/year(Rs)	Sale value inRs./kg	FromSub-CommitteeArea-yes/no	Majorproblems
1	Trigonella emodi								Species becoming Extinct, wild animal attacks
2	Codonopsis sp. (18%),								Wildanimalsattack
3	Gentiana sp. (9%)								Availabilityreducing
4	Dactylorhizasp. orsalaampanja(5%)								Abundance Reducing
5	Pedicularis(4%)								Abundance Reducing
6	Leontopodium (6%)								

- No CollectionofNTFP byprimary users.
- RattanJotJangliPyaz usedforself-consumptiononly.

5.2.7 FuelsCollection/Consumption(asperPRAexercises)

S. No	Type offuelused	NoofHHs involved	Unit	AverageHHConsumption /Year	AnnualConsumption /year	Sources	Costinvolved, ifany	MajorProblems
1	LPG	39	No.	6	234	Govt.	940.00/per cylinder	Carriageofkazato Hikkim(16Km.)
2	Fuel wood	39	Cubic Kg.	6 months	625kg /HH/M	Forest &Pvt.Land	680/-per 1000kg	Carriageofkaza to Hikkim(16Km.)

5.2.8 Fuels/FuelwoodDeficiency(asperPRAexercises)

Fuelsdeficiency	%HHswithfuelsdeficiency	Duration(Months)	Coping strategies
Low	--	---	--
Medium	---	--	---
High	39	Nov- March	Depend upon Forest corporationforfuelwood.Plantingof Fodderplantsinforest&Own Land,if possible.

- LPG is partially used for cooking only in 39HHs.Further Forest Department providesfuelwoodatsubsidizedrates(Rs.680/-perquintal)toallhouseholdsuptomaximum 1000kg per household. Apart from it villager collect woody plants fuelwood of different plant species i.e. Cargana sp, Lonicera sp.Salix sp. Constituteover half of the collections from the pastures for fuel wood. Apart from wood,peoplealsocollect considerablequantitiesofcattle,yak andequiddung forfuel.
- Duringsummer,rainyandautumnseasonfuelwoodconsumptionislesscomparedto winter. Before winter fuelwood is stored by each household for use duringwinter.
- Average fuelwood consumption is 625 Kg per HH per month per family in winterseasonfrom OcttoMarch.

*5.2.9*FodderCollection/Consumption*(asper PRAexercises)*

S. No	Type of fodderused	NoofHHsinvolved	Unit	AverageHH Consumption /Year	Annual Consumption /year	Sources	Cost involved, if any	MajorProblems
1	Green Fodder, Green Grass, Dry Grass from pastureland	32	Kg.	8quital /800kg	18quintal	Forest, Pvt.Land	No	Fodderbroughtfromfaroffforests Qualityfoddernotavailable Reducingland holdings due to family division Lessveterinaryfacilities ITKofrearinganimalsnotsuitableforhybrid animals.
						Forest, Pvt.Land	No	
						Forest, Pvt.Land	No	
2	Agricultureresidues from Agricultural field		Kg.	10quital /1000kg		Pvt.Land	No	

*5.2.10*FodderDeficiency*(asper PRAexercises)*

Fodderdeficiency	%HHswithfodderdeficiency	Duration (Months)	Coping strategies
Low			
Medium	39	Oct-March	Fodder (tuddi) purched from markatthe rate Rs. 600 per 50kg from Kazamarket.PlantingofFodderplantsin forest&OwnLand,
High	-	-	-

Major Problems with the fodder collection/Consumption is that fodder is brought fromresidues of theircropssuchas peas.

After September sheep and Yaks are sent to openpastures for free grazing till the snowoccurs .In winters they take their domestic cattles back to the houses. Average animalholdingis10animal(6cows,1donkey,1yak2goat/sheep).Theytoohavelessveterinaryfacilities.

Fodder speciesused are agricultural residuesinclude barley,peas aregivenasfodder.

- PeoplepreferHighvaluecashcropsandarenotgrowingtraditionalcropswhichareresultingin lessfodderavailability.
- Green and dried grass are obtained from Pastures in Summer. Pastures are closedby the possessor from 15 June to the end of October, in October grass cutting isdoneandthereafter areais openedforallvillagersforgrazingin winter.

Whileextractionofspeciesforfodderdependinguponthe rangelandfeatureandlivestock composition . on an average twenty three species were listed as importantforfodderexcludingthe cultivatedones, and among these *Trigonella sp. Cicer sp. ,Aconogonum sp, Festuca sp. , Geranium, Cousinia thomsonii, Lindelofia stylosa, Leymussecalinus,Rumex*,ect. Constituted thebulkcollected frompastures.

5.2.11*TimberCollection/Consumption*(asper PRAexercises)

S. No	Typeof Timber use	Noof HHsdemand /year	Unit	AverageHHconsumption /Year	AnnualConsumption /year	Current source of collection/purchase	Costinvolved,if any	MajorProblems
1	Agricultural equipment, House construction/repair, Furniture	10-12	KG/quietal	700kg /7 quietal	700kg	Timber distribution, purchase from importedwood depots,sale depots		Thereisnoforesttheyhavetopaycarriageforfuelwoodtheypurchasefromdepot.

*5.2.12*TimberDeficiency*(as per PRAexercises)*

Timberdeficiency	% HHs withTimberdeficiency	Duration (Months)	Coping strategies
Low			
Medium	100%	Throughout theyear	Illegalpurchase,illegalfelling,purchasefromHPSFCLTD.
High			

Many woody species of plants are used for construction of traditional mud brick houses.The larger boles for the roof are usually obtained from outside or local poplar and willowplantations. The multi-layered roof is lined with bushes and other plants, especially alongthe edges. Many of these serve as protection against erosion and seepage due to waterflowandsnowmelt,butalsoserveasemergencyfodderandfuelonoccasions.*Potentilla,Hippophaetibetana*etc.Insomeareassuchas*Astragaluscandolleanus,Caragana brevifolia, Lonicera spinosa, Salix, Potentilla sp. and Hyppophae sp.* are alsoextractedin significantquantities for construction of houses.

5.2.13 ForestManagementPractice*(AsPerPRAExercise)*

Keyactivities	Traditionalpractices	Current practices
Nurserydevelopment	Naturalregenerationwasassistedbyprotectingtrees.	No nurseryraisingpracticeofforestryspp.
PlantationManagement	Naturally growing PLANTS are protected.	Naturally growing plants are protected.planting new trees on private lands.
Forest protection	No need of protection because of very low forest products availability	
Development activities	Gram sabha meetings	Villagers are demanding their needs from govt offices.
Livelihoodactivities	NA	NA
IllegalActivities	Encroachment	nil

Sub-Committee will be involved in Forestry plantations, soil conservation works, maintenance, and fire protection works.Trainingformaintaining accountsandrecordswould begivenby project.

5.2.14 ForestProtectionPractices*(AsPerPRA Practice)*

Forest disturbances	Traditionalpractices	Currentpractices
Forest fire	Noforest fire	
Landslide	Nolandslide	
Flood	Noflood	
Hunting	Hunting/poachingwasprevalentprior toWLPA1972	Completelybanned/controlled
Illegal activities	Hunting	No suchactivitynoticed
Bio-diversitycon servation	Exttoafewamchiorlocalmedicinepractitionerfamilies in each village. This practice is decline in this area withtheadventof modern medicine.	Howevertheextractionfromsomeareacontinuesth ese day , much of which appears tobecommericialforservingoutsidemarkets.Arnbia orrattanjotisthemostimpotant OutersiderPeopleextractmedicinalplantsat earlystage,resultingintoextinctionofmany

		spp.due tolack ofKnowledge.

- Sub-Committeewillparticipateindry stone check dam construction,brushwood checkdamsand bioengineeringworks.
- TakepartinNTFPconservationworks.

5.3 WaterResourcesDetail

Waterresources	No.	Availabilityofwater(Months)	Different uses	Current status	Maintained by whom	Problems	Opportunities
Silapeak	01	6	Drinking Water	WaterAvailable	ByVillagers	OpenSource	AfternewconstructionavailabilityofDrinkingWaterwillbeIncreasedandApproximately15HHwillbeBenefited.
Glacierpeak	01	6	Wild Animal	SoilErosion	By Forest Department	Soil Erosion	Cons.OfBrushwood,Dry&CreatewireCheck Dam andsidewalls
Glacier water	01	6	Livestock,WildAnimal	SoilErosion	Villagers&IPHDeptt.	Roof of water tank needs	Check Dams

Wateravailabilityfromnaturalspringsisthroughouttheyear.ThenaturalSourcesaremaximumOpensources.AfternewconstructionandMaint.of thesesourcesthesesources willbemaintainedfor Villagers,LivestockandWildlifealso.

5.4 AgricultureResources

5.4.1 CultivableLandUsePattern

	Cultivableland	Irrigatedland	Rain fedland	Cultivable wasteland	Total
Area(ha)	20.24	0	20.24	3.73	104.33
% Area(ha)	19.39	0	19.39	3.57	100%

Asperthesecondaryrecordsanareaof20.24hac.isundercultivation.Thereisnoirrigatedlandintheward.Therefore,wholecultivable land is under rain fed&cultivablewasteland.

5.4.2LandHolding Pattern

Nolandless

46 % of the farmers belong to small & marginal category 54 % of farmers are medium farmers.Thereare no Landlessand absenteefarmers.

Category	Number ofHHs	%HHs
LandlessHHs	-	-
Absentee farmer	-	-
Small&Marginalfarmers(1-5bigha)	**18**	**46**
Medium/largeFarmer(6-15Bigha)	**21**	**54**

5.4.3Cropping Pattern

Major Crops	NoOf Farmers engaged	Irrigated/Rainfed	Unitof Yield	Average Crop Yield	District/State averageYield	% Deficit Yield	Reasons, if low Yield	Perceived Solutions to improve crop yield
Barley	39	irrigated	Qtl/hac	14.45	16.72qtl/ha	2.75	Lackofirrigation water Small fields	Provisionof irrigationProvide goodqualityseeds SoilTestingNutrient additionaccordingly
GreenPeas	39	irrigated	Qtl/hac	65	76.6qtl/ha	11.6	Lackofirrigation water Small fields	Sameasabove

Potato	39	Rainfed	Qtl/hac	75	86.88qtl/ha	11.88	Low irrigation water Temperature .	High yielding varities

- 39HHsintheSub-CommitteeareinvolvedinCashcropscultivation(Barley,pea,potato,).
- Allcrops grown underrain fedconditions.
- Averageyield ofcropsis asperprimarystakeholder's information.
- State averageyieldofcrops isaspersecondarysource(CSKKVPalampur)website.
- Theaverageyieldofcropsgrownislesscomparedtothedistrictaveragebecausethecultivation practices aretotallydependent onrains.
- Village levelaverageproductionisaspervillagersview point.

5.4.4ChallengesofCultivableLand

Majorchallenges	**Currentstrategiestodealwithchallenges**	**Usefulness the of currentstrategies**
Poorsoilfertility	Application of FYMApplication of chemical fertilizers	Moderatelyuseful
Soilerosion (low	C/o RR stonemasonrystructures	Moderatelyuseful
Soil erosion (medium)	C/o RR stonemasonrystructures	Moderatelyuseful
Soil erosion(severe)	Noseveresoil erosionnoticed	
Lowlandproductivity	Application of FYMApplicationofF chemical ertilizers Use of Hybridseeds	Moderatelyuseful
Lowreten moisture tion	Grass FYM mulching, irrigation application, Drip practices	
Lackofirrigation	Irrigation through PVC pipesfromwatertanks	Lessuseful

Other-specify		

5.5 Livestock Resource5.5.1LivestockHoldingPattern

Type	NumberofHHs involved	AverageHH holding	No.ofanimals	Problems	Opportunities
Cows	**39**	**6**	**230**	Thelackofcultivatedfodder, use oflow efficiencytools and harshcold winter makethe tasks evenmoredifficult. Less milkproduction Lack of scientificknowledge of animal rearing	Potential area available forfodder plantationAwareness camps by vet. DepartmentExposure visit tosuccessful areas.
yak	**39**	**1**	**50**		
Goats/Sheep	**39**	**2**	**60**		
Horse/Mule	**39**	**1**	**40**		
Total	**39**	**10**	**380**	-	-

5

.5.2Production ofMain Livestock

Type	Product	Unit ofproduction	Average yield/production	Districtaverage	% deficit yield	Reasons for lowyield/ production	
Cows	Milk	Kg	4.0kg	**3.9**	0.1	Lack of AwarenessDeficiency of Nutrition StallFeeding	Livestockdevelopmentthroughbreedimprovement,training,management and veterinaryservices
Crossbreed	Milk	0	3.4	**2.4**	1.0		
Goats/Sheep			3.0	1.5	1.5	QualityofFodder& Grasses	

6 Livelihood

Strategies6.1ExistingLivelihoodStrategies

Source oflivelihood	Number of HH dependentas		Majorconstraints/challenges
	Primary source	Secondary source	
Agriculture	**39**	**0**	ProblemoferosionduetoseriousTopographicalandclimaticfactorsandallabioticPressure Maximumareaisrainfed;thereforetheadoptionrateofimprovedtechnologiesandinputs by the farmers is less as compared toirrigatedland. Small and scattered Land Holding of farmersOccurrenceofnaturalcalamitieslikedrought,Cloud bursts, hailstorm, heavy snowfall,storms,unusualriseintemperaturearequitefrequentcausing lossesto crops. Squeezing of agriculture Lands because ofancestral property division. Lowriskbearingcapacityandpoorpurchasingpower of thefarmers. Low productivity ofcrops. IncreasingPopulationofstrayanimalsandwildanimals.
Forestry	**39**		NoforestOpengrazing Bigpressureonpastureland,newseedlingforfodder Encroachment
Livestock/Animal	**39**	**0**	Shortage of feeds and Fodder during dry

Husbandry			season. Traditional method of feeding.Scatteredandlowlandholding. Pooranimalproductivityi.e.lowmilkProduction, large number of non-descript typeanimal, lack of breeding bull , Poor extensionservice. Wildlife attacks. Lackofinterestofnew generation
Wagelabour	**39**		Workisnoteasilyavailable
Service/Job		**5**	ShortageofJobs, lackofqualityeducationor skilled
Carpenters	**5**	**-**	Its wage work depends upon people requirement.

6.2Livelihoods-ActivityCalendar

SeasonalActivities& Climatic events	Months											
	J	F	M	A	M	J	J	A	S	O	N	D
WageLabour												
Agri/Horticulture												
Grass/Fodder												
Rains												
Snow/winter												
Frost												
Irrigation												
Fuelwood												
Legends												
	Fully Occupied(fullmonth)											
	PartiallyOccupied											

Livelihood Activity Calendar shows that villagers are busy throughout the year. However,the work pressure during Snow fall /winter is less compared to other seasons. So, thevillagers are available during November to February months for Micro planning / meeting.**6.3FoodDeficiency*(relates to nutrition)***

Foodde ficiency	**%HHswith fooddefici ency**	**Duration (Months)**	**Coping strategies**
Low	N A	nil	
Medium	**N A**	**-**	**-**
High	**NA**	**-**	**-**

Assuchthereisnofooddeficiency.

6.4 IncomeDeficiency

Incomede ficiency	% HHs with incomede ficiency	Duration (Months)	Coping strategies
Low	**NA**	Dec -march	
Medium	**NA**		
High	**NA**		

Over all there are no income deficiencies. Drudgery load is high; man and women arebusy in working in Agriculture, Animal husbandry in summer seson where as in winterseason theyareinvolvedinhandloom, handicraftpractices forsustenancelivelihood.

