

Eco Village Development Plan (E V D P)

Village – Tepra

Gram Panchayat-Ghyal, District-Bilaspur
Himachal Pradesh



Developed by:



Department of Environment, Science & Technology
Government of Himachal Pradesh
Paryavaran Bhawan, Shimla-171001

Developed by:

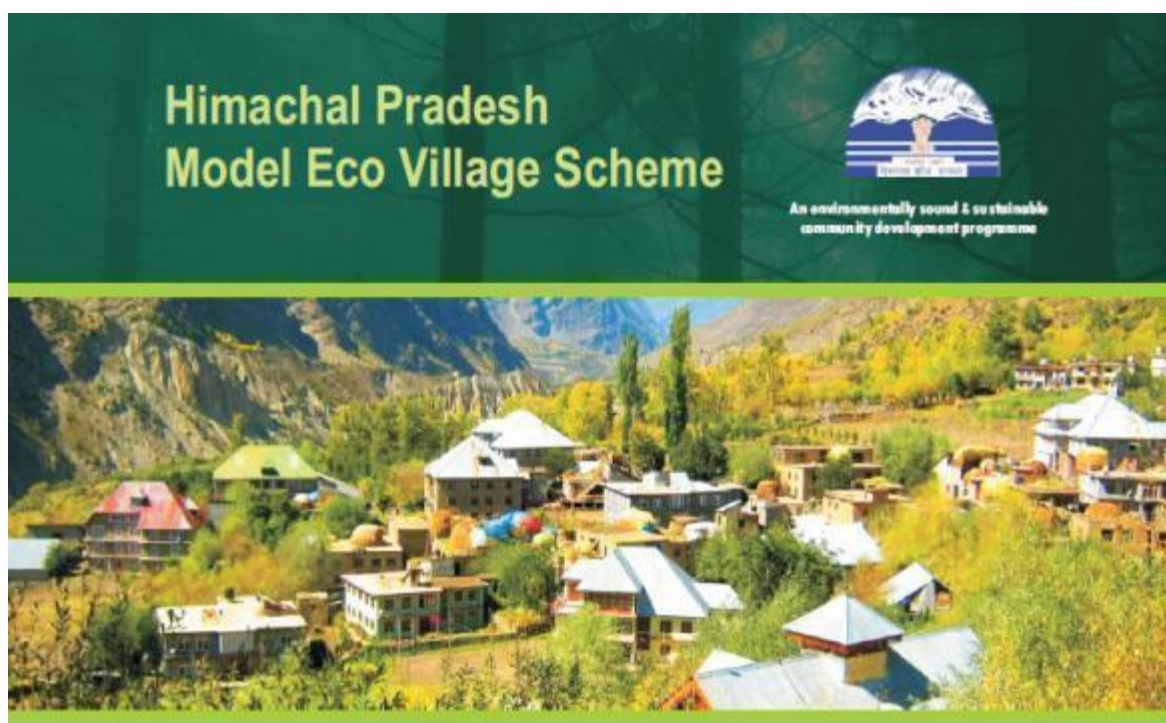


Department of Environment, Science & Technology
Government of Himachal Pradesh
Paryavaran Bhawan, Shimla-171001

Model Eco Village Scheme – A brief Note

The Government of Himachal Pradesh has notified a Model Eco Village Scheme vide notification No. STE-A(3)-4/2016-L dated 26/9/2017. This scheme is being implemented by the Government of Himachal Pradesh through Department of Environment, Science & Technology & concerned Block Development Office and district administration aiming to ensure sustainable development in an organized and integrated manner. The programme endeavours to sustain prosperity in villages that is built around sustainable use of the key natural resources of a village, through the adoption of low-impact practices that result in water security, food security and livelihood security for the village communities.

Under this scheme a village will be developed to promote transformative action and achieve sustainable development through environmentally responsible and responsive practices in the area of water management, waste management, energy conservation, management of natural resources, climate change action and sustainable livelihoods. This approach will not only help those stakeholders who are working to implement sustainable community development programme but also will set benchmarks for others to adopt and bring a radical change in thinking process of the communities at large in the State, especially in inculcating environmentally responsible behaviour.

