CHAPTER - 1

INTRODUCTION AND BACKGROUND

The project of IWMP-XI is located in Sumerpur block of Hamirpur district, U.P. the project is a cluster of 3 micro-watersheds. The total project (geographical) area of the watershed cluster is 13558.42 ha. out of this 5281.13 ha. has been undertaken to be treated under intergrated watershed management program (IWMP-XI) with starting year 2011-2012.

Table: 1.1 Basic Project Information

Details	No.	Area (ha.)
Total Micro watersheds in the district	574	428200
Workable Micro Watersheds	513	392536
Micro Watersheds already treated (partially) by Deptt of Agriculture, Dist.- Hamirpur Uttar Pradesh	340	262724
Micro Watersheds (MWS) available for treatment (begning IWMP in the district)	173	129812

1.1 Project Background

Integrated Watershed Management Programme-XI comprises seven micro-watersheds: Chhani Bujurg-I (2C2A2l3), Chhani Bujurg-II (2C1b2d3d), Atarar (2C1b2d3e), Khandehari Jar (2C1B2d3c), Mawai Jar (2C1B2d3a), Sadipur (2C1B2e2c) and Sayar (2C1B2e2d). Watershed project is situated in Sumerpur block of district Hamirpur and and includes in 35 villages of 20 gram panchayat. The total geographical area of the IWMP-XI is 13558.42 ha, due to same area treated earliar however treatable area limited to 5281.13 ha is treatable under Integrated Watershed Management Programme (IWMP-XI).

Table 1.2: Details of IWMP-XI for which this DPR is Prepared

Watershed project	Micro Watersheds (MWS) detail	Micro watersheds code	Treatable Area (ha)	Treated area (ha)	Name of Watershed in which MWS is falling (River / Nala name)
IWMP-XI	Chhani Bujurg-I	2C2A2l3	2131.00	2703.60	Ken River
	Chhani Bujurg-II	2C1b2d3d	521.53	376.12	-do-
	Atarar	2C1b2d3e	508.00	593.51	-do-
	Khandehari jar	2C1B2d3c	292.56	534.43	Betwa River

	Mawai Jar	2C1B2d3a	265.92	284.93	-do-
	Sadipur	2C1B2e2c	610.40	517.59	-do-
	Sayar	2C1B2e2d	951.72	1753.30	-do-
Total			**5281.13**	**6763.48**	

1.2 Need and Scope for Watershed Development

Bundelkhand region had been in a grip of severe drought continuously from 2004 to 2007. In the region, more than 85 per cent of open wells were dried up due to deficit rainfall during drought. Cattle were abandoned due to shortage of water and fodder. Most part of the region was dependent on drinking water supply through tanker. Therefore, management of natural resources on watershed basis is urgent need of the region. Watershed project was selected with following long-term objectives:

- To optimize productivity of the land
- To restore ecological balance in degraded and fragile eco-system
- To narrow down the disparity between rainfed and irrigated areas
- To create sustained employment opportunities

1.3 Weightage for selection of Watershed

Watershed project was selected on the basis of criteria mentioned in Table 1.3. Weights were assigned for each criteria/ parameter during site visit of micro-watershed by PIA and overall weightage was estimated for the project. The seventeen criteria were taken with total of 205 weightage points. The criterion taken are availability of drinking water, irrigation water availability, degree of soil erosion, water holding capacity, area under rainfed agriculture, status of field bund/contour bund / graded bund, presence of hard rock below the land, options for livelihood, percentage of small and marginal farmers, degraded land, ground water status, status of technical knowledge for improved farming systems, weather conditions, poverty index, virginity of land, productivity potential of land and soil organic carbon status. The weightage for project is about 80.49 per cent (Table 1.4).

Table 1.3: Criteria and weightage for selection of watershed

S. No.	Criteria	Maximum Score	Range & Score			
1	Drinking water	15	**Very poor** Dependence on water supply through tanker (15)	**Poor** Partial availability within the periphery of 3-4 km (10)	**Good** Round the year availability within the periphery of 3-4 km (5)	**Very Good** Round the year availability in watershed (0)
2	Irrigation	10	No irrigation (10)	Life saving irrigation (7.5)	Partial life saving irrigation (5)	Fully covered (0)
3	Degree of soil erosion	10	Severe (10)	Medium (7.5)	Low (5)	No erosion (0)
4	Water holding capacity	10	Very poor (10)	Poor (7.5)	Good (5)	Very Good (0)
5	Area under rainfed agriculture	15	More than 90% (15)	80 to 90 % (10)	70 to 80 % (5)	Below 70% (Reject) (0)
6	Status of field bund/contour bund / graded bund	10	Below 20 % (10)	50 to 20 % (7.5)	80 to 50 (5)	Above 80% (2.5)
7	Presence of hard rock below the land	15	Hard rock starts from 5 to 20 feet (15)	Hard rock starts from 21 to 50 feet (10)	Hard rock starts from 51 to 100 feet (5)	Deep soil depth (0)
8	Options for livelihood	10	Very poor (10)	Poor (7.5)	Good (5)	Very Good (0)
9	% of small and marginal farmers	10	More than 80% (10)	50 to 80 % (5)	Less than 50% (3)	
10	Degraded land	15	High above 50% (15)	Medium 25 to 50% (10)	Low less than 10 – 25 % (5)	Very low Less than 10% (0)

11	Ground water status	10	Very poor (10)	Poor (7.5)	Good (5)	Very Good (0)
12	Status of Technical Knowledge for improved farming systems	10	Very poor (10)	Poor (7.5)	Good (5)	Very Good (0)
13	Weather condition	15	Uncertain weather condition / Continuous drought for three years (15)	Drought comes one in five years (10)	Drought comes one in ten years (5)	Normal weather condition (0)
14	Poverty index (% of poor population)	10	Above 80% (10)	80 to 50 (7.5)	50 to 20 % (5)	Below 20 % (2.5)
15	Virginity (No treatment /intervention in last five years)	10	Above 80% (10)	80 to 50 (7.5)	50 to 20 % (5)	Below 20 % (2.5)
16	Productivity potential of land	15	Lands with low production & where productivity can be significantly enhanced with reasonable efforts (15)	Lands with moderate production & where productivity can be enhanced with reasonable efforts (10)	Lands with high production & where productivity can be marginally enhanced with reasonable efforts (5)	-
17	Organic carbon status	15	Very low (15)	Low (10)	Medium (5)	Normal (0)

Table 1.4: Weightage of the project

S. No.	Criteria	Weightage points
1	Drinking water	5
2	Irrigation	10
3	Degree of soil erosion	10
4	Water holding capacity	10
5	Area under rainfed agriculture	10
6	Status of field bund/contour bund / graded bund	10
7	Presence of hard rock below the land	10
8	Options for livelihood	10
9	% of small and marginal farmers	10
10	Degraded land	10
11	Ground water status	10
12	Status of Technical Knowledge for improved farming systems	10
13	Weather condition	10
14	Poverty index (% of poor population)	10
15	Virginity	10
16	Productivity potential of land	10
17	Organic carbon status	10
	Total Weightage (Out of total 205)	**165**
	Weightage Percentage	**80.49**

1.4 Details of ongoing watershed programme

Presently, no watershed development programme is going on in the micro-watershed**.** There is no on going watershed management program/ activities on the micro-watershed.

CHAPTER - 2

GENERAL DESCRIPTION OF PROJECT AREA

2.1 Location:

The micro-watersheds of IWMP-XI is located in Sumerpur block of Hamirpur district. It is about 40 km. from Hamirpur on Hamirpur to Sumerpur road. Location (lat/long), Gram Panchayat, villages and their geographical area included each micro-watershed are given in Table 2.1. Total area of the project is 13558.42 ha, out of which 5281.13 ha is treatable. The geographical area of micro-watershed range between of 648.06 to 5255.00 ha.

Table 2.1: Micro-watershed wise details of location, Gram Panchayat, villages and geographical area of IWMP- XI

Sl. No.	Name of micro watershed with Code	Names of villages	Latitude / Longitude	Name of Block	Area of village included in MWS(Geographical)	Details of important /approach road with distance km
1	Chhani Bujurg-I 2C2A2l3	Swasa Kurd, Khasa Bujurg, Parsauni, Chhani Khurd, Chaani Bujurg, Vajhta Danda, Ruri Wara, Lambi Pura, Dhanpura, Gora kadar	79^{O} 54' 0.0"- 80^{O} 01' 0.0"E 25^{O} 46' 0.0"- 25^{O} 51'30.0"N	Sumerpur	5255.00	Hamirpur to Sumerpur road
2	Chhani Bujurg-II 2C1b2d3d	Chhani Bujurg, Argi Sagar, Khandehi, Kelpha, Parsauni	79^{O} 57' 0.0"- 79^{O} 59' 40.0"E 25^{O} 47' 30.0"- 25^{O} 50' 0.0"N	Sumerpur	961.00	-do-
3	Atarar 2c1b2d3e	Atrar, Kelfa, Lodhipura, Nivada, Argi, Dhanpura, Argijar	79^{O} 57' 0.0"- 80^{O} 0' 30.0"E 25^{O} 46' 0.0"- ^{25O} 48' 0.0"N	Sumerpur	1212.00	-do-
4	Khandehari jar	Khandehari jar,	79^{o} 59'3 0.0"-	Sumerpur	972.93	-do-

	(2C1B2d3c)	Dhanpura, Argi Sagar, Kalla, Mawai Jar	80^o 1' 30.0" E 25^o 50' 0.0"- 25^o 48' 30.0" N			
5	Mawai Jar (2C1B2d3a)	Mawai Jar, Chandauli, Sadipur	80^o 1' 0.0"- 80^o 3' 30.0" E 25^o 47' 30.0"- 25^o 50' 0.0" N	Sumerpur	648.06	-do-
6	Sadipur (2C1B2e2c)	Sadipur, Bidokhar, Medani, Banda, Patanpur	80^o 2' 0.0"- 80^o 4' 30.0" E 25^o 46' 0.0"- 25^o 48' 0.0" N	Sumerpur	1327.05	-do-
7	Sayar (2C1B2e2d)	Sayar, Helapur, Bharsawa, Patanpur, Rohari, Bharela, Bidokhar purai	79^o 59' 0.0"- 80^o 7' 0.0" E 25^o 43' 30.025^o 47' 30.0" N	Sumerpur	3182.38	-do-
	Total				**13558.42**	

Source: Participatory rural appraisal by PIA, (Soil Conservation Division, Hamirpur-I, Hamirpur, U.P.)

2.2 Area and Landuse:

Each micro-watershed covers partially or fully lands of many village. Details of various categories of land were estimated on the basis of villages, MWS area, PRA meetings and other source such as village meetings. Village wise detailed information on type of land is depicted in Table 2.2. The total culturable land of the project is 12044.63 ha, out of which 1893.82 (15.72%) ha land is under ssured irrigation mainly by means of shallow dug wells. The cultivable rainfed, temporary and permanent wastelands are about 75.98, 6.87 and 1.43 per cent, respectively, of culturable land of the project.

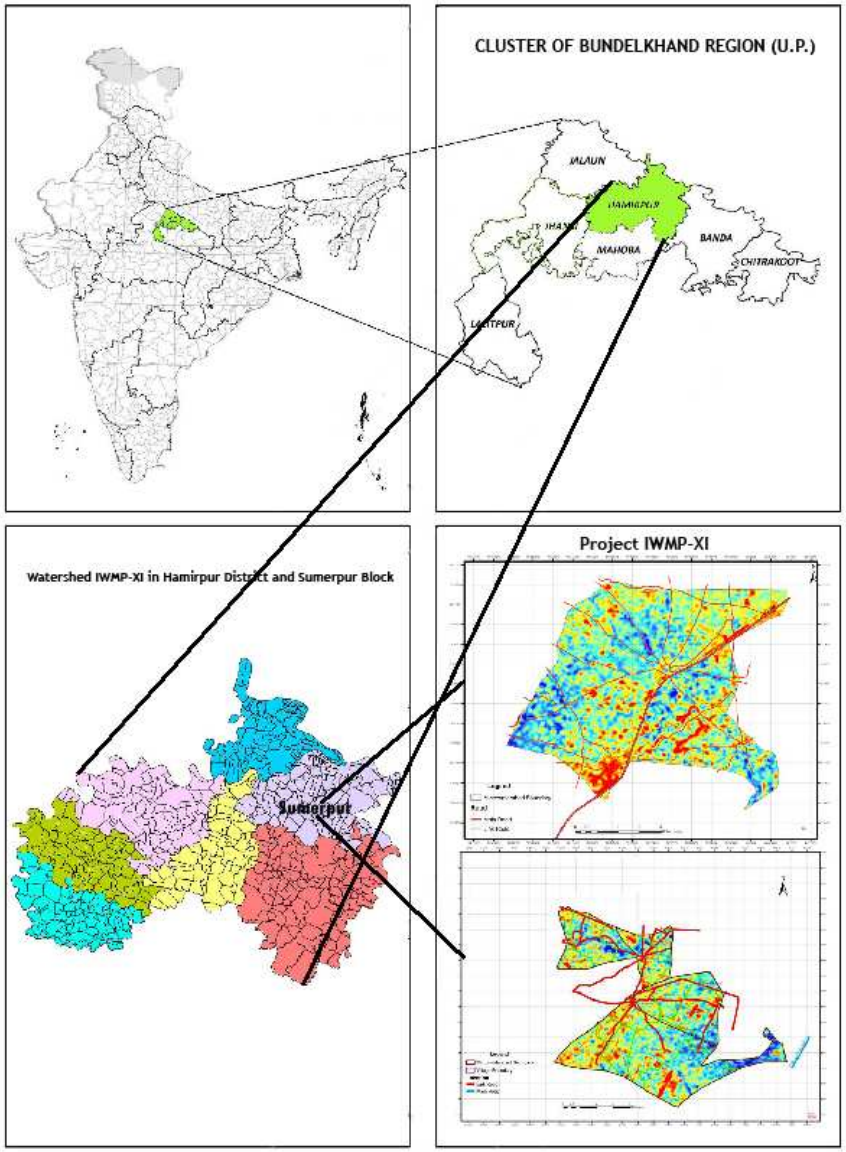
Table 2.2: Details of land resources in IWMP-XI of Hamirpur district

Sl. No.	Name of MWS with code	Name of Village	Cultivated rainfed area	Cultivated irrigated area	Uncultivated wasteland/ fallow		Pvt. Agri. Land				Forest Land	Community land	Others	Total area (ha)
					Temp.	Permanent	Gen	SC	OBC	Total			(Habitat, Road. Etc.	(Geographical)
1	Chhani Bujurg-I 2C2A2l3	Swasa Kurd, Khasa Bujurg, Parsauni, Chhani Khurd, Chaani Bujurg, Vajhta Danda, Ruri Wara, Lambi Pura, Dhanpura, Gora kadar	3635.62	860.56	290.08	48.35	846.06	870.23	3118.3	4834.60	0.00	367.85	52.55	5255.00
2	Chhani Bujurg-II 2C1b2d3d	Chhani Bujurg, Argi Sagar, Khandehi, Kelpha, Parsauni	664.86	157.37	53.05	8.84	154.72	159.14	570.26	884.12	0.00	67.27	9.61	961.00
3	Atarar 2c1b2d3e	Atrar, Kelfa, Lodhipura, Nivada, Argi, Dhanpura, Argijar	838.51	198.48	66.90	11.15	195.13	200.71	719.20	1115.04	0.00	84.84	12.12	1212.00

4	Khandehari jar (2C1B2d3c)	Khandehari jar, Dhanpura, Argi Sagar, Kalla, Mawai Jar	636.78	107.51	66.16	16.54	272.91	177.80	376.28	826.99	0.00	48.65	97.29	972.93
5	Mawai Jar (2C1B2d3a)	Mawai Jar, Chandauli, Sadipur	424.16	71.61	44.07	11.02	181.78	118.43	250.64	550.85	0.00	32.40	64.81	648.06
6	Sadipur (2C1B2e2c)	Sadipur, Bidokhar, Medani, Banda, Patanpur	868.55	146.64	90.24	22.56	372.24	242.52	513.24	1127.99	0.00	66.35	132.71	1327.05
7	Sayar (2C1B2e2d)	Sayar, Helapur, Bharsawa, Patanpur, Rohari, Bharela, Bidokharpurai	2082.87	351.65	216.40	54.10	892.66	581.58	1230.79	2705.02	0.00	159.12	318.24	3182.38
		Total	**9151.35**	**1893.82**	**826.90**	**172.56**	**2915.50**	**2350.41**	**6778.71**	**12044.61**	**0.00**	**826.48**	**687.33**	**13558.42**

Source: Participatory rural appraisal by PIA, (Soil Conservation Division, Hamirpur-I, Hamirpur, U.P.)

LOCATION MAP



2.3 Physiography

The micro-watersheds of IWMP-XI is situated at an elevation of some 108 to 140 m above mean sea level and has relief from 15 to 32 m. General topography of the watershed is mild to gentle. Elevation range and relief are given in Table 2.3.

Table 2.3: Micro-watershed wise elevation range and relief

Name of MWS	Minimum	Maximum	Relief
Chhani Bujurg-I 2C2A2l3	108	140	32
Chhani Bujurg-II 2C1b2d3d	112	128	16
Atarar 2c1b2d3e	114	132	18
Khandehari jar (2C1B2d3c)	111	129	18
Mawai Jar (2C1B2d3a)	110	125	15
Sadipur (2C1B2e2c)	110	133	23
Sayar (2C1B2e2d)	109	138	29

Source: Aster 30 meter DEM

Slope: Spatial distribution of different slope classes was prepared using Arc GIS. Slope was divided into five classes' viz. 0-0.5, 0.5-1.0, 1-3, 3-5, and more than 5 per cent. The dominant slope category in the project were 1-3 per cent (30%) followed by 3-5 per cent (20%).

2.4 Climate

The watershed falls under the semi-arid region of tropical climate. The average annual precipitation is 1026.60 mm spreading over 90 rainy days. Most of the rainfall (about 85 %) is received during July to September. The rainfall is of moderate to high intensity. The area receives on or scanty rainfall in the winter season. The temperature variation ranges from as high as 48^{o}C in the month of May- June to as low as 3.8^{o}C in December- January.

Table 2.4: Average monthly rainfall and Temperature at IWMP-XI, Hmirpur-I, Hamirpur, U.P.

Month	Average Annual Rainfall (mm)					Average Temperature ^{o}c	
	2005	2006	2007	2008	2009	Max.	Min.
January	26	-	-	-	4	20	7
February	1	-	68.0	-	-	26	12
March	32.02	26.08	44.04	-	-	33	17

April	-	12	-	-	-	38	22
May	2.6	1.6	2	3.2	73.06	42	30
June	50.2	28.4	44	316.7	-	39	27
July	267.4	200.3	85	432.2	178.1	33	27
August	268.4	182.8	210.9	192	-	33	26
September	129	36.2	53.2	63.3	-	32	26
October	-	11.3	4.2	7	-	32	21
November	-	14	-	12.2	-	27	15
December	4	-	4	-	-	23	9
Total	**780.62**	**512.68**	**515.42**	**1026.6**	**255.16**		

The open pan evaporation varied in the range of 0.5 to 23 mm/day during the year with average of about 5 mm/day. Average relative humidity varied in the range of 25 to 98 per cent, however the range of wind speed is 0.9 to 16 kmph. The details of flood and drought in the project area are shown in Table 2.5.

Table 2.5: Details of flood and drought in the project area (IWMP-XI, Hamirpur) Project IWMP- XI

Name of Micro Watershed	**Particulars**	**Villages**	**Periodicity**		**Not affected**
			Annual	**Any other (please specify)**	
Chhani Bujurg-I, Chhani Bujurg-II, Atarar, Khandehari jar, Mawai Jar, Sadipur, Sayar	Flood	No. of villages: 35	NA	NA	NA
		Name(s) of villages	NA	NA	NA
	Drought	**No. of villages**- 35	**twice in 5 years** however, the region experienced severe drought during 2004-2007 and 2009 & 2010 were deficit by about 17 to 20 per cent		
		Name of Village: Swasa Kurd, Khasa Bujurg, Parsauni, Chhani Khurd, Chaani Bujurg, Vajhta Danda, Ruri Wara, Lambi Pura, Dhanpura, Gora kadar, Argi Sagar, Khandehi, Kelpha, Parsauni, Atrar, Kelfa, Lodhipura, Nivada, Argijar, Khandehari jar, Kalla, Mawai Jar, Chandauli, Sadipur, Bidokhar, Medani, Banda, Patanpur Sayar, Helapur, Bharsawa, Patanpur, Rohari, Bharela, Bidokhar purai			

Source: Participatory rural appraisal by PIA, (Soil Conservation Division, Hamirpur-I, Hamirpur, U.P.)

CHAPTER – 3

BASELINE SURVEY AND PARTICIPATORY RURAL APPRAISAL

Participatory rural appraisal (PRA) was use to understand the socio-economic conditions and collect base line data and information for village in each micro-watershed through the active participation of the villagers. The PRA and stratified house hold survey of Chhani Bujurg-I, Chhani Bujurg-II and Atarar, Khandehari jar, Mawai Jar, Sadipur and Sayar micro-watershed was conducted by PIA and described in the subsequent sections.

3.1. Social-Economic Analysis

About 19.50 per cent of the population is scheduled caste. Population details of the IWMP-XI are given in Table 3.1. In general 8.0 per cent population migrate from the project area due to drought and earn livelihood, however, migration was more than 50 per cent during 2007-08 due to continuous drought from 2004 to 2007 in the region. Majority of population migrate to New Delhi, Haryana and Punjab during drought year. The scenario of migration, infrastructure and common properties resources available in the project was analyzed through house hold survey and is presented in Table 3.2, 3.3 and 3.4, respectively.

Table 3.1: Demographic Features in the project area (IWMP-XI, Hamirpur-I), Hamirpur, U.P.

Sr. No.	Name of Micro Watershed	Name of village	Total Population			Population of SC/ST		
			Total	Male	Female	Total	Male	Female
1	2	3	4	5	6	7	8	9
1	Chhani Bujurg-I 2C2A2l3	Swasa Kurd, Khasa Bujurg, Parsauni, Chhani Khurd, Chaani Bujurg, Vajhta Danda, Ruri Wara, Lambi Pura, Dhanpura, Gora kadar	12725	6617	6108	2270	1257	1013
2	Chhani Bujurg-II 2C1b2d3d	Chhani Bujurg, Argi Sagar, Khandehi, Kelpha, Parsauni	2325	1209	1116	430	229	201
3	Atarar 2c1b2d3e	Atrar, Kelfa, Lodhipura, Nivada, Argi, Dhanpura, Argijar	2925	1521	1404	539	288	251
4	Khandehari jar (2C1B2d3c)	Khandehari jar, Dhanpura, Argi Sagar, Kalla, Mawai Jar	2075	1079	996	445	231	214
5	Mawai Jar	Mawai Jar, Chandauli,	1450	754	696	311	162	149

	(2C1B2d3a)	Sadipur						
6	Sadipur (2C1B2e2c)	Sadipur, Bidokhar, Medani, Banda, Patanpur	2900	1508	1392	623	324	299
7	Sayar (2C1B2e2d)	Sayar, Helapur, Bharsawa, Patanpur, Rohari, Bharela, Bidokhar purai	6450	3354	3096	1386	721	665
		Total	**30850**	**16042**	**14808**	**6004**	**3212**	**2792**

Source: Participatory rural appraisal by PIA, (Soil Conservation Division, Hamirpur-I, Hamirpur, U.P.)

Table 3.2: Details of land holding pattern in IWMP-XI, Hamirpur

Sr. No.	Names MWS with code	Name of Village	Type of Farmer	No. of households	No. of BPL households	Land holding (ha)		
						Irrigated (life saving)	Rainfed	Total
1	Chhani Bujurg-I 2C2A2l3	Swasa Kurd, Khasa Bujurg, Parsauni, Chhani Khurd, Chaani Bujurg, Vajhta Danda, Ruri Wara, Lambi Pura, Dhanpura, Gora kadar	(i) Big (above 4 ha.)	195.00	-	400.00	672.50	1072.50
			(ii) Medium (2-4 ha.)	600.00	-	370.00	1790.00	2160.00
			(iii) Small (1-2 ha.)	740.00	-	90.56	1093.44	1184.00
			(iv) Marginal (0-1ha.)	940.00	940.00	-	418.10	418.10
			(v) Landless	70.00	70.00	-	-	-
			Total	**2545.00**	**1010.00**	**860.56**	**3974.04**	**4834.60**
2	Chhani Bujurg-II 2C1b2d3d	Chhani Bujurg, Argi Sagar, Khandehi, Kelpha, Parsauni	(i) Big (above 4 ha.)	33.00	-	75.00	106.50	181.50
			(ii) Medium (2-4 ha.)	109.00	-	49.00	343.40	392.40
			(iii) Small (1-2 ha.)	145.00	-	33.37	198.63	232.00
			(iv) Marginal (0-1ha.)	168.00	168.00	-	78.22	78.22
			(v) Landless	10.00	10.00	-	-	-
			Total	**465.00**	**178.00**	**157.37**	**726.75**	**884.12**

3	Atarar 2c1b2d3e	Atrar, Kelfa, Lodhipura, Nivada, Argi, Dhanpura, Argijar	(i) Big (above 4 ha.)	40.00	-	84.26	135.74	220.00
			(ii) Medium (2-4 ha.)	145.00	-	71.86	450.14	522.00
			(iii) Small (1-2 ha.)	170.00	-	42.36	229.64	272.00
			(iv) Marginal (0-1ha.)	214.00	214.00	-	101.04	101.04
			(v) Landless	16.00	16.00	-	-	-
			Total	**585.00**	**230.00**	**198.48**	**916.56**	**1115.04**
4	Khandehari jar (2C1B2d3c)	Khandehari jar, Dhanpura, Argi Sagar, Kalla, Mawai Jar	(i) Big (above 4 ha.)	30	-	53.75	114.25	168.00
			(ii) Medium (2-4 ha.)	125	-	32.25	367.75	400.00
			(iii) Small (1-2 ha.)	140	16	21.50	188.50	210.00
			(iv) Marginal (0-1ha.)	105	89	-	48.99	48.99
			(v) Landless	15	15	-	-	-
			Total	**415**	**120**	**107.51**	**719.48**	**826.99**
5	Mawai Jar (2C1B2d3a)	Mawai Jar, Chandauli , Sadipur	(i) Big (above 4 ha.)	20	-	35.81	72.19	108.00
			(ii) Medium (2-4 ha.)	90	-	21.48	239.52	261.00
			(iii) Small (1-2 ha.)	100	12	14.32	135.68	150.00
			(iv) Marginal (0-1ha.)	60	51	-	31.85	31.85
			(v) Landless	10	10	-	-	-
			Total	**280**	**73**	**71.61**	**479.24**	**550.85**
6	Sadipur (2C1B2e2c)	Sadipur, Bidokhar, Medani, Banda , Patanpur	(i) Big (above 4 ha.)	40	-	73.32	150.68	224.00
			(ii) Medium (2-4 ha.)	170	-	43.99	483.01	527.00
			(iii) Small (1-2 ha.)	200	24	29.33	280.67	310.00
			(iv) Marginal (0-1ha.)	150	127	-	66.99	66.99
			(v) Landless	20	20	-	-	-
			Total	**580**	**171**	**146.64**	**981.35**	**1127.99**
7	Sayar (2C1B2e2d)	Sayar, Helapur, Bharsawa, Patanpur, Rohari, Bharela, Bidokhar purai	(i) Big (above 4 ha.)	80	-	175.83	304.17	480.00
			(ii) Medium (2-4 ha.)	425	-	105.50	1254.50	1360.00
			(iii) Small (1-2 ha.)	445	53	70.33	695.07	765.40
			(iv) Marginal (0-1ha.)	290	246	-	99.62	99.62
			(v) Landless	50	50	-	-	-
			Total	**1290**	**349**	**351.65**	**2353.37**	**2705.02**
			Grand Total	**6160**	**2131**	**1893.82**	**10150.79**	**12044.61**

Source: Participatory rural appraisal by PIA, (Soil Conservation Division, Hamirpur-I, Hamirpur, U.P.)

Table 3.3: Details of migration from Project area (IWMP-XI, Hamirpur): Pre-project status

Sl. No.	Names of Watershed	Name of village	No. of persons migrating	No. of days per year of migration	Major reason(s) for migrating	Distance of destination of migration from the village (km)	Occupation during migration	Income from such occupation (Rs. in lakh)
1	Chhani Bujurg-I 2C2A2l3	Swasa Kurd, Khasa Bujurg, Parsauni, Chhani Khurd, Chaani Bujurg, Vajhta Danda, Ruri Wara, Lambi Pura, Dhanpura, Gora kadar	999	120-180	Drought / Earn money	500-1100 Km	Labour	0.25-0.40
2	Chhani Bujurg-II 2C1b2d3d	Chhani Bujurg, Argi Sagar, Khandehi, Kelpha, Parsauni	198	120-180	-do-	500-1100 Km	Labour	0.25-0.40
3	Atarar 2c1b2d3e	Atrar, Kelfa, Lodhipura, Nivada, Argi, Dhanpura, Argijar	247	120-180	-do-	500-1100 Km	Labour	0.25-0.40
4	Khandehari jar (2C1B2d3c)	Khandehari jar, Dhanpura, Argi Sagar, Kalla, Mawai Jar	166	120-180	Drought / Earn money	600-1200 Km	Labour	0.25-0.40
5	Mawai Jar (2C1B2d3a)	Mawai Jar, Chandauli, Sadipur	116	120-180	-do-	600-1200 Km	Labour	0.25-0.40
6	Sadipur (2C1B2e2c)	Sadipur, Bidokhar, Medani, Banda, Patanpur	232	120-180	-do-	600-1200 Km	Labour	0.25-0.40
7	Sayar (2C1B2e2d)	Sayar, Helapur, Bharsawa, Patanpur, Rohari, Bharela, Bidokhar purai	516	120-180	-do-	600-1200 Km	Labour	0.25-0.40
		Total	**2474**					

Source: Participatory rural appraisal by PIA, (Soil Conservation Division, Hamirpur-I, Hamirpur, U.P.)

Table 3.4: Details of infrastructure in IWMP-XI, Hamirpur

Sr. No.	Name of Project	Parameters		Status			
	IWMP-XI	(i)	Name of villages connected to the main road by an all-weather road	Hamirpur to Sumerpur			
		(ii)	Village's Name provided with electricity	All villages			
		(iii)	No. of households without access to drinking water	About 5-10 per cent house holds depends on others' source of drinking water			
		(iv)	No. of educational institutions : Primary(P)/ Secondary(S)/ Higher Secondary(HS)/ vocational institution(VI)	(P) 26	(S) 06	(HS) 03	(VI) -
		(v)	Names of villages with access to Primary Health Centre	NA			
		(vi)	Names of villages with access to Veterinary Dispensary	01			
		(vii)	Names of villages with access to Post Office	01			
		(viii)	Names of villages with access to Banks	01			
		(ix)	Names of villages with access to Markets/ mandis	01			
		(x)	Names of villages with access to Agro-industries	N.A			
		(xi)	Total quantity of surplus milk/ deficit	-			
		(xii)	No. of milk collection centers (e.g. Union(U)/ Society(S)/ Private agency(PA)/ others (O))	(U) -	(S) -	(PA) -	(O) 03
		(xiii)	Name of villages with access to Anganwadi Centre	At each Gram Panchayat			
		(xiv)	Community centre, Panchayat Ghar	Available			

Source: Participatory rural appraisal by PIA, (Soil Conservation Division, Hamirpur-I, Hamirpur, U.P.)
Note; Micro watershed wise information is kept in project file

Table 3.5: Details of common property resources In IWMP-XI, Hamirpur

S. No.	Names of Project	CPR Particulars	Total Area (ha) Area owned/ In possession of				Area available for treatment (ha)			
			Pvt. persons	Govt. Revenue	PRI	Any other (Pl. Specify)	Pvt. persons	Govt. (specify dept.)	PRI	Any other (Pl. Specify)
	IWMP-XI	(i) Wasteland/ degraded land	508.30	-	58.64	-	508.30	-	58.64	-
		(ii) Pastures	-	-	-	-	-	-	-	-
		(iii) Orchards	-	-	-	-	-	-	-	-
		(iv) Village Woodlot	65.70	-	56.14	-	65.70	-	56.14	-
		(v) Forest	-	-	-	-	-	-	-	-
		(vi) Village Ponds/ Tanks	-	-	18.73	-	-	-	-	-
		(vii) Community Buildings	-	-	67.64	-	-	-	-	-
		(viii) Weekly Markets	-	-	-	-	-	-	-	-
		(ix) Permanent markets	-	-	-	-	-	-	-	-
		(x) Temples/ Places of worship	-	-	31.73	-	-	-	-	-
		(xi) Habitat, Chakmarg, Sector, Road etc	-	514.15	-	-	-	-	-	-
	Total		**574.00**	**514.15**	**232.88**	-	**574.00**	-	**114.78**	-

Source: Participatory rural appraisal by PIA, (Soil Conservation Division, Hamirpur-I, Hamirpur, U.P.)

3.2 Soil and Land Holding Pattern

Major soils of the project are light and medium textured soil (sandy loam, loam and silty loam). Area details of each micro watershed are given in Table 3.6.

Table 3.6: Details of Soil texture in IWMP-XI, Hamirpur

Sr. No.	MWS Project	Area in different Soil Group (ha)			
		Light textured soil (sand, loamy sand)	Medium textured soil (Sandy loam, loam, silt loam)	Heavy textured soil (Clayey)	Details
1	Chhani Bujurg-I 2C2A2l3	788.25	3153.00	1313.75	Purwa, Mar+kabar
2	Chhani Bujurg-II 2C1b2d3d	144.15	576.60	240.25	Purwa, Mar+kabar
3	Atarar 2c1b2d3e	181.80	727.20	303.00	Purwa, Mar+kabar
4	Khandehari jar (2C1B2d3c)	291.88	486.47	194.59	Purwa, Mar+kabar
5	Mawai Jar (2C1B2d3a)	194.42	324.03	129.61	Purwa, Mar+kabar
6	Sadipur (2C1B2e2c)	398.12	663.53	265.41	Purwa, Mar+kabar
7	Sayar (2C1B2e2d)	954.71	1591.19	636.48	Purwa, Mar+kabar
	Total	**2953.33**	**7522.02**	**3083.09**	

Source: Participatory rural appraisal by PIA, (Soil Conservation Division, Hamirpur-I, Hamirpur, U.P.)

3.3 Major Crops, its Productivity and Production

Micro-watershed wise grown crops, their productivity and production under irrigated and rainfed condition is given in Table 3.7. As far as productivity of cereals is concerned, it is significantly lower than the state and national average. Micro-watershed wise cropping intensity varied from 103.65 to 112.93 per cent with 109.27 per cent for the project.

Table 3.7: Micro-watershed wise details of Crops, their Productivity and Production in IWMP-XI, Hamirpur Chhani Bujurg-I 2C2A2l3

S.No	Crop	Area (ha.)		Productivity q/ha		Production (q)			
						Grain/Main product		Fodder/Fuel/ Other Product.	
		Irrigated	**Rainfed**	**Irrigated**	**Rainfed**	**Irrigated**	**Rainfed**	**Irrigated**	**Rainfed**
A	**Kharif**								
1	Urd	0.00	905.19	0.00	3.15	0.00	2851.35	0.00	5702.70
2	Moong	0.00	133.25	0.00	3.24	0.00	431.73	0.00	777.11
3	Arhar	0.00	280.28	0.00	5.05	0.00	1415.41	0.00	240.62
4	Sorghum	0.00	41.34	0.00	6.00	0.00	248.04	0.00	1140.98
5	Til	0.00	849.94	0.00	2.15	0.00	1827.37	0.00	3472.00
	Total		**2210.00**				**6773.90**		**8001.17**
B	**Rabi**								
1	Wheat	860.56	38.74	20.36	13.25	17520.98	513.31	18397.03	508.17
2	Masoor	0.00	116.09	0.00	10.36	0.00	1202.69	0.00	1190.67
3	Gram	0.00	524.94	0.00	4.80	0.00	2519.71	0.00	7720.24
4	Pea	0.00	1615.35	0.00	5.80	0.00	9369.03	0.00	8994.27
5	Mustard	0.00	93.99	0.00	7.10	0.00	667.33	0.00	2335.65
	Total	**860.56**	**2389.11**			**17520.98**	**14272.07**	**18397.03**	**20749.00**
C	**Zaid**								
	Nil								
	Cultivable Area	**4834.60**	**Cropping Intensity**		**112.93**				

Source: Participatory rural appraisal by PIA, (Soil Conservation Division, Hamirpur-I, Hamirpur, U.P.)

Chhani Bujurg-II 2C1b2d3d

S.No	Crop	Area (ha)		Productivity q/ha		Production (q)			
						Grain/Main product		Fodder/Fuel/ Other Product.	
		Irrigated	**Rainfed**	**Irrigated**	**Rainfed**	**Irrigated**	**Rainfed**	**Irrigated**	**Rainfed**
A	**Kharif**								
1	Urd	0.00	139.96	0.00	3.15	0.00	440.86	0.00	881.72
2	Moong	0.00	20.60	0.00	3.24	0.00	66.75	0.00	120.15
3	Arhar	0.00	43.34	0.00	5.05	0.00	218.84	0.00	37.20
4	Sorghum	0.00	6.39	0.00	6.00	0.00	38.35	0.00	176.41
5	Til	0.00	131.41	0.00	2.15	0.00	282.54	0.00	536.83
	Total		**341.70**				**1047.35**		**8001.17**
B	**Rabi**								
1	Wheat	157.37	5.96	20.36	13.25	3204.12	78.97	3364.33	78.18
2	Masoor	0.00	65.15	0.00	10.36	0.00	674.95	0.00	668.20
3	Gram	0.00	80.76	0.00	4.80	0.00	387.65	0.00	7720.24
4	Pea	0.00	300.25	0.00	5.80	0.00	1741.45	0.00	1671.79
5	Mustard	0.00	14.46	0.00	7.10	0.00	102.67	0.00	359.33
	Total	**157.37**	**466.58**			**3204.12**	**2985.69**	**3364.33**	**10497.75**
C	**Zaid**								
	Nil								
	Cultivable Area	**884.12**	**Cropping Intensity**		**109.22**				

Source: Participatory rural appraisal by PIA, (Soil Conservation Division, Hamirpur-I, Hamirpur, U.P.)

Atarar 2c1b2d3e

S.No	Crop	Area (ha)		Productivity q/ha		Production (q)			
						Grain/Main product		Fodder/Fuel/ Other Product.	
		Irrigated	**Rainfed**	**Irrigated**	**Rainfed**	**Irrigated**	**Rainfed**	**Irrigated**	**Rainfed**
A	**Kharif**								
1	Urd	0.00	201.93	0.00	3.15	0.00	636.07	0.00	1272.14
2	Moong	0.00	29.73	0.00	3.24	0.00	96.31	0.00	173.36
3	Arhar	0.00	62.52	0.00	5.05	0.00	315.75	0.00	53.68
4	Sorghum	0.00	9.22	0.00	6.00	0.00	55.33	0.00	254.53
5	Til	0.00	189.60	0.00	2.15	0.00	407.64	0.00	774.52
	Total		**493.00**				**1511.10**		**8001.17**
B	**Rabi**								
1	Wheat	198.48	9.54	20.36	13.25	4040.99	126.35	4243.04	125.09
2	Masoor	0.00	28.58	0.00	10.36	0.00	296.05	0.00	293.09
3	Gram	0.00	115.24	0.00	4.80	0.00	553.15	0.00	7720.24
4	Pea	0.00	385.24	0.00	5.80	0.00	2234.39	0.00	2145.02
5	Mustard	0.00	23.14	0.00	7.10	0.00	164.27	0.00	574.93
	Total	**198.48**	**561.73**			**4040.99**	**3374.21**	**4243.04**	**10858.36**
C	**Zaid**								
	Nil								
	Cultivable Area	**1115.04**	**Cropping Intensity**		**112.39**				

Source: Participatory rural appraisal by PIA, (Soil Conservation Division, Hamirpur-I, Hamirpur, U.P.)

Khandehari jar (2C1B2d3c)

S.No	Crop	Area (ha)		Productivity q/ha		Production (q)			
						Grain/Main product		Fodder/Fuel/ Other Product.	
		Irrigated	Rainfed	Irrigated	Rainfed.	Irrigated	Rainfed	Irrigated	Rainfed
A	**Kharif**								
1	Urd	0.00	100.36	0.00	3.14	0.00	315.13	0.00	630.26
2	Moong	0.00	65.24	0.00	2.95	0.00	192.46	0.00	346.42
3	Arhar	0.00	28.34	0.00	5.15	0.00	145.95	0.00	24.81
4	Sorghum	0.00	43.19	0.00	5.95	0.00	256.98	0.00	1182.11
5	Til	0.00	80.39	0.00	1.58	0.00	127.02	0.00	241.33
	Total		**317.52**				**1037.54**	**0.00**	**2424.94**
B	**Rabi**								
1	Wheat	107.51	14.34	18.47	12.26	1985.69	175.81	2084.97	174.05
2	Masoor	0.00	148.32	0.00	11.05	0.00	1638.94	0.00	1622.55
3	Gram	0.00	201.46	0.00	4.15	0.00	836.06	0.00	7720.24
4	Pea	0.00	68.15	0.00	5.24	0.00	357.11	0.00	342.82
5	Mustard	0.00	39.25	0.00	6.80	0.00	266.90	0.00	934.15
	Total	**107.51**	**471.52**			**1985.69**	**3274.81**	**2084.97**	**10793.81**
C	**Zaid**								
	Nil								
	Cultivable Area	**826.99**	**Cropping Intensity**		**108.41**				

Source: Participatory rural appraisal by PIA, (Soil Conservation Division, Hamirpur-I, Hamirpur, U.P.)

Mawai Jar (2C1B2d3a)

S.No	Crop	Area (ha)		Productivity q/ha		Production (q)			
						Grain/Main product		Fodder/Fuel/ Other Product.	
		Irrigated	Rainfed	Irrigated	Rainfed.	Irrigated	Rainfed	Irrigated	Rainfed
A	**Kharif**								
1	Urd	0.00	68.69	0.00	3.14	0.00	215.69	0.00	431.37
2	Moong	0.00	42.02	0.00	2.95	0.00	123.96	0.00	223.13
3	Arhar	0.00	18.42	0.00	5.15	0.00	94.86	0.00	16.13
4	Sorghum	0.00	28.08	0.00	5.95	0.00	167.08	0.00	768.55
5	Til	0.00	52.25	0.00	1.58	0.00	82.56	0.00	156.85
	Total		**209.46**				**684.14**	**0.00**	**1596.03**
B	**Rabi**								
1	Wheat	71.61	12.39	27.00	12.26	1933.49	151.90	2030.16	150.38
2	Masoor	0.00	102.34	0.00	11.05	0.00	1130.86	0.00	1119.55
3	Gram	0.00	90.26	0.00	4.15	0.00	374.58	0.00	7720.24
4	Pea	0.00	59.53	0.00	5.24	0.00	311.94	0.00	299.46
5	Mustard	0.00	25.34	0.00	6.80	0.00	172.31	0.00	603.09
	Total	**71.61**	**289.86**			**1933.49**	**2141.59**	**2030.16**	**9892.72**
C	**Zaid**								
	Nil								
	Cultivable Area	**550.85**	**Cropping Intensity**		**103.65**				

Source: Participatory rural appraisal by PIA, (Soil Conservation Division, Hamirpur-I, Hamirpur, U.P.)

Sadipur (2C1B2e2c)

S.No	Crop	Area (ha)		Productivity q/ha		Production (q)			
						Grain/Main product		Fodder/Fuel/ Other Product.	
		Irrigated	Rainfed	Irrigated	Rainfed.	Irrigated	Rainfed	Irrigated	Rainfed
A	**Kharif**								
1	Urd	0.00	124.15	0.00	3.14	0.00	389.83	0.00	779.66
2	Moong	0.00	90.34	0.00	2.95	0.00	266.50	0.00	479.71
3	Arhar	0.00	39.60	0.00	5.15	0.00	203.94	0.00	34.67
4	Sorghum	0.00	60.37	0.00	5.95	0.00	359.20	0.00	1652.33
5	Til	0.00	112.35	0.00	1.58	0.00	177.51	0.00	337.27
	Total		**426.81**				**1396.99**	**0.00**	**3283.64**
B	**Rabi**								
1	Wheat	146.64	20.36	27.00	12.26	3959.25	249.61	4157.22	247.12
2	Masoor	0.00	182.14	0.00	11.05	0.00	2012.65	0.00	1992.52
3	Gram	0.00	248.65	0.00	4.15	0.00	1031.90	0.00	7720.24
4	Pea	0.00	131.24	0.00	5.24	0.00	687.70	0.00	660.19
5	Mustard	0.00	61.02	0.00	6.80	0.00	414.94	0.00	1452.28
	Total	**146.64**	**643.41**			**3959.25**	**4396.79**	**4157.22**	**12072.34**
C	**Zaid**								
	Nil								
	Cultivable Area	**1127.99**	**Cropping Intensity**		**107.88**				

Source: Participatory rural appraisal by PIA, (Soil Conservation Division, Hamirpur-I, Hamirpur, U.P.)