6.5 PotentialLivelihood Strategies

Sourceoflivelihood	Majorconstraints/challenges	Keystrategies
Green house-vegetablecultivation/nurseryraising	Purchase saplings from open market,Nonavailabilityof high amount of irrigation water.	Vegetable nursery raising by interest group.Dripirrigation,glacierwaterharvesting
Handloom	Oldlooms,Marketing	SwitchfromTraditional oldloomstoMordenhandloom
Weaving	Marketingproblem	Training with tools&exposure
Cutting & tailoring	Slowly villagers are showing interest	Training with tools&exposure
Collection ofNTFP	LackofknowledgeofmoreNTFPandtheirprotection and availability is very low.	IfProjectgivesTrainingaboutitthenitwillbefruitfulforwomen.They can increase their income.

7 InstitutionalAnalysis

7.1 ExistingCommunity BasedOrganisation

CBOs	Ageof CBO (Year)	Formal/ Informal	Registered(Yes/No)	Objectives	Membership	Keyactivities	Credibility of CBO	External linkages	Usefulfor the project
Sub-Committee BMC	14/10/2020	Formal	Yes	Project/Forest Objective		ParticipationinJICA Project	Newly Formed	Yettobeestablished	Yes
Mahila Mandal/SHG	NA								
Kisaan Mnadal	NA								
YuvakMandal	NA								

Allabove mentionedcommittees/groupswouldbe ofimmense helpto Projectand theirinvolvement wouldbehelpful inimplementation of project activities. Representatives of these committees will be included in BMC Sub-Committees asnominatedmembers

7.2 Preferences for External Linkages (Government institution working under sub-committeearea)

Nameof ExternalIn tuition(EI)	ImportanceoftheEIs	RelationshipwithEIs	Preferenceto associate withEIs
GramPanc hayat	Governmentschemesforfam ilies Roads connectivity through PMGSY Generalhousemeeting	Very helpful inintroducing newschemes Village development	**2**
ForestDepa rtment	Creatingawarenessforprot ecting forests/ naturalresources.	Cordial relations.Forest officers keepsonvisiting villages	**1**
Veterinary	Health benefits for animals	Notverygood relationship	**4**
Health	Basic health facilities Healthcampaigns	Health/Ashaworkers are veryinteractive	**5**
Education	Basic knowledge on Climate change andimportanc e of forests	Veryhelpful	**5**
Agriculture	Provisionofnew varieties, Awarenesscampaigns	Formal relationship with thedepartment	**4**
Horticulture	Awareness Camps ProvisionofnewveritiesofFr uitPlants Awarenesscampaigns	Formal relationship with thedepartment	**4**

JalShakti	Veryimportantforwatersupplyandirrigation	Relationwithofficers and worker is good.	**3**

8.1 AnalysedProblemsandScientificSolutions

S. No	Problems identified	Justification of problemsidentified	Root cause analysis	Recommended solutions
1	Highcommunitypressure on nearbyforestland	100%oftheHHsdependsuponforestland forfodder during summer,	Depletingsupplyoffodder from theforestland.	Plantingfodder&grassspecies Planting fuelwood treesPlantingtimberspecies
2	Increasingsoil erosion & moisture loss	Soilerosionisalongcontourline SoilErosionisofmedium grade	Medium level soil erosion due to glaciers	Contour trenchingDry Stone check damMasonrycheckdams Check walls
3	Lackirrig ofationcoverage	100% percent cultivablelandbutscarcityofwater	Water resources includeglacialwaterusedfordrinking,domesticandwildlife use	Constructionofwaterharvesting structures atshila peak
4	Low crop yield	AverageyieldofPeaandvegetables isless	PoorsoilfertilityLackofinformationoncropproductiontechnology	Organizing farmers' campsIPM,INMatBMCSub-committeelevelLinkagesforincreasedinformation,knowledge &technology

6	Lowincome	Around 49%(19HH)offallinpoor BPLcategory	AllHHsaresmall&marginal farmersLow income fromagriculture &livestock	Promotingentrepr nurshipSkilldevel opment Promoting income generation activities

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			Lack of employment opportunities Lackoffeasible& viable business opportunities Low level of entrepreneurship	throughSHGs/CIGs Facilitating cluster basedmicroenterprises development and marketing Upgrading handloom and cash crop cultivation
CommunityDevelopmentNeed& Priorities				
7	Wastage of overflow of drinking water near resources	Water flow at the contourlineofglacier water	Inabsenceof proper maintenancebythe community institutionsandline department	Construction/repairof water harvesting structure/Tanks

8.2 PerceivedProblemsandSolutions

SNo	**KeyStakeholde rs**	**Keyproblemsidentified bystakeholders**	**NoofHHsand/orareaaffected**	**Criticalcauses ofthepro blems**	**Perceived solutions**	**Prioritization ofproblems**
1	**Women**	No Mahila Mandal, fodder availability at faroffplaces,	39	Lack of Awareness	Formation of MM Capacity building programm	Formanationof MM and its registration, IGA activities, Handloom,

		lack of Income Generation activities(IGA).			es , planting fuel, fodder species if possible.	cash crops promotion Planting fuel, fodder,timber spp., If possible.
2	**Wage-labour**	Lack of wage throughout the year	39	Less land holdings Lack of training	May be givenwage work in project activities training for IGA withtools	Wage in plantation work, Training inropeweaving etc.carpentry, with tools provision.
3	**Farmer**	1.Rain fed agriculture 2. Lack of awareness of agricultural schemes	39	1 Lack of irrigation facilityand less land holdings 2Agricultur estaffless visit	Glacier water harvesting, awareness camps by Agriculture deptt.	1.Excess using water harvesting by constructing water harvesting structure 2. Awareness camps on Integrated nutrient management, Integratedpest management andAgriculture

						deptt. Scheme etc.
4	**Landless**	**NA**				

8.3 Implementation Activities/Interventions

Importantissues	PriorityRank	Specificactivitiesaspertheagreedsolutions	BenefittingHHs
Participatoryforest management			
foddercollection from far offareas.	1	*Rosa macrophylla (wild rose), speciesofHippophae,Myricaria,Salixflabellaris, S. hastate, S. lindeleyana,Juniperus recurva, Ribes orientale, R.alpestre, Lonicera spinosa (Thapp), L.obovata, L. rupicola, Capparis spinosa,Caraganabrevifolia(Trama).Rhododendronlepidotum,Coluteanepalensis,Ephedragerardiana,Clematisvernayii,Cotoneastermicrophylla etc. The scrub andspinycushions are formed by the species ofCaragana,Astragalus,Artemisia,Cousinia,Saussurea,LoniceraandArnebia.Herbaceouselementisdominatedbythespeciesofastragalus, Chesneya, Oxtropis, Cicer,Lindelophia,Allium,Rumex,Nepeta,Heracleum,Chenopodium,Artemisia,Lactuca,Gentiana,Gentianella,Hyssopus, Pedicularis,Rheum,Aquilaria,Caltha,Taraxacum,Plantagos,Aconitum,Thymus,Delphinium, Lepidium, Crepis, Mentha,Geranium,Bergenia,Senecioand Mertensia*	Wholecommunity

Lessfodder, in village near byprivatearea.	**1**	*Willows,Poplars,Chharma,trigonella emodi green grass etc.* .	Wholecommunity
Soil & water conservation			
Soil erosion and landslide near Contourline	**5**	Checkwalls,Checkdams Gabion wire structuresBio engineeringworks.	Wholecommunity
Water pondconstruction, Bouri repair	**2**	Constructionofpond.	Wholecommunity
CommunityDevelopment			
MahilaMandal Bhawan	**6**	ConstructionofMahilaMandalBhawan	Whole community
Livelihood improvement			
LackofIGA(Incomegenerationactivities)for women and otheryounggeneration at sub-committeelevel	**3**	**Asindividualactivities**CuttingandTailoring trainingneeded. **As Group activity** Handloom/ Ropeweaving,andherbstrainingneeded.	39 beneficiaries
Miscellaneousactivitiesforconvergence			
Footpathconstruction tohamlets	**7**	Better accessibility tocommunities.	Whole community
Fuelwood, FodderPlants and Medicinal plants	**1**	Willsupplementindaytodaylocalrequirements.	Wholecommunity
FarmingCamp	**4**	Will educate villagers in latest scientific knowledge and exchangeideas.	Wholecommunity

Footpathconstruction tohamlets	**7**	Better accessibility tocommunities.	Whole community

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8.4 SWOTAnalysisSub-committee

Strength	**Weakness**
Young&energeticgroups Clear vision to environment &climatechange Equal partition of all groupsGender equality Positive response Water available for IrrigationCash Crop Fertilise Land	Limitedknowledgeoftheproject LackofAwareness(Agriculture,Horticulture&Livestock) ColdDesertareaDeficiencyofFodder Lack of coordinate with line departmentLackofAwarenessregardingHygiene Shortspanforwork
Opportunity	**Threats**
Willingnessto learnandexecute Highly qualified team connected with advanced communication technology Wider networking with different agencies & government departments.Cash Crop OrganizeFarmingCamps Wellconnectedtoroad Highlyscope foreco tourism	Communityinference indecisionmakingprocess Time constraintsduringsummer Shorttimespanduetocolddesertregion Grazing

8.5 Setting the objectives for Development for the project

durationObjectivesfor Forestry Development

- ProtectionandconservationofforestLand
- Propagationforestshrubspecies
- Enhancedvegetative growth
- Enhancedforestcover
- Overallwatersheddevelopmentbyintroductionofmoistureretentionworks,soilprotectionworks

Objectivesforvillage/community Development

- Sustainablelivelihood
- Reductionofpressureonforestresources
- Assetgeneration
- Convergenceofvariousdepartmentsforoveralldevelopmentofthearea
- Women empowerment

9.CommunityBasedBiodiversity ManagementPlan

9.0 WhatisBiodiversity?

Biodiversity **isthefoundationof** ecosystemservices **towhichhuman** well-being **isintimately linked.** No feature of Earth is more complex, dynamic, and varied than thelayeroflivingorganismsthatoccupyitssurfacesanditsseas,andnofeatureisexperiencing more dramatic change at the hands of humans than this extraordinary,singularly unique feature of Earth. This layer of living organisms—the biosphere—throughthecollectivemetabolicactivitiesofitsinnumerableplants, animals,andmicrobesphysically and chemically unites the atmosphere, geosphere, and hydrosphere into oneenvironmental system within which millions of species, including humans, have thrived.Breathableair,potablewater,fertilesoils,productivelands,bountifulseas,theequitabl eclimateofEarth'srecenthistory,andotherecosystemservicesaremanifestations of the workings of life. It follows that large-scale human influences overthis biota have tremendous impacts on human well-being. It also follows that the natureoftheseimpacts, good orbad, is withinthepower of humanstoinfluence.

Forest biological diversity is a broadterm that refers to all lifeforms found withinforested areas and the ecological roles they perform. In biologically diverse forests, thiscomplexity allows organisms to adapt to continually changing environmental conditionsandto maintainecosystem functions.

Forestsarecriticalhabitatsfor biodiversityandtheyarealsoessentialfortheprovisionof a wide range of ecosystem services that are important to human well-being. There isincreasing evidence that biodiversity contributes to forest ecosystem functioning and theprovision ofecosystemservices.

9.1 WhatisCommunity BasedBiodiversity Management(CBM)?

Community-based biodiversity management (CBM) is a participatory approach to empowerlocal stakeholders as well as the local institutions for managing biodiversity for social,economic, and environmental benefits to communities as well as to the general public.This approach, usually developed by the in-situ conservation approaches and it is focusedon community level issues, enhancing the capacity of communities to analyze livelihoodassets,problems,andtoseekandimplementsolutionswithrespecttouseandconservat ionofgeneticresourcesoflocalbiodiversity.Itrecognizesandsupportslocal

institutions and communities as legitimate and crucial actors in the national plant geneticresource system, and its role in the wider context of biodiversity and development.Communities are empowered to exercise their rights and secure access and control overtheir genetic resources. The approach is community-centered, strengthens local decisionmaking process and emphasizes local governance in the conservation and utilization ofcommunitybiodiversity resources.

Documenting spatial patterns in biodiversity **is difficult because taxonomic, functional,trophic, genetic, and other dimensions of biodiversity have been relatively poorlyquantified.** Evenknowledgeoftaxonomic diversity,thebestknowndimensionofbiodiversity, is incomplete and strongly biased toward the species level, mega-fauna,temperate systems, and components used by people. This results in significant gaps inknowledge,especiallyregardingthestatusoftropical/temperatesystems,marineand freshwater biota, plants, invertebrates, microorganisms, and subterranean biota. Forthese reasons, estimates of the total number of species on Earth range from 5 million to30 million. Irrespective of actual global species richness, however, it is clear that the 1.7–2millionspeciesthathavebeenformallyidentifiedrepresentonlyasmallportionoftotal species richness. More-complete biotic inventories are badly needed to correct forthisdeficiency.

9.2 Communitybased BiodiversityManagement Plan(CBMP)

Communitybased BiodiversityManagement Planisa decentralisedprocess where thelocal community is in the centre stage that monitors the resources around it, its use andplans foritssustainability forlong term benefitsfor allsucceedinggenerations.

Thus communitybasedbiodiversity managementplanhastwofacetsasmentionedbelow:

- Communitybasedbiodiversitymonitoring
- Communitybasedbiodiversitymanagementplanning

9.2.1 Community based BiodiversityMonitoring

<u>Qualitativebiodiversitymonitoring:</u>

Community based biodiversity monitoring can be undertaken through both qualitative andquantitativeapproaches.Qualitativemonitoringsimplydepictsthecommunityperceptions ontheavailabilityofresourcesanditsuseoverasaidtimeperiod.Itiscost-

effectiveandshouldbeusedforsubstantiatingmoreaffirmativeapproachesofbiodiversity monitoring.

So far, under the PIHPFEM&L project intervening geographies, Himachal Pradesh StateBiodiversityBoardhasundertakentheapplicationofPeoplesBiodiversityRegisterExercises in selected 120 Gram Panchayats[1]. The People's Biodiversity Register (PBR) is adesigned tool for the formal maintenance of the local knowledge with proper validation.PBR is a record of knowledge, perception and attitude of people about natural resources,plants and animals, their utilization and conservation in a village or a Panchayat. PBR isalso proposed as a mechanism to create awareness among the people about the conditionof plants and animals and their conservation and sustainable utilization. This mechanismcan bring the people to participate in development planning which would be ecologicallysustainableandsociallyjustifiable.

People's Biodiversity Register is a tool for collecting and documenting biodiversity data.Local communities need to be encouraged and trained to be the principal participants

inthisprocess.Whencommunitiesmaintaintheirregisters,itwillfostergreaterconservation of this natural resource base. Despite the provisions within the BiologicalDiversityAct,2002,whichgrantsduerightstocommunities,ithasnotbeenfullytranslat edintopractice.

FurtheranalysisofPBRspreparedinHimachal Pradeshhas following deficiencies:

- Mostofthe PBRsarenotcompletedfor theprojectareas ofPIHPFEM&L
- Whatsoever prepared are still in draft stage and it would take at least more than 6monthstogetcompleted.
- In most of the PBRs, the species recorded are found with "No threats" to greaterextents
- Some formats areunfilledeitherfullyorpartially
- Someformats are vaguely orbroadly filledup anddoesnotsatisfy thespecificneedof theformatsit is meantfor

[1] *PreparatorySurveyonHimachalPradeshForestEcosystemsManagementandLivelihoodProjectinIndia,DraftFinalReport,February,2018.*

- ThoughmanyspeciesareoccurringinthetargetedGramPanchayats,manymorespecies areleft and not included inthe PBRs
- NoparticipatoryprocessesareadoptedduringpreparationofPBRsanditisfoundtobethe response record of someindividuals,notcommunity*per se*
- Somespeciesarerecordedas“rare”or“declining”.Butfieldleveldialoguesonthebiodiversity revealsotherwise.