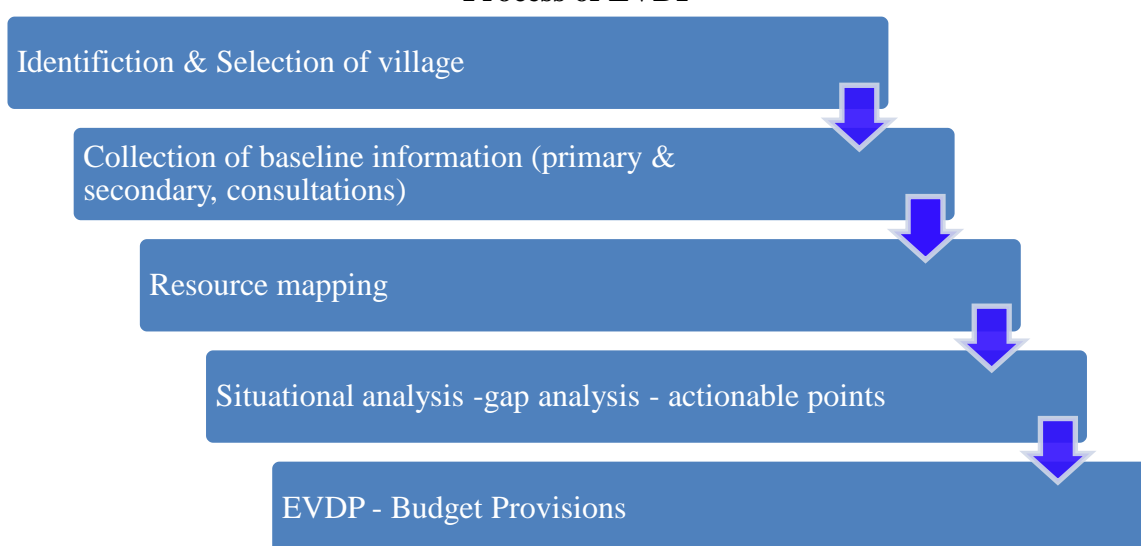


This scheme is to be implemented in the selected village with the total financial outlay of Rs. 50 lakhs to be utilized over a period of 5 years as per the annual plan of action. Of this total outlay DEST shall provide a grant of Rs. 20.00 Lakhs per selected village to meet expenditure on execution of the recommended preparatory actions and funding of critical gaps. The balance funds as may be required over Rs. 20 Lakhs for activities shall be garnered through convergence and utilizing budgets from concerned line departments, district administration, etc. under various relevant ongoing Government schemes.

Eco Village Development Plan (EVDP)

As per the guidelines of the scheme an Eco-Village Development Plan (EVDP) for village Tepra, Gram Panchayat-Ghyal, District Bilaspur has been prepared by DEST integrating all the components and existing programs/schemes in operation in the village. The Plan has been initially drawn up for implementation in five years. The village level plan has included a Situational analysis, Baselines, Resource Mapping. All prescriptions are based on gap assessment & analysis taking into account the base line status of various environmental aspects pertaining to the actionable components and an annual component wise break-up of the activities. The EVDP has been developed through consultative and participative process, different from conventional planning.

Process of EVDP



Selection of Model Eco Village – Tepra

The Tepra village has been selected by the Government of Himachal Pradesh to be developed as Model Eco Village on dated 21-8-2018 out of 5 villages of district Bilaspur recommended by the Dy. Commissioner vide letter No. IRD-Misc-1692 dated 17th July, 2017. The same was conveyed to Deputy Commissioner Office vide this office letter number Env. S&T(F)-Eco Village-2016-2182 dated 6th September 2017. The Tepra village is approximately 35 Km from District headquarter, Bilaspur and this village is the single village in the area who receives snowfall during the winter season. In the village most of the villagers are associated with Dairy Industry and farming. This village can be one of Tourist destination in the District-Bilaspur.

Village Level Management Committee

In order to coordinate and guide the implementation of model eco village scheme in identified village Tepra, Gram Panchayat Ghyal, Dev Block Sadar, District Bilaspur a Village level Management Committee of village Kandroun has been constituted vide No.