Sayar (2C1B2e2d)

S.No	Crop	Area (ha)		Productivity q/ha		Production (q)			
						Grain/Main product		Fodder/Fuel/ Other Product.	
		Irrigated	Rainfed	Irrigated	Rainfed.	Irrigated	Rainfed	Irrigated	Rainfed
A	**Kharif**								
1	Urd	0.00	325.16	0.00	3.14	0.00	1021.00	0.00	2042.00
2	Moong	0.00	210.15	0.00	2.95	0.00	619.94	0.00	1115.90
3	Arhar	0.00	85.14	0.00	5.15	0.00	438.47	0.00	74.54
4	Sorghum	0.00	140.36	0.00	5.95	0.00	835.14	0.00	3841.65
5	Til	0.00	274.15	0.00	1.58	0.00	433.16	0.00	823.00
	Total		**1034.96**				**3347.71**	**0.00**	**7897.09**
B	**Rabi**								
1	Wheat	351.65	25.34	27.00	12.26	9494.63	310.67	9969.36	307.56
2	Masoor	0.00	420.32	0.00	11.05	0.00	4644.54	0.00	4598.09
3	Gram	0.00	640.32	0.00	4.15	0.00	2657.33	0.00	7720.24
4	Pea	0.00	302.15	0.00	5.24	0.00	1583.27	0.00	1519.94
5	Mustard	0.00	152.55	0.00	6.80	0.00	1037.34	0.00	3630.69
	Total	**351.65**	**1540.68**			**9494.63**	**10233.14**	**9969.36**	**17776.52**
C	**Zaid**								
	Nil								
	Cultivable Area	**2705.02**	**Cropping Intensity**		**108.22**				

Source: Participatory rural appraisal by PIA, (Soil Conservation Division, Hamirpur-I, Hamirpur, U.P.)

It was observed that the productivity of wheat, gram, mustard, arhar and linseed was about 66, 37, 33,49 and 26 per cent, respectively, less than the average of last 10 years crop yield (*Source: Directorate of Economics and Statistics, Department of Agriculture and Cooperation*). productivity of the state of Uttar Pradesh.

Table 3.8: Food, fodder and fuel production in the project area (IWMP-XI, District- Hamirpur)

Summary	Unit	Production During Kharif	Production during Rabi	Total Production
Food Production (q)				
Cereals	q.	4793.36	43745.77	48539.13
Pulses	q.	7667.58	36245.93	43913.51
Oilseed	q.	3337.79	2825.75	6163.55
Grand Total	q.	**15798.73**	**82817.44**	**98616.17**
Fodder Production (Atlas.)				
Dry Fodder	q.	165720.1		
Green Fodder	q.	-		
Fuel Production				
Arhar+Mustard+Til Plants	q.	10371.77		
Over all Cropping Intensity		**109.275**		

Source: Participatory rural appraisal by PIA, (Soil Conservation Division, Hamirpur-I, Hamirpur, U.P.)

3.4 Agroforestry and Horticulture

There are no defined agroforestry and orchards in the project area, However, few scattered trees of desi ber, aonla, guava, kathal, etc. are observed in the micro-watersheds which is consumed locally (Table 3.9).

Table 3.9: Horticulture Status

S. N.	Name of micro watershed with code	Name of village	Name of Important horticultural crop						
			Orchard				Scattered Fruit Crop		
			Name	Area ha	Productivity q	Production q	No.	Productivity q	Production q
1	Chhani Bujurg-I 2C2A2l3	Swasa Kurd, Khasa Bujurg, Parsauni, Chhani Khurd, Chaani Bujurg, Vajhta Danda, Ruri Wara, Lambi Pura, Dhanpura, Gora kadar	Nil	Nil	Nil	Nil	102	0.2	20.4
2	Chhani Bujurg-II 2C1b2d3d	Chhani Bujurg, Argi Sagar, Khandehi, Kelpha, Parsauni	Nil	Nil	Nil	Nil	85	0.21	17.85
3	Atarar 2c1b2d3e	Atrar, Kelfa, Lodhipura, Nivada, Argi, Dhanpura, Argijar	Nil	Nil	Nil	Nil	92	0.26	23.92
4	Khandehari jar (2C1B2d3c)	Khandehari jar, Dhanpura, Argi Sagar, Kalla, Mawai Jar	Nil	Nil	Nil	Nil	25	0.26	6.5
5	Mawai Jar (2C1B2d3a)	Mawai Jar, Chandauli, Sadipur	Nil	Nil	Nil	Nil	20	0.25	5
6	Sadipur (2C1B2e2c)	Sadipur, Bidokhar, Medani, Banda, Patanpur	Nil	Nil	Nil	Nil	30	0.23	6.9
7	Sayar (2C1B2e2d)	Sayar, Helapur, Bharsawa, Patanpur, Rohari, Bharela, Bidokhar purai	Nil	Nil	Nil	Nil	75	0.21	15.75
		Total					**429**	**0.23**	**96.32**
	(Scattered fruit plant of Papaya, Kathal, Ber, Aonla, Guava, etc)								

Source: Participatory rural appraisal by PIA, (Soil Conservation Division, Hamirpur-I, Hamirpur, U.P.)

3.5 Livestock and Fisheries

Majorly of the course of breed mostly desi cow are prevalent in the project area. The productivity of livestock in Project area is significantly lower than the average productivity of the state. livestock and its productivity details are available in Table 3.10 and 3.11, respectively.

Table 3.10: Livestock Population (no.) in IWMP-XI, Hamirpur

Sr. No.	Name of Micro watershed with code	Name of Village	Cow		Buffalo		Ox/Bull	Goat	Sheep	Piggeries	Poultry		
			Desi	Crossed	Desi	Murrah					Broiler	Layers	Total
1	Chhani Bujurg-I 2C2A2l3	Swasa Kurd, Khasa Bujurg, Parsauni, Chhani Khurd, Chaani Bujurg, Vajhta Danda, Ruri Wara, Lambi Pura, Dhanpura, Gora kadar	828	190	355	154	215	1425	315	98	-	**48**	**2203**
2	Chhani Bujurg-II 2C1b2d3d	Chhani Bujurg, Argi Sagar, Khandehi, Kelpha, Parsauni	141	45	68	25	35	260	150	15	-	**6**	**485**
3	Atarar 2c1b2d3e	Atrar, Kelfa, Lodhipura, Nivada, Argi, Dhanpura, Argijar	156	78	78	39	84	351	256	32	-	**10**	**733**
4	Khandehari jar (2C1B2d3c)	Khandehari jar, Dhanpura, Argi Sagar, Kalla, Mawai Jar	139	18	1	9	20	473	20	6	-	20	706
5	Mawai Jar (2C1B2d3a)	Mawai Jar, Chandauli, Sadipur	93	13	63	7	14	319	14	3	-	18	544
6	Sadipur (2C1B2e2c)	Sadipur, Bidokhar, Medani, Banda, Patanpur	194	26	131	15	30	661	35	15	-	35	1142

7	Sayar (2C1B2e2d)	Sayar, Helapur, Bharsawa, Patanpur, Rohari, Bharela, Bidokhar purai	420	70	296	30	80	1470	50	25	-	55	2496
		Total	**1971**	**440**	**992**	**279**	**478**	**4959**	**840**	**194**	-	**192**	**8309**

Source: Participatory rural appraisal by PIA, (Soil Conservation Division, Hamirpur-I, Hamirpur, U.P.)

Table 3.11: Productivity of livestock in IWMP-XI, Hamirpur

SN	Name of Micro watershed with code	Name of Village	Milk Production (Liter Per day)				Goatry	Poultry	
			Cows		Buffalos		Weight in Kg/goat	Broiler Weight in Kg/ Brl	Layers No. of eggs/day
			Desi	Crossed	Desi	Murrah			
1	Chhani Bujurg-I 2C2A2l3	Swasa Kurd, Khasa Bujurg, Parsauni, Chhani Khurd, Chaani Bujurg, Vajhta Danda, Ruri Wara, Lambi Pura, Dhanpura, Gora kadar	1.6	5.9	2.8	6.9	25.0	0.0	186
2	Chhani Bujurg-II 2C1b2d3d	Chhani Bujurg, Argi Sagar, Khandehi, Kelpha, Parsauni	1.5	6.3	2.7	6.8	29.0	0.0	175
3	Atarar 2c1b2d3e	Atrar, Kelfa, Lodhipura, Nivada, Argi, Dhanpura, Argijar	1.8	5.7	2.9	6.4	24.0	0.0	195
4	Khandehari jar (2C1B2d3c)	Khandehari jar, Dhanpura, Argi Sagar, Kalla, Mawai Jar	1.3	5.9	2.9	5.9	22.0	0.0	170
5	Mawai Jar (2C1B2d3a)	Mawai Jar, Chandauli, Sadipur	1.6	5.4	3.2	6.2	21.0	0.0	174
6	Sadipur (2C1B2e2c)	Sadipur, Bidokhar, Medani, Banda, Patanpur	1.5	5.8	3.1	6.4	25.0	0.0	172
7	Sayar (2C1B2e2d)	Sayar, Helapur, Bharsawa, Patanpur, Rohari, Bharela, Bidokhar purai	1.8	5.7	2.8	6.1	24.0	0.0	168
	Avrage		**1.6**	**5.8**	**2.9**	**6.4**	**24.3**	**0.0**	**177.1**

Source: Participatory rural appraisal by PIA, (Soil Conservation Division, Hamirpur-I, Hamirpur, U.P.)

3.6 Forest and Grassland

There is no grassland available in the project area. However, information on naturally grown and severely degraded forest is given in Table 3.12.

Table 3.12: Forest, vegetative cover/grassland in IWMP-XI, Hamirpur

Sr. No.	Name & Code of Micro watershed	Name of Village	Forest (Area ha)			Grassland (ha)		Other vegetative cover (ha)	
			Reserve	Gram Samaj (Natural /Planted)	Total	Gram Samaj	Private	Gram Samaj	Private
1	Chhani Bujurg-I 2C2A2l3	Swasa Kurd, Khasa Bujurg, Parsauni, Chhani Khurd, Chaani Bujurg, Vajhta Danda, Ruri Wara, Lambi Pura, Dhanpura, Gora kadar	-	-	-	6.58	-	1.65	3.65
2	Chhani Bujurg-II 2C1b2d3d	Chhani Bujurg, Argi Sagar, Khandehi, Kelpha, Parsauni	-	-	-	5.65	-	2.31	4.15
3	Atarar 2c1b2d3e	Atrar, Kelfa, Lodhipura, Nivada, Argi, Dhanpura, Argijar	-	-	-	6.84	-	1.68	2.69
4	Khandehari jar (2C1B2d3c)	Khandehari jar, Dhanpura, Argi Sagar, Kalla, Mawai Jar	-	-	-	6.35	-	2.68	0.95
5	Mawai Jar (2C1B2d3a)	Mawai Jar, Chandauli, Sadipur	-	-	-	4.15	-	2.15	0.84
6	Sadipur (2C1B2e2c)	Sadipur, Bidokhar, Medani, Banda, Patanpur	-	-	-	7.36	-	3.15	1.23
7	Sayar (2C1B2e2d)	Sayar, Helapur, Bharsawa, Patanpur, Rohari, Bharela, Bidokhar purai	-	-	-	9.45	-	3.64	1.69
		Total	-	-	-	**46.38**	-	**17.26**	**15.2**

Source: Participatory rural appraisal by PIA, (Soil Conservation Division, Hamirpur-I, Hamirpur, U.P.)

3.7 Livelihood Status

Assetless/landless people earn their livelihood mainly from labour and *batai (shared cropping)*. They earn about Rs. 3000/per month by shared cropping. It is expected that their income will enhance due to watershed management as it will generate employment opportunity on sustainable basis. Intervention presently on piggeries, fisheries, black smith and carpentery are not in general practice. Livelihood status of landless, farmers and interventions based livelihood status are shown in Table 3.13, 3.14 and 3.15, respectively.

Table 3.13: Livelihood Status of Landless People

Sr. No.	Name & Code of micro watershed	Name of Village	Name of Livelihood Activity	No. of house hold engaged					Pre project Average Income/ Year	Desired Activities	Expected Income from desired activities Rs/Year	Remarks
				SC	ST	Other	Women	Total				
1	Chhani Bujurg-I 2C2A2l3	Swasa Kurd, Khasa Bujurg, Parsauni, Chhani Khurd, Chaani Bujurg, Vajhta Danda, Ruri Wara, Lambi Pura, Dhanpura, Gora kadar	Labour/ Batai	15	-	45	15	75	26,000-32,000	The landless people can increase their income by adoting one or two activities of goatary, poultry, dairy, technical shop, general store, dona making, Rope making, etc. besides Batai/labour work -	55,000-60,000	Income may be increased by about two times -
2	Chhani Bujurg-II 2C1b2d3d	Chhani Bujurg, Argi Sagar, Khandehi, Kelpha, Parsauni		5	-	10	3	18				
3	Atarar 2c1b2d3e	Atrar, Kelfa, Lodhipura, Nivada, Argi, Dhanpura, Argijar		4	-	14	5	23				

4	Khandehari jar (2C1B2d 3c)	Khandehari jar, Dhanpura, Argi Sagar, Kalla, Mawai Jar		3	-	10	2	15				
5	Mawai Jar (2C1B2d 3a)	Mawai Jar, Chandauli, Sadipur		2	-	7	1	10				
6	Sadipur (2C1B2e 2c)	Sadipur, Bidokhar, Medani, Banda, Patanpur		4	-	14	2	20				
7	Sayar (2C1B2e 2d)	Sayar, Helapur, Bharsawa, Patanpur, Rohari, Bharela, Bidokhar purai		10	-	35	5	50				
		Total	-	**43**	-	**135**	**33**	**211**	**26,000-32,000**	-	**55,000-60,000**	-

Source: Participatory rural appraisal by PIA, (Soil Conservation Division, Hamirpur-I, Hamirpur, U.P.)

Table 3.14: Details of Livelihood Status of the Farmers

Sr. No.	Name & Code of micro watershed	Name of Village	Name of Livelihood Activity	No. of House hold engaged					Pre project Average Income	Desired Activities	Expected Income from desired activities	Remarks
				SC	ST	Other	Women	Total				
1	Chhani Bujurg-I 2C2A2l3	Swasa Kurd, Khasa Bujurg, Parsauni, Chhani Khurd, Chaani Bujurg, Vajhta Danda, Ruri Wara, Lambi Pura, Dhanpura, Gora kadar	Agriculture + A.H., Labour, Batai	408	-	1337	400	2145	45000-50000	Productivity could be enhance through natural resource conservation, livestock management and micro-enterprises	55,000-60,000	Income may be increased by about 30 to 40 per cent
2	Chhani Bujurg-II 2C1b2d3d	Chhani Bujurg, Argi Sagar, Khandehi, Kelpha, Parsauni		80	-	262	80	422				
3	Atarar 2c1b2d3e	Atrar, Kelfa, Lodhipura, Nivada, Argi, Dhanpura, Argijar		100	-	337	90	527				
4	Khandehari jar (2C1B2d3c)	Khandehari jar, Dhanpura, Argi Sagar, Kalla, Mawai Jar		86	-	284	30	400				

5	Mawai Jar (2C1B2 d3a)	Mawai Jar, Chandauli, Sadipur		58	-	187	25	270				
6	Sadipur (2C1B2 e2c)	Sadipur, Bidokhar, Medani, Banda, Patanpur		120	-	395	45	560				
7	Sayar (2C1B2 e2d)	Sayar, Helapur, Bharsawa, Patanpur, Rohari, Bharela, Bidokhar purai		266	-	894	80	1240				
		Total	-	**1118**	-	**3696**	**750**	**5564**	**45000-50000**	**-**	**55,000-60,000**	**-**

Source: Participatory rural appraisal by PIA, (Soil Conservation Division, Hamirpur-I, Hamirpur, U.P.)

Table 3.15: Present Livelihood Status (No. of households/Income per year) in IWMP-XI, Hamirpur

'Income in Rs

Sr. No	Name of MWS with code	Name of village	Activities																	
			Dairy		Poultry		Goatry		Piggeries		Fisheries		Black Smithy		Carpentry		Stitching/ knitting		Wages		Agriculture	
			No	Av. income	No	Av. income	No	Av. income	No	Av. income	No	Av. income	No	Av. income	No	Av. income	No	Av. income	No	Av. income	No	Av. income
1	Chhani Bujurg-I 2C2A2l3	Swasa Kurd, Khasa Bujurg, Parsauni, Chhani Khurd, Chaani Bujurg, Vajhta Danda, Ruri Wara, Lambi Pura, Dhanpura, Gora kadar	260	11,500-13,500	**24**	13,000-16,000		15,000-20,000	20	7500-9000	-	-	2	2000-4000	2	2500-4500	-	-	85	11,000-13,000	1000	25,000-27,000
2	Chhani Bujurg-II 2C1b2d3d	Chhani Bujurg, Argi Sagar, Khandehi, Kelpha, Parsauni	198		**18**				10		-		3		1		-		66		317	
3	Atarar 2c1b2d3e	Atrar, Kelfa, Lodhipura, Nivada, Argi, Dhanpura, Argijar	165		**15**				28		-		1		3		-		55		265	
4	Khande	Khandehari	1		1		3		1		-		3		2		-		3		1	

	hari jar (2C1B 2d3c)	jar, Dhanpura, Argi Sagar, Kalla, Mawai Jar	05		0		5		5										0		00	
5	Mawai Jar (2C1B 2d3a)	Mawai Jar, Chandauli, Sadipur	84		10		25		12		-		3		1		-		25		75	
6	Sadipur (2C1B 2e2c)	Sadipur, Bidokhar, Medani, Banda, Patanpur	126		15		30		20		-		2		3		-		35		150	
7	Sayar (2C1B 2e2d)	Sayar, Helapur, Bharsawa, Patanpur, Rohari, Bharela, Bidokhar purai	169		22		40		30		-		4		5		-		50		280	
		Total	1107	**11,500 - 13,500**	114	**13,000- 16,000**	75	**15,000- 20,000**	135	**7500 - 9000**	-	-	18	**2000 - 4000**	17	**2500 - 4500**	-	-	346	**11,000- 13,000**	2187	**25,000- 27,000**

Source: Participatory rural appraisal by PIA, (Soil Conservation Division, Hamirpur-I, Hamirpur, U.P.)

3.8 Hydrology, Water resources and Soil and moisture Conservation

Shallow dug wells are the only means of irrigation in the area and these wells support only for life saving irrigation. In general, irrigation interval is short e to short due water holding capacity of the soils. For soil and water conservation only field bund exist presently Use of micro-irrigation is almost nil in the area. Groundwater status, irrigation status and source are given in Table 3.16, 3.17 and 3.18, respectively.

Table 3.16: Ground Water Status in IWMP-XI, Hamirpur

Sr. No.	Name & Code of Micro watershed	Name of Village	Depth of Ground Water Table (Below Ground level) in Meter		No. of Observation well	Remarks
			Before Monsoon	After Monsoon		
1	Chhani Bujurg-I 2C2A2l3	Swasa Kurd, Khasa Bujurg, Parsauni, Chhani Khurd, Chaani Bujurg, Vajhta Danda, Ruri Wara, Lambi Pura, Dhanpura, Gora kadar	Avrg.13.18	Avrg. 09.18	18	-
2	Chhani Bujurg-I 2C1b2d3d	Chhani Bujurg, Argi Sagar, Khandehi, Kelpha, Parsauni	Avrg.15.48	Avrg.10.60	06	-
3	Atarar 2c1b2d3e	Atrar, Kelfa, Lodhipura, Nivada, Argi, Dhanpura, Argijar	Avrg.14.80	Avrg.10.20	05	-
4	Khandehari jar (2C1B2d3c)	Khandehari jar, Dhanpura, Argi Sagar, Kalla, Mawai Jar	Avrg.12.00	Avrg.8.96	06	
5	Mawai Jar (2C1B2d3a)	Mawai Jar, Chandauli, Sadipur	Avrg. 12.90	Avrg.11.97	05	
6	Sadipur (2C1B2e2c)	Sadipur, Bidokhar, Medani, Banda, Patanpur	Avrg.12.35	Avrg.10.77	10	
7	Sayar (2C1B2e2d)	Sayar, Helapur, Bharsawa, Patanpur, Rohari, Bharela, Bidokhar purai	Avrg.13.18	Avrg.9.18	15	
		Avrage	**13.41**	**10.12**		

Source: Participatory rural appraisal by PIA, (Soil Conservation Division, Hamirpur-I, Hamirpur, U.P.)

Generally stony layer is observed at a depth ranging between 1-5 m in all districts of Bundelkhand in Uttar Pradesh except Jalaun and Hamirpur district. Depth of water table in open shallow dug wells in the project area was about 12 to 15 m during pre monsoon, however it was in the range of 9-11 m during post monsoon season.

Table 3.17: Irrigation Status in IWMP-XI, Hamirpur

Sr. No.	Name & Micro Watershed with code	Name of Village	Gross Cultivated Area, Ha				Net Cultivated Area, Ha	Gross Irrigated Area, Ha				Net Irrigated Area, Ha	Rainfed Area, Ha
			Kharif	Rabi	Zaid	Total		Kharif	Rabi	Zaid	Total		
1	Chhani Bujurg-I 2C2A2l3	Swasa Kurd, Khasa Bujurg, Parsauni, Chhani Khurd, Chaani Bujurg, Vajhta Danda, Ruri Wara, Lambi Pura, Dhanpura, Gora kadar	2210.00	3334.32	-	5544.32	4834.60	-	860.56	-	860.56	860.56	3974.04
2	Chhani Bujurg-II 2C1b2d3d	Chhani Bujurg, Argi Sagar, Khandehi, Kelpha, Parsauni	341.70	655.26	-	996.96	884.12	-	157.37	-	157.37	157.37	726.75
3	Atarar 2c1b2d3e	Atrar, Kelfa, Lodhipura, Nivada, Argi, Dhanpura,	493.00	801.09	-	1294.09	1115.04	-	198.48	-	198.48	198.48	916.56

		Argijar											
4	Khandehari jar (2C1B2d3c)	Khandehari jar, Dhanpura, Argi Sagar, Kalla, Mawai Jar	317.52	579.03	-	896.55	826.99	-	107.51	-	107.51	107.51	719.48
5	Mawai Jar (2C1B2d3a)	Mawai Jar, Chandauli, Sadipur	209.46	361.47	-	570.93	550.85	-	71.61	-	71.61	71.61	479.24
6	Sadipur (2C1B2e2c)	Sadipur, Bidokhar, Medani, Banda, Patanpur	426.81	790.05	-	1216.86	1127.99	-	146.64	-	146.64	146.64	981.35
7	Sayar (2C1B2e2d)	Sayar, Helapur, Bharsawa, Patanpur, Rohari, Bharela, Bidokhar purai	1034.96	1892.33	-	2927.29	2705.02	-	351.65	-	351.65	351.65	2353.37
		Total	**5033.45**	**8413.55**	-	**13447**	**12044.61**	-	**1893.82**	-	**1893.82**	**1893.82**	**10150.79**

Source: Participatory rural appraisal by PIA, (Soil Conservation Division, Hamirpur-I, Hamirpur, U.P.)

Table 3.18: Source wise Area Irrigated in IWMP-XI, Hamirpur (ha)

Sr. No.	Name &Micro watershed with code	Name of Village	Canal Area	State Tube wells		Tanks		Open well		Bore wells		Lift irrigation		Others (Specify)		Total Irrigated Area	Rem.
				No.	Area	No.	Area	No.	Area	No.	Area	No.	Area	No.	Area		
1	Chhani Bujurg-I 2C2A2l3	Swasa Kurd, Khasa Bujurg, Parsauni, Chhani Khurd, Chaani Bujurg, Vajhta Danda, Ruri Wara, Lambi Pura, Dhanpura, Gora kadar	-	-	-	40	86.06	120	430.28	25	47.33	-	172.11	-	-	860.56	Availability of water from these sources are mainly dependant upon rainfall and its distribution pattern. Therefore, these are not assured source of irrigation
2	Chhani Bujurg-II 2C1b2d3d	Chhani Bujurg, Argi Sagar, Khandehi, Kelpha, Parsauni	-	-	-	7	15.74	25	78.69	3	8.66	-	31.47	-	-	157.37	
3	Atarar 2c1b2d3e	Atrar, Kelfa, Lodhipura, Nivada, Argi, Dhanpura, Argijar	-	-	-	10	19.85	37	99.24	4	10.92	-	39.70	-	-	198.48	
4	Khandehari jar	Khandehari jar,	-	-	-	5	16.13	18	59.13	3	7.53	-	24.73	-	-	107.51	

	(2C1B2d3c)	Dhanpura, Argi Sagar, Kalla, Mawai Jar															
5	Mawai Jar (2C1B2d3a)	Mawai Jar, Chandauli, Sadipur	-	-	-	3	10.74	15	39.39	2	5.01	-	16.47	-	-	71.61	
6	Sadipur (2C1B2e2c)	Sadipur, Bidokhar, Medani, Banda, Patanpur	-	-	-	7	22.00	28	80.65	4	10.26	-	33.73	-	-	146.64	
7	Sayar (2C1B2e2d)	Sayar, Helapur, Bharsawa, Patanpur, Rohari, Bharela, Bidokhar purai	-	-	-	18	52.75	70	193.41	7	24.62	-	80.88	-	-	351.65	
		Total	**-**	**-**	**-**	**90**	**223.27**	**313**	**980.79**	**48**	**114.33**	**-**	**399.09**	**-**	**-**	**1893.82**	

Source: Participatory rural appraisal by PIA, (Soil Conservation Division, Hamirpur-I, Hamirpur, U.P.)

CHAPTER – 4

INSTITUTIONAL BUILDING AND PROJECT MANAGEMENT

4.1 Project Implementing Agency

The Project Implementing Agency (PIA) is Soil Conservation Division, Department of Agriculture, IWMP-XI, Hamirpur-I, Hamirpur, Uttar Pradesh. The PIA was given responsibility to develop the micro-watershed by District Watershed Development Unit (DWDU) and State Level Nodal Agency (SLNA) considering its vast experiences in handling land and water management issues in the region. The PIA has well experienced trained and sufficient staff to handle the watershed management programme efficiently. Most of the staff of PIA has exposure of several watershed projects. In addition the PIA has access for technical backstopping from the ICAR viz. IGFRI and NRCAF at Jhansi and KVK located at Hamirpur. Details of PIA are presented in subsequent section.

Table 4.1: Details of Project Implementing Agency (PIA), IWMP-XI, Hamirpur

Sr. No.	Particulars of PIA	
(i)	Date of selection of PIA	26.9.2011
	Type of organization	U.P. Government
	Name of organization	Soil Conservation Division, Deptt. of Agriculture
	Principal Implementing Agency & Address	Soil Conservation Officer, Hamorpur-I
	Telephone	05282222094
	Fax	05282222094
	E-mail	

Table 4.2: Details of Staff at PIA, IWMP-XI, Hamirpur

Sr. No.	Designation	Name	M/F	Qualification	Field of Experience & Period
1	B.S.A.	Shri Kamal Katiyar	M	M.Sc. Ag.	18
2	T.A. / T.A.G.A.	Shri Feroj Khan	M	M.Sc. Ag.	30
3	Junior Engineer	Shri Bhagwan Singh	M	Engg.. Diploma.	32
4	Junior Engineer	Shri Muhar Singh	M	Engg.. Diploma	27
5	S.C.I / T.A.B.	Shri Parshuram Katiyar	M	Ag. Diploma	32
6	S.C.I / T.A.B.	Shri Shiv Kumar	M	Ag. Diploma.	31
7	S.C.I / T.A.B.	Shri Niranjan Singh Roniya	M	B.Sc Ag.	34
8	S.C.I / T.A.B.	Shri Kishan Chand Gautam	M	Ag. Diploma	25
9	S.C.I / T.A.B.	Shri Salig Ram	M	High. School Ag., Diploma	30
10	A.S.C.I./ T.A.E.	Shri Ishwar Dayal	M	B.ScAg.	30
11	A.S.C.I./ T.A.E.	Shri Bhola Nath Pal	M	B.Sc Ag.	25
12	A.S.C.I./ T.A.E.	Shri Chatur Singh	M	Ag. Diploma.	32
13	A.S.C.I./ T.A.E.	Shri Suresh Chand Sharma	M	Ag. Diploma	31
14	A.S.C.I./ T.A.E.	Shri Hetesh Kumar	M	M.Sc. Ag.	22
15	A.S.C.I./ T.A.E.	Shri Bhagwan Das	M	B.Sc. Ag.	31
16	A.S.C.I./ T.A.E.	Shri Ram Kumar Sachan	M	Ag. Diploma.	22
17	A.S.C.I./ T.A.E.	Shri Ram Kumar	M	Ag. Diploma	32
18	A.S.C.I./ T.A.E.	Shri Ram Lakhan Omeroi	M	M.Sc., Ag. Diploma.	22
19	A.S.C.I./ T.A.E.	Shri Shyam kishor Katiyar	M	M.Sc. Ag.	32
20	A.S.C.I./ T.A.E.	Shri Anil Kumar Yadav	M	B.Com	22

Table 4.3: Details of Watershed Development Team (WDT) in the project area

Project- IWMP XI **PIA- BSA, Hamirpur-I** **District – Hamirpur**

Sr. No.	Name Of WDT Member	M/F	AGE	Qualification/ Experience	Description of professional training	Role/ Function	Date of appointment of WDT member
1	Ranvir Singh	M	54	M.Sc Ag.	All the members are having work experience of watershed management.	WDT members will be accountable for the activities mentioned in Common Guidelines for watershed Development Projects 2008	12-10-11
2	Feroj Khan	M	53	Engg. Diploma.			
3	Niranjan Singh	M	58	Engg. Diploma.			
4	Mohar Singh	M	52	Engg. Diploma.			
5	Sarita Devi	F	45	M.A.			

Table 4.4: Details of Watershed Committee (WC)
Jal Sanrakshan Samiti- Morakadar, Gram Panchayat: Morakadar Name of Project:- IWMP-XI
District- Hamirpur

Sl. No.	Name of Gram Sabha/ GP	Date of Constitution/ Registration as a Society (dd/mm/ yyyy)	Designation	M/ F	SC	ST	OBC	Gen	SF	MF	LF	Land-less	UG	SHG	GP	Educa-tional qualification	Function(s) assigned
1	Morakadar	20-11-2011	President	F	-	-	Y	-	-	Y	-	-	-	-	Y	Literate	WC will act as per Common Guidelines for watershed Development Projects 2008
			Secretary	M	-	-	Y	-	-	Y	-	-	Y	-	-	Literate	
			Member	M	-	-	Y	-	-	-	-	-	-	-	-	Ag. Diploma	
			Member	M	-	-	Y	-	-	Y	-	-	-	-	-	Literate	
			Member	M	-	-	Y	-	-	Y	-	-	-	-	-	Literate	
			Member	M	-	-	-	-	-	-	Y	-	-	-	Y	Literate	
			Member	M	-	-	Y	-	-	-	-	Y	-	Y	-	Literate	
			Member	M	Y	-	-	-	Y	-	-	-	Y	-	-	Literate	
			Member	M	-	-	-	Y	-	Y	-	-	-	Y	-	Literate	
			Member	M	Y	-	-	-	-	-	-	Y	-	-	-	Literate	
			Member	M	-	-	-	Y	-	Y	-	-	Y	-	-	Literate	

Male-M, Female-F, Schedule caste- SC, Schedule tribe- ST, Other backward clan- OBC, General- Gen, Small farmer- SF, Medium farmer-MF, Large farmer- LF, User Group- UG, Self help Group-SHG, Gram Panchayat Member- GP

Jal Sanrakshan Samiti- Swasa Bujurg, District- Hamirpur **Gram Panchayat: Swasa Bujurg** **Name of Project:- IWMP-XI**

Sl. No.	Name of Gram Sabha/ GP	Date of Constitution/ Registration as a Society (dd/mm/ yyyy)	Designation	M/ F	SC	ST	OBC	Gen	SF	MF	LF	Land-less	UG	SHG	GP	Educa-tional qualification	Function(s) assigned
2	Swasa Bujurg	18-11-2011	President	F	Y	-	-	-	-	Y	-	-	-	-	Y	Literate	WC will act as per Common Guidelines for watershed Development Projects 2008
			Secretary	M	-	-	Y	-	-	Y	-	-	Y	-	-	Literate	
			Member	M	-	-	Y	-	-	-	-	-	-	-	-	Ag. Diploma	
			Member	M	-	-	Y	-	Y	-	-	-	Y	-	-	Literate	
			Member	M	-	-	Y	-	-	-	Y	-	Y	-	-	Literate	
			Member	M	-	-	-	-	-	-	-	Y	-	Y	-	Literate	
			Member	M	Y	-	-	-	Y	-	-	-	-	-	-	Literate	
			Member	M	-	-	Y	-	-	Y	-	-	Y	-	-	Literate	
			Member	M	Y	-	-	-	-	-	-	Y	-	Y	-	Literate	
			Member	M	-	-	-	Y	-	Y	-	-	-	-	-	Literate	
			Member	M	-	-	-	Y	-	Y	-	-	-	-	-	Literate	

Jal Sanrakshan Samiti- Dhanpura, District- Hamirpur **Gram Panchayat: Dhanpura** **Name of Project: - IWMP-XI**

Sl. No.	Name of Gram Sabha/ GP	Date of Constitution/ Registration as a Society (dd/mm/ yyyy)	Designation	M/ F	SC	ST	OBC	Gen	SF	MF	LF	Land-less	UG	SHG	GP	Educa-tional qualification	Function(s) assigned
3	Dhanpura	19-11-2011	President	M	-	-	-	Y	-	Y	-	-	Y	-	Y	Literate	WC will act as per Common Guidelines for watershed Development Projects 2008
			Secretary	M	-	-	Y	-	-	Y	-	-	Y	-	-	Literate	
			Member	M	-	-	Y	-	-	-	-	-	-	-	-	Ag. Diploma	
			Member	M	-	-	Y	-	Y	-	-	-	-	-	-	Literate	
			Member	M	Y	-	-	-	-	-	-	Y	-	Y	-	Literate	
			Member	M	-	-	-	-	Y	-	Y	-	Y	-	-	Literate	
			Member	M	-	-	Y	-	-	-		Y	-	Y	-	Literate	
			Member	M	-	-	Y	-	Y	-	-	-	-	-	-	Literate	
			Member	M	-	-	-	Y	-	Y	-	-	Y	-	Y	Literate	
			Member	M	-	-	-	Y	-	Y	-	-	-	-	-	Literate	
			Member	M	Y	-	-	-	Y	-	-	-	Y	-	-	Literate	

Jal Sanrakshan Samiti- Chhani Khurd, Gram Panchayat: Chhani Khurd Name of Project:- IWMP-XI
District- Hamirpur

Sl. No.	Name of Gram Sabha / GP	Date of Constitution/ Registration as a Society (dd/mm/ yyyy)	Designation	M/F	SC	ST	OBC	Gen	SF	MF	LF	Land-less	UG	SHG	GP	Educa-tional qualification	Function(s) assigned
4	Chhani Khurd	18-11-2011	President	F	-	-	-	Y	-	Y	-	-	-	-	Y	Literate	WC will act as per Common Guidelines for watershed Development Projects 2008
			Secretary	M	-	-	Y	-	-	Y	-	-	Y	-	-	Literate	
			Member	M	-	-	Y	-	-	-	-	-	-	-	-	Ag. Diploma	
			Member	M	-	-	Y	-	Y	-	-	-	Y	-	-	Literate	
			Member	M	-	-	-	Y	-	-	Y	-	Y	-	-	Literate	
			Member	M	Y	-	-	-	-	Y	-	-	Y	-	Y	Literate	
			Member	M	-	-	Y	-	-	-		Y	-	Y	-	Literate	
			Member	M	-	-	Y	-	-	-	-	Y	-	Y	-	Literate	
			Member	M	-	-	Y	-	-	Y	-	-	-	-	-	Literate	
			Member	M	Y	-	-	-	Y	-	-	-	Y	-	-	Literate	
			Member	M	-	-	-	Y	-	Y	-	-	Y	-	-	Literate	

Jal Sanrakshan Samiti- Chhani Bujurg, Gram Panchayat: Chhani Bujurg Name of Project:- IWMP-XI
District- Hamirpur

Sl. No.	Name of Gram Sabha / GP	Date of Constitution/ Registration as a Society (dd/mm/ yyyy)	Designation	M/ F	SC	ST	OBC	Gen	SF	MF	LF	Land-less	UG	SHG	GP	Educa-tional qualification	Function(s) assigned
5	Chhani Bujurg	19-11-2011	President	M	-	-	Y	-	-	Y	-	-	Y	-	Y	Literate	WC will act as per Common Guidelines for watershed Development Projects 2008
			Secretary	M	-	-	Y	-	-	Y	-	-	Y	-	-	Literate	
			Member	M	Y	-	-	-	-	-	-	-	-	-	-	Ag. Diploma	
			Member	M	-	-	Y	-	-	-	Y	-	Y	-	-	Literate	
			Member	M	-	-	Y	-	-	Y	-	-	-	-	Y	Literate	
			Member	F	-	-	-	Y	Y	-	-	-	-	-	-	Literate	
			Member	M	-	-	-	Y	-	-		Y	-	-	-	Literate	
			Member	M	-	-	Y	-	Y	-	-	-	Y	Y	-	Literate	
			Member	M	-	-	Y	-	-	Y	-	-	-	-	Y	Literate	
			Member	M	Y	-	-	-	-	-	-	Y	-	Y	-	Literate	
			Member	M	-	-	-	Y	Y	-	-	-	Y	-	-	Literate	

Jal Sanrakshan Samiti- Ruripara, District- Hamirpur **Gram Panchayat: Ruripara** **Name of Project:- IWMP-XI**

Sl. No.	Name of Gram Sabha/ GP	Date of Constitution/ Registration as a Society (dd/mm/ yyyy)	Designation	M/F	SC	ST	OBC	Gen	SF	MF	LF	Land-less	UG	SHG	GP	Educa-tional qualification	Function(s) assigned
6	Ruripara	20-11-2011	President	M	-	-	-	Y	-	Y	-	-	Y	-	Y	Literate	WC will act as per Common Guidelines for watershed Development Projects 2008
			Secretary	M	-	-	Y	-	-	Y	-	-	Y	-	-	Graduate	
			Member	M	-	-	Y	-	-	-	-	-	-	-	-	Ag. Diploma	
			Member	M	-	-	Y	-	Y	-	-	-	-	-	-	Literate	
			Member	M	Y	-	-	-	-	-	-	Y	-	Y	-	Literate	
			Member	F	-	-	-	-	Y	-	Y	-	Y	-	-	Literate	
			Member	M	-	-	Y	-	-	-		Y	-	Y	-	Literate	
			Member	M	-	-	Y	-	Y	-	-	-	-	-	-	Literate	
			Member	M	-	-	-	Y	-	Y	-	-	Y	-	Y	Literate	
			Member	M	-	-	-	Y	-	Y	-	-	-	-	-	Literate	
			Member	M	Y	-	-	-	Y	-	-	-	Y	-	-	Literate	

Jal Sanrakshan Samiti- Chhedi Basayak, Gram Panchayat: Chhedi Basayak Name of Project: - IWMP-XI District- Hamirpur

Sl. No.	Name of Gram Sabha/ GP	Date of Constitution/ Registration as a Society (dd/mm/ yyyy)	Designation	M/ F	SC	ST	OBC	Gen	SF	MF	LF	Land-less	UG	SHG	GP	Educa-tional qualification	Function (s) assigned
7	Chhedi Basayak	20-11-2011	President	M	-	-	-	Y	-	Y	-	-	-	-	Y	Literate	WC will act as per Common Guidelines for watershed Development Projects 2008
			Secretary	M	-	-	Y	-	-	Y	-	-	Y	-	-	Graduate	
			Member	M	-	-	Y	-	-	-	-	-	-	-	-	Ag. Diploma	
			Member	M	-	-	Y	-	Y	-	-	-	Y	-	-	Literate	
			Member	M	-	-	-	Y	-	-	Y	-	Y	-	-	Literate	
			Member	M	Y	-	-	-	-	Y	-	-	Y	-	Y	Literate	
			Member	M	-	-	Y	-	-	-		Y	-	Y	-	Literate	
			Member	F	-	-	Y	-	-	-	-	Y	-	Y	-	Literate	
			Member	M	-	-	Y	-	-	Y	-	-	-	-	-	Literate	
			Member	M	Y	-	-	-	Y	-	-	-	Y	-	-	Literate	
			Member	M	-	-	-	Y	-	Y	-	-	Y	-	-	Literate	

Jal Sanrakshan Samiti- Lodhipur Jalalpur, Gram Panchayat: Lodhipur Jalalpur Name of Project:- IWMP-XI
District- Hamirpur

Sl. No.	Name of Gram Sabha/ GP	Date of Constitution/ Registration as a Society (dd/mm/ yyyy)	Designation	M/ F	SC	ST	OBC	Gen	SF	MF	LF	Land-less	UG	SHG	GP	Educa-tional qualification	Function (s) assigned
8	Lodhipur Jalalpur	19-11-2011	President	M	-	-	Y	-	-	-	Y	-	-	-	-	Literate	WC will act as per Common Guidelines for watershed Development Projects 2008
			Secretary	M	-	-	Y	-	Y	-	-	-	-	-	-	Graduate	
			Member	M	Y	-	-	-	Y	-	-	-	-	-	-	Ag. Diploma	
			Member	M	-	-	Y	-	Y	-	-	-	Y	-	-	Literate	
			Member	M	-	-	Y	-	-	-	-	-	-	-	-	Literate	
			Member	M	-	-	-	-	-	-	Y	-	-	-	-	Literate	
			Member	M	-	-	Y	-	Y	Y	-	-	-	Y	-	Literate	
			Member	F	-	-	-	Y	Y	-	-	-	-	Y	-	Literate	
			Member	M	Y	-	-	-	-	Y	-	Y	-	-	-	Literate	
			Member	M	-	-	-	Y	Y	-	-	-	-	-	-	Literate	
			Member	M	-	-	-	Y	-	-	-	-	Y	-	Y	Literate	

Jal Sanrakshan Samiti- Bajheta, Gram Panchayat: Bajheta Name of Project:- IWMP-XI District- Hamirpur

Sl. No.	Name of Gram Sabha/ GP	Date of Constitution/ Registration as a Society (dd/mm/ yyyy)	Designation	M/ F	SC	ST	OBC	Gen	SF	MF	LF	Land-less	UG	SHG	Educa-tional qualification	Function(s) assigned
9	Bajheta	20-11-2011	President	M	-	-	-	Y	-	Y	-	-	-	-	Literate	WC will act as per Common Guidelines for watershed Development Projects 2008
			Secretary	M	-	-	Y	-	-	Y	-	-	Y	-	Graduate	
			Member	M	-	-	Y	-	-	-	-	-	-	-	Ag. Diploma	
			Member	M	-	-	Y	-	Y	-	-	-	Y	-	Literate	
			Member	M	-	-	-	Y	-	-	Y	-	Y	-	Literate	
			Member	M	Y	-	-	-	-	Y	-	-	Y	-	Literate	
			Member	M	-	-	Y	-	-	-		Y	-	Y	Literate	
			Member	F	-	-	Y	-	-	-	-	Y	-	Y	Literate	
			Member	M	-	-	Y	-	-	Y	-	-	-	-	Literate	
			Member	M	Y	-	-	-	Y	-	-	-	Y	-	Literate	
			Member	M	-	-	-	Y	-	Y	-	-	Y	-	Literate	

Jal Sanrakshan Samiti- Kalla, District- Hamirpur **Gram Panchayat: Kalla** **Name of Project:- IWMP-XI**

Sl. No.	Name of Gram Sabha/ GP	Date of Constitution/ Registration as a Society (dd/mm/ yyyy)	Designation	M/ F	SC	ST	OBC	Gen	SF	MF	LF	Land-less	UG	SHG	GP	Educa-tional qualification	Function (s) assigned
10	Kalla	19-11-2011	President	M	-	-	Y	-	-	Y	-	-	Y	-	Y	Literate	WC will act as per Common Guidelines for watershed Development Projects 2008
			Secretary	M	-	-	Y	-	-	Y	-	-	Y	-	-	Graduate	
			Member	M	Y	-	-	-	-	-	-	-	-	-	-	Ag. Diploma	
			Member	M	-	-	Y	-	-	-	Y	-	Y	-	-	Literate	
			Member	M	-	-	Y	-	-	Y	-	-	-	-	Y	Literate	
			Member	M	-	-	-	Y	Y	-	-	-	-	-	-	Literate	
			Member	M	-	-	-	Y	-	-		Y	-	-	-	Literate	
			Member	M	-	-	Y	-	Y	-	-	-	Y	Y	-	Literate	
			Member	M	-	-	Y	-	-	Y	-	-	-	-	Y	Literate	
			Member	M	Y	-	-	-	-	-	-	Y	-	Y	-	Literate	
			Member	M	-	-	-	Y	Y	-	-	-	Y	-	-	Literate	

Jal Sanrakshan Samiti- Atrar, District- Hamirpur **Gram Panchayat: Atrar** **Name of Project:- IWMP-XI**

Sl. No.	Name of Gram Sabha / GP	Date of Constitution/ Registration as a Society (dd/mm/ yyyy)	Designation	M/F	SC	ST	OBC	Gen	SF	MF	LF	Land-less	UG	SHG	GP	Educa-tional qualification	Function (s) assigned
11	Atrar	19-11-2011	President	F	-	-	-	Y	-	Y	-	-	Y	-	Y	Literate	WC will act as per Common Guidelines for watershed Development Projects 2008
			Secretary	M	-	-	Y	-	-	Y	-	-	-	-	-	Graduate	
			Member	M	-	-	Y	-	-	-	-	-	-	-	-	Ag. Diploma	
			Member	M	-	-	Y	-	-	Y	-	-	Y	-	-	Literate	
			Member	M	-	-	Y	-	-	Y	-	-	-	-	-	Literate	
			Member	F	Y	-	-	-	Y	-	-	-	Y	-	-	Literate	
			Member	M	-	-	-	Y	-	-	Y	-	-	-	-	Literate	
			Member	M	-	-	-	Y	Y	-	-	-	Y	-	-	Literate	
			Member	M	-	-	Y	-	-	-	-	Y	-	Y	-	Literate	
			Member	M	Y	-	-	-	-	-	-	Y	-	Y	-	Literate	
			Member	M	-	-	Y	-	-	Y	-	-	Y	-	-	Literate	

Jal Sanrakshan Samiti- Sayar, District- Hamirpur **Gram Panchayat: Sayar** **Name of Project:- IWMP-XI**