Thus it is equally pertinent to quantify the local forest biodiversity through a simple,scientific and participatory manner to substantiate the qualitative indicators on localforestbiodiversity.ThisisdonethroughtheParticipatoryVegetationMonitoringwhere the villagers collect simple quantifiable figures for better decision making inforestbiodiversity management.

Quantitativebiodiversitymonitoring:ParticipatoryForestMonitoring

Participatoryforestmonitoring (PFM)isanongoingprocesswherelocalforestuserssystematically record information about their forest, reflect on it and take managementactioninresponsetowhattheylearn.ParticipatoryForestMonitoring(PFM)forcommunitybasedForestManagementsupportstheVillageForestDevelopmentCommittees (VFDCs) in Himachal Pradesh for planning and managing their forests. ThePFMwasplannedtodevelopparticipatorymonitoringofforestresourcesatlocalcommunitylevelwhichenvisagesinvolvinglocalinstitutions(VFDCs)andotherstakeholder groups such as HPFD[2] staffs, Project staffs[3], NGO[4]s if any, youth clubs, EcoClubs etcinidentification ofresources, planning for utilization and regeneration ofresources, and adaptive management of forests. The basic objectives of PFM is to developpeople centric monitoring system, in which local people should have better understandingof resources around, followed by assessing the status and planning for sustainable use ofthem.

ProcessofParticipatoryForestMonitoring:

[2] *HimachalPradeshForestDepartment*

[3]*ProjectforImprovement ofHimachalPradeshForestEcosystemsManagement& Livelihoods(JICAsupported)*

[4]*NonGovernmentOrganisations*

Preparationof Resource Map:

Since Biodiversity monitoring is a segment of Microplan prepared through participatoryrural appraisal which also integrated the social and resource mapping. The resourcemapping also included the forest mapping with nomenclatures of different zones withincommunity forests. These forest patches act as different strata for sampling. Sampling offorestvegetationwas donethrough sampleplots of differenttypesofplantforms.

Samplingof forest vegetation:

Ecological data collection of PFM is basically to understand the change in vegetationstatus due to protection and management of the forests by the community. The variousparametersthatcanbeaddressedarestandingbiomass,biomassgrowthrates,harvestable timber volume,species diversity, species density, regenerationstatus ofherb, shrub and tree species, and level of disturbance by way of illegal felling, pest anddiseases and survival rates.

Shrubs: Shrub plots include perennial shrub species but with height above 1.5 m. Shrubplots arenormally smaller insize than treeplots, but thenumber could beat leastdouble that of tree plots to account for the likely heterogeneity of shrubs and youngertrees. Shrub plots are located inside the treeplots, at the rate of two per treeplot.Shrubplot numbercanbetwoper treequadratand the sizecan be 5m X 5m.

Herbsandgrass: Annualherbsespeciallyofmedicinalpropertyandgrassbiomassproduction can be estimated by laying quadrats. Normally, herb layer plots will be of size1 X 1 m and the number is at least double that of shrub plots. Parameters to be recordedinclude; species name, number of plants and number of herbs / grasses destroyed ordisturbeddue tonatural andanthropogenicreasons.

9.2.2 Data on qualitative and quantitative data on Community based BiodiversityMonitoringwithin Hikkim BMC Sub-Committeezone

<u>Qualitativedata</u>

BasedonthePBRinformationfollowingstatusonfloraandfaunacouldbetraced.Thesestatusesof floraandfaunaarementioned infollowingtable –XXXbelow:

Table-9.2.2:Issuesidentified based on Peoples BiodiversityRegister[5]

[5]SUB-STATESITEBIODIVERSITYSTRATEGYANDACTIONPLAN(LAHAUL&SPITIANDKINNAUR)TRIBALDEVELOPMENT DEPARTMENT, H.P. SECRETARIAT, SHIMLA-2 & STATE COUNCIL FOR SCIENCE TECHNOLOGY ANDENVIRONMENT, 34 SDACOMPLEX, KASUMPTI,SHIMLA–9

SlNo	Majoritem	Sub-items	Nameoftheitem with scientificnames	Issues
	Agro-biodiversity	**Agriculture (Crop diversity)**	Barley(*Hordeumvulgare)*	Present
			Pea(Pisum Sativum)	Present
			Potato(*Solanum tuberosum)*	Present
	Wildbiodiversity	**Trees,shrubs,herbs,climbers, tubers, grassesetc**		
			Abelia triflora	Present
			Loniceraangustifolia	Present
			Andrachnecordifolia	Present
			Lonicera asperifolia	Present
			Astragaluscandollianus	Present
			Lonicerabracteata	Present
			Astragalus rhizanthus	Present

			Berberis concinna	Present
			Lonicera hypoleuca	Present
			Berberisjaeschkeana	Present
			Loniceramyrtillus	Present
			Berberis kunawurensis	Present
			Lonicera obovata	Present
			Berberislycium	Present
			Liniceraparvifolia	Present
			Berberispachyacantha	Present
			Loniciera quinquelocularis	Present
			Berberis petiolaris	Present
			Lonicieraspinosa	Present
			Berberisumbellata	Present
			Lonicierawebbiana	Present
			Bosia amherstiana	Present
			Myricaria elegana	Present
			Buddleia paniculata	Present
			Myricariagermanica	Present
			Capparis himalyensis	Present
			Myrsineafricana	Present
			Capparisspinosa	Present
			Osbeckia stellata	Present
			Caraganabrevispina	Present
			Periploca calophylla	Present
			Caragana gerardiana	Present
			Plectranthus rugosus	Present
			Caraganaversicolor	Present
			Potentilla fruticosa	Present
			Colutea multiflora	Present
			Prinsepiautilis	Present

			Ribesribrum	Present
			Desmodium concinum	Present
			Rosabrunonii	Present
			Desmodiumfloribundum	Present
			Rosa eglanteria	Present
			Desmodium natans	Present
			Rosa macrophlla	Present
			Desmodium oxphyllum	Present
			Rosaminor	Present
			Desmodiumpodocarpum	Present
			Rosa webbiana	Present
			Desmodium pseudo-triquestrum	Present
			Rubus biflorus	Present
			Desmodiumtilaefolium	Present
			Rubusbiflorus	Present
			Deutziacorymbosa	Present
			Rubusellipticus	Present
			Deutzia staminea	Present
			Rubuslasiocarpus	Present
			Elaeagnusparfiflora	Present
			Rubuspurpureus	Present
			Elaeagnus umbellata	Present
			Sabia campanula	Present
			Elsholziapolystachya	Present
			Salixhastata	Present
			Ephedragerardiana	Present
			Salix lindleyana	Present
			Euonymus echinatus	Present
			Salixoxycarpa	Present

	Wildanimals	**Mammals,birds,reptiles,amphibian,insects, others)**		
			Ibex (Capraibex siberica)	Present
			Snow Leopard (Panthera unica)	Present
			HimalayanBlueSheep(Pseudois nahyaur)	Present
			Tibetian Wolf (Cannislapus)	Present
			Red Fox(Vulpus valpus)	Present
			Wooly Hare	Present
			HimalayanChough(Phyrhocorax gracumus)	Present
	Birds		*Snow Pigeon (Columbia rupestris)*	Present
			Snow cock (Tetragallus himalyensis)	Present
			Vulture(Nephron persnopterus)	Present

			Ducks (Avthva ferina)	Present
			Murgabi (Anas crecca)	Present
			Himalayancrow (Corvustib eteana)	Present
			Picca(Ochotona rovlei)	Present
			Raven (Corvus corax)	Present
			Golden Eagle (Aquilachry saetos)	Present
			Griffan (Gyps himalayansis)	Present
			Red Start (Phoenicurus orchruros)	Present
			HoopeChakor(Alpalect oris chakor)	Present
			DoveHima layanFinch es(Cardue lis cardduelis)	Present

9.2.3 ResultsonqualitativeandquantitativedataonCommunitybasedBiodiversityMonitoringwithin Hikkim BMC Sub-Committeezone

Qualitativedata

AnalysisofthePBRandcorrespondingabovetablerevealsthatthereare3majorAgriculture crop types namely Pea,Barley, and Potato of plants needs conservationattention. Other then it, 149 wild plants biodiversity include the Shrubs, herbs, climber,tuber, and grasses are recorded similarly, there are 7 species of wild animal and 13species of birdsare presentwithin BMC Sub-Committeeareas.

These management scopes on these plants and animals discussed with the villagersincluding BMC sub-committeemembers, women members (who are theprimeforestusers) and public in general for their perception and options on their improvement of thepopulations.Theidentifiedscopesofpopulationincreasehavebeendescribedintable-9.2.2 below.

Quantitativedata

- Thepatchesareverylessinspeciesdiversity.
- Treesareabsent
- The density ofshrubsisdominant,butfoundinscatteredway.
- Anthropogenic pressures on shrubs are quite much. This could be a fact as a resultof dependencyof the community onthe forests and better vigilof HimachalPradeshForest Department.
- The shrubandherbspeciesarerepresentedwellduetoopencanopy.
- The canopyofthevegetation representspredominantlyopencategory.
- Naturallyspeciesaredeficientofsuccessfulestablishmentsandhenceneedexternal support.

9.2.4 PlanningonCommunitybasedBiodiversityManagementwithinHikkimBMCSub-Committeezone

GapPlantationwithreferencetoParticipatoryVegetationMonitoring:

Plantationofdegradedpatches withappropriatesmultipletree species:

- Plantationof multiplespeciesis aneed

- Afforestation/Enrichmentplantationunderdifferentschemesneedstobeexecuted on priority basis. It would advisable to plant at least 1100 saplings / hamodelwithreference todifferentlandrelatedcasualties.
- Plantation and maintenance of the planted species is absolutely essential sincenaturalregenerationis inadequate.
- Shrub species within the tree spacing may be planted with economically importantshrubspecies.

The entire ward has selected as intervention areas /treatment plots and soil conservationworks have been identified during Micro planning exercises by technical staff (FGD andfeedback from Block Officer and Range officer). The activities to be carried out standsdiscussedwithvillagersindetailduringPRAexercises.Theselectedplantationplots /patches are either open areas or are blank, which would be planted with multipurposetrees varying from 800-1100 trees per hectare. Being on the southern and southerneastern aspect species selection of plan table species, stock health, and pit size needs tobe kept in mind. For soil conservation works estimate will be prepared by FTU and fieldstaffbefore implementation.

Dataandmapon interventionAreas/Treatmentplots

Cost norms applied for calculation are as per Forest Department approved norms. Plants,pit sizes are accordingly to models prescribed and approved by Forest Department andProject guidelines. The forests have been visited by team again and again and as per thesiteconditionstreatmentplotshavebeenprescribed.Thenallatreatment,soilconservation works are applicable in this Sub Committee area. Local ghazis are quite wellmaintained one plot with patch sowing has also been prescribed. Fencing part has beencriticallyanalysedkeepinginviewlocalconditionsaswellasbioticpressureandaccordinglyprescribed. Total6 Haccommunity landhavebeenidentified.

Table2: Plotwise details of Sub-Committee

S. No	Plot name	Plot No	Area	Latitude longitude	PFM mode	FDmode
1	**Hikkim ward**	**1**	6	32°45'42" 78°22'16"	**Yes**	**---**

BiodiversityManagement with referencetoPeoples'BiodiversityRegister (PBR):

The vulnerable species as identified under the PBR Exercises were discussed with the BMCSub-Committeemembersandpossiblemanagementstrategieswereexplored.(Reference: ***SUB- STATE SITE BIODIVERSITY STRATEGY AND ACTION PLAN (LAHAUL &SPITIANDKINNAUR)TRIBALDEVELOPMENTDEPARTMENT,H.P.SECRETARIAT,SHIMLA-2 & STATE COUNCIL FOR SCIENCE TECHNOLOGY AND ENVIRONMENT, 34 SDACOMPLEX,KASUMPTI, SHIMLA-9)***

S. No.	Categories	Name of the item withscientificnames	Status asperPBR	Managementprescribed bythe BMC Sub-Committee members
	Agriculture (Cropdiversity)	Pea	Present	Provisioning ofseedsfromgovernment sources
		Barley	Present	Provisioning ofseedsfromgovernment sources
		Potato	Present	Provisioning ofseedsfromgovernment sources
	Horticulture	NA	NA	
	Medicinal Plants			
		Allium	Past–More	Protectionof

		carolinianum/Laot,Jangli,Lahasum/Konche,Pharna	Now- Less	forest patchesthroughcommunityparticipation Protection offorests fromforestfires Prohibition offorests fromgrazingpressures
		A. jaquemontii/ Khamet,Ratan jot	Past – MoreNow- Less	Protection offorest patchesthroughcommunityparticipation Protection offorests fromforestfires Prohibition offorests fromgrazing pressures
		Arnebiaeuchroma/Khamet,Ratanjot	Past – MoreNow- Less	Protection offorest patchesthroughcommunityparticipation Protectionof

				forests fromforestfires Prohibition offorests fromgrazing pressures
		Achilleamillefolium/Gandana,Millfoil/	Past – MoreNow-Less	Protection offorest patchesthroughcommunityparticipation
		Artemisiabrevifolia/Nurcha, Seinki	Past – MoreNow-Less	Protection offorests fromforestfires
		Bergeniastracheyi/ Gatikpa,Pashandbhed	Past – MoreNow-Less	Prohibition offorests fromgrazingpressures
		Juniperuscommunis/Hauber,Dhuppi	Past – MoreNow-Less	Protection offorest patchesthroughcommunityparticipation Protection offorests fromforestfires Prohibitionof

				forests from grazingpr essures
		Taraxacum /KhurmangDandelion	Past – MoreNow-normal	No declining isseenin this forestarea
	Trees,shr ubs,herb s,climber s,tubers, grassesetc			
		Rosa macrophylla (wildrose),	Past – MoreNow-normal	Provisioning ofnurseries *In-situ* cultivation Provisioning ofwatersource sforitspropaga tion
		Hippophae	Past – MoreNow-normal	Provisioning ofnurseries
		Myricaria	Past-More Now-Less	*In-situ* cultivation
		Salixflabellaris	Past – MoreNow-Less	Provisioning ofnurseries
		Juniperusrecurva	Past-More Now-Less	Provisioning of watersources

				forits propagation
		Ribesorientale	Past – MoreNow- Less	Provisioning ofwatersource sforits propagation
		Colutea nepalensis	Past – MoreNow- Less	Provisioning ofnurseries *In-situ* cultivation
		Ephedragerardiana	Past – MoreNow- Less	Provisioning ofnurseries *In-situ* cultivation
		Cotoneastermicrophylla	Past – MoreNow- Less	Provisioning ofnurseries *In-situ* cultivation Provisioning ofwatersource sforitspropaga tion
		Caraganabrevifolia (Trama).	Past – MoreNow- Less	Provisioning ofnurseries *In-situ* cultivation Provisioning ofwatersource s

				forits propagation
		Caragana	Past – MoreNow- Less	Provisioning ofnurseries *In-situ* cultivation Provisioning ofwatersource sforitspropaga tion
		Astragalus,	Past – MoreNow- Less	Provisioning ofnurseries *In-situ* cultivation
		Artemisia	Past – MoreNow- Less	Provisioning ofnurseries *In-situ* cultivation Provisioning ofwatersource sforits propagation
		Cousinia	Past – MoreNow- Less	Provisioning ofnurseries *In-situ* cultivation
		Hyoscyamusniger	Past – MoreNow- Less	Provisioning ofnurseries