In order to prepare Eco Village Development Plan (EVDP) a preliminary/consultation meeting has been convened in the month of November, 2018 with Gram Panchayat Pradhan, Sh. Padam Dev Sharma and Panchayat Secretary, Sh. Satish Kumar. Later on meetings convened in office of the Gram Panchayat and BDO office, Sadar, Bilaspur.



(Consultation Meeting-Village-Teptra)

Other details of Committees and Self Help Groups & Mahila Mandals, Yuvak Mandals

Details of Self help Group:

Sr. No.	Name	Position	Mobile Number
1	Meena Sharma	Pradhan	82228 88294
2	Satya Devi	Up Pradhan	97360 41869
3	Daropti Devi	Secretary	98823 40543
4	Meera Devi	Cashier	96252 90789

Details of Mahila Mandals:

Sr. No.	Name	Position	Mobile Number
1	Daropti Devi	Pradhan	98823 40543
2	Chinta Mani	Secretary	88941 83471
3	Priti Sharma	Up Pradhan	86298 65531
4	Meera Devi	Cashier	94595 56178

Details of Yuvak Mandals:

Sr. No.	Name	Position	Mobile Number
1	Jitender	Pradhan	98176 43675
2	Rajesh Kumar	Secretary	98171 40497
3	Kamal Lal	Up Pradhan	98170 55597
4	Ganpat Ram	Cashier	98176 35775

Members of village Committee constituted to implement the Scheme:

Sr. No.	Name	Position	Mobile Number
1	Sh. Padam Dev Sharma	Pradhan	98170 12432
2	Smt. Sunita Gautam	Ward Member	88946 89633
3	Sh. Satish Kumar	Panchayat Secretary	98171 37056
4	Sh. Pankaj Kumar	Forest Guard	70180 14071

Pradhan (GP Tepra)

Sh. Padam Dev Sharma,
Village Tepra, Gram Panchayat-Ghyal,
Dev Block-Sadar, District-Bilaspur- 98170 12432

Ward Member (GP Tepra)

Smt. Sunita Gautam,
Village Tepra, Gram Panchayat-Ghyal,
Dev Block-Sadar, District-Bilaspur- 88946 89633

Village Tepra – an Introduction

The Tepra village is approximately 35 Km from District headquarter, Bilaspur and this village is the single village in the area who receives snowfall during the winter season. In the village most of the villagers are associated with Dairy Industry and farming. This village can be one of Tourist destination in the District-Bilaspur. The elevation of village is ranging from 1600 to 1750 meters approximately.





Google image of Tepra village

History

The village Tepra is single village in District-Bilaspur, where snowfall is recorded and people come to here during summer. In ancient time this village was summer capital of Raja of Kahlur and he stays here for two months and look after the works of his estate. During the British time near Fort of Bahadurpur there were guns, which were later on shifted to Subathu cant area.



Snowfall on the peaks during February 2019

Tourist attraction near Tepra village:

Fort of Bahadurpur, (On the top of Bahadurpur hill, the highest point (1,980 m) in the district, near Tepra Village in Paragana Bahadurpur Tehsil Sadar, about 40 km from Bilaspur, Himachal Pradesh). The range derives its name from the Bahadurpur fort. Due to

its comparatively greater height it receives occasional snow fall in winter. The range has a small wood of deodar and ban trees. Almost in the centre of this range is a rest-house. The fort is said to have been built by Raja Keshab Chand (A.D. 1620). It is 6 km above Namhol. From this high place the Ratanpur Fort, Swarghat, the Fatehpur Fort, the Naina Devi hill, plains near Ropar and the mountains of Shimla can be seen. Baron Charles Hugel, a German traveler, passing through Bilaspur in 1835 has left on record a vivid picture of this fort. It is, therefore, obvious from the account that this fort was built prior to 1835, but now is in its ruins.