Sl. No.	Name of Gram Sabha / GP	Date of Constitution/ Registration as a Society (dd/mm/ yyyy)	Designation	M/F	SC	ST	OBC	Gen	SF	MF	LF	Land-less	UG	SHG	GP	Educa-tional qualification	Function (s) assigned
12	Sayar	3-11-2011	President	F	-	-	-	Y	-	Y	-	-	-	-	Y	Literate	WC will act as per Common Guidelines for watershed Development Projects 2008
			Secretary	M	-	-	Y	-	Y	-	-	-	Y	-	-	Graduate	
			Member	M	Y	-	-	-	-	-	-	-	-	-	-	Ag. Diploma	
			Member	M	-	-	Y	-	Y	-	-	-	-	-	-	Literate	
			Member	M	-	-	Y	-	-	-	-	-	Y	-	-	Literate	
			Member	F	-	-	-	-	-	Y	-	-	Y	-	-	Literate	
			Member	M	Y	-	-	-	Y	-	-	-	-	-	Y	Literate	
			Member	M	-	-	Y	-	-	Y	-	-	Y	-	-	Literate	
			Member	M	-	-	-	Y	-	-	Y	-	-	-	-	Literate	
			Member	M	-	-	-	Y	-	-	-	Y	-	Y	-	Literate	
			Member	M	Y	-	-	-	-	-	-	Y	-	Y	-	Literate	

Jal Sanrakshan Samiti- Mavai Jar, District- Hamirpur **Gram Panchayat: Mavai Jar** **Name of Project:- IWMP-XI**

Sl. No.	Name of Gram Sabha/ GP	Date of Constitution/ Registration as a Society (dd/mm/ yyyy)	Designation	M/F	SC	ST	OBC	Gen	SF	MF	LF	Land-less	UG	SHG	GP	Educational qualification	Function(s) assigned
13	Mavai Jar	20-11-2011	President	F	-	-	Y	-	-	Y	-	-	-	-	Y	Literate	WC will act as per Common Guidelines for watershed Development Projects 2008
			Secretary	M	-	-	Y	-	-	Y	-	-	Y	-	-	Literate	
			Member	M	-	-	Y	-	-	-	-	-	-	-	-	Ag. Diploma	
			Member	M	-	-	Y	-	-	Y	-	-	-	-	-	Literate	
			Member	M	-	-	Y	-	-	Y	-	-	-	-	-	Literate	
			Member	M	-	-	-	-	-	-	Y	-	-	-	Y	Literate	
			Member	M	-	-	Y	-	-	-	-	Y	-	Y	-	Literate	
			Member	M	Y	-	-	-	Y	-	-	-	Y	-	-	Literate	
			Member	M	-	-	-	Y	-	Y	-	-	-	Y	-	Literate	
			Member	M	Y	-	-	-	-	-	-	Y	-	-	-	Literate	
			Member	M	-	-	-	Y	-	Y	-	-	Y	-	-	Literate	

Jal Sanrakshan Samiti- Kall, District- Hamirpur **Gram Panchayat: Kall** **Name of Project:- IWMP-XI**

Sl. No.	Name of Gram Sabha/ GP	Date of Constitution/ Registration as a Society (dd/mm/ yyyy)	Designation	M/F	SC	ST	OBC	Gen	SF	MF	LF	Land-less	UG	SHG	GP	Educational qualification	Function(s) assigned
14	Kall	18-11-2011	President	F	Y	-	-	-	-	Y	-	-	-	-	Y	Literate	WC will act as per Common Guidelines for watershed Development Projects 2008
			Secretary	M	-	-	Y	-	-	Y	-	-	Y	-	-	Literate	
			Member	M	-	-	Y	-	-	-	-	-	-	-	-	Ag. Diploma	
			Member	M	-	-	Y	-	Y	-	-	-	Y	-	-	Literate	
			Member	M	-	-	Y	-	-	-	Y	-	Y	-	-	Literate	
			Member	M	-	-	-	-	-	-	-	Y	-	Y	-	Literate	
			Member	M	Y	-	-	-	Y	-	-	-	-	-	-	Literate	
			Member	M	-	-	Y	-	-	Y	-	-	Y	-	-	Literate	
			Member	M	Y	-	-	-	-	-	-	Y	-	Y	-	Literate	
			Member	M	-	-	-	Y	-	Y	-	-	-	-	-	Literate	
			Member	M	-	-	-	Y	-	Y	-	-	-	-	-	Literate	

Jal Sanrakshan Samiti- Ingohata, District- Hamirpur **Gram Panchayat: Ingohata** **Name of Project: - IWMP-XI**

Sl. No.	Name of Gram Sabha/ GP	Date of Constitution/ Registration as a Society (dd/mm/ yyyy)	Designation	M/F	SC	ST	OBC	Gen	SF	MF	LF	Land-less	UG	SHG	GP	Educational qualification	Function(s) assigned
15	Ingohata	19-11-2011	President	M	-	-	-	Y	-	Y	-	-	Y	-	Y	Literate	WC will act as per Common Guidelines for watershed Development Projects 2008
			Secretary	M	-	-	Y	-	-	Y	-	-	Y	-	-	Literate	
			Member	M	-	-	Y	-	-	-	-	-	-	-	-	Ag. Diploma	
			Member	M	-	-	Y	-	Y	-	-	-	-	-	-	Literate	
			Member	M	Y	-	-	-	-	-	-	Y	-	Y	-	Literate	
			Member	M	-	-	-	-	Y	-	Y	-	Y	-	-	Literate	
			Member	M	-	-	Y	-	-	-		Y	-	Y	-	Literate	
			Member	M	-	-	Y	-	Y	-	-	-	-	-	-	Literate	
			Member	M	-	-	-	Y	-	Y	-	-	Y	-	Y	Literate	
			Member	M	-	-	-	Y	-	Y	-	-	-	-	-	Literate	
			Member	M	Y	-	-	-	Y	-	-	-	Y	-	-	Literate	

Jal Sanrakshan Samiti- Rohari, District- Hamirpur **Gram Panchayat: Rohari** **Name of Project:- IWMP-XI**

Sl. No.	Name of Gram Sabha/ GP	Date of Constitution/ Registration as a Society (dd/mm/ yyyy)	Designation	M/F	SC	ST	OBC	Gen	SF	MF	LF	Land-less	UG	SHG	GP	Educational qualification	Function(s) assigned
16	Rohari	18-11-2011	President	F	-	-	-	Y	-	Y	-	-	-	-	Y	Literate	WC will act as per Common Guidelines for watershed Development Projects 2008
			Secretary	M	-	-	Y	-	-	Y	-	-	Y	-	-	Literate	
			Member	M	-	-	Y	-	-	-	-	-	-	-	-	Ag. Diploma	
			Member	M	-	-	Y	-	Y	-	-	-	Y	-	-	Literate	
			Member	M	-	-	-	Y	-	-	Y	-	Y	-	-	Literate	
			Member	M	Y	-	-	-	-	Y	-	-	Y	-	Y	Literate	
			Member	M	-	-	Y	-	-	-		Y	-	Y	-	Literate	
			Member	M	-	-	Y	-	-	-	-	Y	-	Y	-	Literate	
			Member	M	-	-	Y	-	-	Y	-	-	-	-	-	Literate	
			Member	M	Y	-	-	-	Y	-	-	-	Y	-	-	Literate	
			Member	M	-	-	-	Y	-	Y	-	-	Y	-	-	Literate	

Jal Sanrakshan Samiti- Sayar, District- Hamirpur **Gram Panchayat: Sayar** **Name of Project:- IWMP-XI**

Sl. No.	Name of Gram Sabha/ GP	Date of Constitution/ Registration as a Society (dd/mm/ yyyy)	Designation	M/F	SC	ST	OBC	Gen	SF	MF	LF	Land-less	UG	SHG	GP	Educational qualification	Function(s) assigned
17	Sayar	19-11-2011	President	M	-	-	Y	-	-	Y	-	-	Y	-	Y	Literate	WC will act as per Common Guidelines for watershed Development Projects 2008
			Secretary	M	-	-	Y	-	-	Y	-	-	Y	-	-	Literate	
			Member	M	Y	-	-	-	-	-	-	-	-	-	-	Ag. Diploma	
			Member	M	-	-	Y	-	-	-	Y	-	Y	-	-	Literate	
			Member	M	-	-	Y	-	-	Y	-	-	-	-	Y	Literate	
			Member	F	-	-	-	Y	Y	-	-	-	-	-	-	Literate	
			Member	M	-	-	-	Y	-	-		Y	-	-	-	Literate	
			Member	M	-	-	Y	-	Y	-	-	-	Y	Y	-	Literate	
			Member	M	-	-	Y	-	-	Y	-	-	-	-	Y	Literate	
			Member	M	Y	-	-	-	-	-	-	Y	-	Y	-	Literate	
			Member	M	-	-	-	Y	Y	-	-	-	Y	-	-	Literate	

Jal Sanrakshan Samiti- Patanpur, District- Hamirpur **Gram Panchayat: Patanpur** **Name of Project:- IWMP-XI**

Sl. No.	Name of Gram Sabha/ GP	Date of Constitution/ Registration as a Society (dd/mm/ yyyy)	Designation	M/F	SC	ST	OBC	Gen	SF	MF	LF	Land-less	UG	SHG	GP	Educational qualification	Function(s) assigned
18	Patanpur	20-11-2011	President	M	-	-	-	Y	-	Y	-	-	Y	-	Y	Literate	WC will act as per Common Guidelines for watershed Development Projects 2008
			Secretary	M	-	-	Y	-	-	Y	-	-	Y	-	-	Graduate	
			Member	M	-	-	Y	-	-	-	-	-	-	-	-	Ag. Diploma	
			Member	M	-	-	Y	-	Y	-	-	-	-	-	-	Literate	
			Member	M	Y	-	-	-	-	-	-	Y	-	Y	-	Literate	
			Member	F	-	-	-	-	Y	-	Y	-	Y	-	-	Literate	
			Member	M	-	-	Y	-	-	-		Y	-	Y	-	Literate	
			Member	M	-	-	Y	-	Y	-	-	-	-	-	-	Literate	
			Member	M	-	-	-	Y	-	Y	-	-	Y	-	Y	Literate	
			Member	M	-	-	-	Y	-	Y	-	-	-	-	-	Literate	
			Member	M	Y	-	-	-	Y	-	-	-	Y	-	-	Literate	

Jal Sanrakshan Samiti- Banda, District- Hamirpur **Gram Panchayat: Banda** **Name of Project: - IWMP-XI**

Sl. No.	Name of Gram Sabha/ GP	Date of Constitution/ Registration as a Society (dd/mm/ yyyy)	Designation	M/F	SC	ST	OBC	Gen	SF	MF	LF	Land-less	UG	SHG	GP	Educational qualification	Function(s) assigned
19	Banda	20-11-2011	President	M	-	-	-	Y	-	Y	-	-	-	-	Y	Literate	WC will act as per Common Guidelines for watershed Development Projects 2008
			Secretary	M	-	-	Y	-	-	Y	-	-	Y	-	-	Graduate	
			Member	M	-	-	Y	-	-	-	-	-	-	-	-	Ag. Diploma	
			Member	M	-	-	Y	-	Y	-	-	-	Y	-	-	Literate	
			Member	M	-	-	-	Y	-	-	Y	-	Y	-	-	Literate	
			Member	M	Y	-	-	-	-	Y	-	-	Y	-	Y	Literate	
			Member	M	-	-	Y	-	-	-		Y	-	Y	-	Literate	
			Member	F	-	-	Y	-	-	-	-	Y	-	Y	-	Literate	
			Member	M	-	-	Y	-	-	Y	-	-	-	-	-	Literate	
			Member	M	Y	-	-	-	Y	-	-	-	Y	-	-	Literate	
			Member	M	-	-	-	Y	-	Y	-	-	Y	-	-	Literate	

Jal Sanrakshan Samiti- Bidokhar Purai, District- Hamirpur **Gram Panchayat: Bidokhar Purai** **Name of Project:- IWMP-XI**

Sl. No.	Name of Gram Sabha/ GP	Date of Constitution/ Registration as a Society (dd/mm/ yyyy)	Designation	M/F	SC	ST	OBC	Gen	SF	MF	LF	Land-less	UG	SHG	GP	Educational qualification	Function(s) assigned
19	Bidokhar Purai	19-11-2011	President	M	-	-	Y	-	-	-	Y	-	-	-	-	Literate	WC will act as per Common Guidelines for watershed Development Projects 2008
			Secretary	M	-	-	Y	-	Y	-	-	-	-	-	-	Graduate	
			Member	M	Y	-	-	-	Y	-	-	-	-	-	-	Ag. Diploma	
			Member	M	-	-	Y	-	Y	-	-	-	Y	-	-	Literate	
			Member	M	-	-	Y	-	-	-	-	-	-	-	-	Literate	
			Member	M	-	-	-	-	-	-	Y	-	-	-	-	Literate	
			Member	M	-	-	Y	-	Y	Y	-	-	-	Y	-	Literate	
			Member	F	-	-	-	Y	Y	-	-	-	-	Y	-	Literate	
			Member	M	Y	-	-	-	-	Y	-	Y	-	-	-	Literate	
			Member	M	-	-	-	Y	Y	-	-	-	-	-	-	Literate	
			Member	M	-	-	-	Y	-	-	-	-	Y	-	Y	Literate	

Jal Sanrakshan Samiti- Bidokhar Medani, Gram Panchayat: Bidokhar Medani Name of Project:- IWMP-XI
District- Hamirpur

Sl. No.	Name of Gram Sabha/ GP	Date of Constitution/ Registration as a Society (dd/mm/ yyyy)	Designation	M/ F	SC	ST	OBC	Gen	SF	MF	LF	Land-less	UG	SHG	Educational qualification	Function(s) assigned
20	Bidokhar Medani	20-11-2011	President	M	-	-	-	Y	-	Y	-	-	-	-	Literate	WC will act as per Common Guidelines for watershed Development Projects 2008
			Secretary	M	-	-	Y	-	-	Y	-	-	Y	-	Graduate	
			Member	M	-	-	Y	-	-	-	-	-	-	-	Ag. Diploma	
			Member	M	-	-	Y	-	Y	-	-	-	Y	-	Literate	
			Member	M	-	-	-	Y	-	-	Y	-	Y	-	Literate	
			Member	M	Y	-	-	-	-	Y	-	-	Y	-	Literate	
			Member	M	-	-	Y	-	-	-		Y	-	Y	Literate	
			Member	F	-	-	Y	-	-	-	-	Y	-	Y	Literate	
			Member	M	-	-	Y	-	-	Y	-	-	-	-	Literate	
			Member	M	Y	-	-	-	Y	-	-	-	Y	-	Literate	
			Member	M	-	-	Y	-	-	Y	-	-	Y	-	Literate	

Note: Formation of SHGs and UGs is in progress. Few SHGs were already constituted which details are kept in project file. Process is initiated for opening of account for watershed committees and SHGs already constituted.

Table 4.5: Village wise details of Self Help Groups (SHGs) in the project area IWMP-XI

Project- IWMP XI **District – Hamirpur**

Sr. No.	Name of MWS	Names of villages	Total no. of Constituted/registered SHGs				No. of members				No. of SC/ST in each category			No. of BPL in each category			Date of formation of SHGs
			With only Men	With only Women	With both	Total	Categories	M	F	Total	M	F	Total	M	F	Total	
1	Chhani Bujurg-I 2C2A2l3	Swasa Kurd, Khasa Bujurg, Parsauni, Chhani Khurd, Chaani Bujurg, Vajhta Danda, Ruri Wara, Lambi Pura, Dhanpura, Gora kadar	7	1	1	9	(i) Landless	20	-	20	5	-	5	20	-	20	These SHGs were formed during the month of February to April. Bye-laws of the SHGs were prepared and kept in the project file. Process to open the accounts in Gramin bank (service bank) has been iniated
							(ii) SF	25	5	30	6	3	9	25	5	30	
							(iii) MF	30	10	40	9	7	16	30	10	40	
							(iv) LF	-	-	-	-	-	-	-	-	-	
							Total	**75**	**15**	**90**	**20**	**8**	**30**	**75**	**15**	**90**	
2	Chhani Bujurg-II 2C1b2d3d	Chhani Bujurg, Argi Sagar, Khandehi, Kelpha, Parsauni	2	-	-	2	(i) Landless	4	-	4	-	-	-	4	-	4	
							(ii) SF	6	-	6	-	-	-	6	-	6	
							(iii) MF	10	-	10	-	-	-	10	-	10	
							(iv) LF	-	-	-	-	-	-	-	-	-	
							Total	**20**	**0**	**20**	-	-	-	**20**	**0**	**20**	
3	Atarar 2c1b2d3e	Atrar, Kelfa, Lodhipura, Nivada, Argi, Dhanpura, Argijar	2	-	1	3	(i) Landless	5	-	5	-	-	-	5	-	5	
							(ii) SF	5	3	8	-	-	-	5	3	8	
							(iii) MF	10	7	17	-	-	-	10	7	17	
							(iv) LF	-	-	-	-	-	-	-	-	-	
							Total	**20**	**10**	**30**	-	-	-	**20**	**10**	**30**	
4	Khandehari jar (2C1B2d3c)	Khandehari jar, Dhanpura, Argi Sagar, Kalla, Mawai Jar	2	-	1	3	(i) Landless	6	-	6	-	-	-	6	-	6	
							(ii) SF	7	3	10	-	-	-	7	3	10	
							(iii) MF	10	4	14	-	-	-	10	4	14	
							(iv) LF	-	-	-	-	-	-	-	-	-	

							Total	**23**	**7**	**30**	-	-	-	**23**	**7**	**30**	
5	Mawai Jar (2C1B 2d3a)	Mawai Jar, Chandauli, Sadipur	2	-	-	2	(i) Landless	4	-	4	-	-	-	4	-	4	
							(ii) SF	6	-	6	-	-	-	6	-	6	
							(iii) MF	10	-	10	-	-	-	10	-	10	
							(iv) LF	-	-	-	-	-	-	-	-	-	
							Total	**20**	**0**	**20**	-	-	-	**20**	**0**	**20**	
6	Sadipur (2C1B 2e2c)	Sadipur, Bidokhar, Medani, Banda, Patanpur	3	1	1	5	(i) Landless	8	2	10	-	-	-	8	2	10	
							(ii) SF	10	4	14	-	-	-	10	4	14	
							(iii) MF	18	8	26	-	-	-	18	8	26	
							(iv) LF	-	-	-	-	-	-	-	-	-	
							Total	**36**	**14**	**50**	-	-	-	**36**	**14**	**50**	
7	Sayar (2C1B 2e2d)	Sayar, Helapur, Bharsawa, Patanpur, Rohari, Bharela, Bidokhar purai	4	1	2	7	(i) Landless	10	4	14	-	-	-	10	4	14	
							(ii) SF	13	7	20	-	-	-	13	7	20	
							(iii) MF	24	12	36	-	-	-	24	12	36	
							(iv) LF	-	-	-	-	-	-	-	-	-	
							Total	**47**	**23**	**70**	-	-	-	**47**	**23**	**70**	
		Total	**22**	**3**	**6**	**31**		**241**	**69**	**310**	**20**	**8**	**30**	**241**	**69**	**310**	

(M – Male, F – Female)

There are 17 villages in the project area and village-wise Self Help Groups (SHGs) constituted is given in Table 4.5. A total 31 SHGs were already constituted in the project villages, of them, 22, 3 and 6 are men SHGs, women SHGs and mixed SHGs, respectively. Total 310 SHGs have to be constituted to ensure the livelihood of marginalized population in the project. Formation of remaining 279 SHGs is in progress. Livelihood Action Plan is given in Annexure-I.

4.4: Details of Formation of User Groups (UGs)

User Groups were formed on the basis of beneficiaries of different natural resource conservation activities to be constructed in the watershed. The location of the activities/group mentioned in Table 4.6 can be seen on the proposed plan available in the map section.

Table 4.6: Activity wise formation of user groups

Chani Bujurg 2C2A2l3										
Village-Chhani bujurg										
S. No.	**Name of Work**	**Benefited area (ha)**	**Field No. / Khasara No.**	**Name of Adhyaksh**	**Name of Sachiv/ Treasurer**	**Activity Proposed**	**Location of the activity**	**Water storage in cum**	**Area Proposed for irrigation (ha)**	**user Charges (per ha)**
1	CD1	37.8	8 to 15, 72 to 104	Shyamkishor	Haridas	Crop production	14	-	-	-
2	CD2	27.2	143 to 149, 241 to 257, 305 to 309	Chan Khan	Lalla	Irrigation	143	-	-	-
3	CD3	37.45	313 to 325, 329 to 334,	Lalit Kumar	Rambabu	Crop production	313	-	-	-
4	CD4	24.8	583 to 593	Bhaiyadeen	Munnalal	Crop production	583	-	-	-
5	CD5	33.5	152 to 184, 216 to 238	Kamta Prasad	Ravendra Singh	Crop production	155	-	-	-
6	CD6	18.25	270 to 275	Rajesh Singh	Samliya	Crop production	270	-	-	-
Chani Bujurg 2C1b2d3d										
Villlage-Dhanpura										
1	CD1	7.8	1 to 14, 842 to 844	Parmeshvari Dayal	Lallu, Nainu	Crop production	5	-	-	-
2	CD2	3.45	851, 22 to 34	Gopicharan	Ramkali	Irrigation	851	-	-	-

Khandehari jar (2C1B2d3c)										
Mavai Jar										
S. No.	**Name of Work**	**Benefited area (ha)**	**Field No. / Khasara No.**	**Name of Adhyaksh**	**Name of Sachiv/ Treasurer**	**Activity Proposed**	**Location of the activity**	**Water storage in cum**	**Area Proposed for irrigation (ha)**	**user Charges (per ha)**
1	CD1	0.563	203	Mangal Singh	Amar Singh	Crop production	203	-	-	-
		0.583	204							
2	CD2	1.590	200	Bhavanideen	Devendra singh	Crop production	200	-	-	-
3	CD3	0.600	193	Fool Singh	Shripat	Crop production	193	-	-	-
4	CD4	0.729	193	Surjan	Jitendra Singh	Crop production	193	-	-	-
5	CD6	18.25	270 to 275	Mangal Singh	Samliya	Crop production	270	-	-	-
6	CD5	0.652	309	Shiv Prasad etc.	Shiv Charan,	Crop production	309	-	-	-
		0.440	310							
7	CD6	1.433	319	Kailash Prasad	Ramkali	Irrigation	319	-	-	-

4.5 Convergence in IWMP-XI, Hamirpur

There is no proposal for the convergence.

CHAPTER – 5

MANAGEMENT/ACTION PLAN

The details of Preparatory Phase, Works Phase and Convergence planning are described in subsequent section

5.1 Entry Point Activities (EPA)

Entry point activities were executed with the consent of stake holders and it helped in winning the confidence of the villagers for moving ahead the other programmes of watershed. In total 24 EPA activities were executed in the project area which costed Rs. 25.37 Lac. Expenditure on entry point activities done in the project is as follow:

Name of PIA	Name of Project	Year	Name of Block	Name of project/ Name of village	Code of project	E.P.A cost in lakh	Name of Work	Cost in lakh
Soil Conservation Division, Hamirpur-I	IWMP-XI	2011-12	Sumerpur	Chhani Bujurg-I	2C2A2l3	10.23	Puliya Cons. Naali, Kharanja Road Repairment	10.23
				Chhani Bujurg-II	2C1b2d3d	2.44		2.44
				Atarar	2C1b2d3e	2.52		2.52
				Khandehari jar	2C1B2d3c	1.40		1.40
				Mawai Jar	2C1B2d3a	1.28		1.28
				Sadipur	2C1B2e2c	2.93		2.93
				Sayar	2C1B2e2d	4.57		4.57
	Total					**25.37**		**25.37**

5.2 Works Phase

Following are the major problems of the watersheds

- Water scarcity both for drinking as well as irrigation
- Excess runoff and soil loss
- Low water holding capacity of the soil
- Low productivity of crops

- Low fertility of soil
- Low cropping intensity
- Lack of technical knowledge
- *Anna Pratha* (let loose system of cattle)
- Poor vegetative cover
- Poor/low productive breeds of miltch animals
- Lack of feed & fodder availability
- Non availability of wood/fuel
- Lack of proper market facilities
- Low income of the households
- Lack of employment opportunity.

Estimation of Runoff from the Watershed

Runoff from the watershed is estimated by Curve Number method of the Soil Conservation Service of the USDA using 15 years data (1996-2010). It is estimated that runoff potential of the project area is 240-270 mm, equivalent to 30-35 per cent of average annual rainfall. Expected runoff and soil loss from the project area are depicted Table 5.1.

Table 5.1: Runoff and soil erosion in the project area (IWMP-XI, Hamirpur)

Sr. No.	Name of Micro Watershed	Cause	Type of erosion*	Area affected (ha)*	Run off (mm/ year)*	Average Soil Loss (Tonnes/ ha/ year)*
1	Chhani Bujurg-I, 2C2A2l3	Water erosion				
		a	Sheet	958.95	240-270	10-15
		b	Rill	703.23		
		c	Gully	468.82		
		Total		**2131.00**		
2	Chani Bujurg-II, 2C1b2d3d	Water erosion				
		a	Sheet	228.60	240-270	10-15
		b	Rill	167.64		
		c	Gully	111.76		
		Total		**508.00**		

3	Atarar 2C1b2d3e	Water erosion				
		a	Sheet	236.48	240-270	10-15
		b	Rill	173.42		
		c	Gully	115.60		
		Total		**521.53**		
4	Khandehari jar (2C1B2d3c)	Water erosion				
		a	Sheet	486.47	240-270	10-15
		b	Rill	340.53		
		c	Gully	145.94		
		Total		**972.93**		
5	Mawai Jar (2C1B2d3a)	Water erosion				
		a	Sheet	324.03	240-270	10-15
		b	Rill	226.82		
		c	Gully	97.21		
		Total		**648.06**		
6	Sadipur (2C1B2e2c)	Water erosion				
		a	Sheet	663.53	240-270	10-15
		b	Rill	464.47		
		c	Gully	199.06		
		Total		**1327.05**		
7	Sayar (2C1B2e2d)	Water erosion				
		a	Sheet	1591.19	240-270	10-15
		b	Rill	1113.83		
		c	Gully	477.36		
		Total		**3182.38**		
	Total for IWMP-XI			**13558.42**		

**Estimated version of categories of erosion and area affected are based on field visits. Runoff (mm) and soil loss (ton/ha/year) estimates are ex/reploted on the basis of hydrological studies in Bundelkhand region of Uttar Pradesh*

Watershed Development Activities Proposed

The details of the activities of watershed works (natural resource conservation) are marked on individual field in the micro-watershed wise proposed plan (Map Section). Individual beneficiary wise estimate has been prepared for each micro-watershed and gram panchayat. Information of individual beneficiaries is kept in respective project file available with PIA. (Table 5.2 and 5.3). Similar exercise was also done for participatory crop trials. Location of these trials is marked on proposed plan of participatory crop demonstration (available in map section).

Table 5.2: Micro-watershed wise details of Watershed Development Activities proposed in IWMP-XI, Hamirpur

Sr. No.	Particular of Measures/Activities	Unit	Chhani Bujurg-I 2C2A2l3		Chhani Bujurg-II 2C1b2d3d		Atarar 2C1b2d3e	
		No., Length/ ha, Volume	Qanty.	Cost (Rs. In lakh)	Qanty.	Cost (Rs. In lakh)	Qanty.	Qanty.
I	**Soil & Water Conservation Measures**							
	A- Moisture Conservation Measures							
	1. Peripheral Bund (with Sodding)	cum.	7578	3.12	1624	0.67	28158	17.47
	2.Submergence Bundhi (with Sodding)	cum.	306091	119.91	98576	28.28	85110	17.58
	B- <u>Water Resource Development</u>							
	1. Check Dam / Drop Spill Way	cum.	15180	20.17	1384.2	5.19	-	-
	1a- Water storing capacity	cum.	900	-	400	-	-	-
	1b. Area proposed for irrigation	ha	1.50	-	0.67	-	-	-
	Sub Total			**143.20**		**34.14**		**35.05**
II	**<u>Livelihood for landless People</u>**							
	1. Goatary	No. of beneficiaries/ No. of SHGs	150/15	3.75	60/6	1.50	60/6	1.50
	2. Back Yard Poultry	do	140/14	3.50	40/4	1.00	40/4	1.00

	3. Poultry (Broiler)	do	140/14	3.50	30/3	0.75	30/3	0.75
	4. Black Smithy	do	60/6	1.50	10/1	0.25	10/1	0.25
	5. Rope Making (Linseed)	do	80/8	2.00	20/2	0.50	20/2	0.50
	6. Tailoring	do	60/6	1.50	10/1	0.25	10/1	0.25
	7. Vermi composting	do	100/10	2.50	10/1	0.25	20/2	0.50
	8. Fruit Processing	do	100/10	2.50	20/2	0.50	20/2	0.50
	9. Seed Bank	do	90/9	2.26	20/2	0.49	20/2	0.38
	Sub Total		**920/92**	**23.01**	**220/22**	**5.49**	**23**	**5.63**
III	**Agriculture Production System**							
	(1)SMC Area:							
	A- Crop Demonstrations- (Crop Wise)							
	1. Lentil	No. of farmers /Area (ha)	32/12.8	1.52	8/3.2	0.38	8/3.2	0.38
	2. Chickpea	No. of farmers /Area (ha)	31/12.4	1.69	8/3.2	0.44	8/3.2	0.44
	3. Field Pea	No. of farmers /Area (ha)	31/12.4	1.78	8/3.2	0.46	8/3.2	0.46
	4. Til	No. of farmers /Area (ha)	30/12	0.51	8/3.2	0.14	8/3.2	0.14
	5. Urd	No. of farmers /Area (ha)	30/12	1.06	7/2.8	0.25	8/3.2	0.28
	6. Moong	No. of farmers /Area (ha)	30/12	1.09	7/2.8	0.26	7/2.8	0.26
	7. Arhar	No. of farmers /Area (ha)	30/12	0.89	6/2.4	0.18	8/3.2	0.24
	8. Wheat	No. of farmers /Area (ha)	30/12	1.73	6/2.4	0.35	5/2	0.29
	(2) Water Resource Area:							
	B- Production of seeds							

	1. Lentil	No. of farmers /Area (ha)	31/12.4	1.47	7/2.8	0.33	8/3.2	0.38
	2. Chickpea	No. of farmers /Area (ha)	31/12.4	1.69	7/2.8	0.38	8/3.2	0.44
	3. Field Pea	No. of farmers /Area (ha)	30/12	1.72	7/2.8	0.40	8/3.2	0.46
	4. Til	No. of farmers /Area (ha)	30/12	0.51	7/2.8	0.12	7/2.8	0.12
	5. Urd	No. of farmers /Area (ha)	28/11.2	0.99	7/2.8	0.25	7/2.8	0.25
	6. Moong	No. of farmers /Area (ha)	28/11.2	1.02	6/2.4	0.26	6/2.4	0.22
	7. Arhar	No. of farmers /Area (ha)	27/10.8	0.80	6/2.4	0.21	6/2.4	0.18
	8. Wheat	No. of farmers /Area (ha)	26/10.4	1.50	6/2.4	0.35	6/2.4	0.35
	Agro forestry:-							
	1- Aonla	Area in ha	13	2.34	3	0.54	2	0.36
	2. Guava	Area in ha	6	1.08	2	0.36	2	0.36
	Live Stock Management							
	A. fodder production	No. of Units	112	0.67	20	0.12	21	0.13
	B. Vaccination/Medication	No. of Animals	310	0.19	94	0.08	75	0.04
	C. Artificial Insemination	No. of Animals	311	0.12	74	0.03	77	0.03
	D. Natural Service.	He Buffalo	5	1.20	1	0.24	2	0.48
	Total for Ag. Production System			**25.57**		**6.10**		**6.26**
Grand Total				**191.79**		**45.72**		**46.94**

Micro-watershed wise details of Watershed Development Activities proposed in IWMP-XI, Hamirpur

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Sr.	Particular of Measures/Activities	Unit	Khandehari jar (2C1B2d3c)	Mawai Jar (2C1B2d3a)

No.		No., Length/ ha, Volume	Qanty.	Cost (Rs. In lakh)	Qanty.	Cost (Rs. In lakh)
I	**Soil & Water Conservation Measures**					
	A- Moisture Conservation Measures					
	1. Field Bund/Contour Bund (with sodding)	cum.	-	-	-	-
	2. Peripheral Bund (with Sodding)	cum.	2448	1.01	-	-
	3.Submergence Bundhi (with Sodding)	cum.	34836	17.33	37844	17.87
	B- <u>Water Resource Development</u>					
	1. Check Dam / Drop Spill Way	cum.	2984	1.32	-	-
	1a- Water storing capacity	cum.	900	-	-	-
	1b. Area proposed for irrigation	ha	2	-	-	-
	Sub Total			**19.66**		**17.87**
II	**<u>Livelihood for landless People</u>**					
	1. Goatary	No. of beneficiaries/ No. of SHGs	20/2	0.50	20/2	0.50
	2. Back Yard Poultry	do	20/2	0.50	10/1	0.25
	3. Poultry (Broiler)	do	10/1	0.25	10/1	0.25
	4. Black Smithy	do	10/1	0.25	10/1	0.25
	5. Rope Making (Linseed)	do	10/1	0.25	10/1	0.25
	6. Tailoring	do	10/1	0.25	10/1	0.25
	7. Vermi composting	do	20/2	0.50	10/1	0.25
	8. Fruit Processing	do	10/1	0.25	10/1	0.25
	9. Seed Bank	do	20/2	0.41	20/2	0.62
	Sub Total		130/13	3.16	110/11	2.87
III	**<u>Agriculture Production System</u>**					
	(1)SMC Area:					
	A- Crop Demonstrations- (Crop					

	Wise)					
	1. Lentil	No. of farmers /Area (ha)	4/1.6	0.19	4/1.6	0.19
	2. Chickpea	No. of farmers /Area (ha)	4/1.6	0.22	4/1.6	0.22
	3. Field Pea)	No. of farmers /Area (ha)	4/1.6	0.23	4/1.6	0.23
	4. Til	No. of farmers /Area (ha)	4/1.6	0.07	4/1.6	0.07
	5. Urd	No. of farmers /Area (ha)	4/1.6	0.14	4/1.6	0.14
	6. Moong	No. of farmers /Area (ha)	4/1.6	0.15	4/1.6	0.15
	7. Arhar	No. of farmers /Area (ha)	4/1.6	0.12	4/1.6	0.12
	8. Wheat	No. of farmers /Area (ha)	4/1.6	0.23	4/1.6	0.23
	(2) Water Resource Area:					
	B- Production of seeds					
	1. Lentil	No. of farmers /Area (ha)	4/1.6	0.19	4/1.6	0.19
	2. Chickpea	No. of farmers /Area (ha)	4/1.6	0.22	3/1.2	0.16
	3. Field Pea)	No. of farmers /Area (ha)	4/1.6	0.23	3/1.2	0.17
	4. Til	No. of farmers /Area (ha)	4/1.6	0.07	3/1.2	0.05
	5. Urd	No. of farmers /Area (ha)	4/1.6	0.14	3/1.2	0.11
	6. Moong	No. of farmers /Area (ha)	4/1.6	0.15	3/1.2	0.11
	7. Arhar	No. of farmers	4/1.6	0.12	3/1.2	0.09

		/Area (ha)				
	8. Wheat	No. of farmers /Area (ha)	4/1.6	0.23	3/1.2	0.17
	Agro forestry:-					
	1- Aonla	Area in ha	1	0.18	1	0.18
	2. Guava	Area in ha	1	0.18	1	0.18
	Live Stock Management					
	A. fodder production	/ No. of Units	27	0.16	24	0.14
	B. Vaccination/Medication	No. of Animals	60	0.04	55	0.03
	C. Artificial Insemination	No. of Animals	60	0.02	55	0.02
	D. Natural Service.	He Buffalo	1	0.24	1	0.24
	Total for Ag. Production System			**3.51**		**3.19**
Grand Total				**26.33**		**23.93**

Micro-watershed wise details of Watershed Development Activities proposed in IWMP-XI, Hamirpur

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Sr. No.	Particular of Measures/Activities	Unit	Sadipur (2C1B2e2c)		Sayar (2C1B2e2d)		IWMP-XI	
		No., Length/ ha, Volume	Qanty.	Cost (Rs. In lakh)	Qanty.	Cost (Rs. In lakh)	Qanty.	Cost (Rs. In lakh)
I	**Soil & Water Conservation Measures**							
	A- Moisture Conservation Measures							
	1. Field Bund/Contour Bund (with sodding)	cum	-	-	3140	1.23	40500	22.49
	2. Peripheral Bund (with Sodding)	cum.	-	-	-	-	2448	1.01
	3.Submergence Bundhi (with Sodding)	cum.	82151	41.02	131917	62.73	776525	304.72
	B- <u>Water Resource Development</u>							
	1. Check Dam / Drop Spill Way	No.	-	-	-	-	19548	26.67
	1a- Water storing capacity	cum.	-	-	-	-	2200	
	1b. Area proposed for irrigation	ha	-	-	-	-	4	
	Sub Total			**41.02**		**63.96**	-	354.89
II	**<u>Livelihood for landless People</u>**							
	1. Goatary	No. of beneficiaries/ No. of SHGs	40/4	1.00	70/7	1.75	420/42	10.50
	2. Back Yard Poultry	do	40/4	1.00	60/6	1.50	350/35	8.75
	3. Poultry (Broiler)	do	20/2	0.50	50/5	1.25	290/29	7.25
	4. Black Smithy	do	20/2	0.50	20/2	0.50	140/14	3.50
	5. Rope Making (Linseed)	do	20/2	0.50	20/2	0.50	180/18	4.50
	6. Tailoring	do	20/2	0.50	20/2	0.50	140/14	3.50

	7. Vermi composting	do	20/2	0.50	50/ 5	1.25	230/23	5.75
	8. Fruit Processing	do	40/4	1.00	60/6	1.50	260/26	6.50
	9. Seed Bank	do	40/4	1.09	60/6	1.53	270/27	6.78
	Sub Total		**260/26**	**6.59**	**410/41**	**10.28**	2280/228	57.03
III	**Agriculture Production System**							
	(1)SMC Area:							
	A- Crop Demonstrations-(Crop Wise)							
	1. Lentil	No. of farmers /Area (ha)	8/3.2	0.38	12/4.8	0.57	76/19	3.61
	2. Chickpea	No. of farmers /Area (ha)	8/3.2	0.44	12/4.8	0.65	75/18.75	4.08
	3. Field Pea)	No. of farmers /Area (ha)	8/3.2	0.46	12/4.8	0.69	75/18.75	4.31
	4. Til	No. of farmers /Area (ha)	8/3.2	0.14	12/4.8	0.20	74/18.5	1.25
	5. Urd	No. of farmers /Area (ha)	8/3.2	0.28	12/4.8	0.43	73/18.25	2.58
	6. Moong	No. of farmers /Area (ha)	8/3.2	0.29	12/4.8	0.44	72/18	2.62
	7. Arhar	No. of farmers /Area (ha)	8/3.2	0.24	12/4.8	0.35	72/18	2.13
	8. Wheat	No. of farmers /Area (ha)	8/3.2	0.46	12/4.8	0.69	69/17.25	3.99
	(2) Water Resource Area:							
	B- Production of seeds							
	1. Lentil	No. of farmers /Area (ha)	8/3.2	0.38	11/4.4	0.52	73/18.25	3.46
	2. Chickpea	No. of farmers /Area (ha)	8/3.2	0.44	11/4.4	0.60	72/18	3.92

	3. Field Pea)	No. of farmers /Area (ha)	8/3.2	0.46	11/4.4	0.63	71/17.75	4.07
	4. Til	No. of farmers /Area (ha)	8/3.2	0.14	11/4.4	0.19	70/17.5	1.18
	5. Urd	No. of farmers /Area (ha)	8/3.2	0.28	11/4.4	0.39	68/17	2.41
	6. Moong	No. of farmers /Area (ha)	8/3.2	0.29	11/4.4	0.40	67/16.75	2.44
	7. Arhar	No. of farmers /Area (ha)	8/3.2	0.24	11/4.4	0.32	66/16.5	1.95
	8. Wheat	No. of farmers /Area (ha)	8/3.2	0.46	11/4.4	0.64	64/16	3.70
	Agro forestry:-							
	1- Aonla	Area in ha	3	0.54	6	1.08	29.00	5.22
	2. Guava	Area in ha	3	0.54	5	0.90	20.00	3.60
	Live Stock Management							
	A. fodder production	No. of Units	53	0.32	70	0.42	327.00	1.96
	B. Vaccination/Medication	No. of Animals	80	0.05	105	0.06	779.00	0.49
	C. Artificial Insemination	No. of Animals	80	0.03	105	0.04	762.00	0.30
	D. Natural Service.	He Buffalo	2	0.48	5	1.20	17.00	4.08
	Total for Ag. Production System			**7.32**		**11.42**		63.35
Grand Total				**54.94**		**85.65**		**475.30**

Table 5.3: Grampanchayat wise break up of Watershed Development Activities in the Micro Watershed of IWMP-XI, Hamirpur

Sr. No.	Particular of Measures/Activities	Unit	Mora kadar		Swasa Bujurg		Dhanpura		Chhani Khurd	
		No., Length/ ha, Volume	Qanty.	Cost (Rs. In lakh)	Qanty.	Cost (Rs. In lakh)	Qanty.	Qanty.	Qanty.	Cost (Rs. In lakh)
I	**Soil & Water Conservation Measures**									
	A- Moisture Conservation Measures									
	1. Peripheral Bund (with Sodding)	cum.	-	-	-	-	-	-	-	-
	2.Submergence Bundhi (with Sodding)	cum.	30260	11.69	16840	7.06	51763	15.46	43619	15.71
	B- <u>Water Resource Development</u>									
	1. Check Dam / Drop Spill Way	cum.	-	-	-	-	-	-	1384	5.19
	1a- Water storing capacity	cum.	-	-	-	-	-	-	400	-
	1b. Area proposed for irrigation	ha	-	-	-	-	-	-	1	-
	Sub Total			**11.69**		**7.06**		**15.46**		**20.90**
II	**<u>Livelihood for landless People</u>**									
	1. Goatary	No. of beneficiaries / No. of SHGs	10/1	0.25	10/1	0.25	20/2	0.50	20/2	0.50
	2. Back Yard Poultry	do	10/1	0.25	10/1	0.25	10/1	0.25	20/2	0.50
	3. Poultry (Broiler)	do	10/1	0.25	10/1	0.25	10/1	0.25	20/2	0.50
	4. Black Smithy	do	10/1	0.25	0	0.00	10/1	0.25	10/1	0.25

	5. Rope Making (Linseed)	do	0	0.00	0	0.00	10/1	0.25	20/2	0.50
	6. Tailoring	do	10/1	0.25	10/1	0.00	10/1	0.00	10/1	0.25
	7. Vermi composting	do	10/1	0.25	10/1	0.00	10/1	0.50	10/1	0.25
	8. Fruit Processing	do	10/1	0.25	10/1	0.25	10/1	0.25	10/1	0.25
	9. Seed Bank	do	10/1	0.13	10/1	0.13	10/1	0.23	10/1	0.36
	Sub Total		**80/8**	**1.88**	**50/5**	**1.13**	**100/10**	**2.48**	**130/13**	**3.36**
III	**Agriculture Production System**									
	(1)SMC Area:									
	A- Crop Demonstrations- (Crop Wise)									
	1. Lentil	No. of farmers /Area (ha)	3/1.2	0.14	2/0.8	0.09	4/1.6	0.19	4/1.6	0.19
	2. Chickpea	No. of farmers /Area (ha)	3/1.2	0.16	2/0.8	0.11	3/1.2	0.16	4/1.6	0.22
	3. Field Pea	No. of farmers /Area (ha)	3/1.2	0.17	2/0.8	0.11	3/1.2	0.17	4/1.6	0.23
	4. Til	No. of farmers /Area (ha)	3/1.2	0.05	2/0.8	0.03	3/1.2	0.05	4/1.6	0.07
	5. Urd	No. of farmers /Area (ha)	3/1.2	0.11	2/0.8	0.07	3/1.2	0.11	4/1.6	0.14
	6. Moong	No. of farmers /Area (ha)	3/1.2	0.11	2/0.8	0.07	3/1.2	0.11	4/1.6	0.15
	7. Arhar	No. of farmers /Area (ha)	3/1.2	0.09	2/0.8	0.06	3/1.2	0.09	4/1.6	0.12
	8. Wheat	No. of farmers /Area (ha)	3/1.2	0.17	1/1	0.06	3/1.2	0.17	4/1.6	0.23
	(2) Water Resource Area:									

	B- Production of seeds									
	1. Lentil	No. of farmers /Area (ha)	3/1.2	0.14	2/0.8	0.09	3/1.2	0.14	5/2.0	0.24
	2. Chickpea	No. of farmers /Area (ha)	3/1.2	0.16	2/0.8	0.11	3/1.2	0.16	5/2.0	0.27
	3. Field Pea	No. of farmers /Area (ha)	3/1.2	0.17	2/0.8	0.11	3/1.2	0.17	4/1.6	0.23
	4. Til	No. of farmers /Area (ha)	3/1.2	0.05	2/0.8	0.03	3/1.2	0.05	4/1.6	0.07
	5. Urd	No. of farmers /Area (ha)	2/0.8	0.07	2/0.8	0.07	3/1.2	0.11	4/1.6	0.14
	6. Moong	No. of farmers /Area (ha)	2/0.8	0.07	2/0.8	0.07	3/1.2	0.11	4/1.6	0.15
	7. Arhar	No. of farmers /Area (ha)	2/0.8	0.06	2/0.8	0.06	3/1.2	0.09	4/1.6	0.12
	8. Wheat	No. of farmers /Area (ha)	2/0.8	0.12	1/0.4	0.06	3/1.2	0.17	4/1.6	0.23
	Agro forestry:-									
	1- Aonla	Area in ha	1	0.18	0	0.00	1	0.18	2	0.36
	2. Guava	Area in ha	0	0.00	0	0.00	1	0.18	1	0.18
	Live Stock Management									
	A. fodder production	No. of Units	5	0.03	3	0.02	12	0.07	20	0.12
	B. Vaccination/Medication	No. of Animals	15	0.02	15	0.02	30	0.02	48	0.03
	C. Artificial Insemination	No. of Animals	15	0.01	0	0.00	30	0.01	48	0.02
	D. Natural Service.	He Buffalo	0	0.00	0	0.00	1	0.24	1	0.24
	Total for Ag. Production System			**2.09**		**1.26**		**2.76**		**3.73**
Grand Total				**15.66**		**9.45**		**20.70**		**27.99**