				In-situ cultivation Provisioning ofwatersources sforits propagation
	Mammals,birds,reptiles,amphibian,insects, others)			
		Ibex (Capra ibexsiberica)	Past – PlentyNow-Rare	Preventionof hunting Strongcommunityparticipationinprotection
		Snow Leopard (Pantheraunica)	Past – PlentyNow-Plenty	Prevention ofhunting
		HimalayanBlueSheep(Pseudoisnahyaur)	Past – PlentyNow-Plenty	Strongprotectionrequired inthewild
		Tibetian Wolf (Cannislapus)	Past – PlentyNow-Rare	Strongcommunityparticipation in protection

		Red Fox (Vulpusvalpus)	*Past – PlentyNow- Rare*	Prevention ofhunting
		Wooly Hare	*Past – PlentyNow- Rare*	Strongpro tectionreq uiredinthe wild
		HimalayanCh ough(Phyrho corax gracumus)	*Past – PlentyNow- Rare*	Strongcomm unityparticip ation in protection
	Birds	*Snow Pigeon (Columbia rupestris)*	*Past – PlentyNow- Plenty*	Protection inthewild is required
		Snow cock (Tetragallus himalyensis)	*Past – PlentyNow- Plenty*	Protectionin the wild isrequired
		Vulture (Nephronpersnop terus)	*Past- Plenty*	Protectionin the wild isrequired
		Ducks (Avthva ferina)	*Now- Rare*	Protection inthewild is required
		Murgabi (Anas crecca)	*Past- Plenty*	Protectionin the wild isrequired
		Himalayancrow (Corvustib eteana)	*Past – PlentyNow- Plenty*	Protectionin the wild isrequired
		Picca(Ochotona	*Past- Plenty*	Protectionin

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		rovlei)	*Now- Plenty*	thewildis required
		Raven (Corvus corax)	Past – PlentyNow- Plenty	Protection inthewild is required
		Golden Eagle (Aquila chrysaetos)	Past –Plenty	Protection inthewild is required
		Griffan (Gyps himalayansis)	Now- Rare	Protection inthewild is required
		Red Start (Phoenicurus orchruros)	Past –Plenty	Protectionin the wild isrequired
		Chakor (Alpalectoris chakor)	Past –Plenty	Protectionin the wild isrequired
		Himalayan Finches(C arduelis cardduelis)	Past –Plenty	Protection inthewild isrequired

Managementstrategiesmatrix:

Gap plantation throughAR/ANR (data collectedthroughparticipatoryforest monitoring)	**Flora management withreferencetoPBR**	**Faunal management withreferencetoPBR**
Plantation of degraded landsthroughAR/ANR *Minimum:*	*Agriculture:* Supply of agriculture seedsbyGovernmentofHimachal	*Wild life protection:* Though species wisemanagementpractices

4ha@800 saplings/hain	Pradesh on: • Barley (*Hordeumvulgare*) – total of125kgper/Ha Pea(*Pisum sativum*)totalof100.58kg/ha • Potato (*Solanumtuberorum)*20kg/Ha	couldnotbe gainedfromthe community members,broad and holisticprotection modalities wereprescribedas below: • Preventionofhunting • Strong protectionrequiredinthewild • Strong community participation inprotection Thiscanbeachievedthrough community mobilisationandtheirparticipation in safeguardingthewildlife.
Desirable:	Provisioning of: • Cultivation of RattanJotandJugli Pyaz	

9.4ApprovalofCBMPandotheractivitiesbyGeneral House:-

Sanction / Approval ofCBMPbytheBio-diversity Sub-Committee:

GeneralhousemeetingofSub-CommitteeHikkimwereorganizedinHikkimon10thOctober, 2021 and 12th October, 2021. The meeting was attended by Sub-Committeemembers. (List attached in proceeding register). Following issues were discussed anddecision taken:

Micro planning team RFO WL Range Kaza, Dorjen (FTU Coordinator WL Range Kaza), BOand Forest Guard discussed in detail the various interventions as incorporated in the draftCBMP of Sub-Committee Hikkim Forests. Members from hamlets (Hikkim,Langcha, Komic)expressed that area near habitations as well as areas which fall within the grazing zone ofmigratorygraziersneedsfencing.Themembersweresuredthatthevulnerablepoints

will be taken care of and barbed wire fencing will be recommended so that there will beleast grazing incidences in the plantation areas. The members assured that they will notleavetheir domestic cattle forgrazing in open withoutattendantwhichmay causedamage to the seedlings in the closed areas. Plots identified were discussed in detail andassigned to two user groups. In addition, the participants suggested itemised conservationmeasures tobetakenforeachspecies.

Work to be executed in PFM mode and in FD mode was discussed and finalized. AllPlantations planted by Sub-Committee will be protected by Sub-Committee. Technicalworks, Masonry/Gabion check dams, water harvesting structures, will be built by FD.Bioengineering structures, Dry stone Check Dams on small streams, Masonry ponds etc.willbedoneby Villagers.

Pic- 6:Meeting of theGeneral House on theconsensus building

9. 5Memorandum of Understanding (MoU):

Memorandum of understanding (English version) translated in Hindi / local language wasread and explained to all present. The issue of community contribution was discussed indetailandthecommunity memberssuggestedtheir contribution infollowingforms:

Pic – 7:Meetingof theGeneral Houseontheconsensus building

- All the user group members agreed that they will contribute their Sub-Committeemembershipbeneficiary shareintotheSub-Committeeaccount.
- All members agreed for their contribution in project activities, and decided tocontribute membership fee of Rs. 200. This has to be paid only once. The amountwill be kept in Sub-Committee account and can be used as community share fordoing any other development work with other departments or with project, if Sub-Committee members desire so, otherwise they can use it after project completion.Thisisimportantbecausevillagersshouldfeelsenseofownershipinworksand further,theyhavetomaintainandprotectforestarea/assetsforseveralyears evenafter completionof project.
- The Micro Plan was finally approved by the General House of BMC Sub-Committeeon dated 10th. October, 2021 (Details written in proceeding register) and amendedfurtheron12st October2021.

- TheMoUwasalsosignedbythepresidentofSubCommitteeandDFOWLKazaondated12.11.2021(SignedMoUannexedas Annexure-X)

9. 6ProjectSupporttothebeneficiary(SubCommittee)forImplementationofMicroplan

The village levelorganizationwillbebeneficiaryof PIHPFEM&L projectfor:

- **Financialsupport**

- **Implementationof theapprovedmicro-plan**

- **Labour wages** for Fencing, pit digging, carriages, planting, weeding, mulching ofplantsexcludingthe communitycontribution.

- **Other works** as per approved micro plan (*ALL WAGES ARE TO BE PAID BY THE Sub-CommitteebyCHEQUEORBYBANKTRANSFER.NOCASHTRANSACTIONSPERMITTED)*.
- **CDAs:** The Community Development Activities as identified by the Sub-Committeeand in conformity with the Project guidelines will be decided and implemented bytheSub-Committee through aconsultativeprocess.

- **Maintenance:**
  Beating up operations, weeding mulching in MP plantations for years.Maintenanceoffencefor5years.

- **Stockandmaterial:**
  Stock:qualitynursery raisedplants
  Material e.g.B.wire,U. nails,fenceposts,Tar/black Japanetc.

- **Stationary ofSubCommittee**
  Stationary to Sub-Committee, including stamps, stamp pad, two registers, receiptbook, carbon papers, paper pin, resolution pads, pen, pencil, Darrie, chairs, table,Almirahetc.torun theofficeeffectively.

9.7 PlantationActivitiesIdentified:

Sr.NO	Activity	Benefiting HHs	Area tobecovered(Ha)						
				2022-23	2023-24	2024-25	2025-26	2026-27	2027-28
1	**Tallblockplantation/Afforestation(FuelandFodderPlantation@500Normal Plants Normally**Introductionofsuitablegrasses andlegumesinCommandAreasforimproving soilfertility*Trigonellaemodi,Cicerarietinum,Festucarubra,Arnebiaeuchroma,Gentiana Caraganabrevifolia,Loniceraspinosa,Salix, Hippophae tibetana* in projectcommand areasandprivate lands.	39		6(Ha)					
2	**ANR plantation @200 Plant/Ha.**Introductionofsuitablegrassesandlegumes in Command Areas forimproving soil fertility, *Trigonellaemodi,Cicerarietinum,Festucarubra,Arnebia euchroma,GentianaCaragana brevifolia,Loniceraspinosa,Salix,Hippophae tibetana* inprojectcommand areasand private lands.	39		1(Ha)					
	TOTAL			7(Ha)					

9.7.1 RequirementofPlantingMaterials

Year	NumberofSamplingRequired(NewPlantation)										
	Trigonella sp.	Cicer Sp.	Aconogonum sp.	Caragana sp.	Lonicera Sp.	SalixSp.	Hippophae Sp.	Gentiana Sp.	ArnebiaSp.	Dactylorhiza sp.	Source of Planting Material
2022-23	2600	1300	900	880	1400	1180	760	780	760	780	nursery
Total	2600	1300	900	880	1400	1180	760	780	760	780	
Year	NumberofSamplingRequired(Maintenance)										
											Source of Planting Material
2023-24	0	0	0	0	0	0	0	0	0	0	nursery
2024-25	780	390	270	264	420	354	228	234	228	234	
2025-26	520	260	180	176	280	236	152	156	152	156	
2026-27	390	195	135	132	210	177	114	117	114	117	
2027-28	260	130	90	88	140	118	76	78	76	78	
Total	2210	1105	765	748	1190	1003	646	663	646	663	

9.7.2 ForestProtection/Silviculture/Maintenance operation forthePlantation

Years	Activities tobetakenupSite/ModelWise		Responsibility	
	Hikkim		Project	Sub-Committee
2022-23	ANR plantation @200Plants/Ha.	Tall block PlantationFuel,Fodderand WildFruitPlantation@500Normal Plants	Yes	Yes
2024-25	Maint.	Maint.	Yes	Yes
2025-26	Maint.	Maint.	Yes	Yes
2026-27	Maint.	Maint.	Yes	Yes
2027-28	Maint.	Maint.	Yes	Yes

9.7.3 PlantationActivity underPFMMode

Years	Activities tobetakenupSite/ModelWise		Responsibility	
	Hikkim		Project	Sub-Committee
2022-23	ANR plantation @200Plants/Ha.	Tall block PlantationFuel,Fodder and Wild FruitPlantation@500Normal Plants	Yes	Yes
2023-24	Maint.	Maint.	Yes	Yes
2024-25	Maint.	Maint.	Yes	Yes
2025-26	Maint.	Maint.	Yes	Yes
2026-27	Maint.	Maint.	Yes	Yes
2027-28	Maint.	Maint.	Yes	Yes

9.8 SoilandWaterConservation

9.8.1 SoilandWaterConservationWorks(Proposed)

S No	Land	Typeof SWC work	Nameof the site	Unitof work	Quantum of work	HHs beneficiaries	Responsibility		
							Project	Sub-Committee	Convergence
1	Hikkimwardcommunity Land /forestland	Dry StoneC/ dams	Shilla peakcontour	No.	8	39	Yes	Yes	
			Glacial peakcontour	No.	9	39	Yes	Yes	
			Hikkim villagecontour	No.	8	**39**	Yes	Yes	

9.8.2 (B) Soil andWaterConservationworks(YearwisePhysicalTarget)

S No.	Land	TypeofSWC work	Nameof the site	Unit of work	Quantum of work	HHsbeneficiaries	PhysicaltargetforSWC activities						
							2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28
1	Sanctuary Area	DryStone C/dams	Shilla peak contour	No	8	20	0	4	4	0	0	0	0
	Forest area	DryStone C/dams	Glacial peak contour	No	9	8	0	5	4	0	0	0	0
	Community land	DryStone C/dams	Hikkim village contour	No	8	---	0	4	4	0	0	0	0

9.9 Physicaland FinancialPlan(CBMP)

9.9.1 ProposedPhysicalandFinancialPlan

S. No	Proposedactivities	Unit	Total		2022-23		2023-24		2024-25		2025-26		2026-27		2027-28	
			Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin
1																
a)	TBplanting@500normalplants	Ha	6	335181	6	335181	0	0	0	0	0	0	0	0	0	0
b)	ANRPlanting200plants /Ha)	Ha	1	30725	1	30725	0	0	0	0	0	0	0	0	0	0
A	**Total(NewPlantation)**		**7**	**366006**	**0**	**366006**		**0**	**0**	**0**		**0**		**0**		**0**
2																
a)	TBPlanting@ 500normalplants			Maintenance												
i)	1st.YearMaint.(6250/Ha.)	Ha	6	37500	0	0	6	37500	0	0	0	0	0	0	0	0
ii)	2nd.YearMaint.(4250/Ha.)	Ha	6	25500	0	0	0	0	6	25500	0	0	0	0	0	0
iii)	3rd.YearMaint.(3200/Ha.)	Ha	6	19200	0	0	0	0	0	0	6	19200	0	0	0	0
iv)	4th.YearMaint.(2200/Ha.)	Ha	6	13200	0	0	0	0	0	0	0	0	6	13200	0	0

v)	5th.Year Maint.(2200/Ha.)	Ha	6	13200	0	0	0	0	0	0	0	0	0	0	6	13200
	SubTotal			**474606**	**0**	**366006**	**0**	**37500**	**0**	**25500**	**0**	**19200**	**0**	**0**	**0**	**13200**
S. No	**Proposedactivities**	**Unit**	**Total**		**2022-23**		**2023-24**		**2024-25**		**2025-26**		**2026-27**		**2027-28**	
			Phy	**Fin**	**Phy**	**Fin**	**Phy**	**Fin**	**Phy**	**Fin**	**Phy**	**Fin**	**Phy**	**Fin**	**Phy**	**Fin**
c)	**ANRplanting200plants/Ha)**			**Maintenance**												
i)	1st. Year Maint.(4600/Ha.)	Ha	1	4600	0	0	1	4600	0	0	0	0	0	0	0	0
ii)	2nd.YearMaint.(3100/Ha.)	Ha	1	3100	0	0	0	0	1	3100	0	0	0	0	0	0
iii)	3rd.YearMaint.(2400/Ha.)	Ha	1	2400	0	0	0	0	0	0	1	2400	0	0	0	0
iv)	4th.YearMaint.(1650/Ha.)	Ha	1	1650	0	0	0	0	0	0	0	0	1	1650	0	0
v)	5th.YearMaint. (1650/Ha.)	Ha	1	1650	0	0	0	0	0	0	0	0	0	0	1	1650
	SubTotal			**13400**	**0**	**0**	**0**	**4600**	**0**	**3100**	**0**	**2400**	**0**	**1650**	**0**	**1650**
B	**Total(Maintenance)**			**488006**		**366006**		**42100**		**28600**		**21600**		**14850**		**14850**
S. No	**Proposedactivities**	**Unit**	**Total**		**2022-23**		**2023-24**		**2024-25**		**2025-26**		**19800**			
			Phy	**Fin**	**Phy**	**Fin**	**Phy**	**Fin**	**Phy**	**Fin**	**Phy**	**Fin**	**Phy**	**Fin**	**Phy**	**Fin**
4	**SMCTrenching**															

a)	SMC works(Preparationofstaggered GradonialTrenches1mx0.3mx0.3m)500trenches/Ha @ 12375 /Ha	Ha	**6**	**74250**	**6**	**74250**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
D	**TotalSMC**			**74250**		**74250**		**0**		**0**		**0**		**0**		**0**
	Total(A+B+C+D)			**562256**		**440256**		**42100**		**28600**		**21600**		**14850**		**14850**
S. No	**Proposedactivities**	**Unit**	**Total**		**2022-23**		**2023-24**		**2024-25**		**2025-26**		**2026-27**		**2027-28**	
			Phy	**Fin**	**Phy**	**Fin**	**Phy**	**Fin**	**Phy**	**Fin**	**Phy**	**Fin**	**Phy**	**Fin**	**Phy**	**Fin**
5																
a)	**Soil & WaterConservation(CBMP)** Drystonecheckdams	No.	5	100000	0	0	5	100000	0	0	0	0	0	0	0	0
E	**Total(S&WC)**			**100000**		**0**		**100000**		**0**		**0**		**0**		**0**
6	**WildLife Habitat Improvement**															
a)	Cons.Of WaterPond	No.	6	180000	2	60000	2	60000	2	60000	0	0	0	0	0	0
b)	Maint.OfWater Pond	No.	4	40000	0	0	2	20000	2	20000	0	0	0	0	0	0
F	**Total(Wildlife Habitat Improvement**			**220000**		**60000**		**80000**		**80000**		**0**		**0**		**0**
	GrandTotal(A+B+C+D+E+F)			**882256**		**500256**		**235900**		**108600**		**21600**		**21600**		**21600**