(Source: https://en.wikipedia.org/wiki/Bilaspur_district,_Himachal_Pradesh)

Demographic Profile

▪ Total households	74
▪ Total Population	403
▪ No. of males	200
▪ No. of females	203

Agriculture, Horticulture & Animal Husbandry

The economy of villagers of village Tepra is totally based upon the agriculture. Wheat and maize are the major crops. The villagers are also growing apple and walnut. Approximately 1500 to 2000 trees of apples have been planted and 100-150 of walnut trees. The total production of walnut is approximately is 200-400 quintals. About 74 families are involved in animal husbandry. About



550 liters of milk is produced on daily basis and sold to Kamdhenu Dairy Industry near Namhol. The people are also growing *salad* and *pumpkin* as a cash crop. Some of the farmers are growing *maah ki daal*, *red rice*, *baldri* (*species of small rajmah*), *ginger* which they used to grow long time back.

The people are growing *Alocasia* and *Colocasia* in their village, which are organic in nature. About 50 quintals of *Alocasia* and *Colocasia* is produced on yearly basis.

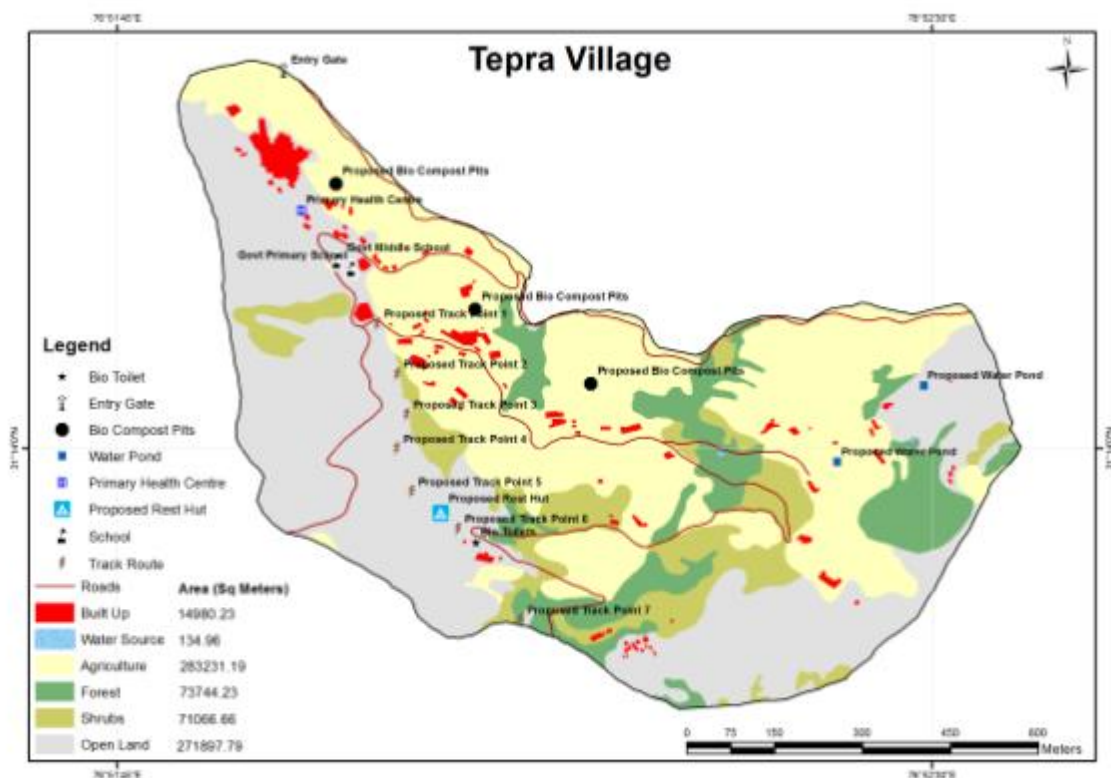
Farmers are using chemical fertilizers in apple orchards. They are not fully aware about the negative impacts of the chemical fertilizers. Some of the orchardists are aware of the natural fertilizers but facing lack of full knowledge about the use of non-chemical fertilizers. Some of the farmers are using cow dung as fertilizer and applying it directly in the fields. There is no system available for vermi-composting etc.

Forests

The top of the village Tepra is surrounded by deodar, and lower side with pine trees and local plant species like *Grewia optiva* (*bihul*), *oak*, *plum* and *pears* (*nashpati*) tree. Although, with the passage of time & population pressure, density of forest cover is reducing day by day.