Grampanchayat wise details of Watershed Development Activities proposed in IWMP-XI, Hamirpur

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Sr. No.	Particular of Measures/Activities	Unit	Chhani Bujurg		Ruripara		Chhedi Basayak		Lodhipur Jalalpur	
		No., Length/ ha, Volume	Qanty.	Cost (Rs. In lakh)	Qanty.	Cost (Rs. In lakh)	Qanty.	Qanty.	Qanty.	Cost (Rs. In lakh)
I	**Soil & Water Conservation Measures**									
	A- Moisture Conservation Measures									
	1. Peripheral Bund (with Sodding)	cum.	7578	4.79	-	-	-	-	-	-
	2.Submergence Bundhi (with Sodding)	cum.	120872	30.68	29470	14.45	13051	6.72	32838	14.45
	B- <u>Water Resource Development</u>									
	1. Check Dam / Drop Spill Way	cum.	15180	20.17	-	-	-	-	-	-
	1a- Water storing capacity	cum.	900	-	-	-	-	-	-	-
	1b. Area proposed for irrigation	ha	2	-	-	-	-	-	-	-
	Sub Total			**55.64**		**14.45**		**6.72**		**14.45**
II	**<u>Livelihood for landless People</u>**									
	1. Goatary	No. of beneficiaries /No. of SHGs	70/7	1.75	20/2	0.50	10/1	0.25	20/2	0.50
	2. Back Yard Poultry	do	70/7	1.75	10/1	0.25	10/1	0.25	10/1	0.25
	3. Poultry (Broiler)	do	50/5	1.25	10/1	0.25	10/1	0.25	10/1	0.25
	4. Black Smithy	do	20/2	0.50	10/1	0.25	0	0.00	10/1	0.25
	5. Rope Making (Linseed)	do	30/3	0.75	10/1	0.25	0	0.00	10/1	0.25

	6. Tailoring	do	30/3	0.75	0	0.00	0	0.00	0	0.00
	7. Vermi composting	do	30/3	0.75	10/1	0.00	10/1	0.00	10/1	0.25
	8. Fruit Processing	do	40/4	1.00	10/1	0.50	10/1	0.00	10/1	0.25
	9. Seed Bank	do	20/2	0.44	10/1	0.32	10/1	0.33	10/1	0.32
	Sub Total		**360/36**	**8.94**	**90/9**	**2.32**	**40/4**	**1.08**	**90/9**	**2.32**
III	**Agriculture Production System**									
	(1)SMC Area:									
	A- Crop Demonstrations- (Crop Wise)									
	1. Lentil	No. of farmers /Area (ha)	12/4.8	0.57	3/1.2	0.14	2/0.8	0.09	3/1.2	0.14
	2. Chickpea	No. of farmers /Area (ha)	12/4.8	0.65	3/1.2	0.16	2/0.8	0.11	3/1.2	0.16
	3. Field Pea	No. of farmers /Area (ha)	12/4.8	0.69	3/1.2	0.17	2/0.8	0.11	3/1.2	0.17
	4. Til	No. of farmers /Area (ha)	12/4.8	0.20	3/1.2	0.05	1/0.4	0.02	3/1.2	0.05
	5. Urd	No. of farmers /Area (ha)	12/4.8	0.43	3/1.2	0.11	1/0.4	0.04	3/1.2	0.11
	6. Moong	No. of farmers /Area (ha)	11/4.4	0.40	3/1.2	0.11	1/0.4	0.04	3/1.2	0.11
	7. Arhar	No. of farmers /Area (ha)	11/4.4	0.32	3/1.2	0.09	1/0.4	0.03	3/1.2	0.09
	8. Wheat	No. of farmers /Area (ha)	11/4.4	0.64	3/1.2	0.17	1/0.4	0.06	3/1.2	0.17
	(2) Water Resource Area:									
	B- Production of seeds									
	1. Lentil	No. of farmers	12/4.8	0.57	3/1.2	0.14	2/0.8	0.09	3/1.2	0.14

		/Area (ha)								
	2. Chickpea	No. of farmers /Area (ha)	12/4.8	0.65	3/1.2	0.16	2/0.8	0.11	3/1.2	0.16
	3. Field Pea	No. of farmers /Area (ha)	12/4.8	0.69	3/1.2	0.17	2/0.8	0.11	3/1.2	0.17
	4. Til	No. of farmers /Area (ha)	12/4.8	0.20	3/1.2	0.05	1/0.4	0.02	3/1.2	0.05
	5. Urd	No. of farmers /Area (ha)	12/4.8	0.43	3/1.2	0.11	1/0.4	0.04	3/1.2	0.11
	6. Moong	No. of farmers /Area (ha)	11/4.4	0.40	3/1.2	0.11	1/0.4	0.04	3/1.2	0.11
	7. Arhar	No. of farmers /Area (ha)	11/4.4	0.32	3/1.2	0.09	1/0.4	0.03	3/1.2	0.09
	8. Wheat	No. of farmers /Area (ha)	11/4.4	0.64	2/0.8	0.12	1/0.4	0.06	2/0.8	0.12
	Agro forestry:-									
	1- Aonla	Area in ha	3	0.54	3	0.16	1	0.18	2	0.36
	2. Guava	Area in ha	3	0.54	3	0.17	0	0.00	1	0.18
	Live Stock Management									
	A. fodder production	No. of Units	30	0.18	10	0.06	3	0.02	10	0.06
	B. Vaccination/Medication	No. of Animals	155	0.09	26	0.02	10	0.01	26	0.02
	C. Artificial Insemination	No. of Animals	150	0.06	25	0.01	10	0.00	25	0.01
	D. Natural Service.	He Buffalo	3	0.72	0	0.00	0	0.00	0	0.00
	Total for Ag. Production System			**9.94**		**2.58**		**1.20**		**2.58**
Grand Total				**74.52**		**19.35**		**9.00**		**19.35**

Grampanchayat wise details of Watershed Development Activities proposed in IWMP-XI, Hamirpur

Cont…

Sr. No.	Particular of Measures/Activities	Unit	Bajheta		Kalla		Atarar	
		No., Length/ ha, Volume	Qanty.	Cost (Rs. In lakh)	Qanty.	Cost (Rs. In lakh)	Qanty.	Qanty.
I	**Soil & Water Conservation Measures**							
	A- Moisture Conservation Measures							
	1. Peripheral Bund (with Sodding)	cum.	-	-	-	-	21213	11.29
	2.Submergence Bundhi (with Sodding)	cum.	50520	22.24	36168	19.08	64376	8.23
	B- <u>Water Resource Development</u>							
	1. Check Dam / Drop Spill Way	cum.	-	-	-	-	-	-
	1a- Water storing capacity	cum.	-	-	-	-	-	-
	1b. Area proposed for irrigation	ha	-	-	-	-	-	-
	Sub Total			**22.24**		**19.08**		**19.52**
II	**<u>Livelihood for landless People</u>**							
	1. Goatary	No. of beneficiaries /No. of SHGs	20/2	0.75	20/2	0.50	30/3	0.75
	2. Back Yard Poultry	do	20/2	0.50	20/2	0.50	20/2	0.50
	3. Poultry (Broiler)	do	20/2	0.50	20/2	0.50	20/2	0.50
	4. Black Smithy	do	10/1	0.25	0	0.00	0	0.00
	5. Rope Making (Linseed)	do	10/1	0.50	10/1	0.25	10/1	0.25
	6. Tailoring	do	10/1	0.25	10/1	0.25	10/1	0.25
	7. Vermi composting	do	10/1	0.25	20/2	0.50	20/2	0.50
	8. Fruit Processing	do	10/1	0.25	10/1	0.25	10/1	0.25
	9. Seed Bank	do	10/1	0.32	10/1	0.32	10/1	0.14

	Sub Total		**140/14**	**3.57**	**120/12**	**3.07**	**130/13**	**3.14**
III	**Agriculture Production System**							
	(1)SMC Area:							
	A- Crop Demonstrations- (Crop Wise)							
	1. Lentil	No. of farmers /Area (ha)	5/2.0	0.24	4/1.6	0.19	4/1.6	0.19
	2. Chickpea	No. of farmers /Area (ha)	5/2.0	0.27	4/1.6	0.22	4/1.6	0.22
	3. Field Pea	No. of farmers /Area (ha)	5/2.0	0.29	4/1.6	0.23	4/1.6	0.23
	4. Til	No. of farmers /Area (ha)	5/2.0	0.08	4/1.6	0.07	4/1.6	0.07
	5. Urd	No. of farmers /Area (ha)	5/2.0	0.18	4/1.6	0.14	4/1.6	0.14
	6. Moong	No. of farmers /Area (ha)	5/2.0	0.18	4/1.6	0.15	4/1.6	0.15
	7. Arhar	No. of farmers /Area (ha)	5/2.0	0.15	4/1.6	0.12	4/1.6	0.12
	8. Wheat	No. of farmers /Area (ha)	5/2.0	0.29	3/1.2	0.17	3/1.2	0.17
	(2) Water Resource Area:							
	B- Production of seeds							
	1. Lentil	No. of farmers /Area (ha)	4/1.6	0.19	4/1.6	0.19	4/1.6	0.19
	2. Chickpea	No. of farmers /Area (ha)	4/1.6	0.22	4/1.6	0.22	4/1.6	0.22
	3. Field Pea	No. of farmers /Area (ha)	4/1.6	0.23	4/1.6	0.23	4/1.6	0.23
	4. Til	No. of farmers /Area (ha)	4/1.6	0.07	4/1.6	0.07	4/1.6	0.07
	5. Urd	No. of farmers /Area (ha)	4/1.6	0.14	3/1.2	0.11	4/1.6	0.14

	6. Moong	No. of farmers /Area (ha)	4/1.6	0.15	3/1.2	0.11	4/1.6	0.15
	7. Arhar	No. of farmers /Area (ha)	4/1.6	0.12	3/1.2	0.09	3/1.2	0.09
	8. Wheat	No. of farmers /Area (ha)	4/1.6	0.23	3/1.2	0.17	3/1.2	0.17
	Agro forestry:-							
	1- Aonla	Area in ha	2	0.36	2	0.36	2	0.36
	2. Guava	Area in ha	1	0.18	1	0.18	1	0.18
	Live Stock Management							
	A. fodder production	No. of Units	20	0.12	18	0.11	20	0.12
	B. Vaccination/Medication	No. of Animals	55	0.03	42	0.03	45	0.03
	C. Artificial Insemination	No. of Animals	52	0.02	52	0.02	55	0.02
	D. Natural Service.	He Buffalo	1	0.24	1	0.24	1	0.24
	Total for Ag. Production System			**3.97**		**3.41**		**3.49**
Grand Total				**29.79**		**25.56**		**26.15**

Grampanchayat wise details of Watershed Development Activities proposed in IWMP-XI, Hamirpur

Cont…

Sr. No.	Particular of Measures/Activities	Unit	Mavai Jar		Kall		Ingohata		Rohari		Sayar	
		No., Length/ ha, Volume	Qanty.	Cost (Rs. In lakh)	Qanty.	Cost (Rs. In lakh)	Qanty.	Cost (Rs. In lakh)	Qanty.	Cost (Rs. In lakh)	Qanty.	Cost (Rs. In lakh)
I	**Soil & Water Conservation Measures**											
	A- Moisture Conservation Measures											
	1. Field Bund/Contour Bund (with sodding)	cum.	-	-	-	-	-	-	-	-	11709	6.40
	2. Peripheral Bund (with Sodding)	cum.	2448	1.01	-	-	-	-	-	-	-	-
	3.Submergence Bundhi (with Sodding)	cum.	34836	18.64	24369	11.36	12345	6.66	34125	25.21	24655	15.17
	B- <u>Water Resource Development</u>											
	1. Check Dam / Drop Spill Way	cum.	2984	1.32	-	-	-	-	-	-	-	-
	1a- Water storing capacity	cum.	900	-	-	-	-	-	-	-	-	-
	1b. Area proposed for irrigation	ha	2	-	-	-	-	-	-	-	-	-
	Sub Total			**20.97**		**11.36**		**6.66**		**25.21**		**21.57**
II	**<u>Livelihood for landless People</u>**											
	1. Goatary	No. of beneficiaries/ No. of SHGs	20/2	0.50	10/1	0.25	10/1	0.25	20/2	0.50	30/3	0.75
	2. Back Yard Poultry	do	20/2	0.50	10/1	0.25	10/1	0.25	20/2	0.50	30/3	0.75

	3. Poultry (Broiler)	do	10/1	0.25	10/1	0.25	10/1	0.25	20/2	0.50	20/2	0.5
	4. Black Smithy	do	10/1	0.25	10/1	0.25	0	0.00	10/1	0.25	10/1	0.25
	5. Rope Making (Linseed)	do	10/1	0.25	0	0.00	0	0.00	10/1	0.25	10/1	0.25
	6. Tailoring	do	10/1	0.25	0	0.00	0	0.00	20/2	0.50	10/1	0.25
	7. Vermi composting	do	20/2	0.50	10/1	0.25	0	0.00	20/2	0.50	10/1	0.25
	8. Fruit Processing	do	10/1	0.25	10/1	0.25	0	0.00	20/2	0.50	10/1	0.25
	9. Seed Bank	do	20/2	0.62	10/1	0.33	10/1	0.32	20/2	0.55	20/2	0.22
	Sub Total		130/13	3.37	70/7	1.83	40/4	1.07	160/16	4.05	150/15	3.47
III	**Agriculture Production System**											
	(1)SMC Area:											
	A- Crop Demonstrations- (Crop Wise)											
	1. Lentil	No. of farmers /Area (ha)	4/1.6	0.19	3/1.2	0.14	2/0.8	0.09	4/1.6	0.19	6/2.4	0.28
	2. Chickpea	No. of farmers /Area (ha)	4/1.6	0.22	3/1.2	0.16	2/0.8	0.11	4/1.6	0.22	5/2.0	0.27
	3. Field Pea)	No. of farmers /Area (ha)	4/1.6	0.23	3/1.2	0.17	2/0.8	0.11	4/1.6	0.23	5/2.0	0.28
	4. Til	No. of farmers /Area (ha)	4/1.6	0.07	3/1.2	0.05	2/0.8	0.03	4/1.6	0.07	5/2.0	0.08
	5. Urd	No. of farmers /Area (ha)	4/1.6	0.14	2/0.8	0.07	2/0.8	0.07	4/1.6	0.14	4/1.6	0.15
	6. Moong	No. of farmers /Area (ha)	4/1.6	0.15	2/0.8	0.07	2/0.8	0.07	4/1.6	0.15	4/1.6	0.15
	7. Arhar	No. of farmers /Area (ha)	4/1.6	0.12	2/0.8	0.06	2/0.8	0.06	4/1.6	0.12	4/1.6	0.12
	8. Wheat	No. of farmers /Area (ha)	4/1.6	0.23	2/0.8	0.12	2/0.8	0.12	4/1.6	0.23	4/1.6	0.23
	(2) Water Resource Area:											
	B- Production of seeds											

	1. Lentil	No. of farmers /Area (ha)	4/1.6	0.19	2/0.8	0.09	2/0.8	0.09	4/1.6	0.19	4/1.6	0.19
	2. Chickpea	No. of farmers /Area (ha)	4/1.6	0.22	2/0.8	0.11	2/0.8	0.11	4/1.6	0.22	4/1.6	0.21
	3. Field Pea)	No. of farmers /Area (ha)	4/1.6	0.23	2/0.8	0.11	1/0.4	0.06	4/1.6	0.23	4/1.6	0.23
	4. Til	No. of farmers /Area (ha)	4/1.6	0.07	2/0.8	0.03	1/0.4	0.02	4/1.6	0.07	4/1.6	0.07
	5. Urd	No. of farmers /Area (ha)	4/1.6	0.14	2/0.8	0.07	1/0.4	0.04	4/1.6	0.14	4/1.6	0.15
	6. Moong	No. of farmers /Area (ha)	4/1.6	0.15	2/0.8	0.07	1/0.4	0.04	4/1.6	0.15	4/1.6	0.15
	7. Arhar	No. of farmers /Area (ha)	4/1.6	0.12	2/0.8	0.06	1/0.4	0.03	5/5	0.15	4/1.6	0.12
	8. Wheat	No. of farmers /Area (ha)	4/1.6	0.23	2/0.8	0.12	1/0.4	0.06	5/5	0.29	5/2.0	0.29
	Agro forestry:-											
	1- Aonla	Area in ha	2	0.36	1	0.18	0	0.00	2	0.36	1	0.18
	2. Guava	Area in ha	1	0.18	1	0.18	0	0.00	2	0.36	1	0.18
	Live Stock Management											
	A. fodder production	/ No. of Units	43	0.26	15	0.09	10	0.06	6	0.04	42	0.25
	B. Vaccination/Medication	No. of Animals	35	0.01	50	0.04	20	0.01	15	0.01	42	0.02
	C. Artificial Insemination	No. of Animals	30	0.01	50	0.02	20	0.01	15	0.01	35	0.01
	D. Natural Service.	He Buffalo	1	0.24	0	0.00	0	0.00	4	0.96	1	0.24
	Total for Ag. Production System			**3.75**		**2.03**		**1.19**		**4.50**		**3.85**
Grand Total				**28.09**		**15.21**		**8.92**		**33.76**		**28.90**

Grampanchayat wise details of Watershed Development Activities proposed in IWMP-XI, Hamirpur

Cont…

Sr. No.	Particular of Measures/Activities	Unit	Patanpur		Banda		Bidokhar Purai		Bidokhar Medani		IWMP-XI	
		No., Length/ ha, Volume	Qanty.	Cost (Rs. In lakh)	Qanty.	Cost (Rs. In lakh)	Qanty.	Cost (Rs. In lakh)	Qanty.	Cost (Rs. In lakh)	Qanty.	Cost (Rs. In lakh)
I	**Soil & Water Conservation Measures**											
	A- Moisture Conservation Measures											
	1. Field Bund/Contour Bund (with sodding)	cum.	-	-	-	-	-	-	-	-	40500	22.49
	2. Peripheral Bund (with Sodding)	cum.	-	-	-	-	-	-	-	-	2448	1.01
	3.Submergence Bundhi (with Sodding)	cum.	21369	11.30	26345	14.92	62359	29.64	12220	6.05	776525	304.72
	B- <u>Water Resource Development</u>											
	1. Check Dam / Drop Spill Way	cum.	-	-	-	-	-	-	-	-	19548	26.67
	1a- Water storing capacity	cum.	-	-	-	-	-	-	-	-	2200	
	1b. Area proposed for irrigation	ha	-	-	-	-	-	-	-	-	4	
	Sub Total			**11.30**		**14.92**		**29.64**		**6.05**	-	**354.89**
II	**<u>Livelihood for landless People</u>**											
	1. Goatary	No. of beneficiaries/ No. of SHGs	10/1	0.25	20/2	0.50	30/3	0.75	10/1	0.25	420/42	10.50
	2. Back Yard Poultry	do	10/1	0.25	10/1	0.25	20/2	0.50	10/1	0.25	350/35	8.75
	3. Poultry (Broiler)	do	10/1	0.25	10/1	0.25	20/2	0.50	10/1	0.25	290/29	7.25

	4. Black Smithy	do	00/0	0.00	10/1	0.25	20/2	0.50	0	0.00	140/14	3.50
	5. Rope Making (Linseed)	do	00/0	0.00	10/1	0.25	20/2	0.50	0	0.00	180/18	4.50
	6. Tailoring	do	10/1	0.25	10/1	0.25	20/2	0.50	0	0.00	140/14	3.50
	7. Vermi composting	do	10/1	0.25	10/1	0.25	20/2	0.50	0	0.00	230/23	5.75
	8. Fruit Processing	do	10/1	0.25	10/1	0.25	20/2	0.50	0	0.00	260/26	6.50
	9. Seed Bank	do	10/1	0.32	10/1	0.15	20/2	0.51	10/1	0.22	270/27	6.78
	Sub Total		70/7	1.82	100/10	2.40	190/19	4.76	40/4	0.97	**2280/228**	**57.07**
III	**Agriculture Production System**											
	(1)SMC Area:											
	A- Crop Demonstrations-(Crop Wise)											
	1. Lentil	No. of farmers /Area (ha)	2/0.8	0.09	2/0.8	0.09	6/2.4	0.28	1/0.4	0.05	76/30.4	3.61
	2. Chickpea	No. of farmers /Area (ha)	2/0.8	0.11	3/1.2	0.16	6/2.4	0.33	1/0.4	0.05	75/30	4.08
	3. Field Pea)	No. of farmers /Area (ha)	2/0.8	0.11	3/1.2	0.17	6/2.4	0.34	1/0.4	0.06	75/30	4.31
	4. Til	No. of farmers /Area (ha)	2/0.8	0.03	3/1.2	0.05	6/2.4	0.10	1/0.4	0.02	74/39.6	1.25
	5. Urd	No. of farmers /Area (ha)	3/1.2	0.11	3/1.2	0.11	6/2.4	0.21	1/0.4	0.04	73/29.2	2.58
	6. Moong	No. of farmers /Area (ha)	3/1.2	0.11	3/1.2	0.11	6/2.4	0.22	1/0.4	0.04	72/28.8	2.62
	7. Arhar	No. of farmers /Area (ha)	3/1.2	0.09	3/1.2	0.09	6/2.4	0.18	1/0.4	0.03	72/28.8	2.13
	8. Wheat	No. of farmers /Area (ha)	3/1.2	0.17	3/1.2	0.17	6/2.4	0.35	1/0.4	0.06	69/27.6	3.99
	(2) Water Resource Area:											
	B- Production of seeds											

	1. Lentil	No. of farmers /Area (ha)	2/0.8	0.09	3/1.2	0.14	5/2.0	0.24	2/0.8	0.09	73/29.2	3.46
	2. Chickpea	No. of farmers /Area (ha)	2/0.8	0.11	3/1.2	0.16	4/1.6	0.22	2/0.8	0.11	72/28.8	3.92
	3. Field Pea)	No. of farmers /Area (ha)	2/0.8	0.11	3/1.2	0.17	6/2.4	0.34	1/0.4	0.06	71/28.4	4.07
	4. Til	No. of farmers /Area (ha)	2/0.8	0.03	3/1.2	0.05	6/2.4	0.10	1/0.4	0.02	70/28	1.18
	5. Urd	No. of farmers /Area (ha)	2/0.8	0.07	3/1.2	0.11	6/2.4	0.21	1/0.4	0.04	68/27.2	2.41
	6. Moong	No. of farmers /Area (ha)	2/0.8	0.07	3/1.2	0.11	6/2.4	0.22	1/0.4	0.04	67/26.8	2.44
	7. Arhar	No. of farmers /Area (ha)	2/0.8	0.06	4/1.6	0.12	4/1.6	0.12	1/0.4	0.03	66/26.4	1.95
	8. Wheat	No. of farmers /Area (ha)	2/0.8	0.12	4/1.6	0.23	4/1.6	0.23	1/0.4	0.06	64/25.6	3.70
	Agro forestry:-											
	1- Aonla	Area in ha	1	0.18	1	0.18	2	0.36	1	0.18	29.00	5.22
	2. Guava	Area in ha	0	0.00	2	0.36	3	0.54	0	0.00	20.00	3.60
	Live Stock Management											
	A. fodder production	/ No. of Units	13	0.08	6	0.04	26	0.16	15	0.09	327.00	1.96
	B. Vaccination/Medication	No. of Animals	20	0.01	30	0.02	60	0.04	40	0.03	779.00	0.49
	C. Artificial Insemination	No. of Animals	20	0.01	30	0.01	60	0.02	40	0.02	762.00	0.30
	D. Natural Service.	He Buffalo	1	0.24	0	0.00	2	0.48	0	0.00	17.00	4.08
	Total for Ag. Production System			**2.02**		**2.66**		**5.29**		**1.08**		**63.37**
Grand Total				**15.13**		**19.98**		**39.69**		**8.10**		**475.30**

DESIGN AND ESTIMATES OF CHECKDAM

Design of surplusing arrangement No. 1 to be constructed along with WHB									
HYDROLOGIC DESIGN									
Area (ha)	25								
slope	0.0021								
K	7.47								
a	0.17								
b	0.75								
n	0.96								
Time of Concentration									
		Le.77	Se-0.385						
L (m)	700	**155.14**							
S	0.0021		**10.655**						
		hour	Tc + b		(tc+b) power n				
Tc	**32.185**	0.5364	1.2864		1.274				
Intensity									
		Tr power a							
Tr	10	1.4791							
I		8.6758							
Discharge									
			Taken						
	c	0.5	Coeff						
	I	86.758	mm/hr						
	A	25	ha						
	Q	3.0124			Cumec				

HYDRAULIC DESIGN									
	Length of crest weir (m)			2					
	Weir height (m)		h						
		Q = 1.71*L*h power (3/2)							
		h power 3/2		0.8808					
					Taken				
		h		0.919	**0.8**	h1			
		h + free board		0.9649	**0.95**				
	Height of WHB			2.35					
	Height of water drop (H)			1.40		Say	**1.4**		

STABILITY ANALYSIS											
	Let			**Top width (m)**	t	**0.7**					
				Bottom width (m)	T	**1.5**					
	Weight of dam per unit length (kg)				W	3388		W square	**11478544**		
	Horizontzl water pressure (Kg)				P	980		P square	**960400**		
	Uplift pressure (kg)				U	(T*w*H)/2	**1050**				
	Net downword force (kg)				Wn	W-U	**2338**	Wn Square	**5466244**		
	Resultant (kg)				R				**2535.082642**		
					H	1.4					
					Xbar		**0.574242**				
					Z		**0.228951**				
	Point of Resultant (xbar+Z)						**0.803194**				
					EA		0.925758				
					P*H/3		457.3333				
					W*EA		3136.467				

						b/6		0.25				
						b/2		0.75				
		e = xbar+Z-b/2				e (OF)		0.053194				
		fmax = Wn/b(1+6*e/b)				fmax		1890.311				
A Safety against sliding												
					(mu*W)/P			**1.192857**				
B Safety against overturning					(W*EA)/(P*H/3)			**2.082255**				
C Safety against Tension					e<b/6 or b/6-e should be +ive			**0.196806**				
D Safety against Crushing				Permiss comp Stress kg/sqm			say	**10000**				
				PCS-fmax should be +ive				**8109.689**				
Depth of Foundation												
			Normal scour depth, dn			0.473[Q/f]power1/3						
				Q (cumec)	3.012							
				Q (Cusec)	106.3							
				f is silt factor, take=		1						
				[q/f]		106.302						
				[q/f] power1/3		4.73711						
				dn (ft)		2.24065						
				dn (m)		0.68313						
			Maximum scour depth, dm			1.5*dn	**1.02469**					
									Technical Specification			
			Foundation depth, D			1.33 dm	**1.36284**		**1.50**			
Minimum length of headwall extension (m)				E=3h+0.6 or 1.5F whichever is greater								
				F is net drop from top of transverse sill to crest								
				St= height of transverse sill= h/3				0.316667	**0.30**			
				F (m)	1.1							
				E (m)	3.45	or	1.65	say	**3.00**			

Length of Basin Lb												
			Lb (m)= F(2.28*h/F+0.52)			2.738		say	**2.70**			
Height of the sidewall at end sill is taken to be minimum 1.5h1,but more than H/2												
				J (m)	1.5h1	1.2	more than H/2	0.7	**1.20**			
Height of the sidewall at the weir end												
				Equal to gully depth	2.35				**2.35**			
				M (m)	2(F+1.33h-J)			2.327	**2.30**			
				K (m)	Lb+.1-M			0.473	**0.90**			
Length of Wing wall (WL)												
				WL = 2.25h				2.1375	**2.00**			
Depth of Toe Wall												
				h1+0.1				0.9	**1.00**			

WORK ABSTRACT

Sl. No.	Item	Specification (m)			Quantity (cum)			
		Length	Breadth	Depth				
1	**Clearing of site (Removal of trees, shrubs and bushes)**	8.00	10.00					
2	**Earth work**							
	a) in hard soil Headwall Foundation	2.00	2.50	1.00	5.00	Effective depth will be 0.7 m		
	b) in hard soil RHS of Headwall extension	3.00	2.50	1.20	9.00	"		
	c) in hard soil LHS of Headwall extension	3.00	2.50	1.20	9.00	"		
	d) in hard soil cutoff wall	8.00	1.60	0.80	10.24			
	e)in hard soil side wall on both side	6.40	2.00	2.00	25.60	Effective depth will be 1.25 m		
	f) in hard soil Toe wall	2.00	1.60	1.00	3.20	Effective depth will be 1.00 m		
	g) in hard soil Wing wall on both side	4.00	1.80	1.50	10.80	"		
	h) Apron	2.70	2.30	0.50	3.11			
				Total	**75.95**			
3	**Cement concrete**							
	Cement Concrete (1:2:4)							
	a) Head wall coping	2.00	0.70	0.10	0.14			
	b) Apron	2.70	2.30	0.10	0.62			
	c) End sill coping	2.30	0.50	0.10	0.12			

				Total	**0.88**			
	Cement Concrete (1:4:8)							
	d) Toe wall	2.30	0.70	0.10	0.16			
	e) Apron	2.70	2.30	0.10	0.62			
	f) Side wall on both side	6.40	1.10	0.10	0.70			
	g) Wing wall on both side	4.00	1.00	0.10	0.40			
	h)Headwall and Headwall Extension	8.00	1.60	0.10	1.28			
				Total	**3.17**			
4	**Requirement of sand to nullify the impact of cracks**							
	a) Below cutoff wall	8.00	0.70	0.05	0.28			
	b)Below Headwall and headwall extension	8.00	1.60	0.05	0.64			
	c) Below side wall on both sides	6.40	1.10	0.05	0.35			
	d) Below wing wall on both side	4.00	1.00	0.05	0.20			
	e) Below apron	2.70	2.30	0.05	0.31			
	f) Below Toe wall	2.30	0.70	0.05	0.08			
				Total	**1.86**			
5	**Stone Masonary in CM 1:4**							
	a) Corewall	8.00	0.60	0.80	3.84			
	b) Headwall and Headwall Extension on both side-Foundation	8.00	1.50	0.70	8.40			
	c) Headwall+ Headwall Extension on both side above gully bed-super structure	8.00	1.10	1.40	12.32	Width=(0.7+1.5)/2= 1.10 m		
	d) Headwall Extension on both the side above crest	6.00	0.70	0.95	3.99			
	e) Foundation for side wall on both side	6.00	1.10	1.25	8.25			
	f) Side wall on both side -super structure (K Part)-I	1.80	1.00	0.80	1.44			

	g) Side wall on both side-above part-I mentioned in (e): (K Part)-II	1.80	0.80	0.40	0.58			
	h) Side wall on both side above part-II mentioned in (f): (K Part)-III	1.80	0.70	0.60	0.76			
	i) Side wall on both side above part-II mentioned in (f): (K Part)-IV	1.80	0.60	0.55	0.59			
	j) Side wall on both side-Super structure (M Part)-I	4.60	1.00	0.80	3.68			
	k) Side wall on both side-Super structure (M Part)-II	4.60	0.80	0.40	1.47			
	l) Side wall on both side above Part-II mentioned in (i): (M Part)-III	4.60	0.70	0.575	1.85	Avg. ht. of triangle portion=	0.575	
	m) Foundation for wing wall on both side	4.00	0.80	1.00	3.20			
	n) Wing wall on both side-Super structure- Part- I	4.00	0.70	0.60	1.68			
	o) Wing wall on both side-Above Part-I mentioned in (l): Part -II	4.00	0.60	0.30	0.72	Avg. ht. of triangle portion=	0.30	
	p) Toe wall: Part I	2.30	0.70	0.50	0.81			
	q) Toe wall: Part II	2.30	0.60	0.50	0.69			
	r) Transverse Sill	2.30	0.50	0.30	0.35			
	s) Apron	2.70	2.30	0.25	1.55			
					56.16			
6	**M S Bar (10 mm, q)**				**1.50**			
7	**Providing rough stone pitching in u/s (both side)**	35.00	2.35	0.20	**16.45**			

8	**Cement pointing to stone masonary in CM 1:3 (sqm)**							
	a) Headwall both side + Extension u/s only	8.00		1.40	11.20			
	b) Side wall both side (RHS and LHS)-Part I	6.40		1.20	7.68			
	c) Side wall both side (RHS and LHS)-Part II	1.80		1.15	2.07			
	d) Side wall both side (RHS and LHS)-Part-III	4.60		0.575	2.65	Avg. ht. of triangle portion=	0.575	
	e) Wing wall both side-Part I	4.00		0.60	2.40			
	f) Wing wall both side-Part I	4.00		0.30	1.20	Avg. ht. of triangle portion=	0.30	
				Total	**27.20**			
9	**Filling of black clay soil in the up stream (free from any kind of gravel)**				**5.00**	trolly		

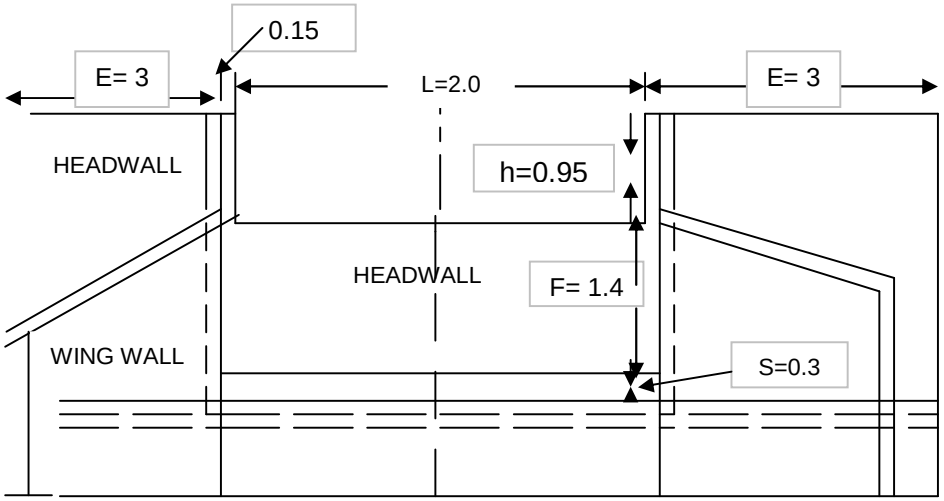
MATERIAL ABSTRACT

						Required Quantiy						
						Quantiy,cum	Cement,bags	Sand,cum	Conc ,cum	Khanda (cum)	Boulder(cum)	MS Bar (q)
1	Cement Concrete mix (1:2:4): 12 mm conc.					0.88	5.61	0.39	0.79			
2	Cement Concrete mix (1:4:8); 20 mm conc.					3.17	10.76	1.49	2.98			
3	Stone Maspnary in CM 1:4					56.16	140.41	19.10		56.16		
4	MS Bar for reinforcing											1.50
5	Boulder for pitching					16.45					16.45	
6	Cement pointing to stone masonary in CM 1:3 (sqm)					27.20	1.69	0.17				
7	Black clay soil (gravel free)					5.00						
8	Requirement of sand to nullify the impact of cracks							1.86				
					Total		**158.46**	**23.01**		**56.16**	**16.45**	**1.50**

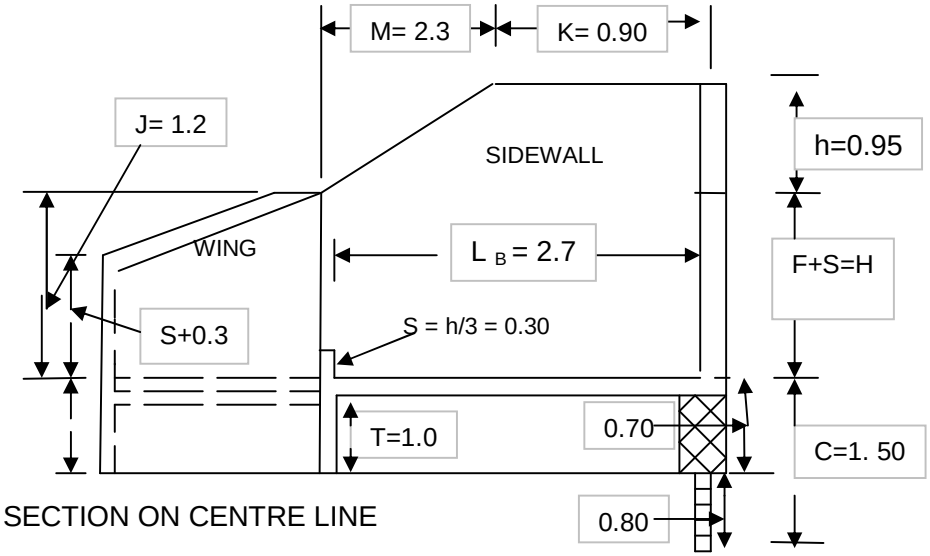
COST ABSTRACT

	Sl. No.	Item	Quantity	Unit	Rate (Rs./Unit)	Amount (Rs.)
A	1	Cement	158	Bag	300.00	47538.57
	2	Sand (good quality)	23.01	m^3	900.00	20710.47
	3	Concrete-12 mm	0.79	m^3	1300.00	1024.92
	4	Concrete-20 mm	2.98	m^3	1200.00	3571.25
	5	Khanda (8"x8"x8")	56.16	m^3	1000.00	56162.00
	6	M S Bar (10 mm Saria)	1.50	q	4500.00	6750.00
	7	Boulder	16.45	m^3	700.00	11515.00
	8	Filling of black clay soil in the up stream (free from any kind of gravel)	5.00	Trolly	700.00	3500.00
					Total	**150772.20**
B	9	Water supply through tanker @ 3 % of material cost				4523.17
C	10	Labour Charges @ 35%				52770.27
					Total (A+B+C)	**208065.64**
	11	Misc. @ 3%				6241.97
					G. Total	**214307.61**
		Rs. 2,14,308/- (Rs. Two lakh fourteen thousand three hundred eight only)				

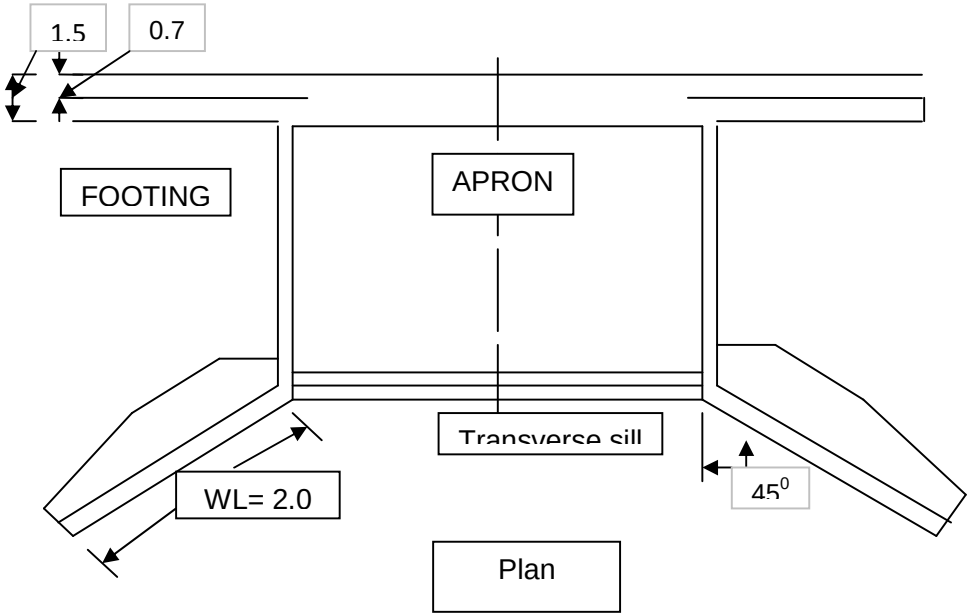
Note: The cost of materials is inclusive of all taxes and transportation to the site. It is based on the prevailing market rates. It may vary with respect to time



DOWN STREAM ELEVATION



SECTION ON CENTRE LINE



L = Length of weir
h = Depth of weir
F = Drop through spillway from crest of weir to top of transverse sill
S = Height of transverse sill
L_B = Length of Apron
T = Depth of toewall below top of apron
C = Depth of cutoff wall below top of apron
E = Length of headwall extension
J = Height of wingwall & sidewall at junction

DESIGNED BY:-
DR. R.C. SACHAN
EX. SPECIAL SCIENTIST, (LAND &WATER MANAGEMENT)
ICRISAT, PATANCHERU, A.P.