9.9.2 AnnualWorkPlanCBMPForThe2020-21yearwise

ProposedActivity	BenefittingHH	UnitofWork	Quantum OfWork	Unit cost(Rs)	Proposed Budget	FinancialSource		
						Project	Convergence	Comm. Contribution
TBPlanting@500 normalPlants	39	Ha	6	55863	335181	Project		Management
ANRPlanting@200 Plants	39	Ha	1	30725	30725	Project		Management
Sub-Total					366006			
Soil&Water Conservation								
DryStoneCheckwall	39	No	1	20000	20000			
Sub-Total					20000			
HabitatImprovement								
ConstructionOfWater Ponds		No	2	30000	60000			
Sub-Total					60000			
Total					**446006**			

10Community DevelopmentandLivelihoodImprovement Plan(CD&LIP)

Table10.1-CommunityDevelopmentActivities

S. No	Activity	Purposeoftheactivity	HHsto be benefitted	Community contribution (%)
1	Glacialwater harvesting structure	Onlyrelayonthis watersource	Wholecom munity	10%
2	GlacialPondf or agriculture	Due to climate change,scarcity like situation in summer season	Wholecom munity	10%
3	Solar installation	Lack of proper supply of electricity	Whole community	10%
4	Solid fencingalong withsolarfenc ing	Animallikeyak,cowusetoentert hecropfieldandresults indestruction of crop,whilesolarfencingis neededtopreventinfluxofanima lsuch asbluesheep ,hare,goat andsheep.	WholeCom munity	10%
5	Ground waterp hand ump	Must be installed , mostly theyget glacial water in particularseason,watercrisisca nbeovercomebyhandpumpin summer season	WholeCom munity	10%

Table10.2-Livelihood Improvement Activities& Plan

S. No	Activity	Purposeoftheactivity	HHs to bebenefitted	Communitycontribution (%)
1	Three months earlyvarietyseede.g .Pea	Oftentheyfaceclimatefluctuation;mostofthecropgetssparedleadsto hugeeconomicloss.	39	10%
2	Carpet Making , yakwoolropemaking	Inwinteroutdooractivities are about null ,theywantsustainedwinterseasoninmakingsuchitemshelpingin boostinglivelihood	39	10%
3	Introduce Koda(*Fagopyrumesculentum*)	Lack water ,to avoid soildegenerationduetomonoculture,with nutritionvalue	39	10%
4	Conservation ofRatan Jot, Jangli Pyaz,	Illegaltradingdonebyoutsider	39	10%
5	Modified polyhouse	Foroffseasonvegetable,old structurepolyhouses arenotdurable	39	10%

UnderCommunity Developmentworks

Activities

1. **Glacial water harvesting structure:** As the whole population of this particularplanning site/ ward have only one source of water i.e glacial water, which theyusefordomesticpurposes,drinking,irrigation,cattleusesetc.Andmostimportantly this source do not stay for every season .Often they face watercrisis and they lack other sources as well in Hikkim village. So glacial waterharvesting structure would definitelyhelpineradicationofthis primaryissue.

Table10.3-Showingestimated amountforwatertank

S.no.	Particulars of work	Length	Breadth	Depth	Volume	Rate Rs.	Amount Rs.
	Tank	10	10	10	1000 ft^3 28000/lit	8Rs /Lit	224000/-
	Number of tank 3						224000x3= 672,000/-
	20%hikein totalamountforcarriageof rawmaterialin colddesert area						
	Thisconstruction workcanbedoneunderthe MGNREGA						

2. **Glacial Pond for Agriculture:** The climate change has definitely made the fastmelting of glaciers, in summers they get sufficient water for their agriculturalactivities along with their domestic activities but later in other season it getsworst to have water .So the particular pond for agriculture use in this ward isneeded.

Table10.4-Summaryof estimateto constructpond.

S.no.	Particulars of work	No.	Length	Breadth	Depth	Volume	Rate Rs.	Amount Rs.

	Pond	1	20m	20m	1m	$400m^3$ 4 laclit	8Rs/lit	32Lac
	20%hikein totalamountforcarriageofrawmaterialincolddesert area							
	TheconstructionofpondcanalsobedoneundertheMGNEGAandwithhelpofAgriculture Departmentunderirrigationscheme withsubsidy							

SolarInstallation: Aswe knowthepresentward issituatedontheheight of4400m The ward do not have proper supply of electricity ,which makes the barrierfortheworkinghabitsofpeopleincludingtheiroutdooractivities,childreneducation , people working in fields etc. Solar installation can be the immediatesolution of the irregular power supply. People opting for grid connected rooftopsolar panels/power plant are being given 70 per cent subsidy, and surplus powerwould be further sold to HPSEBL at the rate of rupees five per unit, which wouldalsoaddtotheincomeoftheindividual,besidesusingfreesolarpower.

Solid fencing along with solar fencing: The farmers of this village claimed thatmostly the yak and cows use to enter the fields and results in destruction of cropswhile solar fencing is needed to prevent influx of animal such as blue sheep, hare,goatandsheep.

Table10.5-Showingestimate forinstallingfencing

S.No.	**Particulars of work/** Models	Protected Area/ acre	Perimeterfor fencing/ meter	Unit Cost/Rs	Costper Running meter/Rs
	Model1	1	300	161907/-	540
	Model2	2.5	500	210793/-	422
	Model3	5	700	259679/-	371
	Model4	10	1000	407716/-	408
	Model5	20	1400	505489/-	361

The average cost per running meter of 7 rows fence comes to beRs.396/Meter.ThispracticewillbeimplementedbytheDeputyDirectorthroughProjectImplementingAgency(PIA)inthedevelopmentblocki.eSubjectMatterSpecialist .In Tribal district, the District Agriculture Officer, Keylong & Assistant ProjectOfficer,Kaza of Lahaul & Spiti Districtwill act as Project Sanctioning Authority aswell as Project Implementation Agencies (PIA's).The PIAs shall be responsible foridentificationandselectionofthepotentialbeneficiaries.

AsProjectassistance@80%isavailableforindividualfarmersand85%foragroupofthreeormorefarmersforinstallation&CommissioningofSolarElectricPowered Fencing Systems in the Farmer's Fields on the actual work done by theFirm/Company .Project assistance shall be released to the beneficiaries directly orthrough bank ,in case the farmer avail loan .The assistance for the installation ofSolar Electric Powered Fencing can be released to the company after obtainingsatisfactory report from core team and farmers/ a group of farmers. The paymentsshall be worked out on actual work done and its measurement basis in view ofprevailingsiteneedandrequirementdulyverifiedbytheCore Teamconcerned.

Ground water hand pump: As it has already mentioned that the present villagemostly face the water crisis and glacial water seepage is for sure present there .Soinstallation of ground water hand pumps can overcome the water scarcity even inwintersaswellasinother seasons too.

Hand pumps to individual beneficiaries shall be installed on 75%costs. The 75%cost shall be paid by the beneficiary and balance 25% percent shall be paid thedepartment .The 75 % costs shall be paid by the beneficiary in advance in theprescribedmodeoftheconcernExecutiveEngineer(IPH) division.

The estimate for installation of hand pump shall be got prepared through thedepartment ,75% of the total estimated cost for installation of hand pump shall beborne by the beneficiary and balance 25% shall be borne by the department.Priority should be given to the places where there is no potable water source/ tailend of schemes and there is scarcity of water due to topographical constraints anderraticwater supply.

LivelihoodImprovement Activities &Plan

- **Three months early variety seed e.g Pea:** As they have monoculture for agricultureproductivity followed by few months i.e from April to the September month .Thefarmers told if they get early snowfall which makes transportation blocked their cropsget spared and they get huge loss .So if they have early varieties of seeds such as ofPeas they can make it harvest as soon as to get snowfall .And somehow monoculturecan be avoided. The required seeds they can get from Agriculture department ofHimachalPradesh .Whereitcanbe subsidized forfarmers.

- **CarpetMaking,yakwoolropemaking:**Thecommunitytraditionally makesthecarpet of Yak wool and also the ropes .If the people make it on large scale and get itto be commercialized Its surely going to make the people benefitted.As theydonotrequire any raw material for this activity ,it would fit better with livelihood upliftcomponentwithoutmuch money.
- As the most of households rears the Yak so the availability of raw material i.e yakwoolis there for practices of carpetand yakwoolropemaking.

  IntroduceKoda(*Fagopyrumesculentum*):ThevillagegrowsonlytheBarley,Peas ,Potato .As per the geographical and climaticconditions IntroductionofKoda(*Fagopyrumesculentum*)can beexperimentedas this is served asstaple food andbeing richinaminoacids. This can be alsocommercializedas otherfoodcrops.

  The requirement of the koda crop seeds can be fulfilled by the agriculture departmentastheseeds canbe provideatsuitable subsidyor pricesforthefarmers.
- **Conservation of Ratan Jot, Jangli Pyaz:** At Hikkim village the local people told thatoutsiders use to do illegal trading of Ratan jot and jangali pyaz which is also unfair totheBMC.TheBMCandlocalpeoplemustbeawareofthis.Theconcerneddepartments for such activity which includes the conservation of medicinal plants canbetheForestDepartmentas wellasBio-Diversity ManagementCommittee.

Modified Poly house: For off seasonvegetable growththe modifiedpoly houses canbedurableandeffective.Asfewfarmershavetriedgrowingsquashes,carrots,tomatoes, cucumber, cabbage and coriander etc. The only issue with the old polyhouses infrastructure is that these dome shaped don't go with heavy snowfall for longduration .While the roof topped like poly houses are more compatible than domeshaped one. The roof topped one must be with the Covering of Poly ethylene sheet forlongduration.

Himachal Govt 80-85% subsidy. State Government gets approximately 50% subsidy fromCentral Govt. in return. Guidelines for implementing the Mukhya Mantri GreenhouseRenovationScheme(MMGRS)throughDeptt.ofHorticulture,H.P.1.Underthissc heme, 70% assistance for the replacement of poly sheet subject maximum to Rs.44.80/- per sq. mtr. as back-ended subsidy would beavailable tothe individualbeneficiaries (i.e. Farmers) who are engaged in greenhouse cultivation of high valueflowers andvegetablecrops.cost Rs900-1200/- persquare meter.

SummaryofHuman Capacity Building

Apart from the ecosystem services, the site also boosts of strong women groups who tryto microfinance their agriculture needs for example seeds for sowing with the help ofSelf-Help Groups (SHGs).However more capacity building is needed within the project aswell as additional support from BDO , Rural development , Tourism Department ,NABARDagenciesetc.SHGmeetingsalsoprovideagender specificplatform todiscussotherissues

related to resources as mostly women are prime usrs of fodder and water for theirhouseholds.

Table10.6:SHGLivelihood Improvement:Training Budget(twoworkshopsa year)

S. No.	Particulars	No. Of Group	No of Person	Rate Rs.	Amt. Rs.
1	Refreshment/lunch	10	15	160	22500
	Stationary	10	15	30	4500
	Resourceperson(Honorarium&Travel)	2	4	2500	20000
	Banner &Photography	2	2	250	1000
	Totalfor oneworkshop				48000/-
	Grand Total for 4Workshops				**1,92,000/-**

MonitoringandEvaluation (M&E) Framework

A participatory framework is established to monitor the efforts made by the stakeholders,the flow of Ecosystem services and related forest management goal. The participatoryframeworkwillbesegregatedintwo sections as givenbelow:

- MonitoringandEvaluationbytheForestDepartment(in-house/outsourcedinfrastructure support):This systemwill timely evaluatevegetation andotherrelated ecosystem service flow through GIS –based map of JFM areas, with villageboundaries.
- ParticipatoryUnit:Thiswillbeinstrumentalinprovidinggroundtruthingofvegetationgrowthandrelatedimprovementoftheecosystemserviceflowappropriate protection measures in a frequency of every two years .This will alsoassessthecommensurateimprovementinlivelihoodthroughsocio-economic

survey.Theparticipatoryunitwilldothemonitoringandevaluationbasedonclearlyagreed protocolon rightsandresponsibilitiesofallstakeholdersparties.