Land-use

A land-use map shown depicts that about 40 to 45% of village is having agriculture land. About 10-20% area is available Forest land. And there are only 5% area under built up area which covers houses/buildings, village roads etc. Due to hilly terrain very less land is available for agricultural & horticultural purposes.



Water Sources

There is irrigation scheme available in the village by the I&PH Department. For irrigation the Farmers are totally dependent on rain water for irrigation.

From the catchment area of Thapar rira point the water pond area will be constructed in the downstream area. The irrigation Department has lift irrigation scheme from Ali kahd to Badharpur from where water is supplied to whole village.



Restoration of drinking water sources

Renewable Energy

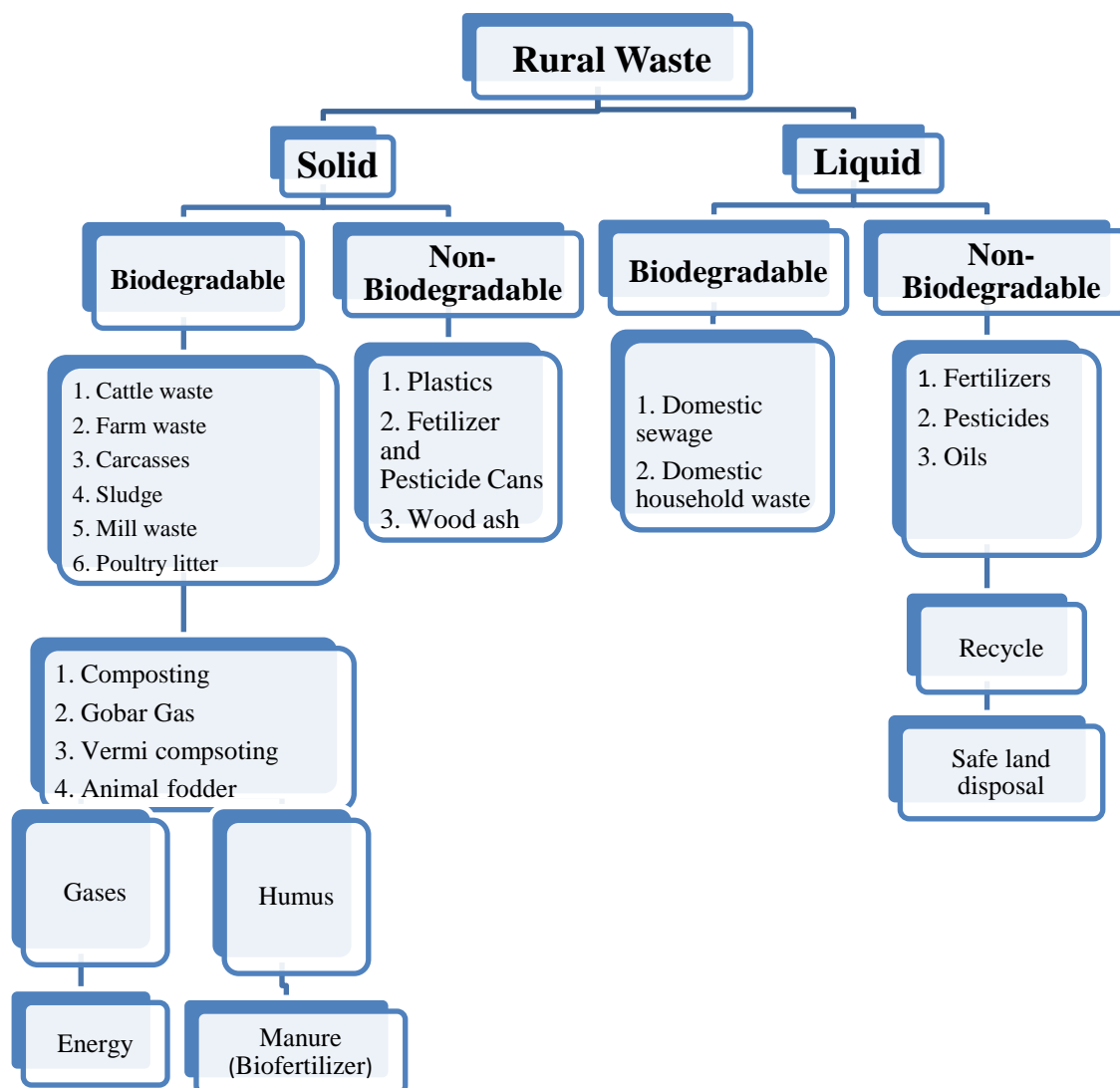
Village is facing problem especially during power cuts in winters. No solar light is installed in village. Solar energy can be used one of the energy source in the village. The village has great potential to trap solar energy.