Note: Figure not to scale, All dimensions are in Metre

Technical Details of Outlet No. 1 to be constructed along with WHB

Design of surplusing arrangement No. 2 to be constructed along with WHB										
HYDROLOGIC DESIGN										
Area (ha)	20									
slope	0.0022									
K	7.47									
a	0.17									
b	0.75									
n	0.96									
Time of Concentration										
		Le.77	Se-0.385							
L (m)	600	**137.78**								
S	0.0022		**10.61**							
		hour	Tc + b		(tc+b) power n					
Tc	**28.462**	0.4744	1.2244		1.214					
Intensity										
		Tr power a								
Tr	10	1.4791								
I		9.0976								
Discharge										
			Taken							
	c	0.5	Coeff							
	I	90.976	mm/hr							
	A	20	ha							
	Q	2.5271			Cumec					

HYDRAULIC DESIGN									
	Length of crest weir (m)		**1.75**						
	Weir height (m)		h						
		Q = 1.71*L*h power (3/2)							
		h power 3/2	0.8445						
				Taken					
		h	0.8935	**0.9**	h1				
		h + free board	0.9382	**0.95**					
	Height of WHB		2.20						
	Height of water drop (H)		1.25		Say	**1.25**			

STABILITY ANALYSIS									
	Let			**Top width (m)**	t	**0.6**			
				Bottom width (m)	T	**1.3**			
	Weight of dam per unit length (kg)				W	2612.5		W square	**6825156.25**
	Horizontzl water pressure (Kg)				P	781.25		P square	**610351.5625**
	Uplift pressure (kg)				U	(T*w*H)/2	**812.5**		
	Net downword force (kg)				Wn	W-U	**1800**	Wn Square	**3240000**
	Resultant (kg)				R				**1962.231271**
					H	1.25			
					Xbar		**0.496491**		
					Z		**0.209354**		
	Point of Resultant (xbar+Z)						**0.705845**		
					EA		0.803509		
					P*H/3		325.5208		
					W*EA		2099.167		

						b/6		0.216667		
						b/2		0.65		
		e = xbar+Z-b/2				e (OF)		0.055845		
		fmax = Wn/b(1+6*e/b)				fmax		1741.494		
A Safety against sliding										
					(mu*W)/P			**1.152**		
B Safety against overturning					(W*EA)/(P*H/3)			**2.04004**		
C Safety against Tension					e<b/6 or b/6-e should be +ive			**0.160822**		
D Safety against Crushing				Permiss comp Stress kg/sqm			say	**10000**		
				PCS-fmax should be +ive				**8258.506**		
Depth of Foundation										
			Normal scour depth, dn			0.473[Q/f]power1/3				
				Q (cumec)	2.527					
				Q (Cusec)	89.18					
				f is silt factor, take=		1				
				[q/f]		89.1755				
				[q/f] power1/3		4.46768				
				dn (ft)		2.11321				
				dn (m)		0.64427				
			Maximum scour depth, dm			1.5*dn	**0.96641**			
									Technical Specification	
			Foundation depth, D			1.33 dm	**1.28532**		**1.40**	
Minimum length of headwall extension (m)				E=3h+0.6 or 1.5F whichever is greater						
				F is net drop from top of transverse sill to crest						
				St= height of transverse sill= h/3				0.316667	**0.30**	
				F (m)	0.95					
				E (m)	3.45	or	1.425	say	**3.00**	

Length of Basin Lb										
			Lb (m)= F(2.28*h/F+0.52)			2.66		say	**2.50**	
Height of the sidewall at end sill is taken to be minimum 1.5h1,but more than H/2										
				J (m)	1.5h1	1.35	more than H/2	0.625	**1.20**	
Height of the sidewall at the weir end										
				Equal to gully depth	2.2				**2.20**	
				M (m)	2(F+1.33h-J)			2.027	**2.00**	
				K (m)	Lb+.1-M			0.573	**1.00**	
Length of Wing wall (WL)										
				WL = 2.25h				2.1375	**2.00**	
Depth of Toe Wall										
				h1+0.1				1	**1.00**	

WORK ABSTRACT

Sl. No.	Item	Specification (m)			Quantity (cum)			
		Length	Breadth	Depth				
1	**Clearing of site (Removal of trees, shrubs and bushes)**	8.00	10.00					
2	**Earth work**							
	a) in hard soil Headwall Foundation	1.75	2.50	1.00	4.38	Effective depth will be 0.7 m		
	b) in hard soil RHS of Headwall extension	3.00	2.50	1.20	9.00	"		
	c) in hard soil LHS of Headwall extension	3.00	2.50	1.20	9.00	"		
	d) in hard soil cutoff wall	7.75	1.60	0.70	8.68			
	e)in hard soil side wall on both side	6.00	2.00	2.00	24.00	Effective depth will be 1.25 m		
	f) in hard soil Toe wall	1.75	1.60	1.00	2.80	Effective depth will be 1.00 m		
	g) in hard soil Wing wall on both side	4.00	1.80	1.50	10.80	"		
	h) Apron	2.50	2.00	0.50	2.50			
				Total	**71.16**			
3	**Cement concrete**							
	Cement Concrete (1:2:4)							
	a) Head wall coping	1.75	0.60	0.10	0.11			
	b) Apron	2.50	2.00	0.10	0.50			

	c) End sill coping	2.00	0.50	0.10	0.10			
				Total	**0.71**			
	Cement Concrete (1:4:8)							
	d) Toe wall	2.00	0.70	0.10	0.14			
	e) Apron	2.50	2.00	0.10	0.50			
	f) Side wall on both side	6.00	1.10	0.10	0.66			
	g) Wing wall on both side	4.00	1.00	0.10	0.40			
	h)Headwall and Headwall Extension	7.75	1.60	0.10	1.24			
				Total	**2.94**			
4	**Requirement of sand to nullify the impact of cracks**							
	a) Below cutoff wall	7.75	0.70	0.05	0.27			
	b)Below Headwall and headwall extension	7.75	1.30	0.05	0.50			
	c) Below side wall on both sides	6.00	1.10	0.05	0.33			
	d) Below wing wall on both side	4.00	1.00	0.05	0.20			
	e) Below apron	2.50	2.00	0.05	0.25			
	f) Below Toe wall	2.00	0.70	0.05	0.07			
				Total	**1.63**			
5	**Stone Masonary in CM 1:4**							
	a) Corewall	7.75	0.60	0.70	3.26			
	b) Headwall and Headwall Extension on both side-Foundation	7.75	1.30	0.70	7.05			
	c) Headwall+ Headwall Extension on both side above gully bed-super structure	7.75	0.95	1.25	9.20	Width=(0.6+1.3)/2= 0.95 m		
	d) Headwall Extension on both the side above crest	6.00	0.60	0.95	3.42			
	e) Foundation for side wall on both side	6.00	1.10	1.25	8.25			
	f) Side wall on both side -super structure (K Part)-I	2.00	1.00	0.80	1.60			

	g) Side wall on both side-above part-I mentioned in (e): (K Part)-II	2.00	0.80	0.40	0.64			
	h) Side wall on both side above part-II mentioned in (f): (K Part)-III	2.00	0.70	0.60	0.84			
	i) Side wall on both side above part-II mentioned in (f): (K Part)-IV	2.00	0.60	0.40	0.48			
	j) Side wall on both side-Super structure (M Part)-I	4.00	1.00	0.80	3.20			
	k) Side wall on both side-Super structure (M Part)-II	4.00	0.80	0.40	1.28			
	l) Side wall on both side above Part-II mentioned in (i): (M Part)-III	4.00	0.70	0.500	1.40	Avg. ht. of triangle portion=	0.500	
	m) Foundation for wing wall on both side	4.00	0.80	1.00	3.20			
	n) Wing wall on both side-Super structure- Part- I	4.00	0.70	0.60	1.68			
	o) Wing wall on both side-Above Part-I mentioned in (l): Part -II	4.00	0.60	0.30	0.72	Avg. ht. of triangle portion=	0.30	
	p) Toe wall: Part I	2.00	0.70	0.50	0.70			
	q) Toe wall: Part II	2.00	0.60	0.50	0.60			
	r) Transverse Sill	2.00	0.50	0.30	0.30			
	s) Apron	2.50	2.00	0.25	1.25			
					49.07			
6	**M S Bar (10 mm, q)**				**1.25**			
7	**Providing rough stone pitching in u/s (both side)**	35.00	2.20	0.20	**15.40**			

8	**Cement pointing to stone masonary in CM 1:3 (sqm)**							
	a) Headwall both side + Extension u/s only	7.75		1.25	9.69			
	b) Side wall both side (RHS and LHS)-Part I	6.00		1.20	7.20			
	c) Side wall both side (RHS and LHS)-Part II	2.00		1.00	2.00			
	d) Side wall both side (RHS and LHS)-Part-III	4.00		0.500	2.00	Avg. ht. of triangle portion=	0.500	
	e) Wing wall both side-Part I	4.00		0.60	2.40			
	f) Wing wall both side-Part I	4.00		0.30	1.20	Avg. ht. of triangle portion=	0.30	
				Total	**24.49**			
9	**Filling of black clay soil in the up stream (free from any kind of gravel)**				**5.00**	trolly		

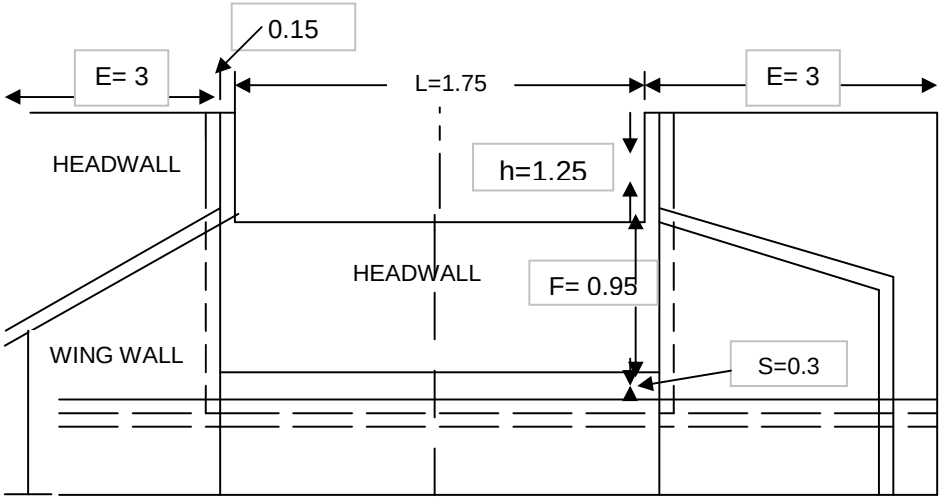
MATERIAL ABSTRACT

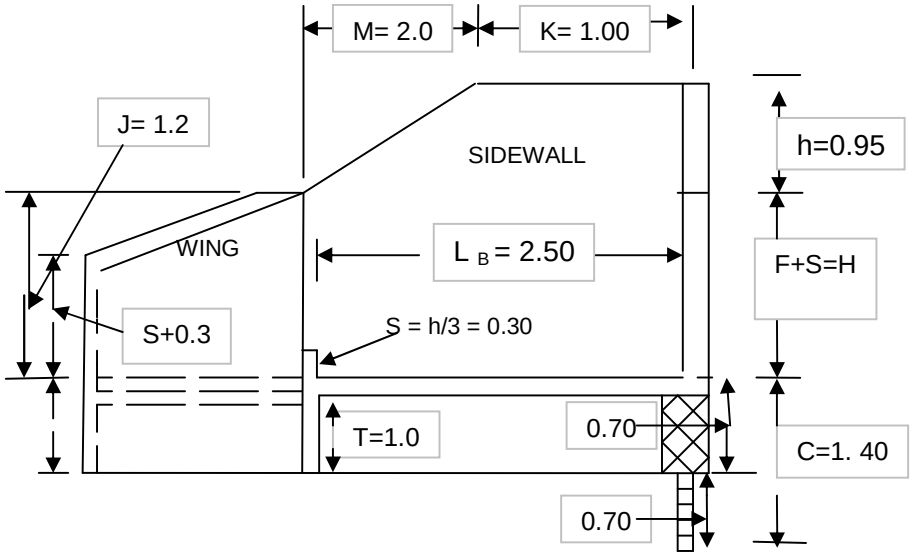
						Required Quantiy						
						Quantiy,cum	Cement,bags	Sand,cum	Conc ,cum	Khanda (cum)	Boulder(cum)	MS Bar (q)
1	Cement Concrete mix (1:2:4): 12 mm conc.					0.71	4.51	0.32	0.63			
2	Cement Concrete mix (1:4:8); 20 mm conc.					2.94	10.00	1.38	2.76			
3	Stone Maspnary in CM 1:4					49.07	122.68	16.68		49.07		
4	MS Bar for reinforcing											1.25
5	Boulder for pitching					15.40					15.40	
6	Cement pointing to stone masonary in CM 1:3 (sqm)					24.49	1.52	0.15				
7	Black clay soil (gravel free)					5.00						
8	Requirement of sand to nullify the impact of cracks							1.63				
					Total		**138.70**	**20.16**		**49.07**	**15.40**	**1.25**

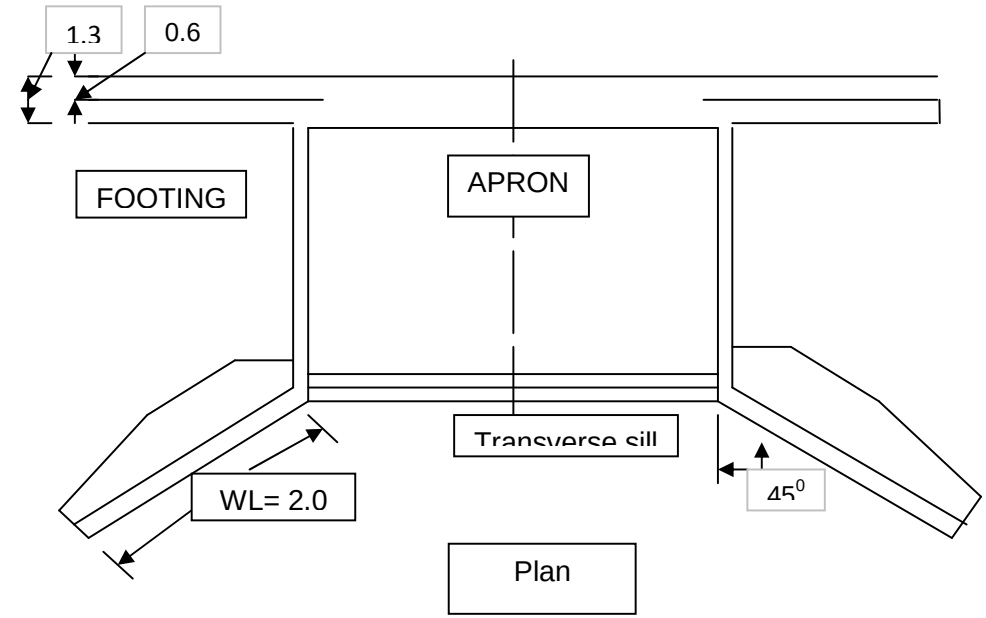
COST ABSTRACT

	Sl. No.	Item	Quantity	Unit	Rate (Rs./Unit)	Amount (Rs.)
A	1	Cement	139	Bag	300.00	41610.84
	2	Sand (good quality)	20.16	m^3	900.00	18146.10
	3	Concrete-12 mm	0.63	m^3	1300.00	824.85
	4	Concrete-20 mm	2.76	m^3	1200.00	3316.32
	5	Khanda (8"x8"x8")	49.07	m^3	1000.00	49070.63
	6	M S Bar (10 mm Saria)	1.25	q	4500.00	5625.00
	7	Boulder	15.40	m^3	700.00	10780.00
	8	Filling of black clay soil in the up stream (free from any kind of gravel)	5.00	Trolly	700.00	3500.00
					Total	**132873.73**
B	9	Water supply through tanker @ 3 % of material cost				3986.21
C	10	Labour Charges @ 35%				46505.81
					Total (A+B+C)	**183365.75**
	11	Misc. @ 3%				5500.97
					G. Total	**188866.72**
		Rs.1,88,867/- (Rs. One lakh eighty eight thousand eight hundred sixty seven only)				

Note: The cost of materials is inclusive of all taxes and transportation to the site. It is based on the prevailing market rates. It may vary with respect to time







L = Length of weir
h = Depth of weir
F = Drop through spillway from crest of weir to top of transverse sill
S = Height of transverse sill
L_B = Length of Apron
T = Depth of toewall below top of apron
C = Depth of cutoff wall below top of apron
E = Length of headwall extension
J = Height of wingwall & sidewall at junction

Note: Figure not to scale, All dimensions are in Metre

DESIGNED BY:-
DR. R.C. SACHAN
EX. SPECIAL SCIENTIST, (LAND &WATER MANAGEMENT)
ICRISAT, PATANCHERU, A.P.

Technical Details of Outlet No. 2 to be constructed along with WHB

Design of surplusing arrangement No. 3 to be constructed along with WHB										
HYDROLOGIC DESIGN										
Area (ha)	15									
slope	0.002									
K	7.47									
a	0.17									
b	0.75									
n	0.96									
Time of Concentration										
		Le.77	Se-0.385							
L (m)	500	**119.73**								
S	0.002		**10.942**							
		hour	Tc + b		(tc+b) power n					
Tc	**25.508**	0.4251	1.1751		1.168					
Intensity										
		Tr power a								
Tr	10	1.4791								
I		9.4632								
Discharge										
			Taken							
	c	0.4	Coeff							
	I	94.632	mm/hr							
	A	15	ha							
	Q	1.5772			Cumec					

HYDRAULIC DESIGN										
	Length of crest weir (m)			**1.25**						
	Weir height (m)			h						
		Q = 1.71*L*h power (3/2)								
		h power 3/2		0.7379						
					Taken					
		h		0.8167	**0.7**	h1				
		h + free board		0.8576	**0.75**					
	Height of WHB			1.75						
	Height of water drop (H)			1.00		Say	**1**			
STABILITY ANALYSIS										
	Let			**Top width (m)**		t	**0.5**			
				Bottom width (m)		T	**1.1**			
	Weight of dam per unit length (kg)					W	1760		W square	**3097600**
	Horizontzl water pressure (Kg)					P	500		P square	**250000**
	Uplift pressure (kg)					U	(T*w*H)/2	**550**		
	Net downword force (kg)					Wn	W-U	**1210**	Wn Square	**1464100**
	Resultant (kg)					R				**1309.236419**
						H	1			
						Xbar		**0.41875**		
						Z		**0.161415**		
	Point of Resultant (xbar+Z)							**0.580165**		
						EA		0.68125		
						P*H/3		166.6667		
						W*EA		1199		
						b/6		0.183333		
						b/2		0.55		

		e = xbar+Z-b/2				e (OF)		0.030165		
		fmax = Wn/b(1+6*e/b)				fmax		1280.992		
A Safety against sliding										
					(mu*W)/P			**1.21**		
B Safety against overturning					(W*EA)/(P*H/3)			**2.104998**		
C Safety against Tension					e<b/6 or b/6-e should be +ive			**0.153168**		
D Safety against Crushing				Permiss comp Stress kg/sqm			say	**10000**		
				PCS-fmax should be +ive				**8719.008**		
Depth of Foundation										
			Normal scour depth, dn			0.473[Q/f]power1/3				
				Q (cumec)	1.577					
				Q (Cusec)	55.66					
				f is silt factor, take=		1				
				[q/f]		55.6554				
				[q/f] power1/3		3.818				
				dn (ft)		1.80591				
				dn (m)		0.55058				
			Maximum scour depth, dm			1.5*dn	**0.82587**			
									Technical Specification	
			Foundation depth, D			1.33 dm	**1.09841**		**1.10**	
Minimum length of headwall extension (m)				E=3h+0.6 or 1.5F whichever is greater						
				F is net drop from top of transverse sill to crest						
				St= height of transverse sill= h/3				0.25	**0.25**	
				F (m)	0.75					
				E (m)	2.85	or	1.125	say	**2.50**	
Length of Basin Lb										
			Lb (m)= F(2.28*h/F+0.52)			2.1		say	**2.00**	

Height of the sidewall at end sill is taken to be minimum 1.5h1,but more than H/2										
				J (m)	1.5h1	1.05	more than H/2	0.5	**1.00**	
Height of the sidewall at the weir end										
				Equal to gully depth	1.75				**1.75**	
				M (m)	2(F+1.33h-J)			1.495	**1.50**	
				K (m)	Lb+.1-M			0.605	**1.00**	
Length of Wing wall (WL)										
				WL = 2.25h				1.6875	**1.75**	
Depth of Toe Wall										
				h1+0.1				0.8	**0.80**	

WORK ABSTRACT

Sl. No.	Item	Specification (m)			Quantity (cum)			
		Length	**Breadth**	**Depth**				
1	**Clearing of site (Removal of trees, shrubs and bushes)**	8.00	10.00					
2	**Earth work**							
	a) in hard soil Headwall Foundation	1.25	2.10	1.00	2.63	Effective depth will be 0.7 m		
	b) in hard soil RHS of Headwall extension	2.50	2.10	1.20	6.30	"		
	c) in hard soil LHS of Headwall extension	2.50	2.10	1.20	6.30	"		
	d) in hard soil cutoff wall	6.25	1.60	0.40	4.00			
	e)in hard soil side wall on both side	5.00	2.00	1.50	15.00	Effective depth will be 1 m		
	f) in hard soil Toe wall	1.50	1.60	1.00	2.40	Effective depth will be 1.00 m		
	g) in hard soil Wing wall on both side	3.50	1.80	1.50	9.45	"		
	h) Apron	2.00	1.50	0.50	1.50			
				Total	**47.58**			
3	**Cement concrete**							
	Cement Concrete (1:2:4)							
	a) Head wall coping	1.25	0.50	0.10	0.06			
	b) Apron	2.00	1.50	0.10	0.30			
	c) End sill coping	1.50	0.50	0.10	0.08			

				Total	**0.44**			
	Cement Concrete (1:4:8)							
	d) Toe wall	1.50	0.70	0.10	0.11			
	e) Apron	2.00	1.50	0.10	0.30			
	f) Side wall on both side	5.00	1.10	0.10	0.55			
	g) Wing wall on both side	3.50	1.00	0.10	0.35			
	h)Headwall and Headwall Extension	6.25	1.60	0.10	1.00			
				Total	**2.31**			
4	**Requirement of sand to nullify the impact of cracks**							
	a) Below cutoff wall	6.25	0.70	0.05	0.22			
	b)Below Headwall and headwall extension	6.25	1.20	0.05	0.38			
	c) Below side wall on both sides	5.00	1.10	0.05	0.28			
	d) Below wing wall on both side	3.50	1.00	0.05	0.18			
	e) Below apron	2.00	1.50	0.05	0.15			
	f) Below Toe wall	1.50	0.70	0.05	0.05			
				Total	**1.25**			
5	**Stone Masonary in CM 1:4**							
	a) Corewall	6.25	0.60	0.40	1.50			
	b) Headwall and Headwall Extension on both side-Foundation	6.25	1.10	0.70	4.81			
	c) Headwall+ Headwall Extension on both side above gully bed-super structure	6.25	0.80	1.00	5.00	Width=(0.5+1.1)/2= 0.8 m		
	d) Headwall Extension on both the side above crest	5.00	0.50	0.75	1.88			
	e) Foundation for side wall on both side	5.00	0.90	1.00	4.50			

	f) Side wall on both side -super structure (K Part)-I	2.00	0.80	0.50	0.80			
	g) Side wall on both side-above part-I mentioned in (e): (K Part)-II	2.00	0.70	0.50	0.70			
	h) Side wall on both side above part-II mentioned in (f): (K Part)-III	2.00	0.60	0.50	0.60			
	i) Side wall on both side above part-II mentioned in (f): (K Part)-IV	2.00	0.50	0.25	0.25			
	j) Side wall on both side-Super structure (M Part)-I	3.00	0.90	0.50	1.35			
	k) Side wall on both side-Super structure (M Part)-II	3.00	0.80	0.50	1.20			
	l) Side wall on both side above Part-II mentioned in (i): (M Part)-III	3.00	0.70	0.375	0.79	Avg. ht. of triangle portion=	0.375	
	m) Foundation for wing wall on both side	3.50	0.70	1.00	2.45			
	n) Wing wall on both side-Super structure- Part- I	3.50	0.60	0.55	1.16			
	o) Wing wall on both side-Above Part-I mentioned in (l): Part -II	3.50	0.50	0.23	0.39	Avg. ht. of triangle portion=	0.23	
	p) Toe wall: Part I	1.50	0.70	0.50	0.53			
	q) Toe wall: Part II	1.50	0.60	0.30	0.27			
	r) End Sill	1.50	0.50	0.25	0.19			
	s) Apron	2.00	1.50	0.25	0.75			
					29.11			
6	**M S Bar (10 mm, q)**				**1.00**			

7	**Providing rough stone pitching in u/s (both side)**	35.00	1.75	0.20	**12.25**			
8	**Cement pointing to stone masonary in CM 1:3 (sqm)**							
	a) Headwall both side + Extension u/s only	6.25		1.00	6.25			
	b) Side wall both side (RHS and LHS)-Part I	5.00		1.00	5.00			
	c) Side wall both side (RHS and LHS)-Part II	2.00		0.75	1.50			
	d) Side wall both side (RHS and LHS)-Part-III	3.00		0.375	1.13	Avg. ht. of triangle portion=	0.375	
	e) Wing wall both side-Part I	3.50		0.55	1.93			
	f) Wing wall both side-Part I	4.00		0.23	0.90	Avg. ht. of triangle portion=	0.23	
				Total	**16.70**			
9	**Filling of black clay soil in the up stream (free from any kind of gravel)**				**4.00**	trolly		

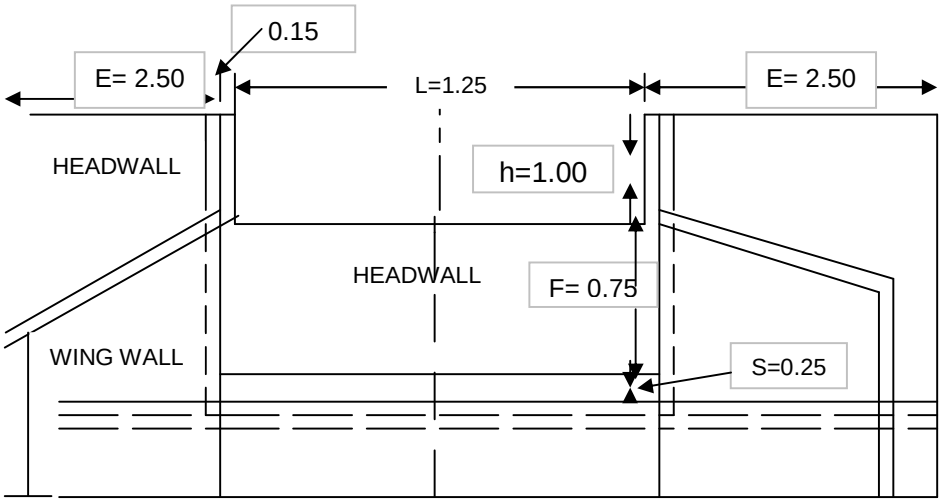
MATERIAL ABSTRACT

						Required Quantiy						
						Quantiy,cum	Cement,bags	Sand,cum	Conc ,cum	Khanda (cum)	Boulder(cum)	MS Bar (q)
1	Cement Concrete mix (1:2:4): 12 mm conc.					0.44	2.80	0.20	0.39			
2	Cement Concrete mix (1:4:8); 20 mm conc.					2.31	7.84	1.08	2.17			
3	Stone Maspnary in CM 1:4					29.11	72.77	9.90		29.11		
4	MS Bar for reinforcing											1.00
5	Boulder for pitching					12.25					12.25	
6	Cement pointing to stone masonary in CM 1:3 (sqm)					16.70	1.04	0.11				
7	Black clay soil (gravel free)					4.00						
8	Requirement of sand to nullify the impact of cracks							1.25				
					Total		**84.44**	**12.53**		**29.11**	**12.25**	**1.00**

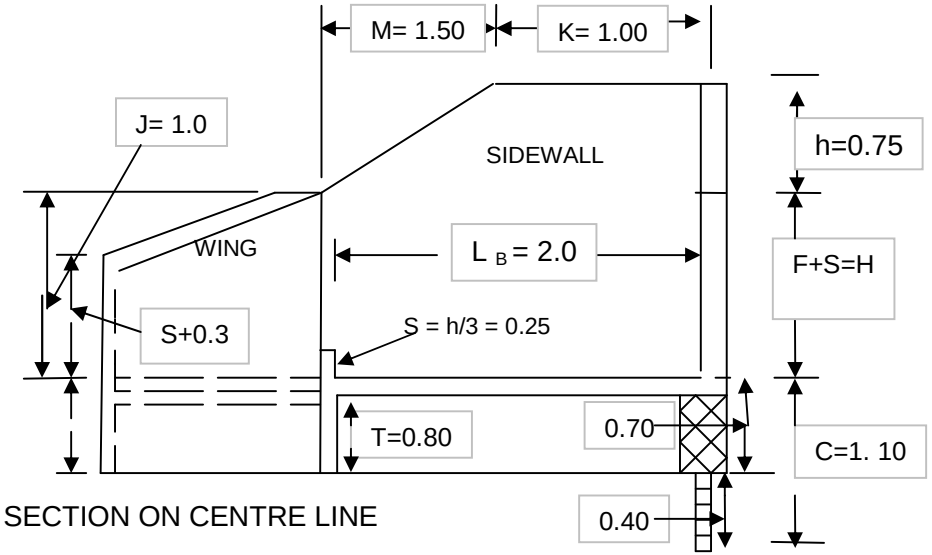
COST ABSTRACT

	Sl. No.	Item	Quantity	Unit	Rate (Rs./Unit)	Amount (Rs.)
A	1	Cement	84	Bag	300.00	25331.41
	2	Sand (good quality)	12.53	m^3	900.00	11275.03
	3	Concrete-12 mm	0.39	m^3	1300.00	511.88
	4	Concrete-20 mm	2.17	m^3	1200.00	2600.04
	5	Khanda (8"x8"x8")	29.11	m^3	1000.00	29106.25
	6	M S Bar (10 mm Saria)	1.00	q	4500.00	4500.00
	7	Boulder	12.25	m^3	700.00	8575.00
	8	Filling of black clay soil in the up stream (free from any kind of gravel)	4.00	Trolly	700.00	2800.00
					Total	**84699.60**
B	9	Water supply through tanker @ 3 % of material cost				2540.99
C	10	Labour Charges @ 35%				29644.86
					Total (A+B+C)	**116885.45**
	11	Misc. @ 3%				3506.56
					G. Total	**120392.01**
		Rs. 1,20,392/- (Rs. One lakh twenty thousand three hundred ninety two only)				

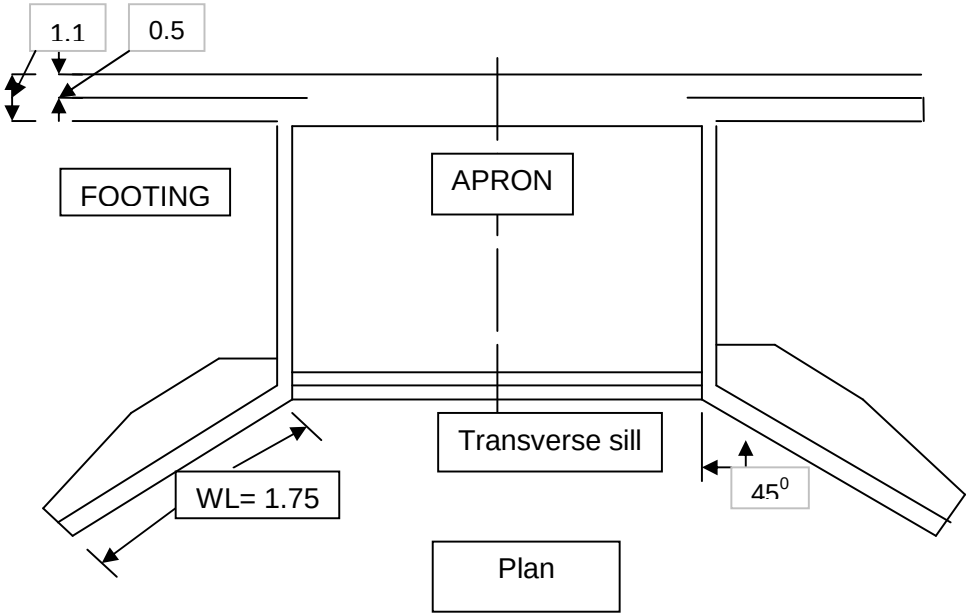
Note: The cost of materials is inclusive of all taxes and transportation to the site. It is based on the prevailing market rates. It may vary with respect to time



DOWN STREAM ELEVATION



SECTION ON CENTRE LINE



L = Length of weir
h = Depth of weir
F = Drop through spillway from crest of weir to top of transverse sill
S = Height of transverse sill
L_B = Length of Apron
T = Depth of toewall below top of apron
C = Depth of cutoff wall below top of apron
E = Length of headwall extension
J = Height of wingwall & sidewall at junction

DESIGNED BY:-
DR. R.C. SACHAN
EX. SPECIAL SCIENTIST, (LAND &WATER MANAGEMENT)
ICRISAT, PATANCHERU, A.P.

Note: Figure not to scale, All dimensions are in Metre

Technical Details of Outlet No. 3 to be constructed along with WHB

CHAPTER - 6

CAPACITY BUILDING PLAN

The capacity building of various stake holders will be given very high priority as the watershed is to be developed in participatory mode. Capacity building initiative plays very important role in human resource development of model watershed to replicate and train other watershed resource persons. The capacity building initiatives include training to government officials, CBOs, farmers and PIAs through field days, hands-on trainings, exposure visits to successful watersheds, training materials and etc. Need-based specialized training courses will be conducted. The details of the training institutes for capacity building and training to stake holders on participatory watershed management are summarized in Table 6.1 and 6.2, respectively.

Table 6.1: List of identified training institutes for capacity building*

Sr. No.	Name of the Training Institute	Full Address with contact no, website & e-mail	Designation of the Head of Institute	Type of Institute	Areas of specialization	No. of training assigned	No. of persons to be trained	Allocation to be made to the institute
1.	Krishi Vigyan Kendra	Hamirpur	Programme Coordinator	Agriculture University	Extension Agronomy Home Science Soil Science	32	1600	Proposal with budget will be received
2.	National Research Center for Agro-Forestry	Gwalior Road, Jhansi	Director	GOI, (ICAR)	Agro-forestry and NRM on watershed basis	32	1600	-do-
3	District Gram Vikash Sansthan	Hamirpur	Coordinator	State Govt.	Small scale	8	200	-do-
4	Indian Institute of Grass Land	Gwalior Road, Jhansi	Director, Jhansi	GoI (ICAR)	Grasses and fodder	8	200	-do-
5	Deptt. Of Horticulture	Hamirpur	Deputy Director	State Govt.	Fruit and Vegetable Production	4	100	-do-

***Number of trainings and persons may be changed as per the budget available.**

Table 6.2: Training to stakeholders on participatory watershed management*

Sl. No.	Client Group	Title of the Programme/Duration/ Time	Objectives	Coverage/Topics	Training Methodology	Training Institutions
1.	Watershed Committee & WDT members	Planning and implementation of IWMP Project (3 day)	To Strengthen WC and WDT for planning and executing the Project	Natural Resource Management Livelihood options for landless and marginal farmers. Improved Agriculture production system	Lectures, videos and visits to successful watershed	National Research Center for Agro-forestry, Gwalior Road, Jhansi
2.	User Group, SHGs members	Agriculture Production system and specialized training for SHGs (3 day)	To increase the Agriculture productivity and livelihood improvement	Integrated crop management in pulses, cereals, oilseeds, vegetables, orchards and small scale projects related to Agriculture.	Lectures, videos and visits	Krishi Vigyan Kendra, Bharari, Hamirpur
3	Watershed Committee & WDT members	Management of natural resources on watershed basis and agroforestry	Awareness and strengthening of knowledge and skills	NRM, Production system and livelihood	Lectures, videos and visits to successful watershed	National Research Center for Agro-forestry, Gwalior Road, Jhansi
4	Secretaries of WC and WDT/PIA members	Book keeping and record maintenance	Maintenance of record and preparing budget	Cash book and ledger registers, preparing budget, maintenance of accounts	Lectures and practical exercise	National Research Center for Agro-forestry, Gwalior Road, Jhansi
5	PIA/WDT members	Cultivation of fodder in watershed	Awareness and knowledge enhancement	Package of practices of fodder cultivation	Lectures, videos and visits to successful watershed	Indian Grassland and Fodder Research Institute, Jhansi

6.	PIA/WDT/WC members	Knowledge of market and pricing	Awareness and knowledge enhancement	Market intelligence	Lectures, videos and visits	Agriculture Technology Management Agency (ATMA)
7	PIA/WDT members	Design of SWC structures	Strengthening of knowledge	SWC structures	Lectures, practical exercise and visits to successful watershed	NRCAF, Jhansi / CSWCRTI&RS, Datia, MP

*Training programs, duration and topics may be change on course of project as per need

CHAPTER - 7

PHASING OF PROGRAMME AND BUDGETING

7.1 Monitoring and Evaluation

Monitoring of the project will be done at each stage and it will be carried out for both, process and outcome. Some community members will be trained and will be involved in participatory monitoring of various parameters and processes and the crop yields. The interventions, expenditure and other information will be displayed in the micro-watershed through wall writings. Besides trained community members, PIA/DWDC will also monitor the physical and financial progress of watershed development programme. The PIA / Watershed Cell cum Data Centre (WCDC) will use frontier technologies viz. GIS and Remote Sensing techniques for monitoring and evaluation. The PIA shall submit quarterly progress reports (countersigned by the Watershed Committee (WC) President) to the DWDC for further submission to the SLNA. Sustainable and unbiased monitoring will be ensured by involving an independent agency to monitor impact assessment subsequently. About 1 per cent of the total budget will be used on this activity.

Plan for Evaluation

Watershed development activities bring about both tangible and intangible benefits. In order to quantify the benefits, impact analysis has been proposed.

Theme

The watershed development activities will being significant and tangible change in socio-economic status of inhabitants, cropping intensity, ground water recharge, crop diversification, fuel, fodder and small timber availability, livestock composition and milk production, etc. Data on indicators baseline in such parameters with base line data would provide the quantitative information on impact.

Observations

The following indicators will be taken into account for quantitative and qualitative assessment. For the purpose, detailed questionnaires will be prepared and field observations will be carried out.

- Duration of availability of drinking water/irrigation and groundwater recharge measure through periodic ground water level in dug well
- Irrigation frequency and area under irrigation
- Changes in cropping pattern and cropping systems in the farmers fields along with productivity and incomes
- Soil health
- Satellite monitoring for vegetation cover and other parameters
- Fuel, fodder and small timber availability
- Livestock composition and productivity

- Periodic pest and disease monitoring will be done in major crops
- Socio-economic aspects including resource inventory
- Following indices will also be worked out as qualitative indicators of the watershed development:
- Land Improvement Index (LII)
- Crop Diversification Index (CDI)
- Cultivated Land Utilization Index (CLUI)
- Crop Fertilization Index (CFI)
- Induced Watershed Eco-Index (IWEI)

The concurrent and post-project monitoring and evaluation would be conducted to assess the status of watershed related interventions. It will be done by an independent agency having similar experiences. About 1 per cent of the total budget will also be used on evaluation.

7.2 Annual Action Plan (AAP)

Physical and financial targets and outlays and their year wise break ups are given Table 7.1. Year wise financial phasing for the budget available (Rs. 633.74 lakh) with IWMP-XI, district Hamirpur is given in Table 7.2.

Table 7.1: Physical and financial targets and outlays and their year wise break ups of IWMP-XI, Hamirpur-I, Hamirpur, U.P.

Project - IWMP-XI			PIA-Soil conservation Division, Hamirpur -I						District- Hamirpur			
S. No	Physical and financial targets	Unit	First Year 2011-12		Second Year 2012-13		Third Year 2013-14		Fourth Year 2014-15		Total Project	
			Physical	Financial	Physical	Financial	Physical	Financial	Physical	Financial	Physical	Financial
1	Administration			3.17		31.69		19.01		9.51	0	63.37
2	Monitoring			0.00		3.17		1.58		1.58	0	6.34
3	Evaluation			0.00		1.27		2.85		2.22	0	6.34
4	**Entry point activities**	No.									0	0.00
	(1) Planned		10	25.35	0	0.00	0	0.00	0	0.00	10	25.35
	(a) No. of Activities	No.	10	0.00	0	0.00	0	0.00	0	0.00	10	0.00

	(b) No. of beneficiaries	No.	11900	0.00	0	0.00	0	0.00	0	0.00	11900	0.00
	(2) Executed		10	0.00	0	0.00	0	0.00	0	0.00	10	0.00
	(c) No. of Activities	No.	10	0.00	0	0.00	0	0.00	0	0.00	10	0.00
	(d) No. of beneficiaries	No.	11900	0.00	0	0.00	0	0.00	0	0.00	11900	0.00
5	**Institutional & Capacity Building**										0	0.00
	(1) No. of Persons to be trained		255	1.60	2355	15.36	2121	14.73	0	0	4731	31.69
	(a) SLNA level	No.	0	0.00	210	1.81	210	1.81	0	0	420	3.62
	(b) District level	,,	20	0.16	300	1.96	300	1.96	0	0	620	4.08
	(c) PIA level (OFFICIAL/WDT/SECARATERY)	,,	45	0.32	480	3.47	360	2.26	0	0	885	6.05
	(c) PIA level (FARMERS)	,,	190	1.11	1365	8.12	1251	7.7	0	0	2806	16.93
6	**DPR Preparation**	MWS No.	7	6.34	0	0.00	0	0.00	0	0.00	7	6.34
7	**Watershed Development Works**		-								0	0.00
	(1) SMC	cum	0	0.00	388263	164.11	232958	98.47	155305	65.64	776525	328.22

	(2) Water Resource Development										0	0.00
	(a) Structures	No.	0		7	13.34	4	8.00	3	5.33	14	26.67
	(b) Storage capacity	cum		-	1100	0.00	660	0.00	440	-	2200	0.00
	(c) Life saving irrigation area	ha.			2	0.00	1	0.00	1		4	0.00
	(d) User Groups	No.			7		4		3		14	0.00
	(4) Afforestation / Pasture development										0	0.00
	A. Trees + Grasses										0	0.00
	1. Sirash - Stylo hamata & Cencrush (1:1) (Area)	ha.	0		0	0.00	0	0.00	0	0.00	0	0.00
	B. Grasses species										0	0.00
	1. Hetropogon / Crysopogon (On bund) (Area)				0	0.00	0	0.00	0	0.00	0	0.00
8	**Production system**										0	0.00
	(1) Agriculture										0	0.00
	(a) Crop demonstration										0	0.00
	(1) No. of dem.	No.	0	0.00	264	11.06	264	11.06	59	2.46	586	24.57
	(2) Area	ha.			105		105		23		234	0.00

	(b) Seed Production		0								0	0.00
	(1) No. of dem.	No.	0	0.00	248	10.41	248	10.41	55	2.31	551	23.13
	(2) Area	ha.	0		99		99		22		220	0.00
	(2) Horticulture/ Agri-Horticulture		0								0	0.00
	(a) Area	ha.	0	0.00	22	3.97	22	3.97	5	0.88	49	8.82
	(b) No. of Plants	No.		0.00							0	0.00
	(4) Animal husbandry										0	0.00
	A. fodder production	No. of Units / Farmers	0	0.00	147	0.88	147	0.88	33	0.20	327	1.96
	B. Vaccination/Medication	No. of Animals			351	0.22	351	0.22	78	0.05	779	0.49
	C. Artificial Insemination	No. of Animals			343	0.15	343	0.15	76	0.03	762	0.32
	D. Natural Service.	He Buffalo			8	1.84	8	1.84	2	0.41	17	4.08
	E. Others	No. of Animals			0	0.00	0	0.00	0	0.00	0	0.00
											0	0.00
9	**Livelihood activities through SHG's**										0	0.00
	(1) Activity Goatary										0	0.00
	(a) No. of SHG's	No.	0	0.00	19	4.73	19	4.73	4	1.05	42	10.50

	(b) No. of members	No.	0	0.00	189	0.00	189	0.00	42	0.00	420	0.00
	(c) Estimated income per year	Rs.	0	0.00							0	0.00
	(2) Activity- Back Yard Poultry		0	0.00							0	0.00
	(a) No. of SHG's	No.	0	0.00	16	3.94	16	3.94	4	0.88	35	8.75
	(b) No. of members	No.	0	0.00	158	0.00	158	0.00	35	0.00	350	0.00
	(c) Estimated income per year	Rs.	0	0.00							0	0.00
	(3) Activity- Poultry , Broiler		0	0.00							0	0.00
	(a) No. of SHG's	No.	0	0.00	13	3.26	13	3.26	3	0.73	29	7.25
	(b) No. of members	No.	0	0.00	131	0.00	131	0.00	29	0.00	290	0.00
	(c) Estimated income per year	Rs.	0	0.00							0	0.00
	(4) Black Smithy										0	0.00
	(a) No. of SHG's	No.	0	0.00	6	1.58	6	1.58	1	0.35	14	3.50
	(b) No. of members	No.	0	0.00	63	0.00	63	0.00	14	0.00	140	0.00
	(c) Estimated income per year	Rs.	0	0.00		0.00	0	0.00	0	0.00	0	0.00
	(5) Rope making										0	0.00

	(a) No. of SHG's	No.	0	0.00	8	2.03	8	2.03	2	0.45	18	4.50
	(b) No. of members	No.	0	0.00	81	0.00	81	0.00	18	0.00	180	0.00
	(c) Estimated income per year	Rs.	0	0.00							0	0.00
	(6) Tailoring										0	0.00
	(a) No. of SHG's	No.	0	0.00	6	1.58	6	1.58	1	0.35	14	3.50
	(b) No. of members	No.	0	0.00	63	0.00	63	0.00	14	0.00	140	0.00
	(c) Estimated income per year	Rs.	0	0.00		0.00	0	0.00	0	0.00	0	0.00
	(8) Vermi Composting										0	0.00
	(a) No. of SHG's	No.	0	0.00	10	2.59	10	2.59	2	0.58	23	5.75
	(b) No. of members	No.	0	0.00	104	0.00	104	0.00	23	0.00	230	0.00
	(c) Estimated income per year	Rs.	0	0.00							0	0.00
	(9) Food processing										0	0.00
	(a) No. of SHG's	No.	0	0.00	12	2.93	12	2.93	3	0.65	26	6.50
	(b) No. of members	No.	0	0.00	117	0.00	117	0.00	26	0.00	260	0.00

	(c) Estimated income per year	Rs.	0	0.00							0	0.00
	(13) Seed Bank										0	0.00
	(a) No. of SHG's	No.	0	0.00	12	3.05	12	3.05	3	0.68	27	6.79
	(b) No. of members	No.	0	0.00	122	0.00	122	0.00	27	0.00	270	0.00
	(c) Estimated income per year	Rs.	0	0.00							0	0.00
	(14) Others (specify)										0	0.00
10	**Consolidation & Withdrawl Phase activities**		0	0.00	0	0.00	0	0.00	0	19.01	0	19.01
Grand Total											784586	633.74

Table 7.2: Year wise financial phasing (Rs in Lakh) Project IWMP-XI, Hamirpur- I, Hamirpur, U.P.

Particulars	1st Year	2nd Year	3rd Year	4th Year	Total
Administrative Cost-10%	3.17	31.69	19.01	9.51	63.37
Monitering-1%	0.00	3.17	1.58	1.58	6.34
Evalution-1%	0.00	1.27	2.85	2.22	6.34
Entry Point Activity-4%	25.35	0.00	0.00	0.00	25.35
Institution & Capacity Building-5%	1.58	15.84	14.26	0.00	31.69
DPR-1%	6.34	0.00	0.00	0.00	6.34
Watershed Dev. Work-56%	0.00	177.45	106.47	70.98	354.89
Livelihood Activity-9%	0.00	25.67	25.67	5.70	57.04
Production System & Micro enterprises-10%	0.00	28.52	28.52	6.34	63.37
Consolidation-3%	0.00	0.00	0.00	19.01	19.01
Total	**36.44**	**283.60**	**198.36**	**115.34**	**633.74**

Note: The budget available under IWMP-XI is Rs. 633.74 lakh, however, the activities are planned for the Rs. 633.74.