MonitoringandEvaluationPlanwithIndicatorsareprovidedinTable1.35

Table10.7: Monitoringand EvaluationPlan

S.No.	FES	MeasurestobeMonitored	Baseline value	Target Value	Indicator	MeansofVerification	responsibility
	Waterincrease of watersupply	Availability of waterflowandsesonalityespecially during Summer	ND	Sufficientwateravailabilityduringsummer	Cropsdon'tdry due to lackirrigation water duringSummer	RecordkepingbyMonitoring team	Monitoring Team of VillageCommittee
	Fuel &Foddersupply	All the blanksarefullystockedaiwthplantation	Noplantation	At list 10% increaseinfodder & fuel	Continuedavailability of fuel & fodder	Recordkepingof the numberof headloadsoffuel& fodder	

Table10.8-AnnualWork PlanCBMPFor The2022-23year wise

ProposedActivity	BenefittingHH	Unitof Work	Unit cost (Rs)	Proposed Budget	Financial SourceProjectConvergence Comm. Contribution
Glacial water harvesting tank	39	3	224000+ 20% carriage 44800	2,68800/-	Under MGNREGA
Glacial for Pond Agriculture	39	1	32 lac+ 6,40000/-	38,40000/-	Under MGNREGA
Solarinstallation	39	1		98000/-	From 70 % HimUrja Subsidy
Solid & fencing Solarfencing	39	1	396/meter	1400x396 554400/-	80%subsidyfen on solar cing
Groundwaterhandpump	39	1			25%subsidy
Total					

10.9 proposedphysical&financialIncome GenerationActivities(IGA)

Sr.No.	ProposedActivities	Total	FinanceContribution	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28
1.	**SHG Livelihood Improvement: TrainingBudget (CarpetMaking,yakwool ropemaking)**	192000/-	JICAwithhelpofRDDept&Tourism	96000/-	96000/-	0	0	0	0
2.	Threemonthsearlyvarietyseede.g.PeaIntroduceKoda	1500/- max.x39	Agriculture Deptt.60%subsidy	58500/-	58500/-	0	0	0	0
3.	ConservationofRatanJot,JangliPyaz,		ForestDeptt.&HPSBiodiversityBoard	0 \	0	0	0	0	0
4.	Modifiedpolyhouse,Minimum25squaremeter	900-1200/- per squaremeter 15 HH	From AgricultureDeptt. 70% subsidy10%beneficiaries,20%JICA	300000/- 20% JICA (60000/)-	300000/	300000/	0	0	0

10.10 -AnnualWorkPlanCBMPFor The 2021-22yearwise

ProposedActivity	BenefittingHH	Unit of Work	Unit cost (Rs)	Proposed Budget	FinancialSource ProjectConvergence Comm.Contribution
Glacial water harvestingtank	39	3	224000+20% carriage 44800	2,68800/-	Under MGNREGA
Glacial Pond for Agriculture	39	1	32 lac+ 6,40000/-	38,40000/-	Under MGNREGA
Solarinstallation	39	1		98000/-	From HimUrja 70% Subsidy
Solidfencing&Solarfencing	39	1	396/meter	1400x396 554400/-	80%subsidyonsolar fencing

Ground water handpump	39	1			25%subsidy
SHG Livelihood Improvement: Training Budget	39		192000/-	192000/-	JICAwithhelpofRDDept&Tourism
Three months earlyvarietyseed e.g.Pea IntroduceKoda	39		1500/-max.x 39	117000	Agriculture Deptt.60% subsidy
ConservationofRatanJot,JangliPyaz,	39				Forest Deptt.& HPSBiodiversity Board,JICA
Modifiedpolyhouse, Minimum 25 squaremeter	39		900-1200 /- per square meter15HH	30,0000	FromAgricultureDeptt.70% subsidy10%beneficiaries,20%JICA
Total					

11 ConvergenceswithExternalAgencies

ActivitiestobecarriedoutwiththeSupportofOtherDepartments/Projects/SchemesCommunityInfrastructuredevelopment,basichuman needs,agriculture andhorticulture(through Convergence)

11.1 ActivitiesidentifiedforConvergence

S.No	Activities	HHs to bebenefitted	Department/Agencyfor convergence
1	**Repairof MahilaMandal**	**39**	**Panchayat/Block**
2	**FootPath**	**39**	**Panchayat/Block**
3	**Drain**	**39**	**Panchayat/Block**
4	**Training /FarmingCamp**	**39**	**Agri/Horti/AnimalHusbandry**
5	**Silage(Demonstrationsbasis)**	**39**	**A/Hexposure Visit**
6	**Medicinalplants**	**15**	**Forest/HorticultureDepartment**
7	**Training on Eco-Tourism Activities**	**10**	**Forest/TourismDepartments**

1.2Physicaland FinancialPlanforConvergenceActivities

2Implementation Strategies

12.1 implementationguidelinesoncomponentsandsub-components

	Activitiesidentifiedfor convergence															
S. No	Proposedactivities	Unit	Total		2022-23		2023-24		2024-25		2025-26		2026-27		2027-28	
			Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin
1	DryStoneCheckDam	No.	5	100000	0	0	3	60000	0	0	2	40000	0	0	0	0
2	Dry StoneC/ Wall	No.	1	15000	0	0	1	15000	0	0	0	0	0	0	0	0
	TotalConvergenceActivity			**115000**	**0**	**0**		**75000**				**40000**				

Participatoryforestmanagement

Soil& waterconservation/landslide controlmeasures

Communitydevelopmentand livelihoodimprovementwithgendermainstreaming

12.2 Trainingandcapacity buildingofcommunityinstitutions*(Sub-Committee,CIG,SHG)*

Institution	Areasoftraining/ capacitybuilding	Resource person/group	Locationsforexposure visits
Sub-Committee		Consultant	
ExecutiveCommittee	Proceeding writingAccount maintainAssetscreated Role& responsibility of EC	JICA Staff/ Forest Department staff/Consultant	Dehradun,Shimla,Kulu,Kangra
CIG	Proceeding AccountmaintainingValueadditiontraining	Consultants	Local /Program manager ruralfinancing
SHG	Groupformation,Accountmaintaining,Proceeding writing,Bank linkagesetc.	NABARD/Master trainer	

12.3 Year wisedetail oftrainingandcapacitybuildingplan

S. No	Year& Month	Community institution	Subjectoftraining	Noof Participants	Duration	Resourceperson/group
1	2022-2023	ECtrainingExposure visitCIG SHG	Proceeding writingAccountmaintainingRole&responsibilityofEC Gender	7-15 EC Representative	2days 5days	1.Master trainer, FDaccountants 2. Successfulprojectsinsideandoutsidestate.
2	2022-2023	1.EC Training2.CIG 3. SHG	M&E /Socialaudit	3-5	2days	FTU- coordinators
3	2023-2024	1.EC Training2.CIG 3. SHG	Assetscreated	3-5	1day	FTUcoordinators

12.4 ProposedYear WiseTraining

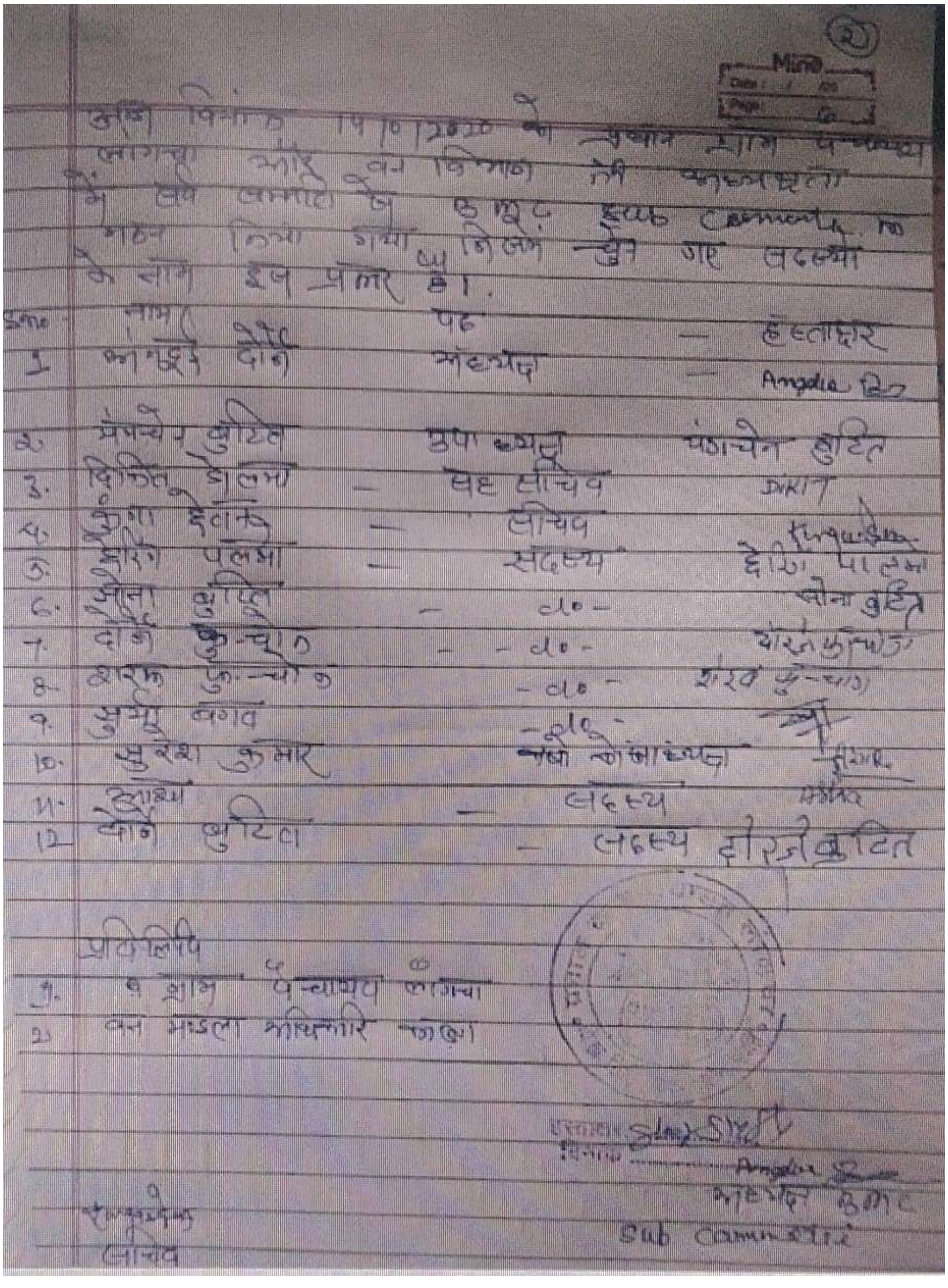
Sr. No	ProposedActivities	Unit	Total		2022-23		2023-24		2024-25		2025-26		2026-27	
			Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin
Trainingand CapacityBuildingofCommunityInstitutions														
I	Sub-Committee(EC)Training													
a)	Proceeding account Maintain	No	2	0	1	0	0	0	1	0	0	0	0	0
b)	RoleResponsibility,Gender,Assetscrated	No	3	0	1	0	1	0	1	0	0	0	0	0
c)	M&E andSocialAudit	No	4	0	0	0	1	0	1	0	1	0	1	0
	Sub-Total		9	0	2	0	2	0	3	0	1	0	1	0
II	CIGTraining													
a)	ProceedingWriting, AccountMaintaing	No	2	0	1	0	1	0	0	0	0	0	0	0
b)	Valueaddition	No	4	0	1	0	1	0	1	0	1	0	0	0
	Sub-Total		6	0	2	0	2	0	1	0	1	0	0	0
III	SHG													
a)	Group Formation, ProceedingWriting	No	2	0	1	0	1	0	0	0	0	0	0	0
b)	AccountMaintaing,Bank Linkagesetc.	No	2	0	1	0	1	0	0	0	0	0	0	0
	Sub-Total	No	4		2	0	2	0	0	0	0	0	0	0

12.5 Records tobemaintainedbythecommunityinstitutions

S. No	Nameoftherecord/register to be maintained	To bemaintainedbywhom	To be verified bywhom
1	Membership register,byelaws,&OTHERRECORDS	President / MemberSecretaryVFDS	FTU Officer/FTU Co-ordinator
2	Proceeding register	Member Secretary VFDS/Joint Secretary	FTUCo-ordinator
3	Cash account register&relatedbooks	Treasurer,Secretary,jointSecretary,	FTUOfficer FTUCo-ordinator
4.	Asset created register	President, Secretary	FTU/Projectrepresentatives.

ANNEXUREs

Annexure-I



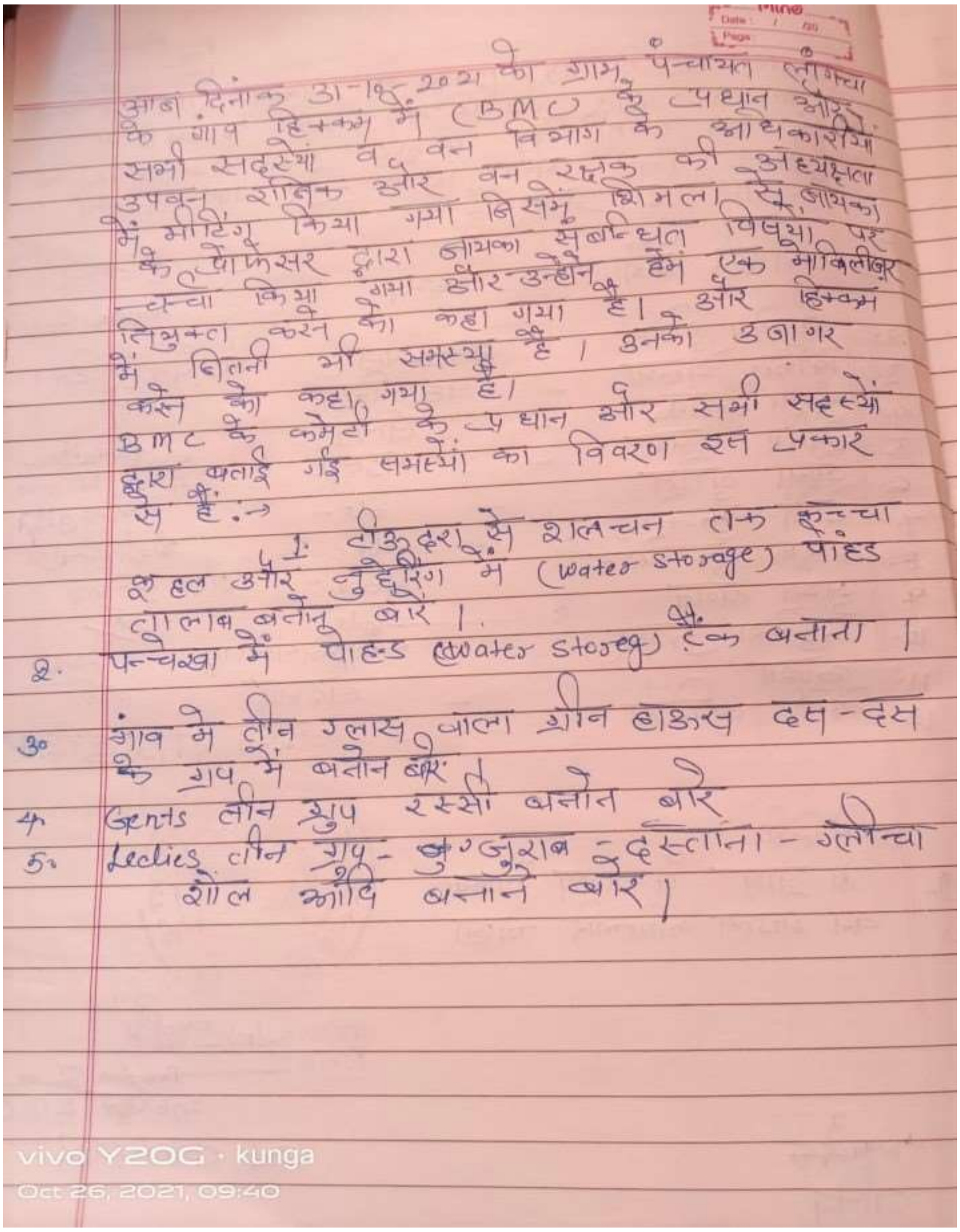
आज दिनांक 11/01/2020 को प्रधान ग्राम पंचायत लांगचा और वन विभाग की उपस्थिति में BMC कमेटी के हिक्किम Sub Committee का गठन किया गया जिसमें चुने गए सदस्यों के नाम इस प्रकार है।

S.no	नाम	पद	हस्ताक्षर
1	आंगदुई दोर्जे	अध्यक्ष	Angdui Dorje
2	छेरिंग बुटिट	उप अध्यक्ष	[illegible] बुटिट
3	रिंचिन डोलमा	सह सचिव	[illegible]
4	कुंगा छेरिंग	सचिव	[illegible]
5	छेरिंग पलमो	सदस्य	छेरिंग पालमो
6	सोना बुटिट	-do-	सोना बुटिट
7	दोर्जे फुन्चोक	-do-	दोर्जे फुन्चोक
8	शेरब फुन्चोक	-do-	शेरब फुन्चोक
9	सुमरू [illegible]	-do-	[illegible]
10	सुरेश कुमार	[illegible]	[illegible]
11	[illegible]	सदस्य	[illegible]
12	दोर्जे बुटिट	सदस्य	दोर्जे बुटिट