Solid Waste Management

Garbage is being collected in dust bins at house hold level and disposed off in pits at designated places.



There is no provision to collect & manage waste water generated from the kitchen. Waste water generated from the house kitchen is coming out and creating smell and pollution in and around the village. No soak pit kind of system is made available in the village.



A schematic diagram showing rural waste and its disposal

Village Paths & Check dams

Most of the village paths are constructed traditionally. In some locations village paths are paved with concrete. Natural village paths are more environment and eco friendly as compare to concrete path. The check dams has been proposed near Bai khard and near crematorium at Tepra to prevent soil erosion & stabilizing adjacent hill slopes.

Proposed check dams near Bai khard and crematorium at Tepra

Tourism

There is a great potential in village Tepra from tourism point of view. Village itself is can be developed as a tourist destination for nature loving tourists. Near Village Tepra there is Bahadurpur hill which is a perfect tourist destination having reserved Forest area.



Reserved Forest area near Bahadurpur

Proposed rest hut near Tepra Gala

Gap Analysis

Following gaps have been identified after detailed analysis of baseline data and information available:

- Available natural water springs/*bawaries* need to be maintained, restored and protected as per the guidance/ suggestions of Village level Water Management Committee.
- Farmers are dependent upon rainfall for irrigation. At present there is no provision of irrigation systems/rain water harvesting structure, especially for horticultural activities. There is a need to develop climate smart irrigation system and rain water harvesting systems.
- Provision of collection of solid waste generated from village is required to be made. However, concrete waste collection chambers are there.
- Use of renewable energy especially solar energy need to be explored.
- All construction works like village paths etc. required to be constructed without using concrete.
- In order to increase forest cover density more plantations is required to be done in and around the village especially in forest land or catchment area upside the village.
- Enhance economic strength of villagers by adopting eco friendly tourism development activities near Bahadurpur.
- Conducting awareness campaign about natural farming/kheti, cleanliness and other important aspects of environment and climate change.

Actionable points

After detailed analysis the following actionable points have been emerged:

- Effective Solid Waste Management System and construction of Bio compost pits.
- Maintenance, restoration and protection of natural springs/*bawaries*.
- Provision of efficient irrigation through efficient rain water harvesting structures, water tanks/ponds and climate smart irrigation technologies (drip irrigation, sprinklers etc.)
- Construction of soak pits for managing waste water flowing from kitchens.
- Use of renewable energy/solar energy (water heaters, solar lights etc.) to reduce pressure on bio-mass/ fuel wood.
- Construction & maintenance of eco friendly village paths without using concrete.
- Plantation in forest land to increase forest cover density.
- Support to the eco-tourism.
- Awareness campaigns.

Sr. No	Activity	Calendar Year																			
		1 st Year				2 nd Year				3 rd Year				4 th year				5 th year			
		Quarter				Quarter				Quarter				Quarter				Quarter			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
1	Waste Management practices '3R's	■				■				■				■				■			
2	Traditional knowledge practices		■				■				■				■				■		
3	Sustainable transport, eco-tourism, village road or connectivity			■				■				■				■				■	
4	Renewable Energy				■				■				■				■				■
5	Irrigation practices/ Rain Water harvesting	■				■				■				■				■			
6	Bio Compost technologies		■				■				■				■				■		
7	Plantation activities			■				■				■				■				■	
8	Climate Change				■				■				■				■				■

The Baseline Data for Tepra village:

Name of Village: Tepra
Block Name: Sadar

Name of Panchayat: Ghayal
Name of District Bilaspur

1. Availability of Village Map:

Panchayat Revenue Department Concerned
BDO

2. Land use map:

Panchayat Revenue Department Concerned
BDO

3. Demographic profile:

- i. Total households: **74**
- ii. Population : **403**
- iii. No. of males: **200**
- iv. No. of females:-**203**
- v. No. of BPL Families:
- vi. Mahila Mandals: **01 No.** (with details)
- vii. Yuvak Mandals: **01 No.** (with details)
- viii. Self Help Groups: **01 Nos.** (with details)

4. Agriculture:

- i. Major crops: **Maize and wheat**
- ii. Marketing: -

5. Horticulture:

- i. Major Crops: **Apple-walnut**
- ii. Marketing: **Namhol**

6. Animal husbandry:

- i. Families involved in Animals husbandry: **74**
- ii. Livestock: **441**
- iii. Dairy Milk Production: **550 lts.**

7. Socioeconomic Profile:

- i. Major: Horticulture Agriculture Animal husbandry
- ii. Minor: Business Wages Govt. job

8. Members of village Committee constituted to implement the Scheme:

Sr. No.	Name	Position	Mobile Number
1	Sh. Padam Dev Sharma	Pradhan	98170 12432
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9. Functional component of Eco-Village/activities to be undertaken:

Sr. No.	Component	Status	
		Existing	Proposed
1	Protection and Conservation of Natural	a) No. of water sources in the village. 4	3

	Water Sources/springs.	b) No. of critical spring sources identified and prioritized for conservation.	1	-
		c) No. of spring recharging structures available.	1	-
		d) No. of village level committees constituted to check the water sources.	1	-
		e) No. of awareness campaign in village previously conducted to protect/conserv the natural water source.	2	-
		f) No. of studies conducted relating to vulnerability of springs.	-	-
		g) No. of climate resilient spring shed development plan.	-	-
		h) No. of village water security plans in the village.	-	-
2	Adoption of Sustainable Agriculture Horticulture Practices.			
	a) Crop Diversification and Traditional crops:	i. No. and name of different crops grown in the village.	Salad	-
		ii. No. & names of the endangered or extinct crops of the village.	Pumpkin	-
		iii. Cereals/crop wise seed produced in the village.	-	-
		iv. Cereals/crops wise seed procured from outside.	-	-
	b) Organic farming	i. No. of farmers practicing organic farming in the village.	10	20
		ii. No. of Organic manure producing units in the village.	-	-
	c) Farm Produce and Management Practices	i. No. of farm produce organizations.	-	-
		ii. No. & details o good practices.	-	-
3	Water management and irrigation.			
	a) Rain Water Harvesting from Roof Tops	i. No. of roof-top rain water Harvesting Structures in the village.	6	1
	b) Revival and Creation of water ponds/maintenance of water bodies:	i. No. of water recharge bodies.	4	2
		ii. No. of Check dams in the village.	2	1
	c) Collection of treated waste water for farming	i. No. of households having tanks near house to collect water from kitchens, which can be used for	5	10

		farming.		
	d) Minimize water use through strict conservation practices-supply in sustainable manner:	i. No. of water ponds constructed in the village.	3	5
		ii. No. of farmers who have adopted sprinkling method in farming.	1	-
		iii. No. of water management committees constituted in the village.	1	-
4	Adoption of Renewable Sources of Energy.	i. No. of biogas plants in the village.	1	3
		ii. No. of Solar Lights and Heaters in the village.	3	25
		iii. No. of awareness programmes conducted in the village about use of renewable sources of energy.	2	4
		iv. No. of Solar pump for lifting of water which is used for clusters.	0	0
		v. No. of Solar fencing done in the village farmland to protect it from stray/wild animals.	0	0
5	Solid Waste Management-Cleanliness.	i. No. of villagers who collect Non-Biodegradable waste at one place and reused or sent for disposal through vendors.	74	10
		ii. No. of villagers who know & practice vermi composting techniques to degrade the Bio-degradable waste in to manure.	10	20
		iii. No. of farmers who is aware of Source Collection, Segregation and Composting techniques.	Nil	Nil
		iv. No. and details of practices noticed where villagers re-used unwanted goods and material.	Nil	Nil
		v. No. of community based groups (MM, YM, NGO etc.), which are aware of solid waste management techniques.	Mahila Mandal-01 Yuvak Mandal-01 Self Help Group-01	Self Help Group-01
6	Forest Management and assured Eco Services.	i. No. of areas adopted for plantation.	Nil	Nil
		ii. No. of community based Plantation campaigns undertaken.	Nil	Nil