7.3 Details of Convergence

The details of convergence of different developmental schemes are given Chapter 5

7.4 Benefit Cost Analysis

Benefit cost analysis for the project is given in Table 7.3 and 7.4, respectively. The overall B:C ratio for pre and post project is 1.60 and 1.82, respectively,

Present Outcome (Crops)

Name of Crop (Season wise)	Area (ha)	Production (quintal)	Productivity q/ha	Cost/ ha	Rate Rs/q	Gross Return Rs	Gross Return/ha	Total Cost Rs	Net Return	Net Return /ha	B:C Ratio
Urd	1865.43	5866.79	3.15	10500	5200	30507296	16354	9700253	20807043	11154	1.56
Moong	591.33	1830.16	3.10	10000	5400	9882857	16713	3193169	6689688	11313	1.67
Arhar	557.64	2843.96	5.10	12000	5500	15641791	28050	3067018	12574773	22550	2.34
Sorghum	328.95	1973.72	6.00	5000	2500	4934307	15000	822385	4111923	12500	3.00
Til	1690.10	3126.68	1.85	4800	6000	18760063	11100	10140575	8619489	5100	2.31
Total	**5033.45**	**15641.31**				**79726314**		**26923399**	**52802915**		
Wheat	2020.49	32529.82	16.10	14000	1200	39035790	19320	2424583	36611206	18120	1.38
Barley	1062.94	11373.42	10.70	7500	1400	15922781	14980	1488110	14434671	13580	2.00
Masoor	1901.63	8557.34	4.50	10500	4000	34229340	18000	7606520	26622820	14000	1.71
Gram	2861.91	15740.51	5.50	9000	2600	40925313	14300	7440966	33484347	11700	1.59
Field Pea	409.75	2847.73	6.95	8500	2200	6265016	15290	901441	5363575	13090	1.80
Total	**8256.71**	**71048.81**				**136378240**		**19861621**	**116516619**		1.70
Cropping Intensity	110.34		Over All B:C		1.70						
Cultivable Area (ha)	12044.62										
Total Number of Farm Families in MWS	**6160**										
Net Return per Household	18915.0										
Expected Out come											

Expected Outcome (Crops)

Name of Crop (Season wise)	Area (ha)	Production (quintal)	Productivity q/ha	Cost/ ha	Rate Rs/q	Gross Return Rs	Gross Return/ha	Total Cost Rs	Net Return	Net Return /ha	B:C Ratio
Urd	2350.45	8131.37	3.5	10500	5200	42283113	17989	12222319	30060794	12789	1.71
Moong	709.59	2415.81	3.4	10000	5400	13045371	18384	3831802	9213568	12984	1.84
Arhar	663.59	3722.75	5.6	12000	5500	20475104	30855	3649751	16825353	25355	2.57
Sorghum	404.61	2670.45	6.6	5000	2500	6676117	16500	1011533	5664584	14000	3.30
Til	1960.51	3989.64	2.0	4800	6000	23937841	12210	11763067	12174774	6210	2.54
Total	**6088.75**	**20930.01**				**106417545**	**95939**	**32478472**	**73939073**		
Wheat	2182.12	38645.43	17.7	14000	1200	46374518	21252	2618550	43755968	20052	1.52
Barley	1116.08	13136.29	11.8	7500	1400	18390812	16478	1562516	16828296	15078	2.20
Masoor	3137.69	15531.56	5.0	10500	4000	62126252	19800	12550758	49575494	15800	1.89
Gram	3033.62	18353.43	6.1	9000	2600	47718915	15730	7887424	39831491	13130	1.75
Field Pea	426.14	3257.81	7.6	8500	2200	7167179	16819	937499	6229680	14619	1.98
Total	**9895.66**	**88924.53**				**181777676**	**90079**	**25556747**	**156220929**		1.87
Cropping Intensity	132.71			Over All B:C	1.9						
Cultivable Area (ha)	12044.62										
Total Number of Farm Families in MWS	**6160**										
Net Return per Household	25360.54										

Present Outcome (Livestock)

Particulars	**Cows**	**Buffaloes**	**Goat**	**Bullocks**
Total Animals in Micro watershed Area	2411	1271	4959	474
Milking Animals (No.)	1150	740	1700	
Average Milk Production Lit. / day	1817	2856.4	544	
Average Milk Production /Animal/ day	1.58	3.86	0.32	
Sale of Milk per day (Rs) @ Rs 15/Lit	27255	42846	8160	
Average 150 day milking days & Goat 90 days in a year (Total Rs)	**4088250**	**6426900**	**734400**	
Meat Animals			3200	
Average rate of one kids Rs			2500	
Total Sale in a year Rs			**8000000**	
Working Animals (Bullocks)				474
One year work one agriculture fields 180 days @ 200/ day (One pair)				36000
Total Work value of all Draft animals				**8532000**
	4088250	**6426900**	**8734400**	8532000
Total monetary worth (Rs.)				**27781550**
Total Family				6160
Total Income/Family				4509.99
Total Expenditure / family				3000
B:C Ratio				1.5

Present Outcome (Livestock)

Particulars	**Cows**	**Buffaloes**	**Goat**	**Bullocks**
Total Animals in Micro watershed Area	4000	2000	8000	700
Milking Animals (No.)	2200	1150	2800	
Average Milk Production Lit. / day	4840	6210	1680	
Average Milk Production /Animal/ day	2.2	5.4	0.6	
Sale of Milk per day (Rs) @ Rs 15/Lit	72600	93150	25200	
Average 150 day milking days & Goat 90 days in a year (Total Rs)	**10890000**	**13972500**	**2268000**	
Meat Animals			4200	
Average rate of one kids Rs			2800	
Total Sale in a year Rs			**11760000**	
Working Animals (Bullocks)				700
One year work one agriculture fields 180 days @ 200/ day (One pair)				44000
Total Work value of all Draft animals				15400000
Total monetary worth (Rs.)	**10890000**	**13972500**	**14028000**	**15400000**
				54290500
Total Family				6160
Total Income/Family				8813.39
Total Expenditure / family				5000
B:C Ratio				1.76

Table 7.4 : Outcomes & Benefit cost analysis of IWMP-XI, Hamirpur

Net Income / Family	**Present**	**Projected**
Agriculture	18915	25361
Animal Husbandry	4510	8813
Total (Ag+AH)	**23425**	**34174**
Over All B:C of MWS		
Agriculture	1.70	1.87
Animal Husbandry	1.50	1.76
Over All B: C MWS	**1.60**	**1.82**

Note: Similarly B:C ratio was worked out for other micro-watersheds also and kept in respective project file available with PIA

CHAPTER - 8

CONSOLIDATION AND WITHDRAWAL STRATEGY

8. Consolidation and Withdrawal Strategy

Success of any program depends on sustainability of the various watershed interventions and sustainability can only be achieved through active participation of community. Active participation and cooperation of community can be ensured by building their capacities through exposures and trainings. From the beginning emphasis will be on capacity building and empowerment of stakeholders. The Watershed Committee, SHGs, Area Groups, Users Group and other CBOs will be established, trained, and strengthened to continue development after withdrawal of PIA. By building economic activities through CBOs community participation will be sustained. The PR&D approach along with demand driven interventions will reduce dependency on subsidies. Contributions from the community will be ensured for the entire activities to develop sense of ownership and these contributions will be deposited to the account of Watershed Development Fund. Watershed Development Fund will also be strengthening through donations from the individual and institutions and the CBOs will be trained to run watershed as business model on sustainable basis. The tangible economic benefits along with empowerment and hand holding by PIA will empower the CBOs to develop and sustain the watershed activities after withdrawal of the PIA. Community organizations will withdraw the money from the WDF to maintain the asset created during the implementation phase. The consolidation phase will also include

- Writing of project completion report
- Documentation of success stories
- Making films, leaflets, bulletins and the lessons learnt.

The expenditure will be done as per the Common Guidelines for Watershed Development Projects 2008.

The completion report will reflect the development on following aspects:

- Productivity enhancement (increase in total productivity, seed replacement, farm mechanization, resources use and operational efficiency.
- Nutritional security (Production of diverse food commodities)
- Risk minimization (Integrated farming system, including diversification, water harvesting and protected cultivation, value addition and improved marketing)
- State of environment (Improvement in vegetative cover, hydrology and adoption of IPNM)
- Profitability (Loss preventing and cost reducing measures, value addition and agro-processing.)
- Livelihood security (skill enhancement capacity building, increased employment in agriculture and allied enterprises. Reduction in drudgery of farm women and out migration)

CHAPTER - 9

EXPECTED PROJECT OUTCOME

9.1 Employment Generation and Checking Migration

There had been very heavy migration from Bundelkhand region. During drought years, it is as high as 39% against an average migration rate of 11%, in other regions of Uttar Pradesh towards northern part of the country, specially the states of Delhi, Punjab and Haryana, as agriculture labours, factory workers, rickshaw pullers etc. The major reason attributed to high rate of migration is continuous drought in the region and absence of any other alternate livelihood opportunity, in spite of several anti-poverty programmes.

Due to watershed management the cropping intensity will be increased by around 22.35 per cent, in turn acreage in agricultural activities will be increased by about 1180.00 ha. Therefore, an additional employment of about 118000 man days will be generated annually. Therefore, no migration in search of livelihoods is expected after implementation of watershed programme.

9.2 Other Expected Outcome*

The following tangible benefits are expected after implementation of the project:

- Runoff will be reduced by about 30 per cent, however soil and nutrient loss may be reduced up to 40 per cent from the watershed.
- Irrigation intensity may be increased to 40 per cent from present 3 per cent life saving irrigation.
- Surface water in nallah may be available for more than 8 months against 4-5 months at present.
- Average ground water recharge of about 2-4 m may be easily obtained after implementation of the programme
- Productivity of crops may be increased by about 15-25 per cent
- Significant saving of seeds may be obtained through crop demonstration with improved package of practices
- During implementation phase about 300,000 mandays will be created through the soil and water conservation measures and crop/agroforestry interventions.
- The overall B C ratio of the project is estimated to be 1.82 as compared to the 1.60 in pre project scenario (detailed analysis is given in Chapter 7)

*** Above mentioned outcomes are based on the meta analysis of 636 watershed projects across India support by various govt. deptt. and development agencies throughout the country done by ICRISAT, Hyderabad and practical experience of watershed management in Bundelkhand region.**

9.3 Questions to be answered

This project will answer the following questions:

1. Will the measures taken for water harvesting sufficient enough to recharge the perched water table?
2. Will the soil and water conservation practices be helpful in combating drought?
3. Will alternate land use such as agroforestry land use system result in self reliance/prosperity in drought prone areas?
4. Can the strategies based on watershed basis yield fruitful results?
5. Response of the villagers towards the project and their participation in sustaining developed resources after withdrawal of the project?
6. Will be formation of SHGs will help in savings and generation of self employment?
7. Will the watershed programmes improve the socio-economic conditions of the stake holders?
8. Will the watershed programme helps in capacity building of the stake holders for dissemination of various activities of watershed programme?
9. Will it sustain after project withdrawal?

9.4 Problems that could be solved as a results of this project/study

Following problems can be tackled in the proposed watershed:

1. Solving the problems of shortage of fuel, fodder, fruit and small timber requirement of villagers.
2. Creating water resources for ground water recharge availability of surface water for animal drinking and nistar purposes.
3. Increasing fertilizer consumption and improving NPK consumption ratio.
4. Optimizing crop productivity by putting more area under HYV and irrigation.
5. Increasing cropping intensity.
6. Promoting dairying through increased fodder availability.
7. Improving basic amenities and facilities like health, education, drinking water etc.
8. Increasing per capita income and thereby standard of living of farming community.
9. Increasing co-operative membership.
10. Increasing self employment.
11. Improving living standard of society.

ANNEXURE-I

BENEFICIARIES WISE DETAILS OF DEVELOPMENTAL ACTIVITIES

Micro-watershed wise beneficiary details of Proposed / Planned W/S Development Activities (Individual) kept in project file

Chhani Bujurg(2C2B2l3)											
Village-Chhani bujurg											
S. No.	**Name of Work**	**Benefited area (ha)**	**Field No. / Khasara No.**	**Area of work**		**C.S. (Area)**	**Work Measurement**	**Rate**	**Total Cost (Rs.)**	**Manday Rs. 120/Labour**	**Name of Farmers**
				Length	**Width * Height**						
1	SB1	9.11	302 to 304	300	5.09+0.60/2 *1.43	4.21	1263	41.22	52060	433.8333333	Sabhajeet Singh etc.
2	SB2	17.62	350 to 359	580	5.09+0.60/2 *1.43	4.21	2441.8	41.22	100650	838.75	Bablu Singh etc.
3	SB3	12.76	344 to 347	420	5.09+0.60/2 *1.43	4.21	1768.2	41.22	72885	607.375	Siddhgopal etc.
4	SB4	45.57	26 to 42, 58 to 94	1500	5.09+0.60/2 *1.43	4.21	6315	41.22	260304	2169.2	Rampal Singh etc.
5	SB5	36.46	121 to142, 1 to 4	1200	5.09+0.60/2 *1.43	4.21	5052	41.22	208243	1735.358333	Jaypal Singh etc.
6	SB6	72.91	1206 to 1270, 1335 to 1405	2400	5.09+0.60/2 *1.43	4.21	10104	41.22	416486	3470.716667	
7	SB7	18.23	1 to 16	600	5.09+0.60/2 *1.43	4.21	2526	41.22	104122	867.6833333	Shukhanandan etc.
8	SB19	36.46	224 to 235	1200	5.09+0.60/2 *1.43	4.21	5052	41.22	208243	1735.358333	Ramkishan etc.
9	SB20	85.07	152 to 171	2800	5.09+0.60/2 *1.43	4.21	11788	41.22	485901	4049.175	Imambaks etc.
10	SB21	30.38	370 to 382	1000	5.09+0.80/2 *1.43	4.21	4210	41.22	173536	1446.133333	Pankaj Kumar etc.
11	SB22	24.3	391 to 393	800	5.09+0.80/2 *1.43	4.21	3368	41.22	138829	1156.908333	Bharat Singh etc.
12	SB23	30.38	202 to 214	1000	5.09+0.80/2 *1.43	4.21	4210	41.22	173536	1446.133333	Niraj Kumar etc.
	Total	419.25		13800			58098		23947		

									95		
1	CD1	37.8	8 to 15, 72 to 104	200	3+11.80/2*2.20	16.28	3256	46.08	150036	1250.3	Shyamkishor etc.
			Cleaning, welling		200*11.80*3.41				8047		
									158083		
2	CD2	27.2	143 to 149, 241 to 257, 305 to 309	150	3+10.80/2*1.95	13.45	2017.5	44.34	89456	745.4666667	Chan Khan etc.
			Cleaning, welling		150*10.80*3.41				5524		
									94980		
3	CD3	37.45	313 to 325, 329 to 334,	200	3+11.80/2*2.20	16.28	3256	46.08			Lalit Kumar etc.
			Old work		2+0.40/2*0.40	0.48*70	33.6				
			Work				3222.4		148488	1237.4	
			Cleaning, welling		200*11.80*3.41				8047		
									156535		
4	CD4	24.8	583 to 593	150	2+10/2*2	12.00	1800	44.34	79812	665.1	Bhaiyadeen etc.
			Cleaning, welling		15*10*3.41				5115		
									84927		
5	CD5	33.5	152 to 184, 216 to 238	200	3+11.80/2*2.20	16.28	3256	46.08	150036	1250.3	Kamta Prasad etc.
			Cleaning, welling		200*11.80*3.41				8047		
									158083		

6	CD6	18.25	270 to 275	100	3+11.80/2*2.20	16.28	1628	46.08	75018	625.15	Rajesh Singh etc.
									4024		
									79042		
	Total	179		1000			15179.9		731650		
1	PB1	21.27	572 to 580	700	5.09+0.80/2*1.43	4.21	2947	41.22	121475	1012.291667	Vijay Kumar etc.
2	PB2	18.23	288 to 291	600	5.09+0.80/2*1.43	4.21	2526	41.22	104122	867.6833333	Girjashankar etc.
3	PB3	15.19	754	500	5.09+0.80/2*1.43	4.21	2105	41.22	86768	723.0666667	Gayacharan etc.
	Total	54.69		1800			7578		312365		
			Village-Bagharka								
13	SB8	85.07	194 to 228	2800	5.09+0.60/2*1.43	4.21	11788	41.22	485901	4049.175	Nathram etc.
14	SB9	48.61	350 to 384	1600	5.09+0.60/2*1.43	4.21	6736	41.22	277658	2313.816667	Jagat Singh etc.
15	SB10	45.57	249 to 269	1500	5.09+0.60/2*1.43	4.21	6315	41.22	260304	2169.2	Shyamsundar etc.
16	SB11	24.30	427 to 460	800	5.09+0.60/2*1.43	4.21	3368	41.22	138829	1156.908333	Ramji etc.
17	SB12	79.00	712 to 818	2600	5.09+0.60/2*1.43	4.21	10946	41.22	451194	3759.95	Chandrabhan Singh etc.
	Total	282.55		9300			39153		1613886		
			Village-Chhani Khurd								
18	SB13	66.84	59 to 122	2200	5.09+0.60/2*1.43	4.21	9262	41.22	381780	3181.5	Baijnath etc.

19	SB14	36.46	26 to 46	1200	5.09+0.60/2 *1.43	4.21	5052	41.22	208243	1735.358333	Ramlal etc.
20	SB15	42.53	194 to 215, 282 to 295	1400	5.09+0.60/2 *1.43	4.21	5894	41.22	242951	2024.591667	Ramkhelbvan etc.
21	SB16	30.38	164 to 191, 256 to 276	1000	5.09+0.60/2 *1.43	4.21	4210	41.22	173536	1446.133333	Devidayal etc.
22	SB17	75.15	223 to 251	2500	5.09+0.60/2 *1.43	4.21	10525	41.22	433841	3615.341667	Pratap etc.
23	SB18	30.38	436 to 444, 532 to 551	1000	5.09+0.60/2 *1.43	4.21	4210	41.22	173536	1446.133333	Ramlakhan Singh etc.
	Total	281.74		9300			39153		1613887		
			Village-Ruri Para								
24	SB24	54.68	1212 to 1224, 1271 to1308	1800	5.09+0.80/2 *1.43	4.21	7578	41.22	312365	2603.041667	Ramkhilvan etc.
25	SB25	30.38	1039 to 1062	1000	5.09+0.80/2 *1.43	4.21	4210	41.22	173536	1446.133333	Vinod Singh etc.
26	SB26	27.34	491 to 1023	900	5.09+0.80/2 *1.43	4.21	3789	41.22	156183	1301.525	Chokhelal etc.
	Total	112.4		3700			15577		642084		
			Village-Danda								
27	SB27	60.76	227 to 244	2000	5.09+0.80/2 *1.43	4.21	8420	41.22	347072	2892.266667	Brajnandan etc.
28	SB28	18.23	130 to 149	600	5.09+0.80/2 *1.43	4.21	2526	41.22	104122	867.6833333	Satya Pal etc.
29	SB29	21.27	103 to 129	700	5.09+0.80/2 *1.43	4.21	2947	41.22	121475	1012.291667	Maheshvari Deen etc.
	Total	100.26		3300			13893		572669		

			Village-Parsani								
30	SB30	15.19	330 to 1062	500	5.09+0.80/2 *1.43	4.21	2105	41.22	86768	723.0666667	
31	SB31	30.38	90 to 96, 336 to 347	1000	5.09+0.80/2 *1.43	4.21	4210	41.22	173536	1446.133333	Satishchandra etc.
32	SB32	60.76	389 to 392	2000	5.09+0.80/2 *1.43	4.21	8420	41.22	347072	2892.266667	Rajaram etc.
33	SB33	18.23	352 to 403	600	5.09+0.80/2 *1.43	4.21	2526	41.22	104122	867.6833333	Rameshvar Singh etc.
	Total	124.56		4100			17261		711498		
			Village-Dhanpura								
34	SB34	30.38	57 to 101	1000	5.09+0.80/2 *1.43	4.21	4210	41.22	173536	1446.133333	Pitubaba etc.
35	SB35	12.15	151 to 155	400	5.09+0.80/2 *1.43	4.21	1684	41.22	69414	578.45	Dharm Singh etc.
36	SB36	30.38	104 to 119	1000	5.09+0.80/2 *1.43	4.21	4210	41.22	173536	1446.133333	Malkhan Singh etc.
37	SB37	30.38	214 to 228	1000	5.09+0.80/2 *1.43	4.21	4210	41.22	173536	1446.133333	Gayan Singh etc.
38	SB38	60.76	164 to 178	2000	5.09+0.80/2 *1.43	4.21	8420	41.22	347072	2892.266667	Dharmendra Singh etc.
	Total	164.05		5400			22734		937094		
			Village-Swasa Bujurg								
39	SB39	75.95	1 to 3, 29 to 47	2500	5.09+0.80/2 *1.43	4.21	10525	41.22	433840	3615.333333	Shan Singh etc.
40	SB40	24.3	151 to 174	800	5.09+0.80/2 *1.43	4.21	3368	41.22	138829	1156.908333	Lalbahadur etc.
41	SB41	21.27	14 to 22	700	5.09+0.80/2 *1.43	4.21	2947	41.22	121475	1012.291667	Shivnandan etc.

	Total	121.52		4000			16840		694144		
			Village-Mora Kandar								
42	SB42	15.19	189, 190	500	5.09+0.80/2 *1.43	4.21	2105	41.22	86768	723.0666667	Rakesh etc.
43	SB43	18.23	341 to 347	600	5.09+0.80/2 *1.43	4.21	2526	41.22	104122	867.6833333	Ramkishan etc.
	Total	33.42		1100			4631		190890		
			Village-Bijehta								
44	SB44	24.3	1357 to 1370	800	5.09+0.80/2 *1.43	4.21	3368	41.22	138829	1156.908333	Dayashankar etc.
45	SB45	45.57	1412 to1414, 1388, 1495 to 1496, 1427 to 1453	1500	5.09+0.80/2 *1.43	4.21	6315	41.22	260304	2169.2	Shivaratan etc.
46	SB46	36.46	1416 to 1425, 1458	1200	5.09+0.80/2 *1.43	4.21	5052	41.22	208243	1735.358333	Raghuvir Singh etc.
47	SB47	30.38	1520 to 1526	1000	5.09+0.80/2 *1.43	4.21	4210	41.22	173536	1446.133333	Kuldip etc.
48	SB48	36.46	1528 to 1550	1200	5.09+0.80/2 *1.43	4.21	5052	41.22	208243	1735.358333	Ramlakhan etc.
49	SB49	85.07	1559 to 1585, 1588 to 1601, 1609 to 1611	2800	5.09+0.80/2 *1.43	4.21	11788	41.22	485901	4049.175	Mahendra Singh etc.
50	SB50	9.11	1703 to 1724	300	5.09+0.80/2 *1.43	4.21	1263	41.22	52060	433.8333333	Jagannath etc.
51	SB51	27.34	1840 to 1854	900	5.09+0.80/2 *1.43	4.21	3789	41.22	156182	1301.516667	Ramsahodar etc.
52	SB52	27.34	1800 to 1835	900	5.09+0.80/2 *1.43	4.21	3789	41.22	156182	1301.516667	Harikishan etc.
53	SB53	42.53	1679 to 1701	1400	5.09+0.80/2 *1.43	4.21	5894	41.22	242951	2024.591667	Fulkliya etc.
54	SB54	36.46	1631 to 1660	1200	5.09+0.80/2 *1.43	4.21	5052	41.22	208243	1735.358333	Rameshvar etc.

55	SB55	27.34	1693 to 1770	900	5.09+0.80/2 *1.43	4.21	3789	41.22	156182	1301.516667	Ganga Prasad etc.
	Total	428.36		14100			59361		2446856		
			Village-Chhedi Vasayak								
56	SB56	30.38	703 to 735	1000	5.09+0.80/2 *1.43	4.21	4210	41.22	173536	1446.133333	Hariram etc.
	Total	30.38		1000			4210		173536		
	Pucca Work								1284966		
	Total	2332.18		71900			313668.9		14320320		

Atarar 2C1b2d3e											
Village-Kalla											
S. No.	**Name of Work**	**Benefited area (ha)**	**Field No. / Khasara No.**	**Area of work**		**C.S. (Area)**	Work Measurement	**Rate**	**Total Cost (Rs.)**	**Manday Rs. 120/Labour**	**Name of Farmers**
				Length	**Width * Height**						
1	SB1	56.54	215 to 247	2420	4.41+0.60/2* 1.27	3.18	7695.6	41.22	317213	2643	Durga etc.
2	SB2	13.62	202 to 211	550	4.41+0.60/2* 1.27	3.18	1749	41.22	72094	601	Kallu etc.
3	SB3	8.26	195 to 200	360	4.41+0.60/2* 1.27	3.18	1144.8	41.22	47189	393	Baburam etc.
4	SB4	13.88	185 to 193	605	4.41+0.60/2* 1.27	3.18	1923.9	41.22	79303	661	Shivnandan etc.
5	SB5	11.1	171 to 183	440	4.41+0.60/2* 1.27	3.18	1399.2	41.22	57675	481	Shakuntala etc.
6	SB6	13.88	159 to 169	605	4.41+0.60/2* 1.27	3.18	1923.9	41.22	79303	661	Jagnnath etc.
7	SB7	36.34	105, 107, 113 to 123	1540	4.41+0.60/2* 1.27	3.18	4897.2	41.22	201863	1682	Puranlal etc.
			147 to 156, 251 to 260								
	Total	**153.62**		**6520**			20733.6		**854640**		
			Village-Atrar								
8	SB8	13.88	458 to 477	605	4.41+0.60/2* 1.27	3.18	1923.90	41.22	79303	661	Hariya etc.
9	SB9	9.84	271 to 278	385	4.41+0.60/2* 1.27	3.18	1224.30	41.22	50465	421	Virendra Singh etc.
10	SB10	18.93	260 to 236	825	4.41+0.60/2* 1.27	3.18	2623.50	41.22	108141	901	Ramdas etc.
11	SB11	21.19	217 to 230, 234, 236	880	4.41+0.60/2* 1.27	3.18	2798.40	41.22	115350	961	Shukhadev etc.

12	SB12	31.29	122 to 131	1320	4.41+0.60/2* 1.27	3.18	4197.60	41.22	173025	1442	Shivaram etc.
13	SB13	18.67	107, 109, 110 to 120	770	4.41+0.60/2* 1.27	3.18	2448.60	41.22	100931	841	Krashan Murari etc.
14	SB14	11.75	234, 236	468	4.41+0.60/2* 1.27	3.18	1488.42	41.22	61345	511	Prayag Singh etc.
15	SB15	18.93	25 to 37, 42	825	4.41+0.60/2* 1.27	3.18	2623.50	41.22	108141	901	Chandan etc.
16	SB16	13.62	15 to 23, 155 to 165	550	4.41+0.60/2* 1.27	3.18	1749.00	41.22	72094	601	Parasram etc.
17	SB17	10.854	567, 568, 569	468	4.41+0.60/2* 1.27	3.18	43298.88	41.22	61345	511	Desraj etc.
	Total	**168.95**		**7096**			64376.1		**930140**		
1	PB1	27.77	590 to 605	1210	4.41+0.60/2* 1.27	3.18	3847.80	41.22	158606	1322	Ali Hasan etc.
2	PB2	37.86	69 to 90	1650	4.41+0.60/2* 1.27	3.18	5247.00	41.22	216281	1802	Pratap Singh etc.
3	PB3	25.24	45, 47, 48, 51 to 53	1100	4.41+0.60/2* 1.27	3.18	3498.00	41.22	144188	1202	Kallu Khan etc.
4	PB4	25.34	55 to 61	1100	4.41+0.60/2* 1.27	3.18	3498.00	41.22	144188	1202	Shivmangalv etc.
5	PB5	25.43	5, 6, 7, 9, 11, 12	1100	4.41+0.60/2* 1.27	3.18	3498.00	41.22	144188	1202	Rajendra etc.
	Total	141.64		6160			19588.80		807451		
			Village- Sayar								
6	PB6	22.72	980 to 1001	990	4.41+0.60/2* 1.27	3.18	3148.20	41.22	129769	1081	Goarishankar etc.
7	PB7	13.88	1075 to 1078, 1080,1082	605	4.41+0.60/2* 1.27	3.18	1923.20	41.22	79303	661	Rampal etc.
			to 1084, 1089 to1096								
8	PB8	25.24	954 to 962, 964 to 970,	1100	4.41+0.60/2* 1.27	3.18	3498	41.22	144188	1202	Fool Singh etc.

			972, 973, 975, 976								
	Total	61.84		2695.00			8569.40		353260.00		
	Pucca Work								585869		
	Total	3531360.00		22471.00			113267.90		3531360.00		

Chani Bujurg 2C1b2d3d											
Villlage-Dhanpura											
S. No.	**Name of Work**	**Benefited area (ha)**	**Field No. / Khasara No.**	**Area of work**		**C.S. (Area)**	**Work Measurement**	**Rate**	**Total Cost (Rs.)**	**Manday Rs. 120/Labour**	**Name of Farmers**
				Length	**Width * Height**						
1	SB1	20.51	250 to 252, 279 to 284	700	5+0.80/2*1.40	4.06	2842	41.22	117147	976	Gangacharan etc.
2	SB2	17.62	292 to 300, 307	600	5+0.80/2*1.40	4.06	2436	41.22	100412	837	Ramprasad etc.
3	SB4	17.62	316 to 322	600	5+0.80/2*1.40	4.06	2436	41.22	100412	837	Lalaram etc.
	Total	55.75		1900			7714		317971		
		Village-Arazi Sagar									
4	SB3	23.45	40 to 43	800	5+0.80/2*1.40	4.06	3248	41.22	133882	1116	Purshottam etc.
5	SB5	8.80	44, 46	300	5+0.80/2*1.40	4.06	1218	41.22	50286	419	Mayank Nigam etc.
	Total	32.25		1100			4466		18416		

									8		
1	CD1	7.8	1 to 14, 842 to 844	80	2+10/2*2.00	12	960	44.34	42566		Parmeshvari Dayal etc.
			Cleaning, welling		80*10*3.41				2728		
									45294	377	
2	CD2	3.45	851, 22 to 34	30	4+12/2*2.02	14.14	424.2	44.34	18809		Gopicharan etc.
			Cleaning, welling		30*12*3.41				1227		
									20036	167	
	Total	11.25		110			1384.2		65330		
		Village-Kalla									
6	SB8	26.40	51 to 60	900	5+0.80/2*1.40	4.06	3254	41.22	150617	1255	Shanti devi etc.
7	SB9	23.45	3 to 9, 11, 12, 29 to 46	800	5+0.80/2*1.40	4.06	3248	41.22	133882	1116	Shivamangal etc.
8	SB10	32.40	67 to 84	1000	5+0.80/2*1.40	4.06	4060	41.22	167353	1395	Kamta etc.
9	SB11	8.80	86 to 88	300	5+0.80/2*1.40	4.06	1218	41.22	50206	418	Tulshiram etc.
10	SB12	11.72	89 to 100	400	5+0.80/2*1.40	4.06	1624	41.22	66941	558	Deendayal etc.
11	SB15	14.7	101 to 108	500	5+0.80/2*1.40	4.06	2030	41.22	83677	697	Bhavanideen etc.
	Total	117.47		3900			15434		652676		
		Village-Arazi Sani Dhanpura									
12	SB13	23.4	1 to 16	1000	5+0.80/2*	4.06	4060	41.	16735	1395	Natiram etc.

					1.40			22	3		
13	SB14	11.7	17 to 23	400	5+0.80/2*1.40	4.06	1624	41.22	66941	558	Ghasita etc.
	Total	11.7		400			1624		234294		
		Village-Chhani Bujurg									
14	SB6	23.45	845 to 850, 857	800	5+0.80/2*1.40	4.06	3248	41.22	133882	1116	Brajnandan etc.
15	SB7	11.27	473 to 478	400	5+0.80/2*1.40	4.06	1624	41.22	66914	558	Satya Pal etc.
16	SB16	11.75	128 to 135	400	5+0.80/2*1.40	4.06	1624	41.22	66941	558	Maheshvari Deen etc.
17	SB17	8.85	836, 837	300	5+0.80/2*1.40	4.06	1218	41.22	50206	418	Gopal etc.
18	SB18	26.5	837 to 840, 854, 889	900	5+0.80/2*1.40	4.06	3654	41.22	150617	1255	Babulal etc.
19	SB19	23.45	849 to 852, 870 to 935	1000	5+0.80/2*1.40	4.06	4060	41.22	167353	1395	Kailash Narayan etc.
20	SB20	35.16	910 to 922, 692, 928 to 935	1200	5+0.80/2*1.40	4.06	4872	41.22	200823	1674	Gangacharan etc.
21	SB21	32.45	923 to 927, 667 to 671	1000	5+0.80/2*1.40	4.06	4060	41.22	167353	1395	Rajaram etc.
22	SB22	23.45	654 to 664	800	5+0.80/2*1.40	4.06	3248	41.22	133882	1116	Sundar Lal etc.
23	SB23	26.40	620 to 640	900	5+0.80/2*1.40	4.06	3654	41.22	150617	1255	Lavkesh Kumar etc.
24	SB24		613, 640, 701	900	5+0.80/2*1.40	4.06	3154	41.22	150617	1255	Umashankar etc.
	Total	478.07		17300			69338		1439205		

1	PB1	11.72	754	400	5+0.80/2*1.40	4.06	1624	41.22	66941	558	Gayacharan etc.
	Total	11.72		400			1624		66941		
	Pucca Work								453175		
	Total	718.21		25110			101584.2		3413760		

Khandehari jar (2C1B2d3c)											
Village-Chandoli jar											
S. No.	**Name of Work**	**Benefited area (ha)**	**Field No. / Khasara No.**	**Area of work**		**C.S. (Area)**	**Work Measurement**	**Rate**	**Total Cost (Rs.)**	**Manday Rs. 120/Labour**	**Name of Farmers**
				Length	**Width * Height**						
	SB18	1.586	257	30	3.90+0.60/2 *1.10	2.475	74.25	41.23	3061.3275	25.51106	Foolmati, Fakkar beg
		1.686	255	220	3.90+0.60/2 *1.10	2.475	544.5	41.23	22449.735	187.0811	Shivabhagvan, Shivakumar
		0.673	249								Lallu Khan, Ajaj Khan
		0.926	250								Kailashchandra, Ramprakash
		2.774	251								Jagnandan
	SB19	1.032	227	50	3.90+0.60/2 *1.10	2.475	123.75	41.23	5102.2125	42.51844	Shivapyare
		1	228	50	3.90+0.60/2 *1.10	2.475	123.75	41.23	5102.2125	42.51844	Goarelal, Shyamlal
		1.501	230	80	3.90+0.60/2 *1.10	2.475	198	41.23	8163.54	68.0295	Bardani, Ramgopal
	SB20	3.7	233	140	3.90+0.60/2 *1.10	2.475	346.5	41.23	14286.195	119.0516	Shakuntla, Rampal
		1.825	236	70	3.90+0.60/2 *1.10	2.475	173.25	41.23	7143.0975	59.52581	Vishvanath, Shivashankar
	SB21	1.319	2369	70	3.90+0.60/2 *1.10	2.475	173.25	41.23	7143.0975	59.52581	Vishvanath, Shivashankar
	SB22	1.979	242	170	3.90+0.60/2 *1.10	2.475	420.75	41.23	17347.5225	144.5627	Shakuntla, Rampal
	SB23	0.142	245	30	3.90+0.60/2	2.47	74.25	41.	3061.32	25.5110	Suraj Prasad, Babu

					*1.10	5		23	75	6	
		0.372	246	50	3.90+0.60/2 *1.10	2.47 5	123.75	41. 23	5102.21 25	42.5184 4	Chhiduva
		1.129	247	150	3.90+0.60/2 *1.10	2.47 5	371.25	41. 23	15306.6 375	127.555 3	Dulichandra
		1.623	244								
	SB24	2.423	324	170	3.90+0.60/2 *1.10	2.47 5	420.75	41. 23	17347.5 225	144.562 7	Sarman
	SB25	2.063	313	100	3.90+0.60/2 *1.10	2.47 5	247.5	41. 23	10204.4 25	85.0368 8	Shivaram, Ramnarayan
	SB26	4.619	311	250	3.90+0.60/2 *1.10	2.47 5	618.75	41. 23	25511.0 625	212.592 2	Fakkar Beg, Foolmati
	SB27	1.149	303	70	3.90+0.60/2 *1.10	2.47 5	173.25	41. 23	7143.09 75	59.5258 1	Rashid Khan, Lallu Khan etc.
		2.198	300	120	3.90+0.60/2 *1.10	2.47 5	297	41. 23	12245.3 1	102.044 3	Shivapal
		2.229	299	230	3.90+0.60/2 *1.10	2.47 5	569.25	41. 23	23470.1 775	195.584 8	Parshuram
		1.696	302								
	SB28	1.344	319	240	3.90+0.60/2 *1.10	2.47 5	594	41. 23	24490.6 2	204.088 5	Akarm Khan, Latif Khan etc.
		1.643	321	120	3.90+0.60/2 *1.10	2.47 5	297	41. 23	12245.3 1	102.044 3	Smt. Muliya
		0.797	334	200	3.90+0.60/2 *1.10	2.47 5	495	41. 23	20408.8 5	170.073 8	Navab Beg, Bahav Beg
		2.859	316								Ramashare, Gajraj Singh etc.
		0.813	317								Dulichandra etc.
		1.688	322								Rajendra Prasad, Virendra Prasad
		1.508	326								
		1.632	327								Jagdish etc.

		0.619	328								Rajendra Prasad, Virendra Prasad
		1.137	329								Maheshvarideen
		1.024	331								Babulal etc.
		0.745	315								Radhakant
		2.161	318								Sagir Khan etc.
	SB29	1.044	307	120	3.90+0.60/2 *1.10	2.47 5	297	41. 23	12245.3 1	102.044 3	Ramkumar, Yogendra Pratap
		0.502	308	20	3.90+0.60/2 *1.10	2.47 5	49.5	41. 23	2040.88 5	17.0073 8	Virendra Prasad
		3.465	306	240	3.90+0.60/2 *1.10	2.47 5	594	41. 23	24490.6 2	204.088 5	Shivaprasad, Ramashre
		1.562	305	120	3.90+0.60/2 *1.10	2.47 5	297	41. 23	12245.3 1	102.044 3	Shivaram
		0.66	297	80	3.90+0.60/2 *1.10	2.47 5	198	41. 23	8163.54	68.0295	Rajendra Prasad etc.
		0.384	296	60	3.90+0.60/2 *1.10	2.47 5	148.5	41. 23	6122.65 5	51.0221 3	Sanliya
		0.917	309								
	Total	8.534		640			1584		65308.3 2		
	SB30	2.298	272	200	3.90+0.60/2 *1.10	2.47 5	495	41. 23	20408.8 5	170.073 8	Hashan, Nurbaksh etc.
		0.575	273	80	3.90+0.60/2 *1.10	2.47 5	198	41. 23	8163.54	68.0295	Bhavanideen etc.
	Total	2.873		280			693		28572.3 9		
	SB31	0.565	275	100	3.90+0.60/2 *1.10	2.47 5	247.5	41. 23	10204.4 25	85.0368 8	Navab Beg

		0.34	276	120	3.90+0.60/2 *1.10	2.47 5	297	41. 23	12245.3 1	102.044 3	Navab Beg
		0.291	277								Shahjad Khan, Fariyad Beg
	Total	1.196		220			544.5		22449.7 35		
	SB32	5.565	261	250	3.90+0.60/2 *1.10	2.47 5	618.75	41. 23	25511.0 625	212.592 2	Rafatulla Khan etc.
	SB33	4.772	281	220	3.90+0.60/2 *1.10	2.47 5	544.5	41. 23	22449.7 35	187.081 1	Brajnandan, Bablu etc.
		1.469	278	140	3.90+0.60/2 *1.10	2.47 5	346.5	41. 23	14286.1 95	119.051 6	Navab Beg, Jahab Beg etc.
		1.874	282								Rajendra Prasad, Gokul Prasad etc.
		1.481	280								Dulichandra
		2.007	279								Faij Khan, Idrish Khan etc.
	Total	11.603		360			891		36735.9 3		
	SB Total	87.385		4360			10791		444912. 93		
	SB ROAD6	1.295	286	220	6.30+3.00/2 *1.10	5.11	1124.2	41. 23	46350.7 66	386.256 4	Brajbhushan
		1.631	285	100	6.30+3.00/2 *1.10	5.11	511	41. 23	21068.5 3	175.571 1	Ramkumar, Suraj Devi
		0.117	234	80	6.30+3.00/2	5.11	408.8	41.	16854.8	140.456	Brajmohan

					*1.10			23	24	9	
		2.732	287								Parshuram
		1.987	288								Ramratan
		0.352	289								Joahri etc.
	Total	8.114		400			2044		84274.12		
	SB Total	87.385		4360			10791		444912.93		
	SB ROAD Total	8.114		400			2044		84274.12		
	pucca work								115916.00		
	Total	95.499		4760			12835		645103.05		
Village-Mabai jar											
1	SB1	6.584	291	200	4.20+0.60/2 *1.20	2.88	576	41.23	23748.48	197.904	Bachchi
		2.000	290								Bhagvandeen
	Total	8.584		200			576		23748.48		
	SB2	2.545	282	180	4.20+0.60/2 *1.20	2.88	518.4	41.23	21373.632	178.1136	Dheeraj Kumar, Dhruvendra Kumar
		0.12	281	20	4.20+0.60/2	2.88	57.6	41.	2374.84	19.7904	

					*1.20			23	8		
		0.832	280	40	4.20+0.60/2 *1.20	2.88	115.2	41. 23	4749.69 6	39.5808	Smt.Ramkali
		1.688	283								Parma etc.
		1.089	284								Munnalal, Ramashankar etc.
		1.408	286								Ramshvarup
		1.854	287								Savitri
	Total	9.536		240			691.2		28498.1 76		
	SB3	0.267	277	40	4.20+0.60/2 *1.20	2.88	115.2	41. 23	4749.69 6	39.5808	Mho. Ramkali
		5.18	276	300	4.20+0.60/2 *1.20	2.88	864	41. 23	35622.7 2	296.856	Sundar Singh, Sarad Singh
		5.443	275								Smt.Uramila, Sunita, Mithalesh
	Total	10.89		340			979.2		40372.4 16		
	SB4	0.858	271	150	4.20+0.60/2 *1.20	2.88	432	41. 23	17811.3 6	148.428	Khanua
		3.516	273								Balram Singh etc.
	Total	4.374		150			432		17811.3 6		
	SB5	1.04	1030	200	4.20+0.60/2 *1.20	2.88	576	41. 23	23748.4 8	197.904	Devidayal, Vinda etc.
		1.506	1029	60	4.20+0.60/2 *1.20	2.88	172.8	41. 23	7124.54 4	59.3712	Diviya, Vinda

		0.632	1028	50	4.20+0.60/2 *1.20	2.88	144	41.23	5937.12	49.476	Chetram etc.
	Total	3.178		310			892.8		36810.144		
	SB6	2.251	1025	220	4.20+0.60/2 *1.20	2.88	633.6	41.23	26123.328	217.6944	Vardani, Siyaram, Rakesh
		1.509	1024	100	4.20+0.60/2 *1.20	2.88	288	41.23	11874.24	98.952	Devi Dayal, Jagdish Prasad
	Total	3.76		320			921.6		37997.568		
	SB7	1.104	1001	170	4.20+0.60/2 *1.20	2.88	489.6	41.23	20186.208	168.2184	Ramratan
		0.955	999	170	4.20+0.60/2 *1.20	2.88	489.6	41.23	20186.208	168.2184	Lallu
		1.607	1000								Dayashankar, Mahipat, Shivaram
		1.223	1002								Krashan
		0.231	1003								Mohanlal
		0.223	1004								Shivacharan
		0.17	1005								Mullu etc.
		0.134	1006								Ramdas
	Total	5.647		340			979.2		40372.416		
	SB8	1.534	992	100	4.20+0.60/2 *1.20	2.88	288	41.23	11874.24	98.952	Shivaram
		1.032	993	80	4.20+0.60/2 *1.20	2.88	230.4	41.23	9499.392	79.1616	

		1.505	994	100	4.20+0.60/2 *1.20	2.88	288	41.23	11874.24	98.952	Bhavanideen, Ramcharan
		1.134	996								Shivashankar
		3.092	997								Devi Dayal
		1.741	998								Lallu
	Total	10.038		280			806.4		33247.872		
	SB9	0.749	989	100	4.20+0.60/2 *1.20	2.88	288	41.23	11874.24	98.952	Hunnar Prasad
		0.745	988	100	4.20+0.60/2 *1.20	2.88	288	41.23	11874.24	98.952	Mahgu
		2.808	987	130	4.20+0.60/2 *1.20	2.88	374.4	41.23	15436.512	128.6376	Bhadunath Singh
		4.521	990								Khalval, Chunvad etc.
	Total	8.823		330			950.4		39184.992		
	SB10	5.425	982	180	4.20+0.60/2 *1.20	2.88	518.4	41.23	21373.632	178.1136	Bhadunath Singh
	Total	5.425		180			518.4		21373.632		
	SB11	3.212	968	120	4.20+0.60/2 *1.20	2.88	345.6	41.23	14249.088	118.7424	Ramnarayan
		1.971	967	200	4.20+0.60/2 *1.20	2.88	576	41.23	23748.48	197.904	Jitendra Prasad Singh
		0.66	966	50	4.20+0.60/2 *1.20	2.88	144	41.23	5937.12	49.476	Dulichandra, Rajbahadur
		1.056	963								Rampal, Shakuntla

		0.478	964								Shivakumar, Ramkumar
		1.323	965								Praval Pratap Singh
		0.700	969								Ramshvarup ,Kamni, Dablu
	Total	9.4		370			1065.6		43934.688		
	SB12	2.351	980	190	4.20+0.60/2 *1.20	2.88	547.2	41.23	22561.056	188.0088	Anil Kumar
		1.639	979								Goarishankar etc.
		0.372	978								Munni Devi
	Total	4.362		190			547.2		22561.056		
	SB13	4.893	971	200	4.20+0.60/2 *1.20	2.88	576	41.23	23748.48	197.904	Rajabai, Surja
		1.254	973	80	4.20+0.60/2 *1.20	2.88	230.4	41.23	9499.392	79.1616	Mijaji Lal, Lallu
		1.283	974	80	4.20+0.60/2 *1.20	2.88	230.4	41.23	9499.392	79.1616	Ramaotar, Sukhadev
		1.372	976								Munni Devi
		0.745	972								Shivakumar, Rajkumar
		0.494	975								Ramdas
	Total	10.041		360			1036.8		42747.264		
	SB14	0.51	960	130	4.20+0.60/2 *1.20	2.88	374.4	41.23	15436.512	128.6376	Bhagvani, Bhuri
		0.571	957								Umashankar, Ramashankar

		1.266	958								Rajabai
		0.543	959								Bhagvani, Bhuri
	Total	2.89		130			374.4		15436.512		
	SB15	3.424	961	100	4.20+0.60/2*1.20	2.88	288	41.23	11874.24	98.952	Ramraj
	Total	3.424		100			288		11874.24	98.952	
	SB16	1.87	872	200	4.20+0.60/2*1.20	2.88	576	41.23	23748.48	197.904	Jashkarn
		1.882	870	150	4.20+0.60/2*1.20	2.88	432	41.23	17811.36	148.428	Goarelal, Shyamlal
	Total	3.752		350			1008		41559.84		
	SB17	0.199	846	60	4.20+0.60/2*1.20	2.88	172.8	41.23	7124.544	59.3712	Pritam Singh, Mullu
		0.028	847	150	4.20+0.60/2*1.20	2.88	432	41.23	17811.36	148.428	Chhaggu, Basnta
		1.779	845								Jhuriya, Ashok Singh
	Total	2.006		210			604.8		24935.904		
	SB Total	106.13		4400			12672		522466.56		
	SB ROAD	1.409	98	60	6.30+3.00/2	5.11	306.6	41.	12641.1	105.342	Umashankar, Omprakash