प्रतिलिपि
1. प्रधान ग्राम पंचायत लांगचा
2. वन मंडल अधिकारी काजा

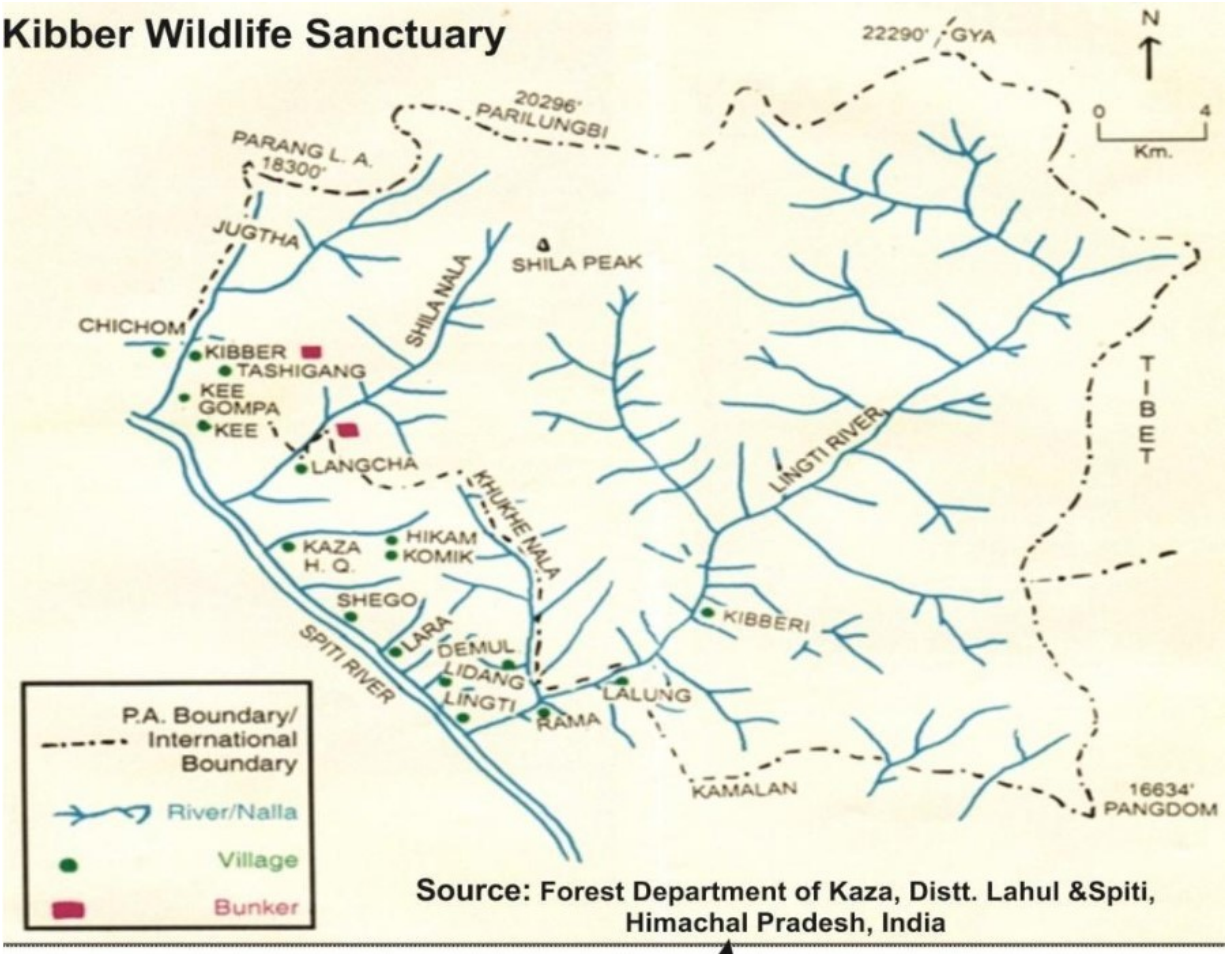
हस्ताक्षर [illegible]
[illegible] कुमार
Sub Committee

सचिव



आज दिनांक 3-10-2021 को ग्राम पंचायत लांग्चा के गांव हिक्कम में (BMC) के प्रधान और सभी सदस्यो व वन विभाग के अधिकारियों उपवन राजिक और वन रक्षक की अध्यक्षता में मीटिंग किया गया जिसमें शिमला से जायका के प्रोफेसर द्वारा जायका संबन्धित विषयों पर चर्चा किया गया और उन्होंने हमें एक माइक्रोप्लान तैयार करने को कहा गया है। और हिक्कम में जितनी भी समस्या है। उनको उजागर करने को कहा गया है।
BMC के कमेटी के प्रधान और सभी सदस्यों द्वारा बताई गई समस्यों का विवरण इस प्रकार से हैं :→

1. टीकुदरा से शलचन तक कुन्चा कूहल और जुंदुरिंग में (water storage) पोंड्स तालाब बनाने बारे।
2. पन्चखा में पोंड्स (water storeg) एक बनाना।
3. गांव मे तीन ग्लास वाला ग्रीन हाउस दस-दस के ग्रुप में बनाने बारे।
4. Gents तीन ग्रुप रस्सी बनाने बारे
5. Ladies तीन ग्रुप- कुंजुराब - दस्ताना - गलीचा शॉल आदि बनाने बारे।


Kibber Wildlife Sanctuary
22290' GYA
N
20296' PARILUNGBI
0 4
Km.
PARANG L. A. 18300'
JUGTHA
SHILA PEAK
SHILA NALA
CHICHOM
KIBBER
TASHIGANG
KEE GOMPA
KEE
LANGCHA
KHUKHE NALA
LINGTI RIVER
TIBET
KAZA H. Q.
HIKAM
KOMIK
SHEGO
LARA
DEMUL
LIDANG
LINGTI
RAMA
LALUNG
KIBBERI
SPITI RIVER
KAMALAN
16634' PANGDOM
P.A. Boundary/ International Boundary
River/Nalla
Village
Bunker
Source: Forest Department of Kaza, Distt. Lahul &Spiti, Himachal Pradesh, India


HIMACHAL PRADESH (INDIA)
JAMMU & KASHMIR
N
Chamba
Lahul And Spiti
Kangra
Kullu
CHINA TIBET
Mandi
Una
Hamirpur
Kinnaur
Bilaspur
SHIMLA
PUNJAB
Uttarakhand
Solan
Sirmaur
HARYANA
Study area
Map not to scale

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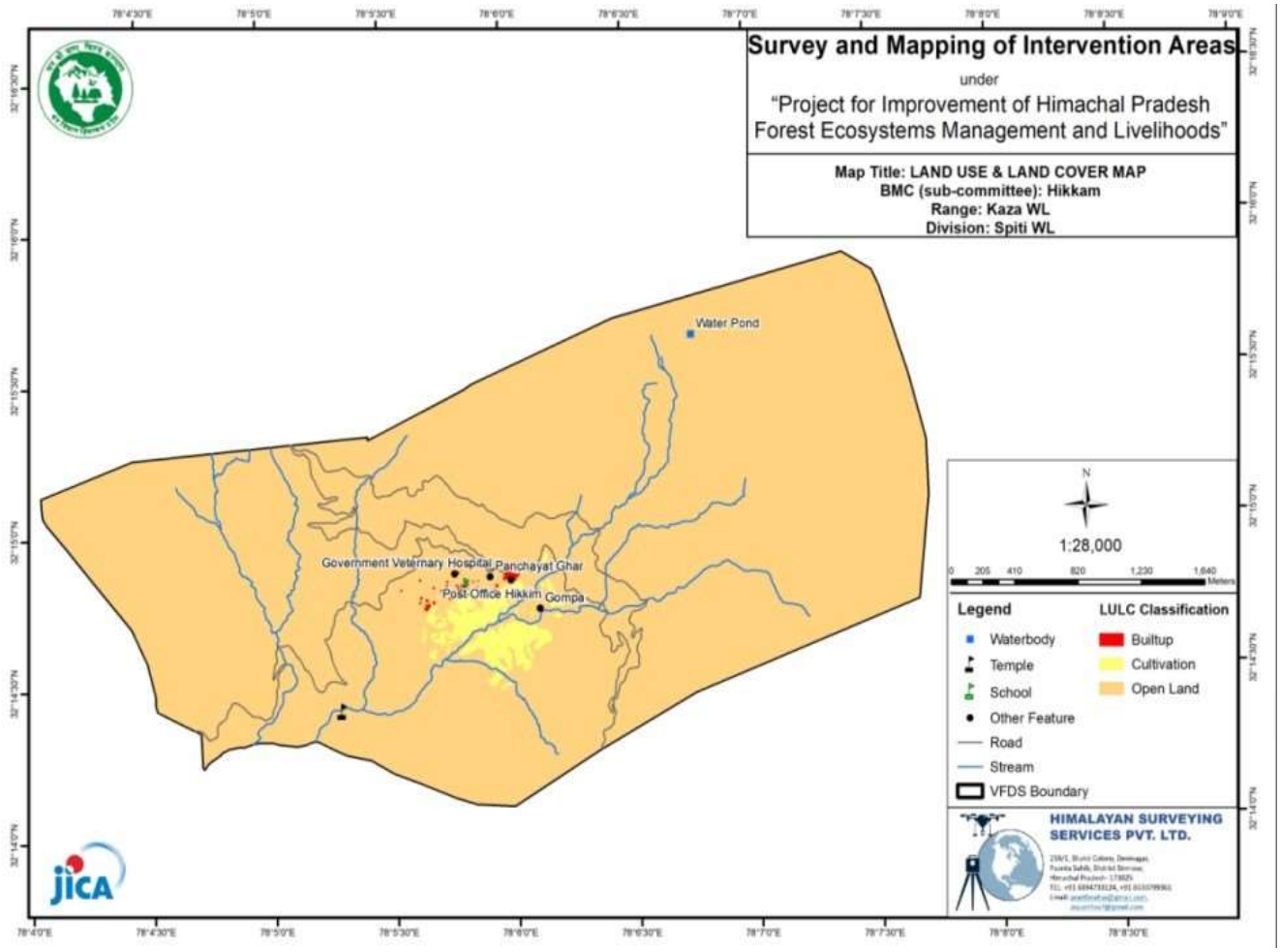
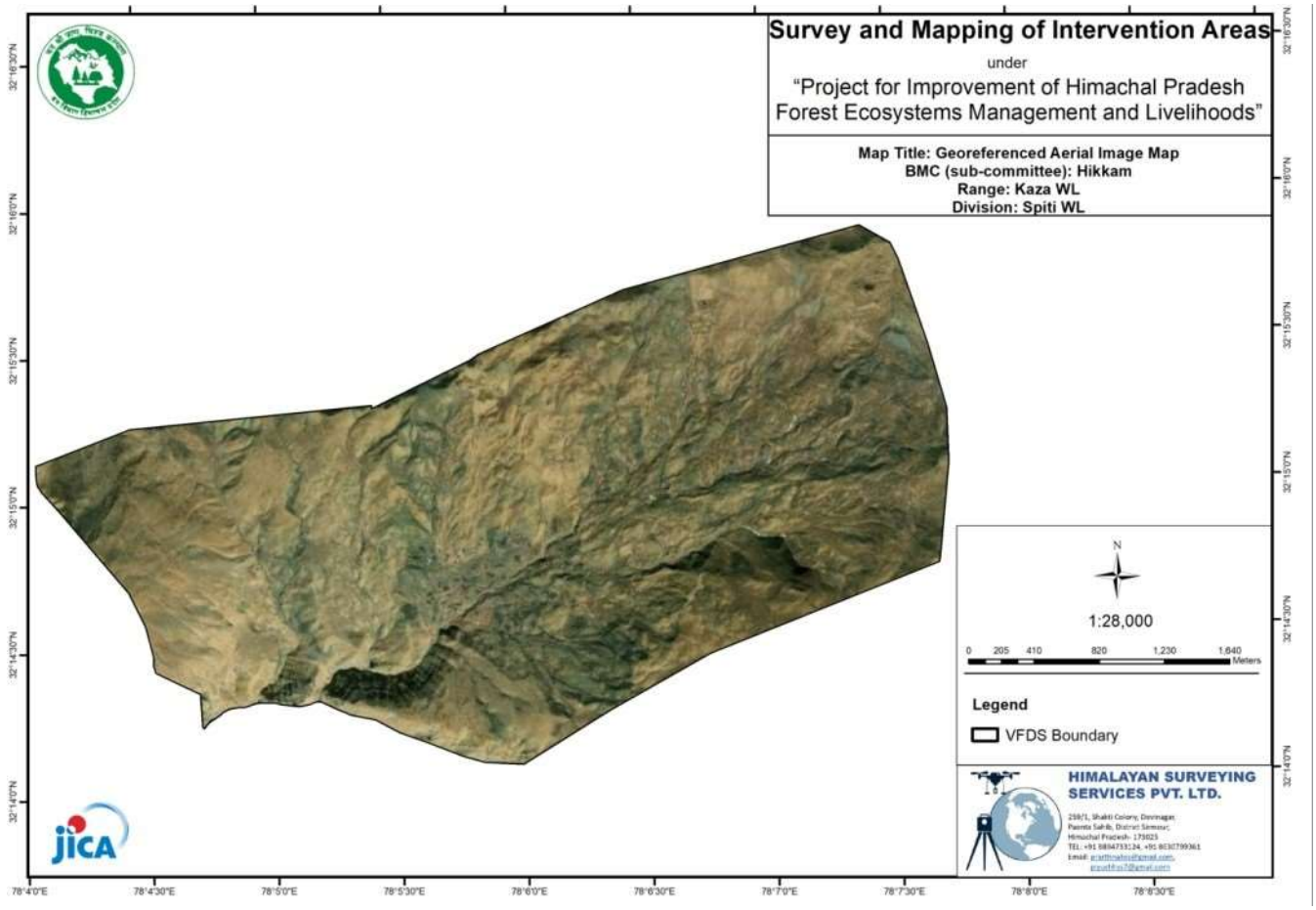
n,Spiti

Annexure-II


Survey and Mapping of Intervention Areas
under
"Project for Improvement of Himachal Pradesh Forest Ecosystems Management and Livelihoods"
Map Title: LAND USE & LAND COVER MAP
BMC (sub-committee): Hikkam
Range: Kaza WL
Division: Spiti WL
Water Pond
Government Veterinary Hospital
Panchayat Ghar
Post Office Hikkim
Gompa
N
1:28,000
Legend
Waterbody
Temple
School
Other Feature
Road
Stream
VFDS Boundary
LULC Classification
Builtup
Cultivation
Open Land
HIMALAYAN SURVEYING SERVICES PVT. LTD.
JICA

Annexure-IV


Survey and Mapping of Intervention Areas
under
"Project for Improvement of Himachal Pradesh Forest Ecosystems Management and Livelihoods"
Map Title: Georeferenced Aerial Image Map
BMC (sub-committee): Hikkam
Range: Kaza WL
Division: Spiti WL
N
1:28,000
0 205 410 820 1,230 1,640
Meters
Legend
VFDS Boundary
HIMALAYAN SURVEYING SERVICES PVT. LTD.
JICA
32°16'30"N
32°16'0"N
32°15'30"N
32°15'0"N
32°14'30"N
32°14'0"N
78°4'0"E
78°4'30"E
78°5'0"E
78°5'30"E
78°6'0"E
78°6'30"E
78°7'0"E
78°7'30"E
78°8'0"E
78°8'30"E

Project for Improvement of Himachal Pradesh Forest Ecosystems Management and Livelihoods

Memorandum of Understanding

Between

The Hikkim BMC Sub Committee

And

The Forest Department (represented by DFO Wildlife SPITI) for Participatory Forest Management.