		iii. No. of plantations of fruit trees in the village.	2000	500
		iv. No. of Forest fire incident last year.	0	0
7	Undertake capacity building interventions.	i. No. of trainings conducted in village on Environmental issues.	1	2
		ii. No. of training and awareness modules available for villagers.	1	1
		iii. Village Bio-diversity group and register.	Nil	Nil

Various ongoing schemes

Sr. No.	Head	Sanction amount	Expenditure for the year 2017-18	Estimated budget for the year 2018-19
1	Swachh Bharat Mission	366000	-	325000
2	14th Finance Commission	170000	160000	60000
3	MGNREGA	1010000	10000	1010000
4	M. L.A.	75000	-	75000

Activities proposed for Eco village and the budget outlay:

Sr. No.	Name of work/activity	Estimated cost in lakhs	Beneficiary contribution in lakhs	Convergence from Central sponsored/ State scheme (Name of schemes & amount in lakhs)	Model Eco Village, DEST contribution in lakhs
1	10	3740000	NIL	720000	

Activities proposed for Eco village and the budget outlay (2018-19)

Sr. No.	Name of work	List of beneficiary families	Recommended works	Approved/total amount	Convergence from MGNREGA	Convergence from 14 th finance commission	Convergence from Model Eco-Village scheme	Benefit of work
1	Solar lights	74	45	700000	zero	zero	7,00,000	To save environment
2	Entry gate	74	02	3,00,000	2,00,000	zero	1,00,000	To develop Model Eco Village
3	Flood Control Near	74	01	3,00,000	2,00,000	zero	1,00,000	To save environment

	Shamshang hat							
4	Flood Control near Bain ghadNala	45	01	3,00,000	2,00,000	zero	1,00,000	To save environment
5	Fruit plants in Forest area	74	1000	3,50,0000	2,50,000	zero	100000	To develop Model Eco Village
6	Construction Pukhar Sappar Ridha	45	1	2,00,000	2,00,000	zero	zero	To save environment
7	Maintenance of drinking water Bawari Binola	15	1	1,15,000	85000	zero	30000	Bio-composting manure uses
8	Construction Water pond SC Basti	74	01	2,50,000	1,50,000	zero	1,00,000	To save environment
9	Construction of Earthworm shed/Vermi Compost							Bio-composting Manure Users
A	Ram Lal S/o Bajiru	01	01	70000	35000		35000	
B	Ganpat S/o Lekh Ram	01	01	70000	35000		35000	
C	BrijLal S/oDaya Ram	01	01	70000	35000		35000	
D	Balak Ram S/o Nanku	01	01	70000	35000		35000	
E	Sant Ram S/o Kanshi	01	01	70000	35000		35000	
F	Sukh Ram S/oGhamir a	01	01	70000	35000		35000	
G	Rattan Lal S/o Dhani Ram	01	01	70000	35000		35000	
H	NandLal S/o kapura	01	01	70000	35000		35000	
I	Pawan Kumar S/o Kanshi Ram	01	01	70000	35000		35000	
J	Lekh Ram S/o Kanshi Ram	01	01	70000	35000		35000	
K	Munshi Ram S/o Nukh Ram	01	01	70000	35000		35000	
L	PremLal S/o kapura	01	01	70000	35000		35000	
M	Hari Ram S/o Raghu	01	01					

10	Constructio n Bio toilet at Tepra Gala	74	01	1,60,000	60000	ZERO	1,00,000	Bio toilets
11	Constructio n of rest hut at Tepra Gala	74	01	3,50,000	2,50,000	zero	1,00,000	To save environment
12	Awareness material, training module	74	-	50,000	zero	zero	50,000	To spread awareness.
13	Public Informatio n Board	74	-	65,000	zero	zero	65,000	To spread awareness.
	Proposed budget			40,50,000	20,50,000		20,00,000	

Constitution of Bio-diversity committee at village Tepra