	1				*1.10			23	18	7	etc.
		0.3	95	100	6.30+3.00/2 *1.10	5.11	511	41. 23	21068.5 3	175.571 1	Sarman, Deshraj, Krashangopal
		0.109	94	80	6.30+3.00/2 *1.10	5.11	408.8	41. 23	16854.8 24	140.456 9	Shivaraj Singh
		0.781	93	40	6.30+3.00/2 *1.10	5.11	204.4	41. 23	8427.41 2	70.2284 3	Raman Singh
		1.133	109	100	6.30+3.00/2 *1.10	5.11	511	41. 23	21068.5 3	175.571 1	Devkinandan
		4.614	89								Jhagru
		0.829	99								Umashankar, Omprakash etc.
		1.409	98								
		1.947	96								Kalicharan
		0.781	92								Aambika Prasad
		1.381	110								Jashkaran
	Total	14.693		380			1941.8		80060.4 14		
	SB ROAD 2	2.440	263	240	6.30+3.00/2 *1.10	5.11	1226.4	41. 23	50564.4 72	421.370 6	Ramfal, Jayram, Sukharam
		0.874	264	60	6.30+3.00/2 *1.10	5.11	306.6	41. 23	12641.1 18	105.342 7	Baburam, Ramjivan, Ramkrashan
		1.781	265	150	6.30+3.00/2 *1.10	5.11	766.5	41. 23	31602.7 95	263.356 6	Arvindra Kumar
		1.449	222	100	6.30+3.00/2 *1.10	5.11	511	41. 23	21068.5 3	175.571 1	Rambabu, Anntaram, Gyanprakash
		2.667	214	150	6.30+3.00/2 *1.10	5.11	766.5	41. 23	31602.7 95	263.356 6	Mulchandra, Vashudev
		0.789	212	60	6.30+3.00/2 *1.10	5.11	306.6	41. 23	12641.1 18	105.342 7	Sahdev, Vashudev
		0.502	211	60	6.30+3.00/2	5.11	306.6	41.	12641.1	105.342	Mulchandra

					*1.10			23	18	7	
		2.000	210								Shyam Singh, Mahendra Singh
		0.800	215								Dalpat, Shripat
		0.251	216								Prahalad
		0.255	217								Ramfal
		0.275	218								Rammanohar
		0.279	219								Mr. Chandra
		1.007	220								Baiju
		0.208	221								Jagnnath
		2.744	232								Sukhadev, Shyambabu, Rambabu
		2.695	233								Devi Dayal
		2.671	234								Lallu
		2.27	235								Ramsanjivan, Goarelal, Jagnnathetc.
		2.634	236								Ashok, Ramsagar, Rampat
		2.283	254								Shripal, Surjan, Lallu
		2.27	255								Dhaniram etc.
		0.539	256								Sudama
		0.615	257								Bhaiyadeen
		0.368	258								Shivaram
		2.485	259								Ramaotar, Ramkrapal, Umashankar
	Total	37.151		820			4190.2		172761.946		
	SB ROAD 3	2.286	1032	250	6.30+3.00/2 *1.10	5.11	1277.5	41.23	52671.325	438.9277	Maheshvarideen, Bodhan, Shyamlal
		0.008	1033								Ramnarayan, Lallu,

											Bhaiyadeen
	Total	2.294		250			1277.5		52671.325		
	SB ROAD 4	2.034	1021	250	6.30+3.00/2*1.10	5.11	1277.5	41.23	52671.325	438.9277	Rajbahadur, Raghuvir, Raniya
		0.692	1018	100	6.30+3.00/2*1.10	5.11	511	41.23	21068.53	175.5711	Rajendra Kumar
		2.792	1017	100	6.30+3.00/2*1.10	5.11	511	41.23	21068.53	175.5711	Jaglal, Munni Devi
		2.063	1020								Balvir, Baldev, Devi Dayal
		0.882	1012								Ramgopal, Ramkrapal, Ramshankar
		0.105	1014								Baldev, Balvir
		0.121	1015								Rajbahadur
		0.425	1016								Rajbahadur
		0.243	1010								Shivaram etc.
		0.040	1011								Shivaram etc.
	Total	9.397		450			2299.5		94808.385		
	SB ROAD 5	2.231	251	200	5.75+2.60/2*1.05	4.38	876	41.23	36117.48	300.979	Khalil Khan, Ismil Khan etc.
		6.823	940	350	5.75+2.60/2*1.05	4.38	1533	41.23	63205.59	526.7133	Devi Dayal, Jagbahadur
		0.231	939	50	5.75+2.60/2*1.05	4.38	219	41.23	9029.37	75.24475	Brajbhushan
		0.644	932								Shivanarayan, Rajesh, Mahesh
		0.259	933								Shivanarayan, Rajesh,

											Prema
		0.247	936								Shivabhagvan
		0.231	937								
		0.235	938								Rajkumar, Suraj Devi
	Total	10.901		600			2628		108352.44		
	SB ROAD Total	74.436		2500			12337		508654.51		

ANNEXURE-II

LIVELIHOOD ACTION PLAN

Annual Action Plan for Livelihood (Physical & Financial)

Project - IWMP-XI			**PIA-Soil conservation Division, Hamirpur -I**						**District- Hamirpur**			
S. No	**Physical and financial targets**	**Unit**	**First Year**		**Second Year**		**Third Year**		**Fourth Year**		**Total Project**	
			2011-12		**2012-13**		**2013-14**		**2014-15**			
			Physical	**Financial**	**Physical**	**Financial**	**Physical**	**Financial**	**Physical**	**Financial**	**Physical**	**Financial**
	Livelihood activities through SHG's										0	0.00
	(1) Activity Goatary										0	0.00
	(a) No. of SHG's	No.	0	0.00	19	4.73	19	4.73	4	1.05	42	10.50
	(b) No. of members	No.	0	0.00	189	0.00	189	0.00	42	0.00	420	0.00
	(c) Estimated income per year	Rs.	0	0.00							0	0.00
	(2) Activity- Back Yard Poultry		0	0.00							0	0.00
	(a) No. of SHG's	No.	0	0.00	16	3.94	16	3.94	4	0.88	35	8.75
	(b) No. of members	No.	0	0.00	158	0.00	158	0.00	35	0.00	350	0.00
	(c) Estimated income per year	Rs.	0	0.00							0	0.00

	(3) Activity- Poultry , Broiler		0	0.00							0	0.00
	(a) No. of SHG's	No.	0	0.00	13	3.26	13	3.26	3	0.73	29	7.25
	(b) No. of members	No.	0	0.00	131	0.00	131	0.00	29	0.00	290	0.00
	(c) Estimated income per year	Rs.	0	0.00							0	0.00
	(4) Black Smithy										0	0.00
	(a) No. of SHG's	No.	0	0.00	6	1.58	6	1.58	1	0.35	14	3.50
	(b) No. of members	No.	0	0.00	63	0.00	63	0.00	14	0.00	140	0.00
	(c) Estimated income per year	Rs.	0	0.00		0.00	0	0.00	0	0.00	0	0.00
	(5) Rope making										0	0.00
	(a) No. of SHG's	No.	0	0.00	8	2.03	8	2.03	2	0.45	18	4.50
	(b) No. of members	No.	0	0.00	81	0.00	81	0.00	18	0.00	180	0.00
	(c) Estimated income per year	Rs.	0	0.00							0	0.00
	(6) Tailoring										0	0.00
	(a) No. of SHG's	No.	0	0.00	6	1.58	6	1.58	1	0.35	14	3.50
	(b) No. of members	No.	0	0.00	63	0.00	63	0.00	14	0.00	140	0.00

	(c) Estimated income per year	Rs.	0	0.00		0.00	0	0.00	0	0.00	0	0.00
	(8) Vermi Composting										0	0.00
	(a) No. of SHG's	No.	0	0.00	10	2.59	10	2.59	2	0.58	23	5.75
	(b) No. of members	No.	0	0.00	104	0.00	104	0.00	23	0.00	230	0.00
	(c) Estimated income per year	Rs.	0	0.00							0	0.00
	(9) Food processing										0	0.00
	(a) No. of SHG's	No.	0	0.00	12	2.93	12	2.93	3	0.65	26	6.50
	(b) No. of members	No.	0	0.00	117	0.00	117	0.00	26	0.00	260	0.00
	(c) Estimated income per year	Rs.	0	0.00							0	0.00
	(13) Seed Bank										0	0.00
	(a) No. of SHG's	No.	0	0.00	12	3.05	12	3.05	3	0.68	27	6.79
	(b) No. of members	No.	0	0.00	122	0.00	122	0.00	27	0.00	270	0.00
	(c) Estimated income per year	Rs.	0	0.00							0	0.00

Livelihood Option for Village Groups / Community
Input supplied to Interested Groups/ SHGs

Sr. No.	Name of Activity *	Name of input	Quantity	Rate	No of IG / SHGs	Total Amount (Rs)
1	Organic complex	Red worms *(Eisinia fetida)* *NADEP*	2 q 10 Nos	25000 5000	4 (40 FF)	100000.00
2	Goat kids	Kids	40 Nos	1200	2 (20 FF)	48000.00
		Adult	02	2500		5000.00
3	Goat rearing	Female	10 Nos	3000	1 (10 FF)	30000.00
		Adult	01	3000		3000.00
4	Motor / Diesel repairing	Tool Kit	All tools	25000	1	25000.00
5	Masala Grinding	Pulvelizer	02	37000	2 (20 FF)	74000.00
6	Oil Expeller	Oil Expeller	01	84000	1 (10 FF)	84000.00
7	Poultry (Broiler)	Chicks	1000	25 per chicks	1 (10 FF)	25000.00
8	Wooden furniture	Instruments	01	61000	1 (10 FF)	61000.00
9	Mini Dal Mill	Machine	01	42000	1 (10 FF)	42000.00
10	Dairy	Buffaloes / Cows	10	25000	1 (10 FF)	250000.00
11	Back yard Poultry	Chicks	2000	18	2 (20 FF)	36000.00
12	Linseed rope making	Rope making machine	01	35000	1 (10 FF)	35000.00
13	Organic production	Registration	100 ha	6000	5	120000.00
14	Tailoring	Sieving Machine	5 in 01 SHG	25000	2	25000.00

Note: Maximum Seed Money will be Rs 25000/- for one SHG / Individual. Repayment limit up to 18 months.

ANNEXURE-III

1. Annual Action Plan for Agriculture Production System & Micro Enterprises (Physical & Financial)

Project - IWMP-XI			PIA-Soil conservation Division, Hamirpur -I						District- Hamirpur			
S. No	Physical and financial targets	Unit	First Year 2011-12		Second Year 2012-13		Third Year 2013-14		Fourth Year 2014-15		Total Project	
			Physical	Financial	Physical	Financial	Physical	Financial	Physical	Financial	Physical	Financial
	Production system										0	0.00
	(1) Agriculture										0	0.00
	(a) Crop demonstration										0	0.00
	(1) No. of dem.	No.	0	0.00	264	11.06	264	11.06	59	2.46	586	24.57
	(2) Area	ha.			105		105		23		234	0.00
	(b) Seed Production		0								0	0.00
	(1) No. of dem.	No.	0	0.00	248	10.41	248	10.41	55	2.31	551	23.13
	(2) Area	ha.	0		99		99		22		220	0.00
	(2) Horticulture/ Agri-Horticulture		0								0	0.00
	(a) Area	ha.	0	0.00	22	3.97	22	3.97	5	0.88	49	8.82
	(b) No. of Plants	No.		0.00							0	0.00
	(4) Animal husbandry										0	0.00
	A. fodder production	No. of Units / Farmers	0	0.00	147	0.88	147	0.88	33	0.20	327	1.96
	B. Vaccination/Medication	No. of Animals			351	0.22	351	0.22	78	0.05	779	0.49
	C. Artificial Insemination	No. of Animals			343	0.15	343	0.15	76	0.03	762	0.32
	D. Natural Service.	He Buffalo			8	1.84	8	1.84	2	0.41	17	4.08
	E. Others	No. of Animals			0	0.00	0	0.00	0	0.00	0	0.00

2. ESTIMATES OF DIFFERENT PARTICIPATORY CROP TRIALS

Estimates of different Participatory crop trials

Pulses	**Rabi**			
Integrated Crop Management	**Lentil**			
Area of Demonstration - 0.40 ha				
Detail of Demonstration	**Intervention / Technology Adopted**	**Organizations for obtaining Seed**		
1. Name of Varieties	Narendra Masoor-1, DPL-15, L-4076, Pusa Vaibhav	C. S. A. University of Ag. & Technology, Kanpur, Indian Institute of Pulse Research, Kalyanpur Kanpur. IARI, Pusa New Delhi		
	Late- IPL-81, K-75			
2. Sowing Time	IInd week of October			
		Rate(Rs/kg/ Pkt)	**Cost per ha (Rs)**	**Demonstration Cost (Rs)**
3. Required Seed	50 kg / ha (F1,F2, Certified)	80	4000	2000.00
7. Use Weedicide	Pendimethalin 3.3 li/ha	465	1535	767.25
	(Pre emergence)			
11. Bio Fertilizers/Bio-agents				
i) Azatobactor + PSB	-			
ii) Rhizobium + PSB	5 Pkt + 5 Pkt = 10 Pkt @ Rs	7.5	75	37.50
iii) Trichoderma	1.50 kg /ha (Soil treatment)	136	204	102.00
12. Recommended dose of fertilizers				
25:60:30 NPK				
i) DAP*	130 kg	15	1950	975.00
ii) SSP*	375 kg	8	3000	1500.00
iii) Urea	In case of SSP 54 kg Urea applied	6	324	162.00
iv) MOP	50 kg	7	350	175.00
* Either one	40 kg /ha Sulphur added if SSP used			
13. IPM				
Spray of Neem Seed Kernal	10	30	300	150.00

Mataka Khad	15 lit/kg Gobar+Neemleaf+water+Desi cow urine+2 kg Molasis mix & Deco	2	124	62.00
Insecticides/Fungicides	If required One Dusting of Methyle Paratheon powder			
	25 kg / ha	25	625	312.50
	Total (Less SSP)			**4743.25**
Integrated Crop Management	**Chickpea**			
Area of Demonstration - 0.40 ha				
Detail of Demonstration	**Intervention / Technology Adopted**	**Organizations for obtaining Seed**		
1. Name of Varieties	KGD-1168, KWR-108, Pusa-256, Pusa-367	C. S. A. University of Ag. & Technology, Kanpur, Indian Institute of Pulse Research, Kalyanpur Kanpur. IARI, Pusa New Delhi		
	Late- Udai			
2. Sowing Time	1st week of October			
		Rate(Rs/kg/ Pkt)	**Cost per ha (Rs)**	**Demonstration Cost (Rs)**
3. Required Seed	80 kg / ha (F1,F2, Certified)	65	5200	2600.00
7. Use Weedicide	Pendimethalin 3.3 li/ha	465	1535	767.25
	(Pre emergence)			
11. Bio Fertilizers/Bio-agents				
i) Azatobactor + PSB	-			
ii) Rhizobium + PSB	5 Pkt + 5 Pkt = 10 Pkt @ Rs	7.5	75	37.50
iii) Trichoderma	1.50 kg /ha (Soil treatment)	136	204	102.00
12. Recommended dose of fertilizers				
25:60:30 NPK				
i) DAP*	130 kg	15	1950	975.00
ii) SSP*	375 kg	8	3000	1500.00
iii) Urea	In case of SSP 54 kg Urea applied	6	324	162.00
iv) MOP	50 kg	7	350	175.00

* Either one	40 kg /ha Sulphur added if SSP used			
13. IPM				
Spray of Neem Seed Kernal	10	30	300	150.00
Mataka Khad	15 lit/kg Gobar+Neemleaf+water+Desi cow urine+2 kg Molasis mix & Deco	2	124	62.00
NPV	250 LE /ha at the time pod formation	200	200	100.00
Insecticides/Fungicides	If required One Dusting of Methyle Paratheon powder			
	25 kg / ha	25	625	312.50
	Total (Less SSP)			**5443.25**
Integrated Crop Management	**Field Pea**			
Area of Demonstration - 0.40 ha				
Detail of Demonstration	**Intervention / Technology Adopted**	**Organizations for obtaining Seed**		
1. Name of Varieties	KMPR-400, KPMR-522, Rachna, Shikha	C. S. A. University of Ag. & Technology, Kanpur, Indian Institute of Pulse Research, Kalyanpur Kanpur. IARI, Pusa New Delhi		
2. Sowing Time	IInd week of October			
		Rate(Rs/kg/ Pkt)	**Cost per ha (Rs)**	**Demonstration Cost (Rs)**
3. Required Seed	100 kg / ha (F1,F2, Certified)	60	6000	3000.00
7. Use Weedicide	Pendimethalin 3.3 li/ha	465	1535	767.25
	(Pre emergence)			
11. Bio Fertilizers/Bio-agents				
i) Azatobactor + PSB	-			
ii) Rhizobium + PSB	5 Pkt + 5 Pkt = 10 Pkt @ Rs	7.5	75	37.50
iii) Trichoderma	1.50 kg /ha (Soil treatment)	136	204	102.00
12. Recommended dose of fertilizers				
25:60:30 NPK				

i) DAP*	130 kg	15	1950	975.00
ii) SSP*	375 kg	8	3000	1500.00
iii) Urea	In case of SSP 54 kg Urea applied	6	324	162.00
iv) MOP	50 kg	7	350	175.00
* Either one	40 kg /ha Sulphur added if SSP used			
13. IPM				
Spray of Neem Seed Kernal	10	30	300	150.00
Mataka Khad	15 lit/kg Gobar+Neemleaf+water+Desi cow urine+2 kg Molasis mix & Deco	2	124	62.00
Insecticides/Fungicides	If required One Dusting of Methyle Paratheon powder			
	25 kg / ha	25	625	312.50
	Total (Less SSP)			**5743.25**
Integrated Crop Management	**Urd**			
Area of Demonstration - 0.40 ha				
Detail of Demonstration	**Intervention / Technology Adopted**	**Organizations for obtaining Seed**		
1. Name of Varieties	Shekhar-2, Azad-1, PU-35, Narendra Urd-1	C. S. A. University of Ag. & Technology, Kanpur, Indian Institute of Pulse Research, Kalyanpur Kanpur. IARI, Pusa New Delhi		
2. Sowing Time	Last week of July			
		Rate(Rs/kg/ Pkt)	**Cost per ha (Rs)**	**Demonstration Cost (Rs)**
3. Required Seed	16 kg / ha (F1,F2, Certified)	100	1600	800.00
7. Use Weedicide	Pendimethalin 3.3 li/ha (Pre emergence)	465	1535	767.25
11. Bio Fertilizers/Bio-agents				
i) Azatobactor + PSB	-			
ii) Rhizobium + PSB	5 Pkt + 5 Pkt = 10 Pkt @ Rs	7.5	75	37.50
iii) Trichoderma	1.50 kg /ha (Soil treatment)	136	204	102.00

12. Recommended dose of fertilizers				
25:60:30 NPK				
i) DAP*	130 kg	15	1950	975.00
ii) SSP*	375 kg	8	3000	1500.00
iii) Urea	In case of SSP 54 kg Urea applied	6	324	162.00
iv) MOP	50 kg	7	350	175.00
* Either one	40 kg /ha Sulphur added if SSP used			
13. IPM				
Spray of Neem Seed Kernal	10	30	300	150.00
Mataka Khad	15 lit/kg Gobar+Neemleaf+water+Desi cow urine+2 kg Molasis mix & Deco	2	124	62.00
Insecticides/Fungicides	If required One Dusting of Methyle Paratheon powder			
	25 kg / ha	25	625	312.50
	Total (Less SSP)			**3543.25**
Integrated Crop Management	**Moong**			
Area of Demonstration - 0.40 ha				
Detail of Demonstration	**Intervention / Technology Adopted**	**Organizations for obtaining Seed**		
1. Name of Varieties	T.M-9937, Meha, Pant Moong-1,2 Late- Type-44, Samrat	C. S. A. University of Ag. & Technology, Kanpur, Indian Institute of Pulse Research, Kalyanpur Kanpur. IARI, Pusa New Delhi		
2. Sowing Time	Last week of June			
		Rate(Rs/kg/ Pkt)	**Cost per ha (Rs)**	**Demonstration Cost (Rs)**
3. Required Seed	16 kg / ha (F1,F2, Certified)	100	1600	800.00

7. Use Weedicide	Pendimethalin 3.3 li/ha (Pre emergence)	465	1535	767.25
11. Bio Fertilizers/Bio-agents				
i) Azatobactor + PSB	-			
ii) Rhizobium + PSB	5 Pkt + 5 Pkt = 10 Pkt @ Rs	7.5	75	37.50
iii) Trichoderma	1.50 kg /ha (Soil treatment)	136	204	102.00
12. Recommended dose of fertilizers				
25:60:30 NPK				
i) DAP*	130 kg	15	1950	975.00
ii) SSP*	375 kg	8	3000	1500.00
iii) Urea	In case of SSP 54 kg Urea applied	6	324	162.00
iv) MOP	50 kg	7	350	175.00
* Either one	40 kg /ha Sulphur added if SSP used			
13. IPM				
Spray of Neem Seed Kernal	10	30	300	150.00
Mataka Khad	15 lit/kg Gobar+Neemleaf+water+Desi cow urine+2 kg Molasis mix & Deco	2	124	62.00
NPV	250 LE /ha at the time pod formation	200	200	100.00
Insecticides/Fungicides	If required One Dusting of Methyle Paratheon powder			
	25 kg / ha	25	625	312.50
	Total (Less SSP)			**3643.25**
Integrated Crop Management	**Arhar**			
Area of Demonstration - 0.40 ha				
Detail of Demonstration	**Intervention / Technology Adopted**	**Organizations for obtaining Seed**		
1. Name of Varieties	Paras, UPAS-120, Type-21, Pusa-992 (Wilt rest.) Late- Bahar, Narendra Arhar-1, Azad	C. S. A. University of Ag. & Technology, Kanpur, Indian Institute of		

		Pulse Research, Kalyanpur Kanpur. IARI, Pusa New Delhi		
2. Sowing Time	Late- Month July			
	Early Last Week of June	**Rate(Rs/kg/ Pkt)**	**Cost per ha (Rs)**	**Demonstration Cost (Rs)**
3. Required Seed	20 kg / ha (F1,F2, Certified)	120	2400	1200.00
7. Use Weedicide	-	-	-	-
11. Bio Fertilizers/Bio-agents				
i) Azatobactor + PSB	-			
ii) Rhizobium + PSB	5 Pkt + 5 Pkt = 10 Pkt @ Rs	7.5	75	37.50
iii) Trichoderma	1.50 kg /ha (Soil treatment)	136	204	102.00
12. Recommended dose of fertilizers				
15:45:20 NPK				
i) DAP*	100 kg	15	1500	750.00
ii) SSP*	250 kg	8	2000	1000.00
iii) Urea	In case of SSP 54 kg Urea applied	6	324	162.00
iv) MOP	50 kg	7	350	175.00
* Either one	30 kg /ha Sulphur added if SSP used			
13. IPM				
Spray of Neem Seed Kernal	10	30	300	150.00
Mataka Khad	15 lit/kg Gobar+Neemleaf+water+Desi cow urine+2 kg Molasis mix & Deco	2	124	62.00
Insecticides/Fungicides	If required One Dusting of Methyle Paratheon powder			
	25 kg / ha	25	625	312.50
	Total			**2951.00**

Integrated Crop Management	**Linseed**			
Area of Demonstration - 0.40 ha				
Detail of Demonstration	**Intervention / Technology Adopted**	**Organizations for obtaining Seed**		
1. Name of Varieties	Sweta, Subhra, Garima, Shekhar, Parwati	C. S. A. University of Ag. & Technology, Kanpur, Indian Institute of Pulse Research, Kalyanpur Kanpur. IARI, Pusa New Delhi		
	Late- Laxmi-27, Padmini			
2. Sowing Time				
	Mid October	**Rate(Rs/kg/ Pkt)**	**Cost per ha (Rs)**	**Demonstration Cost (Rs)**
3. Required Seed	30 kg / ha (F1,F2, Certified)	75	2250	1125.00
7. Use Weedicide	-	-	-	-
11. Bio Fertilizers/Bio-agents				
i) Azatobactor + PSB	5 Pkt + 5 Pkt = 10 Pkt @ Rs	7.5	75	37.50
ii) Rhizobium + PSB	-	-	-	-
iii) Trichoderma	-	-	-	-
12. Recommended dose of fertilizers				
50:40:40 NPK				
i) DAP*	125 kg	15	1875	937.50
ii) SSP*	275 kg	8	2200	1100.00
iii) Urea	50 kg	6	300	150.00
iv) MOP	50 kg	7	350	175.00
* Either one	30 kg /ha Sulphur added if SSP used			
13. IPM				
Spray of Neem Seed Kernal	10	30	300	150.00
Mataka Khad	15 lit/kg Gobar+Neemleaf+water+Desi cow urine+2 kg Molasis mix & Deco	2	124	62.00

Insecticides/Fungicides	If required One Dusting of Methyle Paratheon powder			
	25 kg / ha	25	625	312.50
	Total (Less SSP)			**2949.50**
Integrated Crop Management	**Mustard**			
Area of Demonstration - 0.40 ha				
Detail of Demonstration	**Intervention / Technology Adopted**	**Organizations for obtaining Seed**		
1. Name of Varieties	Varuna, Kranti, Rohini, Vaibhav, Pusa Bold	C. S. A. University of Ag. & Technology, Kanpur, Indian Institute of Pulse Research, Kalyanpur Kanpur. IARI, Pusa New Delhi		
	Late-Ashirvad, Vardan			
2. Sowing Time				
	October first week	**Rate(Rs/kg/ Pkt)**	**Cost per ha (Rs)**	**Demonstration Cost (Rs)**
3. Required Seed	6 kg / ha (F1,F2, Certified)	150	900	450.00
7. Use Weedicide	-	-	-	-
11. Bio Fertilizers/Bio-agents				
i) Azatobactor + PSB	5 Pkt + 5 Pkt = 10 Pkt @ Rs	7.5	75	37.50
ii) Rhizobium + PSB	-	-	-	-
iii) Trichoderma	-	-	-	-
12. Recommended dose of fertilizers				
60:50:30 NPK				
i) DAP*	180 kg	15	2700	1350.00
ii) SSP*	275 kg	8	2200	1100.00
iii) Urea	75 kg	6	450	225.00
iv) MOP	50 kg	7	350	175.00

* Either one	30 kg /ha Sulphur added if SSP used			
13. IPM				
Spray of Neem Seed Kernal	10	30	300	150.00
Mataka Khad	15 lit/kg Gobar+Neemleaf+water+Desi cow urine+2 kg Molasis mix & Deco	2	124	62.00
Insecticides/Fungicides	If required One Dusting of Methyle Paratheon powder			
	25 kg / ha	25	625	312.50
	Total (Less SSP)			**2762.00**
Integrated Crop Management	**Toriya**			
Area of Demonstration - 0.40 ha				
Detail of Demonstration	**Intervention / Technology Adopted**	**Organizations for obtaining Seed**		
1. Name of Varieties	Type-9, PT-303, PT-30	C. S. A. University of Ag. & Technology, Kanpur, Indian Institute of Pulse Research, Kalyanpur Kanpur. IARI, Pusa New Delhi		
	Late-Bhawani			
2. Sowing Time				
	First Fortnight of September	**Rate(Rs/kg/ Pkt)**	**Cost per ha (Rs)**	**Demonstration Cost (Rs)**
3. Required Seed	4 kg / ha (F1,F2, Certified)	200	800	400.00
7. Use Weedicide	-	-	-	-
11. Bio Fertilizers/Bio-agents				
i) Azatobactor + PSB	5 Pkt + 5 Pkt = 10 Pkt @ Rs	7.5	75	37.50
ii) Rhizobium + PSB	-	-	-	-
iii) Trichoderma	-	-	-	-
12. Recommended dose of fertilizers				
50:30:30 NPK				
i) DAP*	125 kg	15	1875	937.50
ii) SSP*	275 kg	8	2200	1100.00

iii) Urea	50 kg	6	300	150.00
iv) MOP	50 kg	7	350	175.00
* Either one	30 kg /ha Sulphur added if SSP used			
13. IPM				
Spray of Neem Seed Kernal	10	30	300	150.00
Mataka Khad	15 lit/kg Gobar+Neemleaf+water+Desi cow urine+2 kg Molasis mix & Deco	2	124	62.00
Insecticides/Fungicides	If required One Dusting of Methyle Paratheon powder			
	25 kg / ha	25	625	312.50
	Total (Less SSP)			**2224.50**
Integrated Crop Management Til (Sesamum)				
Area of Demonstration - 0.40 ha				
Detail of Demonstration	**Intervention / Technology Adopted**	**Organizations for obtaining Seed**		
1. Name of Varieties	Type-4,12,13,78, Shekhar	C. S. A. University of Ag. & Technology, Kanpur, Indian Institute of Pulse Research, Kalyanpur Kanpur. IARI, Pusa New Delhi		
	Late- Pragati, Tarun			
2. Sowing Time				
	June last week to July 15	**Rate(Rs/kg/ Pkt)**	**Cost per ha (Rs)**	**Demonstration Cost (Rs)**
3. Required Seed	4 kg / ha (F1,F2, Certified)	150	600	300.00
7. Use Weedicide	-	-	-	-
11. Bio Fertilizers/Bio-agents				
i) Azatobactor + PSB	5 Pkt + 5 Pkt = 10 Pkt @ Rs	7.5	75	37.50
ii) Rhizobium + PSB	-	-	-	-
iii) Trichoderma	-	-	-	-
12. Recommended dose of fertilizers				

30:15:25 NPK				
i) DAP*	80 kg	15	1200	600.00
ii) SSP*	225 kg	8	1800	900.00
iii) Urea	30 kg	6	180	90.00
iv) MOP	40 kg	7	280	140.00
* Either one	30 kg /ha Sulphur added if SSP used			
13. IPM				
Spray of Neem Seed Kernal	10	30	300	150.00
Mataka Khad	15 lit/kg Gobar+Neemleaf+water+Desi cow urine+2 kg Molasis mix & Deco	2	124	62.00
Insecticides/Fungicides	If required One Dusting of Methyle Paratheon powder			
	25 kg / ha	25	625	312.50
	Total (Less SSP)			**1692.00**
Integrated Crop Management	**Wheat**			
Area of Demonstration - 0.40 ha				
Detail of Demonstration	**Intervention / Technology Adopted**	**Organizations for obtaining Seed**		
1. Name of Varieties	UP-2338,WH-542,PBW-343,502,550,K-9006,307	C. S. A. University of Ag. & Technology, Kanpur, Indian Institute of Pulse Research, Kalyanpur Kanpur. IARI, Pusa New Delhi		
2. Sowing Time				
	Mid October to first week of Nov	**Rate(Rs/kg/ Pkt)**	**Cost per ha (Rs)**	**Demonstration Cost (Rs)**
3. Required Seed	100 kg / ha (F1,F2, Certified)	25	2500	1250.00
7. Use Weedicide	Total - at 28 to 32 at after sowing	950	950	475.00
11. Bio Fertilizers/Bio-agents				
i) Azatobactor + PSB	5 Pkt + 5 Pkt = 10 Pkt @ Rs	7.5	75	37.50
ii) Rhizobium + PSB	-	-	-	-

iii) Trichoderma	1.50 kg /ha (Soil treatment)	136	204	102.00
12. Recommended dose of fertilizers				
120:60:40 NPK				
i) DAP*	325 kg	15	4875	2437.50
ii) SSP*	-	-	-	0.00
iii) Urea	100 kg	6	600	300.00
iv) MOP	80 kg	7	560	280.00
v) Zinc	30 kg /ha	25	750	375.00
13. IPM				
Spray of Neem Seed Kernal	10	30	300	150.00
Mataka Khad	15 lit/kg Gobar+Neemleaf+water+Desi cow urine+2 kg Molasis mix & Deco	2	124	62.00
Insecticides/Fungicides	If required One Dusting of Methyle Paratheon powder			
	25 kg / ha	25	625	312.50
	Total (Less SSP)			**5781.50**
Integrated Crop Management	**Maize**			
Area of Demonstration - 0.40 ha				
Detail of Demonstration	**Intervention / Technology Adopted**	**Organizations for obtaining Seed**		
1. Name of Varieties	Hyb. Duccan-103, 105, Sankul- Dhawal, Shakti-1, Popcorn- Amber, V.L. Amber, Perl popcorn	C. S. A. University of Ag. & Technology, Kanpur, Indian Institute of Pulse Research, Kalyanpur Kanpur. IARI, Pusa New Delhi		
2. Sowing Time				
	15 Oct. to 15 Nov.	**Rate(Rs/kg/ Pkt)**	**Cost per ha (Rs)**	**Demonstration Cost (Rs)**
3. Required Seed	22 kg / ha (F1,F2, Certified)	60	1320	660.00
4. Seed Treatment	Thirum & 25 ml Chloropiryphose	60	60	30.00

11. Bio Fertilizers/Bio-agents				
i) Azatobactor + PSB	5 Pkt + 5 Pkt = 10 Pkt @ Rs	7.5	75	37.50
ii) Rhizobium + PSB	-	-	-	-
iii) Trichoderma	1.50 kg /ha (Soil treatment)	136	204	102.00
12. Recommended dose of fertilizers				
100:60:40 NPK				
i) DAP*	265 kg	15	3975	1987.50
ii) SSP*	-	-	-	0.00
iii) Urea	80 kg	6	480	240.00
iv) MOP	50 kg	7	350	175.00
v) Zinc	-	-	-	0.00
13. IPM				
Spray of Neem Seed Kernal	10	30	300	150.00
Mataka Khad	15 lit/kg Gobar+Neemleaf+water+Desi cow urine+2 kg Molasis mix & Deco	2	124	62.00
Insecticides/Fungicides	If required One Dusting of Methyle Paratheon powder			
	25 kg / ha	25	625	312.50
	Total (Less SSP)			**3756.50**
Integrated Crop Management	**Maize**			
Area of Demonstration - 0.40 ha				
Detail of Demonstration	**Intervention / Technology Adopted**	**Organizations for obtaining Seed**		
1. Name of Varieties	Hybrid- Ganga-11, Sartaj, Prakash, Pusa Hybrid Maize5, Composite-Prabhat, Navjyoti, Pusa Composite-2, Naveen	C. S. A. University of Ag. & Technology, Kanpur, Indian Institute of Pulse Research, Kalyanpur Kanpur. IARI, Pusa New Delhi		
2. Sowing Time				
	Mid June	**Rate(Rs/kg/ Pkt)**	**Cost per ha (Rs)**	**Demonstration Cost (Rs)**

3. Required Seed	20 kg / ha (F1,F2, Certified)	40	800	400.00
4. Seed Treatment	Thirum & 25 ml Chloropiryphose	60	60	30.00
11. Bio Fertilizers/Bio-agents				
i) Azatobactor + PSB	5 Pkt + 5 Pkt = 10 Pkt @ Rs	7.5	75	37.50
ii) Rhizobium + PSB	-	-	-	-
iii) Trichoderma	1.50 kg /ha (Soil treatment)	136	204	102.00
12. Recommended dose of fertilizers				
100:60:40 NPK				
i) DAP*	265 kg	15	3975	1987.50
ii) SSP*	-	-	-	0.00
iii) Urea	80 kg	6	480	240.00
iv) MOP	50 kg	7	350	175.00
v) Zinc	-	-	-	0.00
13. IPM				
Spray of Neem Seed Kernal	10	30	300	150.00
Mataka Khad	15 lit/kg Gobar+Neemleaf+water+Desi cow urine+2 kg Molasis mix & Deco	2	124	62.00
Insecticides/Fungicides	If required One Dusting of Methyle Paratheon powder			
	25 kg / ha	25	625	312.50
	Total (Less SSP)			**3496.50**
Integrated Crop Management	**Sorghum**			
Area of Demonstration - 0.40 ha				
Detail of Demonstration	**Intervention / Technology Adopted**	**Organizations for obtaining Seed**		
1. Name of Varieties	CSV-13, 15, 1616, Bundela. CSH-16	C. S. A. University of Ag. & Technology, Kanpur, Indian Institute of Pulse Research, Kalyanpur Kanpur. IARI, Pusa New Delhi		
2. Sowing Time				

	June last to July first week	**Rate(Rs/kg/ Pkt)**	**Cost per ha (Rs)**	**Demonstration Cost (Rs)**
3. Required Seed	12 kg / ha (F1,F2, Certified)	40	480	240.00
4. Seed Treatment	Thirum & 25 ml Chloropiryphose	60	60	30.00
11. Bio Fertilizers/Bio-agents				
i) Azatobactor + PSB	5 Pkt + 5 Pkt = 10 Pkt @ Rs	7.5	75	37.50
ii) Rhizobium + PSB	-	-	-	-
iii) Trichoderma	1.50 kg /ha (Soil treatment)	136	204	102.00
12. Recommended dose of fertilizers				
80:40:20 NPK				
i) DAP*	280 kg	15	4200	2100.00
ii) SSP*	-	-	-	0.00
iii) Urea	100 kg	6	600	300.00
iv) MOP	80 kg	7	560	280.00
v) Zinc	-	-	-	0.00
13. IPM				
Spray of Neem Seed Kernal	10	30	300	150.00
Mataka Khad	15 lit/kg Gobar+Neemleaf+water+Desi cow urine+2 kg Molasis mix & Deco	2	124	62.00
Insecticides/Fungicides	If required One Dusting of Methyle Paratheon powder			
	25 kg / ha	25	625	312.50
	Total (Less SSP)			**3614.00**

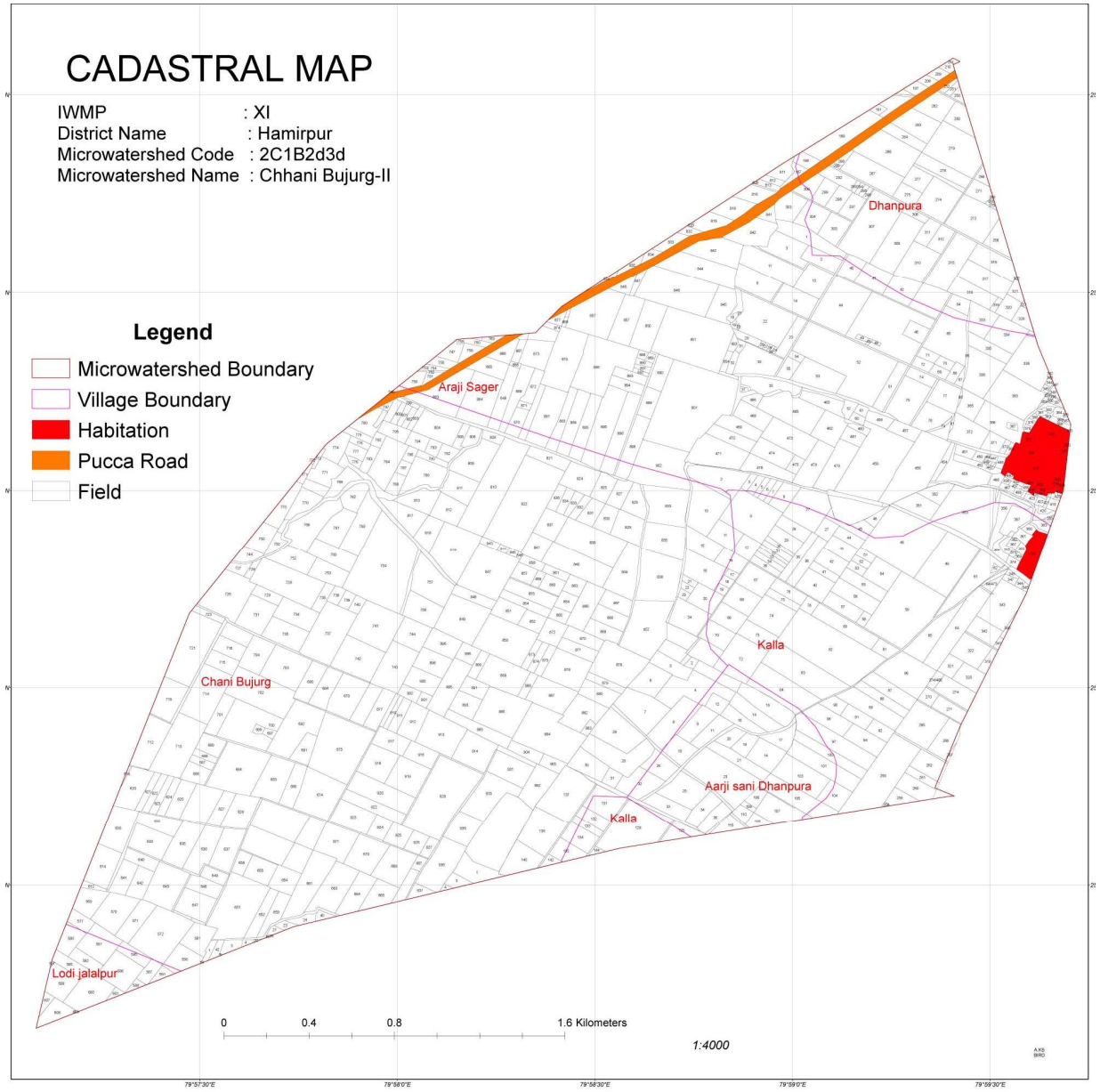
NOTE: List of beneficiaries for crop demonstration trials is kept in project file

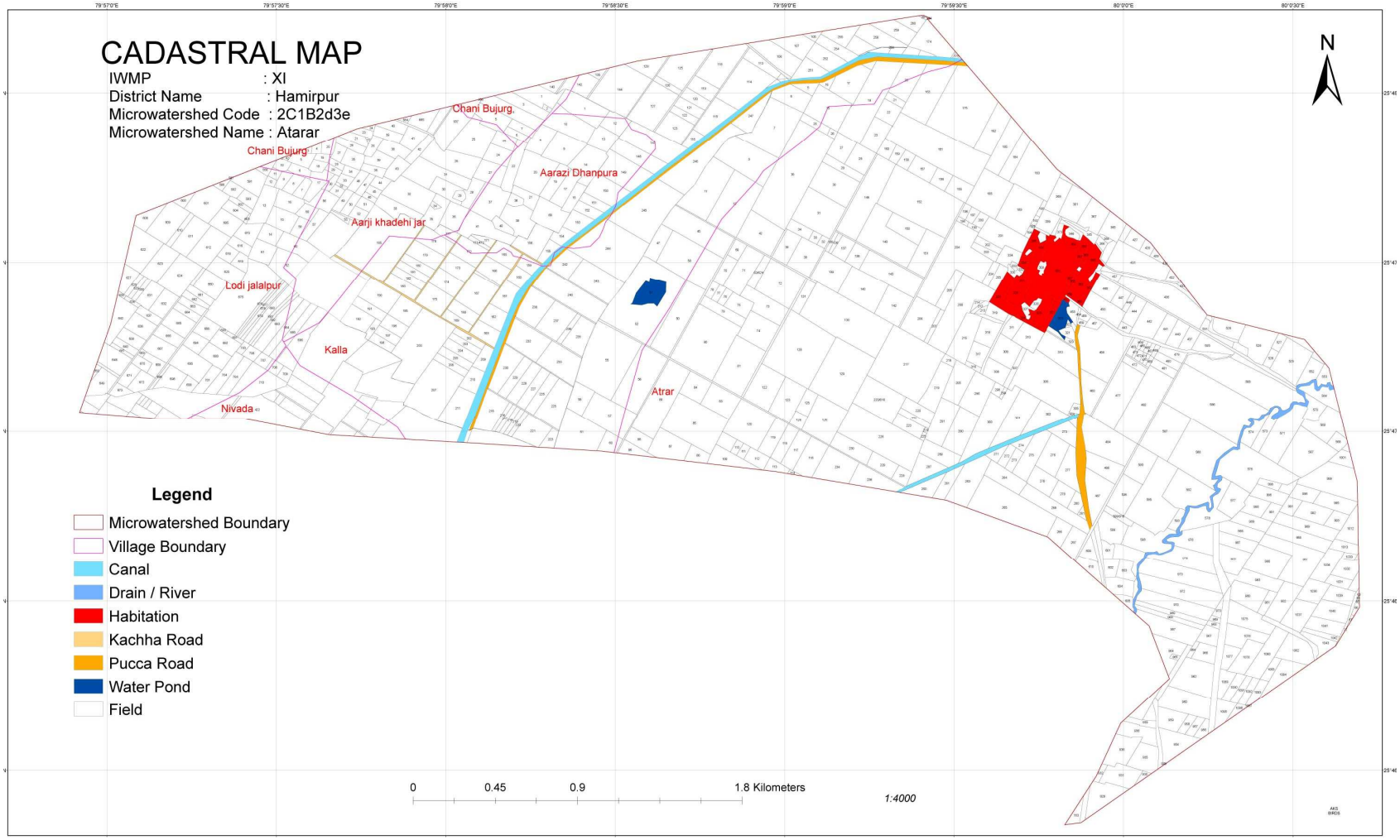
Details of Demonstration under Agriculture Production System