Whereas

- The Hikkim 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 Villagers of Hikkim BMC Sub-Committee in district lahoul & Spiti and Forest Division Wildlife Spiti 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" (hereinafter called "Project") the Micro plan (Forest Ecosystems Management Plan & Community Development & Livelihood Improvement Plan) for Forest Management and Community Development (hereinafter called "Plan") for Forest protection, rehabilitation and management of the specified forest areas has been jointly prepared by the Society and the Forest 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 wildlife Forest Division (here- in after called "Forest Officer") on behalf of Government of Himachal Pradesh;

Now herewith

The Wild Life Forest Division and the Society have mutually agreed on this MoU, and consequently, this MoU is executed with the following articles:

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 and instructions.

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 nearbyvillages.

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 asapplicable.

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 beingviolated.

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, encroachments 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/improvements 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 Sub-committee 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.,willbecredited 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 theSociety. 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 exercisedas 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 asfollows:

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) 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 thatactivity.

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, and then it will be kept in mind while evaluating the works of the Committee every year.

I Angdu Dorje, President, Hikkam 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.

Angdu Ds

(Name and Signature of the President)
On behalf of VFDS/BMC (Sub-Committee)

President
B.M.C. Sub Committee

Divisional Forest Officer
Forest Division
(on behalf of HPFD)

DFO WL Spiti

Witnesses: Village Forest Development Society/BMC (Sub-Committee) and
The Forest Department for Participatory Forest Management.

1. Tamzin.

2. Palmo

3.

4

I, Angdul Dorje [position] undertake, on behalfof B.m.c sub com Likir, Forest Department, to implement all duties/responsibilities of the Forest Department mentioned in this memorandum.

DFO WL Spiti

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

The Hikkm 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 C/O Angdui Dorje S/O Dawa Chhozang Village Forest Development Society.

It shall be referred to here-in-after as the society.

2 The registered address of the society shall be BMC Sub Committee Hikkam Post Office Hikkam Tehsil Spiti District L&S Himachal Pradesh .

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 ther in the Himachal Pradesh Panchayati Raj Act, 1994 (Act No.4 of 1994);

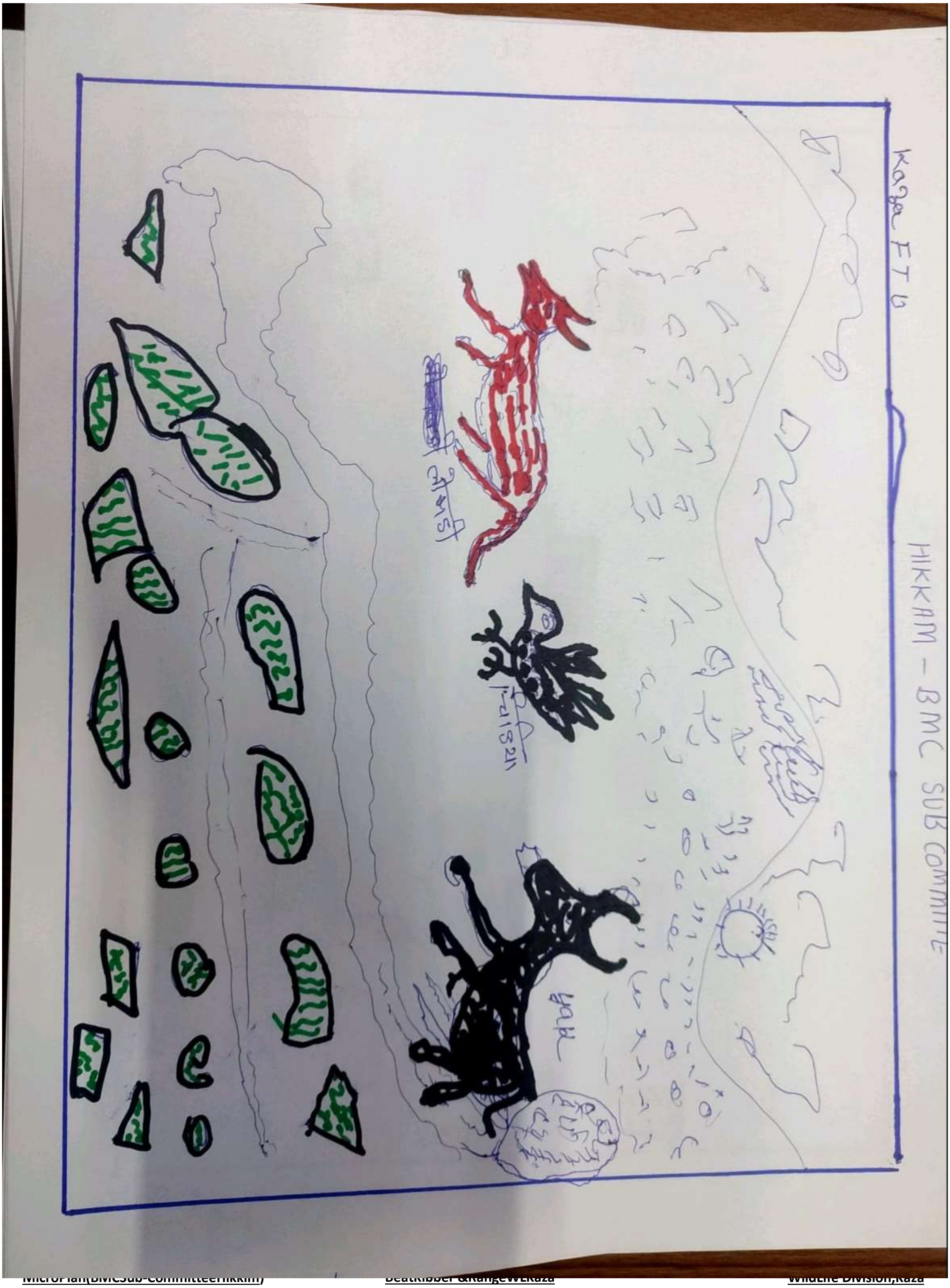
iv **CD & LIP:** Community Development and Livelihood Improvement Plan refers to the plan activities that shall be included in the microplan to enhance community well being and resilience of household economy.

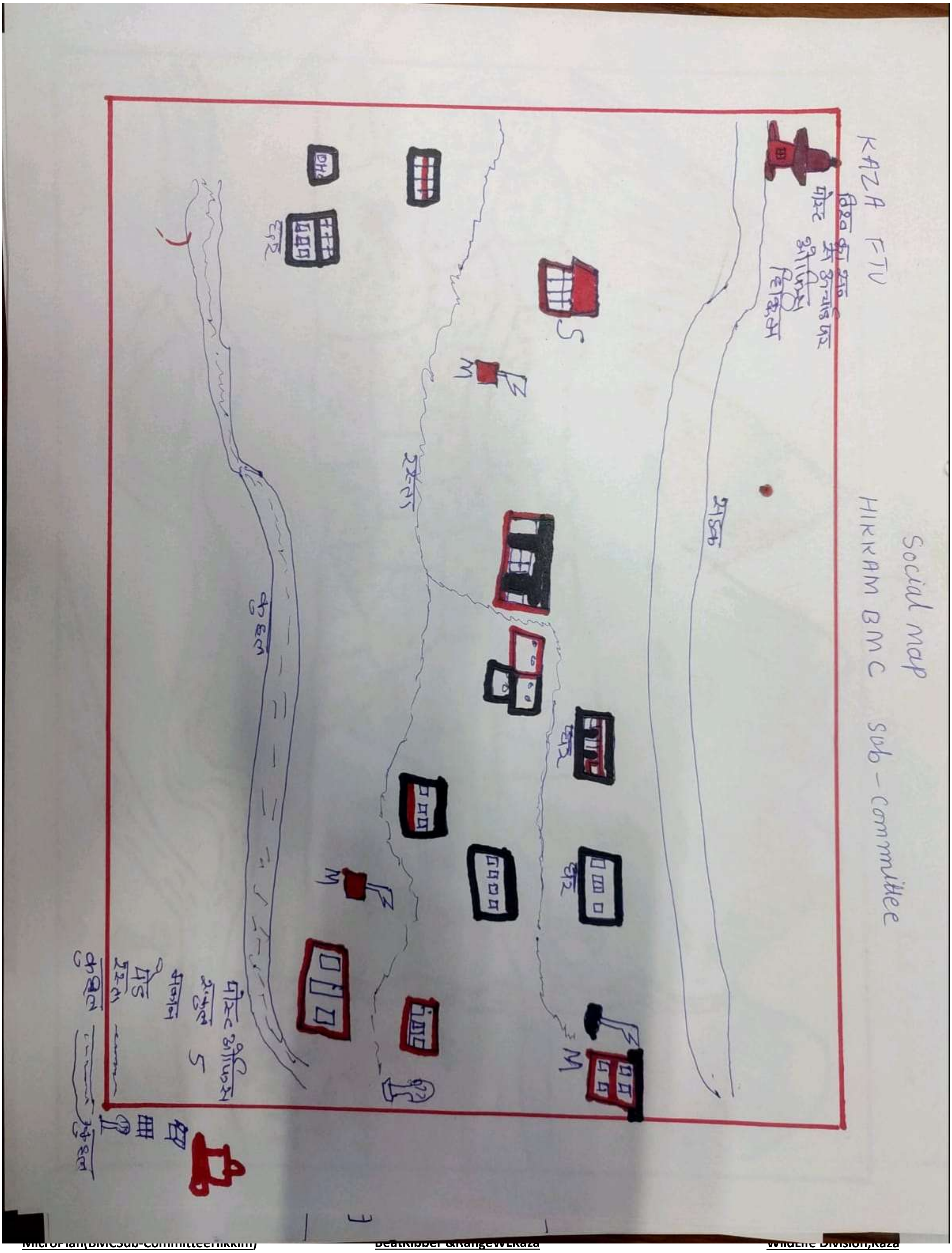
v **CIG:** Common Interest Group refers to a group of persons who have a common interest in a particular Livelihood Improvement Activitiy.

vi **"Department"** means the Himachal Pradesh Forest Department.

BMC – Sub-Committe Hikime

क्रम	नाम	हस्ताक्षर
1	आंगदुई दोरजे	Angdue Dorje 9459091574
2	छेरिंग [illegible]	छेरिंग [illegible]
3	[illegible]	[illegible]
4	छोरिंग तरगेन	[illegible]
5	नवांग [illegible]	[illegible]
6	[illegible] → 7651941141	[illegible]
7	[illegible] छेरिंग [illegible]	[illegible]
8	[illegible] Budh	[illegible]
9	[illegible] Dikit 9459493917	[illegible] Dikit
10	सोनम बुटित — सोनम बुटित	
11	छेरिंग पलमो	छेरिंग पालमो
12	नवांग	नवांग
13	तनज़िन डोलमा [illegible]	[illegible]
14	शरब [illegible]	
15	[illegible], नवांग सोनम	नवांग सोनम
16	सोनम डोलमा Budh	सोनमा
17	दोरजे बुटित	दोरजे बुटित
18	सम्भल [illegible]	Santosh [illegible]
19	[illegible] पदमा डोलमा	पदमा डोलमा
20	आशा	आशा
21	तनज़िन डोलमा	तनज़िन डोलमा


Kaza FTU
HIKKAM - BMC SUB COMMITTE
yak


Social map
HIKKAM BMC Sub-committee
KAZA FTV

Registration No : HPCD-4043

Certificate of Registration of Societies

हिमाचल प्रदेश सरकार

Himachal Pradesh Societies Registration Act 2006
(Act No. 25 of 2006)

This is certified that the **BMC SUB COMMITTEE HIKKAM** located at **V P O HIKKIM TEHSIL SPITI DISTRICT L&S HIMACHAL PRADESH** has been registered under the provisions of the Himachal Pradesh Societies Registration Act, 2006 (Act No. 25 of 2006) on the **3rd** day of **June 2022** (03/06/2022).

Given under my hand and seal at **SDM Office, Kaza**, Himachal Pradesh.

Deputy Registrar, District Lahaul & Spiti (H.P.)

SDM -cum- Deputy Registrar of Societies
Himachal Pradesh

Annexure-XI

Glimpsesofmicro planningprocess

Annexure-

XIIGlimpsesofHikkimWar

d

AnnexureXIII

Micro Plan Assessment Criteria for Financing and Sanctioning

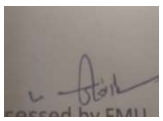
DMU: Wildlife Division Spiti

FTU: Wildlife Range Kaza Forest Beat: Kibber

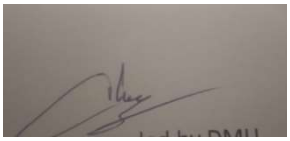
GP: Langcha BMC Sub-Committee: Hikkim

S.NO	Assessment Criteria	Achievement DD/MM/YY	Status at the time Appling for Approval
	Process Related		
1.	GP Level and Ward Level awareness done	10/10/21	DONE
2.	GPConsent/Ward Consent to work withProjectObtained	10/10/21	DONE
3.	BMCSub-Committee Formed/Executive Committee Constituted	20/04/22	DONE
4.	BMCSub-Committee Registered	03/06/22	DONE
5.	MOUSignedbetweenDMUandBMCSub-Committee for undertaking micro-planning andimplementation	21/11/22	DONE
6.	EC1st meetingheldtoexplaintheirroleand responsibilities	10/07/22	DONE
7.	BMCSub-CommitteeaccountOpened	30/11/022	DONE
8.	Percentofhouseholdsrepresentedinmicro-planningprocess(App.)	90%	DONE
9.	PercentofWomen Participantsinvolvedinmicro-planningprocess(App.)	70%	DONE
10.	Collectedinformationcrosschecked andupdatedin GreenAssembly	30/10/22	DONE
11.	Women,Poor,Youthandothercommunitieswere involvedin micro-planningprocess	YES	DONE
12.	BMCSub-Committeeinvolvedin information analysisand finalizingkeyemergingactivities	YES	DONE
13.	Micro Plan (CBMP,CD&LIP) approved by BMC Sub-CommitteeinGeneralAssemblyandconfirmedby executivecommittee	30/11/22	DONE
14.	FormatsprescribedforMP(CBMC,CD&LIP)usedby socialand technicalstaff	YES	
15.	TotalamountofCBMP,CD&LIPandconvergence mentionedinMicroplan	07	
16.	Days takentocompleteMP(CBMP,CD&LIP)	3 MONTHS	DONE
17.	MicroplanSubmittedby FTU toDMU	10/11/22	DONE
18.	Microplan approved bytheHeadofDMU	21/11/22	DONE
	Outputrelated		

19.	Listofexecutivemembersattached	YES	DONE
20.	BMCSub-Committeecontributionisthere	YES	DONE
21.	AreCBMPandCD&LIPactivitiesinlinewithproject objectives	YES	DONE
22.	Livelihood activities checked for initial technicalfeasibilityandeconomicviabilityby microplanning team	YES	DONE
23.	Convergenceactivitiesincluded	YES	DONE
24.	BMCSub-Committeetraining andcapacitybuilding aspectincluded	YES	DONE
25.	CostingofCBMP,CD&LIPchecked by DMU	YES	DONE
26.	Microplanincludesadversely affected households/group,ifany	YES	DONE
27.	PRAtools,wellbeinganalysis,BMCsub-committeeresolution,mapsofCBMPandotherdocuments areannexed	YES	DONE
28.	Sourcesofsecondary informationmentioned I microplan	YES	DONE



AssessedbyFMU



RecommendedbyDMU

Approved byPMU