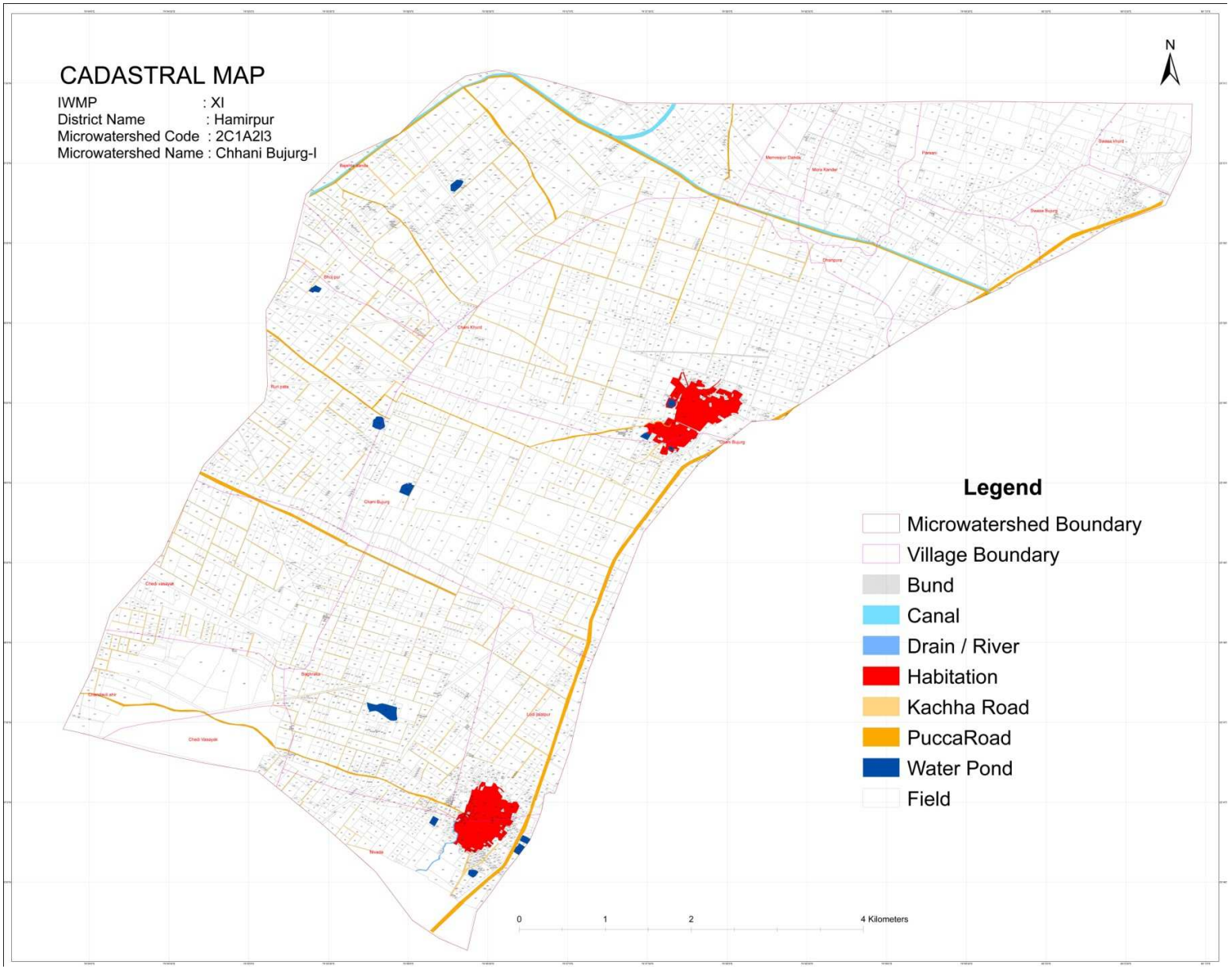
Project- IWMP-XI																
S. No.	***No. of Farmers***	***Crop***	***Variety***	***Area (ha)***	***Total cost of demon. (Rs.)***	***Beneficiary Contribution (Rs.)***	***Share of Project fund (Rs.)***	***Prop. date of sowing***	***Exp. Crop maturity date***	***Prop. Crop cutting Date***	***Productivity (Q/ha)***		***Total Seed***	***Expected Seed Exchange***		***Remarks***
											Existing	**Expected**	**Production (Qtl.)**	**No of Farmers**	**Quantity (Qtl.)**	
	Kharif															
1	240	Urd	Shekhar-2, Azad-1/ PU-35/19	48.00	1.701	0.060	1.641	Last June to Mid July	Mid September	25-Sep	3.48	5.6	268.8	1792	107.52	
						0.221	1.480									
2	200	Sorghum	Bundela, CSV-15, 13	40.00	1.446	0.051	1.395	Last June to Mid July	Mid September	25-Sep	4.2	6.2	248	2067	206.67	
						0.188	1.258									
3	240	Arhar	Paras, UPAS-120	48.00	1.416	0.050	1.367	Last June-July	Oct (UPAS)	30-Sep	5.34	7.6	364.8	1459	291.84	
						0.184	1.232		March (Paras)	25-Mar						
4	200	Til	Pragati, Shekhar	40.00	0.677	0.024	0.653	15-Jul	September	30-Sep	1.8	3.6	144	3600	108.00	
	Rabi					0.088	0.589									
1	400	Lentil	DPL-15, K-75	80.00	3.795	0.133	3.662	15-Oct	Feb	5-Feb	4.9	6.5	520	867	433.33	
						0.493	3.301									
2	320	Chick pea	KDG-1168, KWR-108	64.00	3.484	0.122	3.362	15-30 October	Las Feb to Mid March	2-10 March	5.62	8.5	544	680	476.00	
						0.453	3.03									

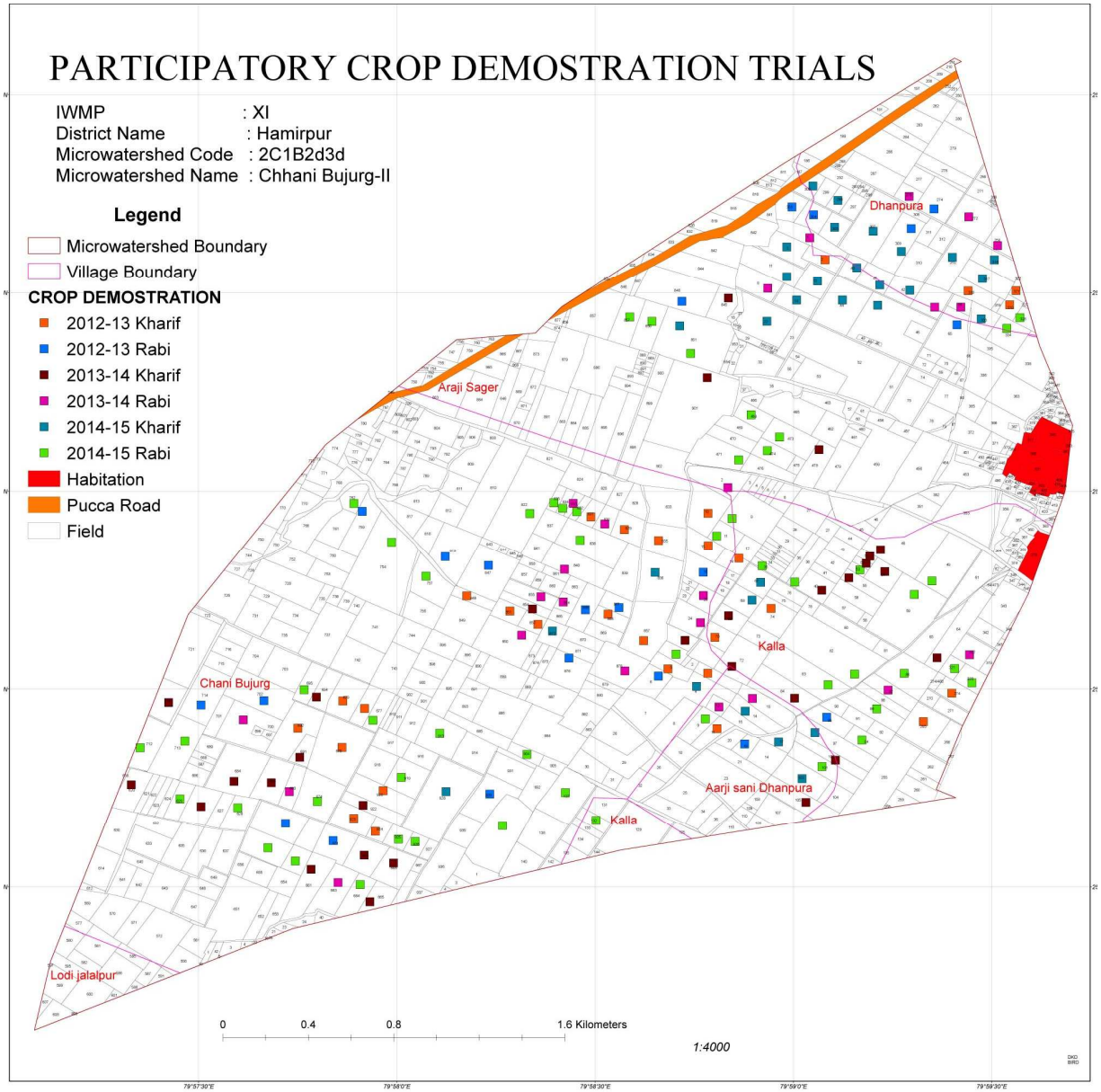
							1									
3	320	Field Pea	KPMR-400, 522	64.00	3.676	0.129	3.547	October	March	5-Mar	6.2	9.5	608	760	570.00	
						0.478	3.198									
4	240	Linseed	Parwati, Padmini	48.00	1.416	0.050	1.366	October	Feb-March	27 Feb to 5 March	Mixed	5.6	268.8	1075	215.04	
						0.184	1.232									
5	200	Mustard	Maya, Kranti	40.00	1.1048	0.039	1.066	October	Feb	15-120 Feb	Mixed	4.8	192	3840	153.60	
						0.144	0.961									
	Total					**3.088**	**34.340**									

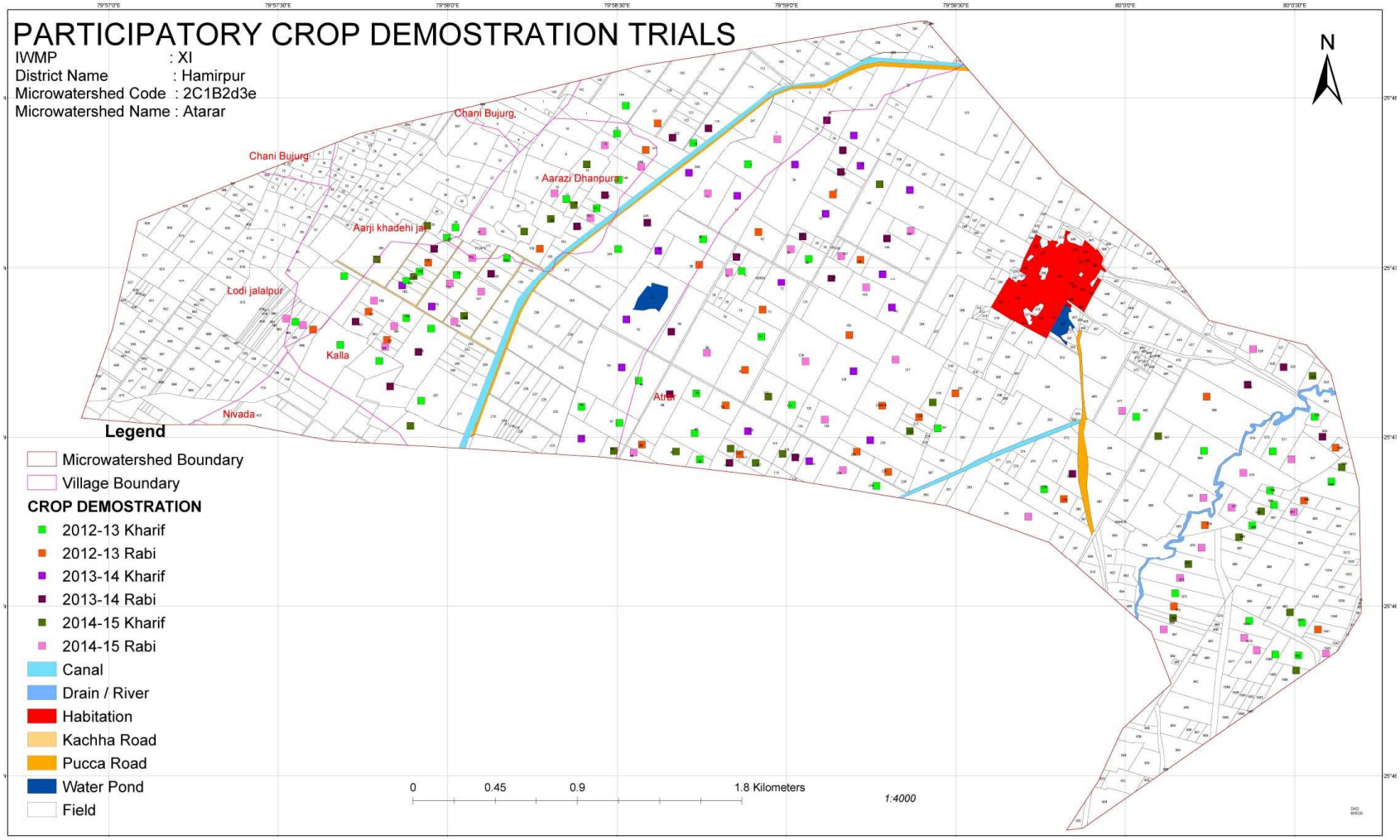
MAPS

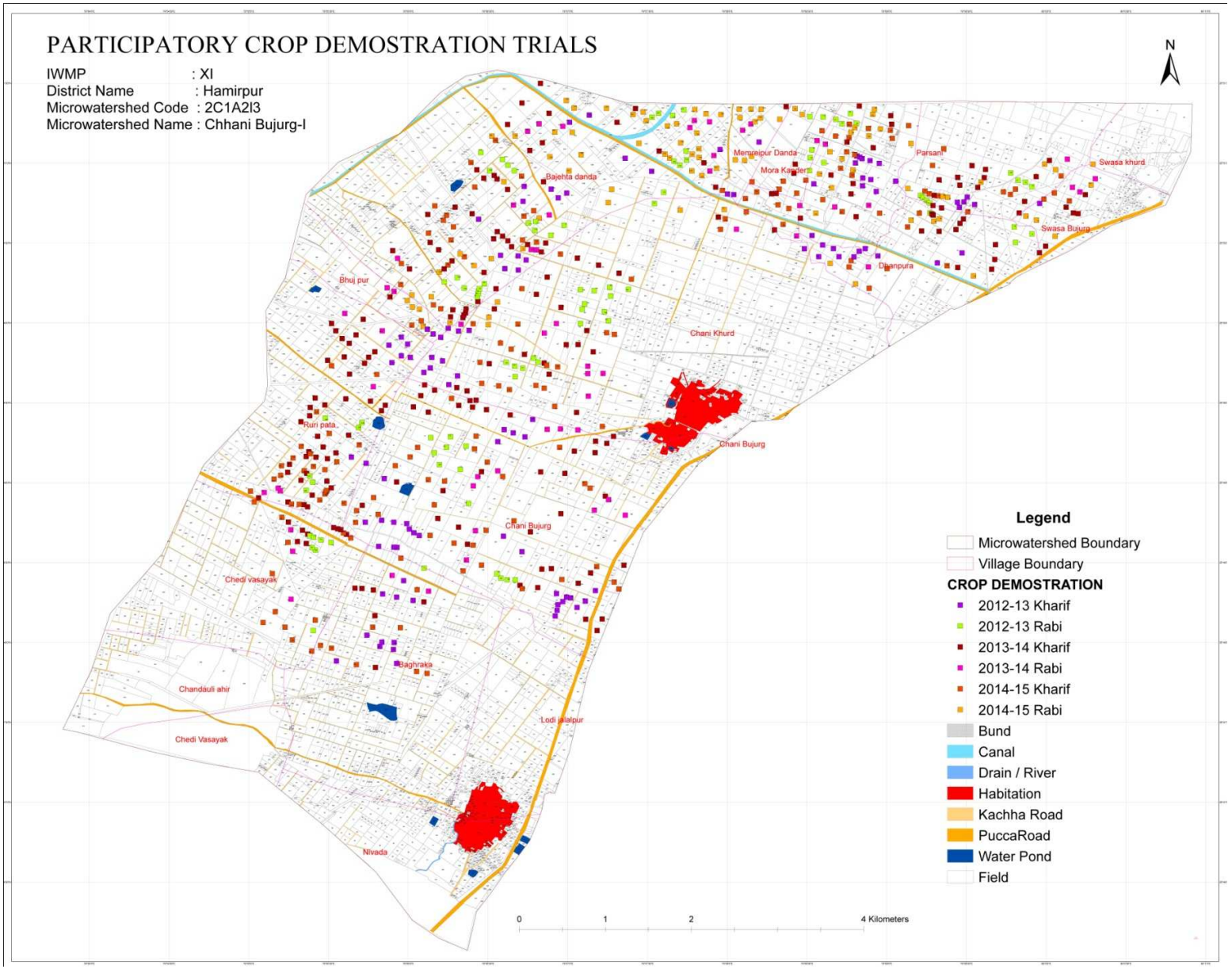

CADASTRAL MAP
IWMP : XI
District Name : Hamirpur
Microwatershed Code : 2C1B2d3d
Microwatershed Name : Chhani Bujurg-II
Legend
Microwatershed Boundary
Village Boundary
Habitation
Pucca Road
Field
Araji Sager
Dhanpura
Kalla
Chani Bujurg
Aarji sani Dhanpura
Kalla
Lodi jalalpur
0
0.4
0.8
1.6 Kilometers
1:4000
79°57'30"E
79°58'0"E
79°58'30"E
79°59'0"E
79°59'30"E

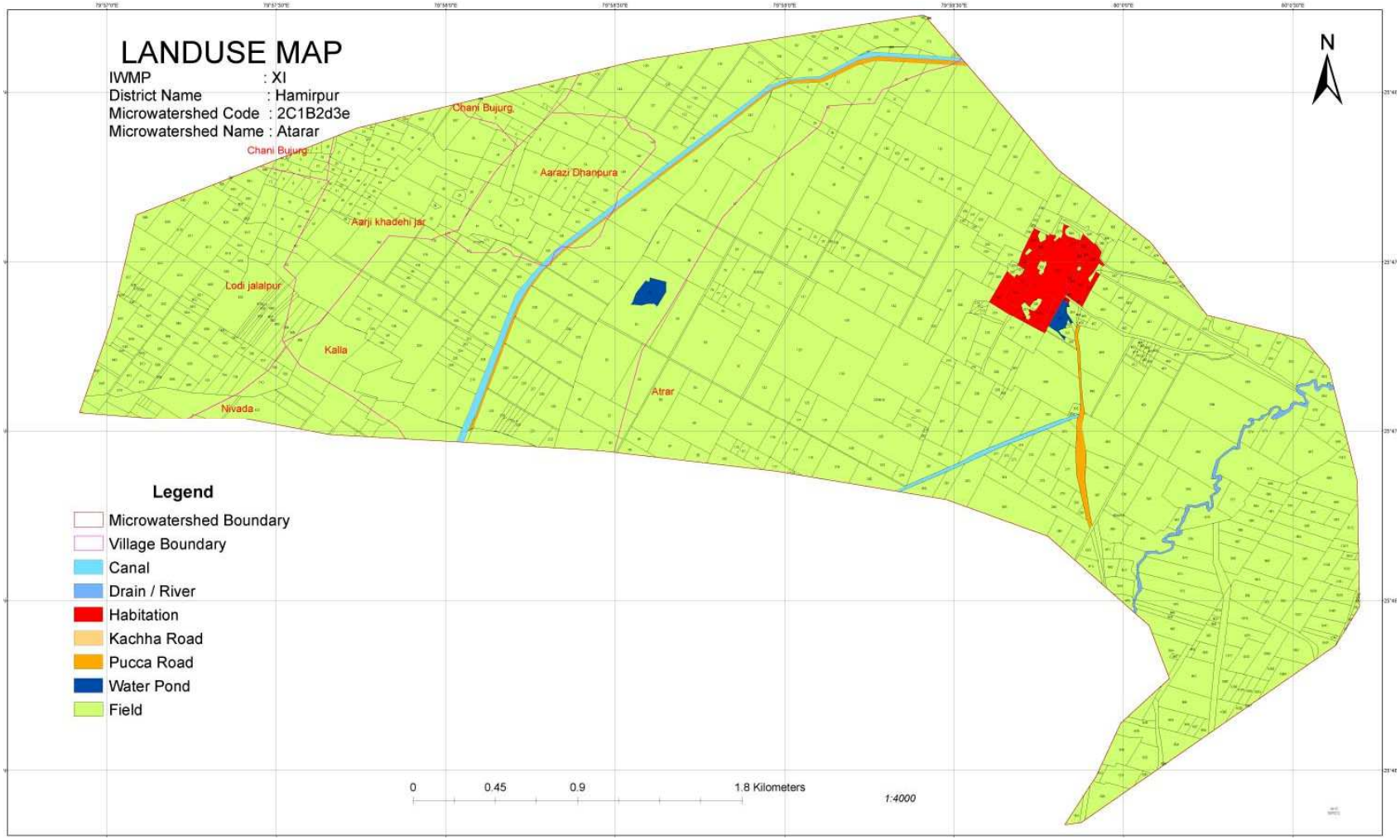

CADASTRAL MAP
IWMP : XI
District Name : Hamirpur
Microwatershed Code : 2C1B2d3e
Microwatershed Name : Atarar
Chani Bujurg
Chani Bujurg
Aarazi Dhanpura
Aarji khadehi jar
Lodi jalalpur
Kalla
Nivada
Atrar
N
Legend
Microwatershed Boundary
Village Boundary
Canal
Drain / River
Habitation
Kachha Road
Pucca Road
Water Pond
Field
0
0.45
0.9
1.8 Kilometers
1:4000

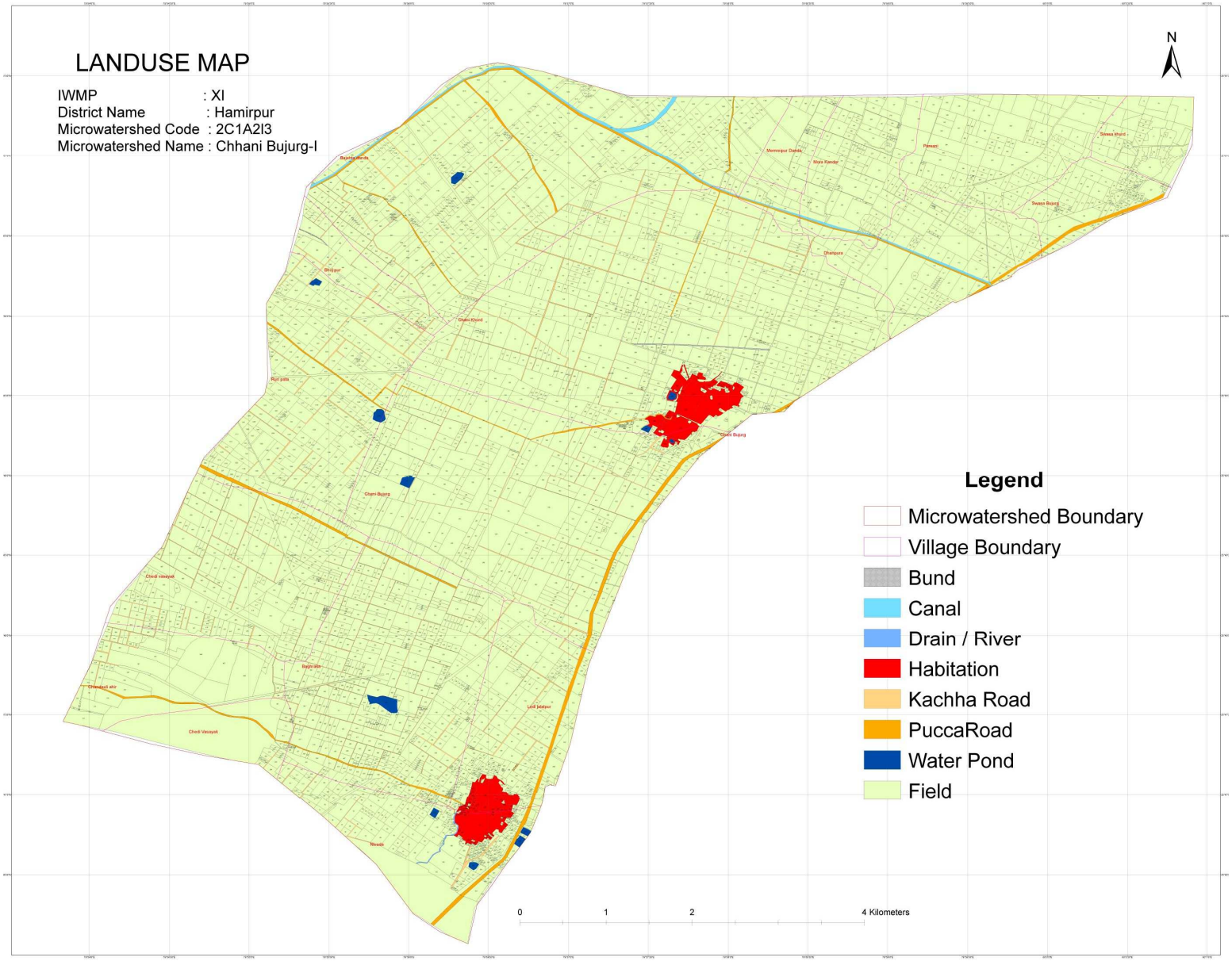

CADASTRAL MAP
IWMP : XI
District Name : Hamirpur
Microwatershed Code : 2C1A2I3
Microwatershed Name : Chhani Bujurg-I
N
Legend
Microwatershed Boundary
Village Boundary
Bund
Canal
Drain / River
Habitation
Kachha Road
PuccaRoad
Water Pond
Field
0
1
2
4 Kilometers

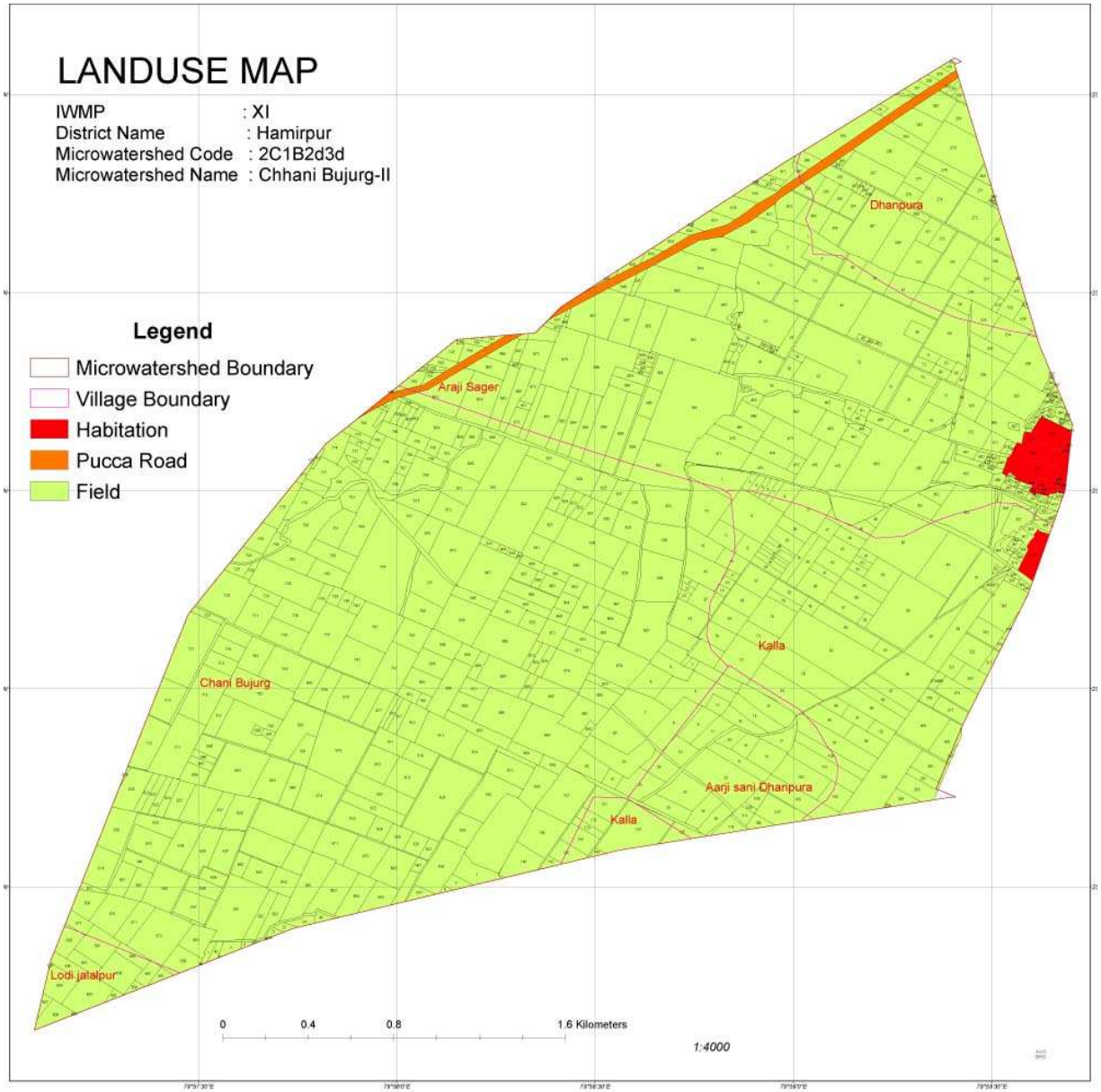

PARTICIPATORY CROP DEMOSTRATION TRIALS
IWMP : XI
District Name : Hamirpur
Microwatershed Code : 2C1B2d3d
Microwatershed Name : Chhani Bujurg-II
Legend
Microwatershed Boundary
Village Boundary
CROP DEMOSTRATION
2012-13 Kharif
2012-13 Rabi
2013-14 Kharif
2013-14 Rabi
2014-15 Kharif
2014-15 Rabi
Habitation
Pucca Road
Field
Araji Sager
Dhanpura
Kalla
Chani Bujurg
Aarji sani Dhanpura
Kalla
Lodi jalalpur
0
0.4
0.8
1.6 Kilometers
1:4000

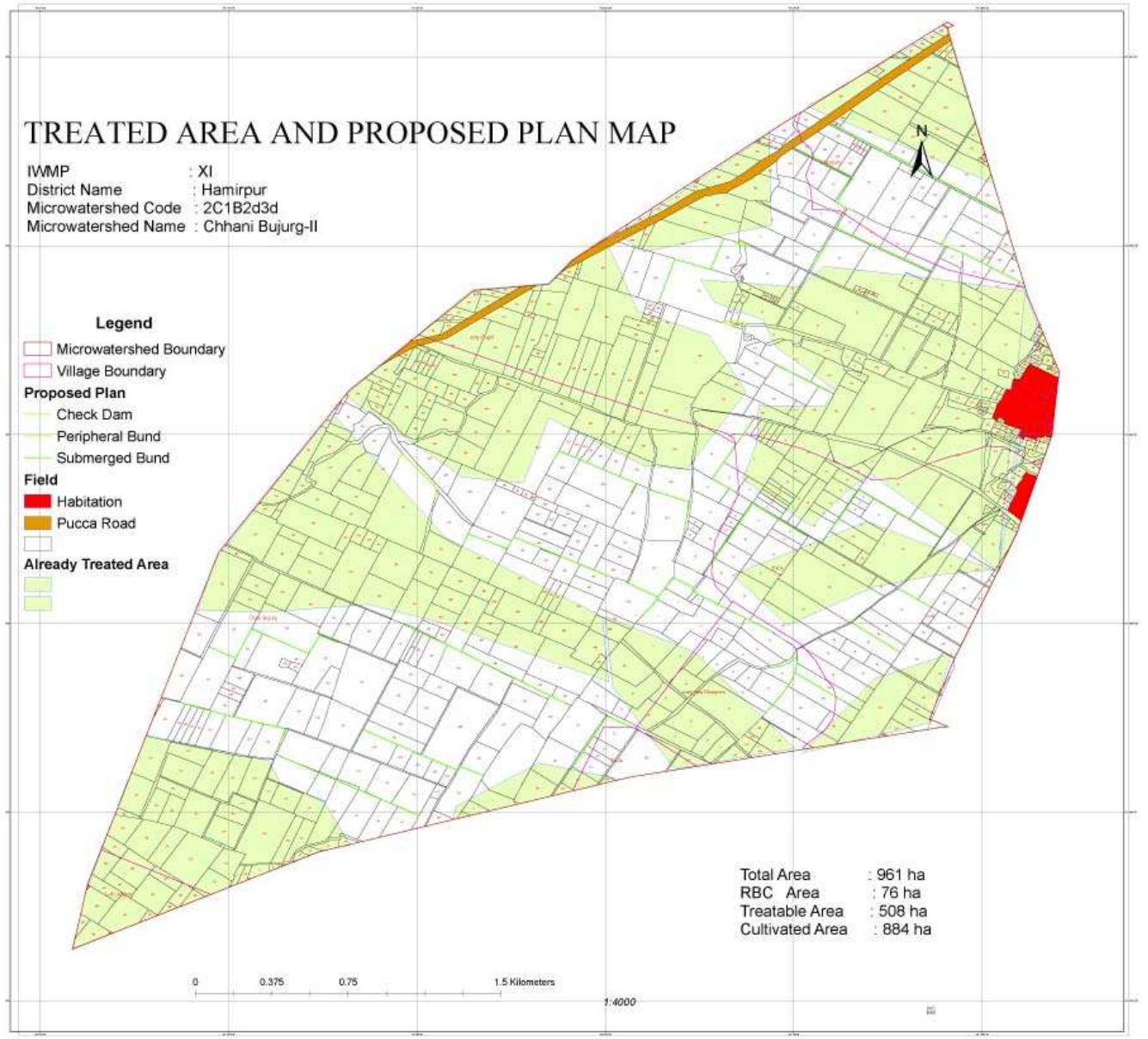

PARTICIPATORY CROP DEMOSTRATION TRIALS
IWMP : XI
District Name : Hamirpur
Microwatershed Code : 2C1B2d3e
Microwatershed Name : Atarar
N
Chani Bujurg.
Chani Bujurg
Aarazi Dhanpura
Aarji khadehi jal
Lodi jalalpur
Kalla
Nivada
Atra
Legend
Microwatershed Boundary
Village Boundary
CROP DEMOSTRATION
2012-13 Kharif
2012-13 Rabi
2013-14 Kharif
2013-14 Rabi
2014-15 Kharif
2014-15 Rabi
Canal
Drain / River
Habitation
Kachha Road
Pucca Road
Water Pond
Field
0
0.45
0.9
1.8 Kilometers
1:4000

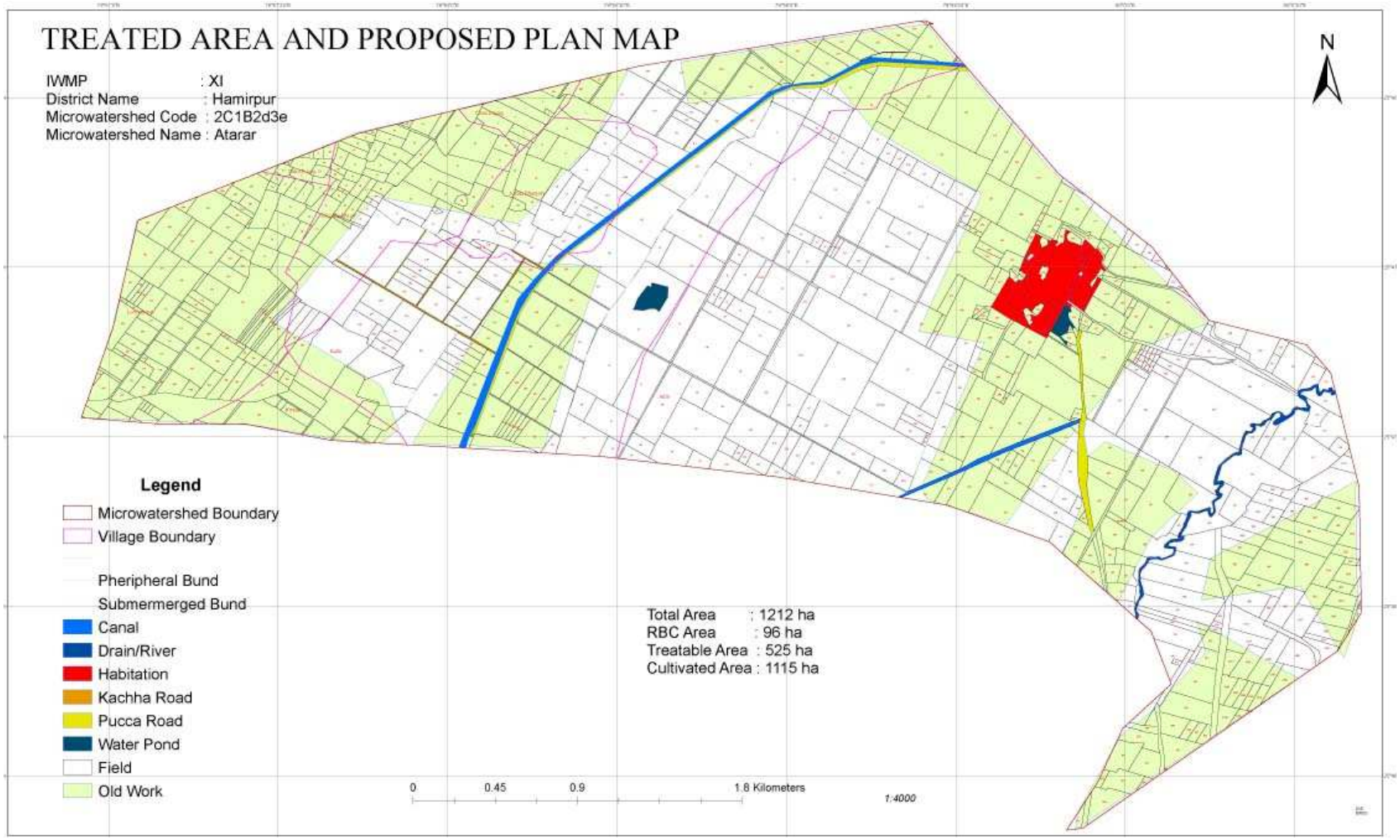

PARTICIPATORY CROP DEMOSTRATION TRIALS
IWMP : XI
District Name : Hamirpur
Microwatershed Code : 2C1A2I3
Microwatershed Name : Chhani Bujurg-I
N
Bajehta danda
Memnipur Danda
Mora Kanker
Parsani
Swasa khurd
Swasa Bujurg
Dhanpura
Bhuj pur
Chani Khurd
Ruri pata
Chani Bujurg
Chani Bujurg
Chedi vasayak
Baghraka
Chandauli ahir
Chedi Vasayak
Lodi jalalpur
Nivada
Legend
Microwatershed Boundary
Village Boundary
CROP DEMOSTRATION
2012-13 Kharif
2012-13 Rabi
2013-14 Kharif
2013-14 Rabi
2014-15 Kharif
2014-15 Rabi
Bund
Canal
Drain / River
Habitation
Kachha Road
PuccaRoad
Water Pond
Field
0
1
2
4 Kilometers

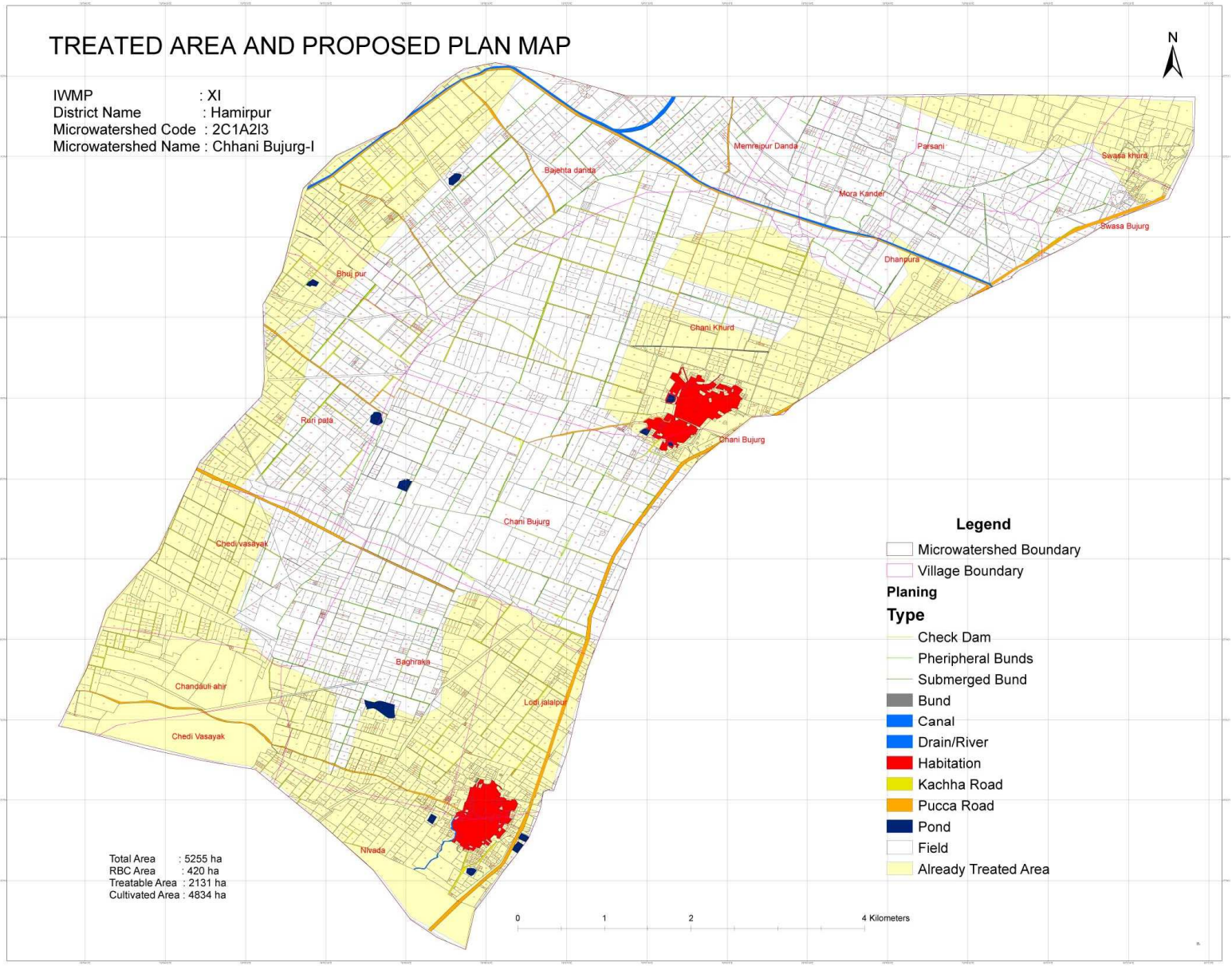

LANDUSE MAP
IWMP : XI
District Name : Hamirpur
Microwatershed Code : 2C1B2d3e
Microwatershed Name : Atarar
Chani Bujurg
Chani Bujurg
Aarazi Dhanpura
Aarji khadehi jar
Lodi jalalpur
Kalla
Nivada
Atrar
N
Legend
Microwatershed Boundary
Village Boundary
Canal
Drain / River
Habitation
Kachha Road
Pucca Road
Water Pond
Field
0
0.45
0.9
1.8 Kilometers
1:4000

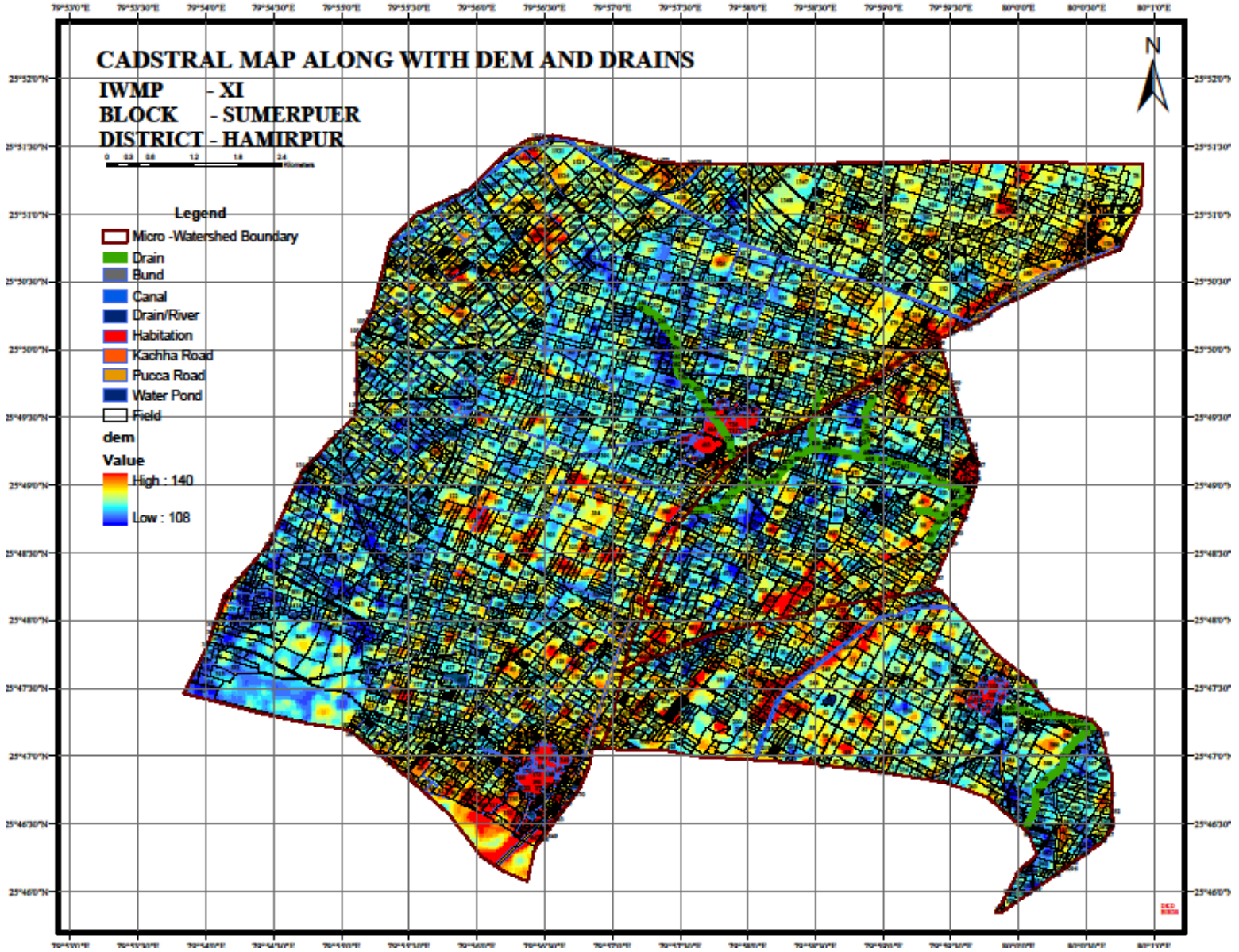

LANDUSE MAP
IWMP : XI
District Name : Hamirpur
Microwatershed Code : 2C1A2I3
Microwatershed Name : Chhani Bujurg-I
N
Legend
Microwatershed Boundary
Village Boundary
Bund
Canal
Drain / River
Habitation
Kachha Road
PuccaRoad
Water Pond
Field
0
1
2
4 Kilometers

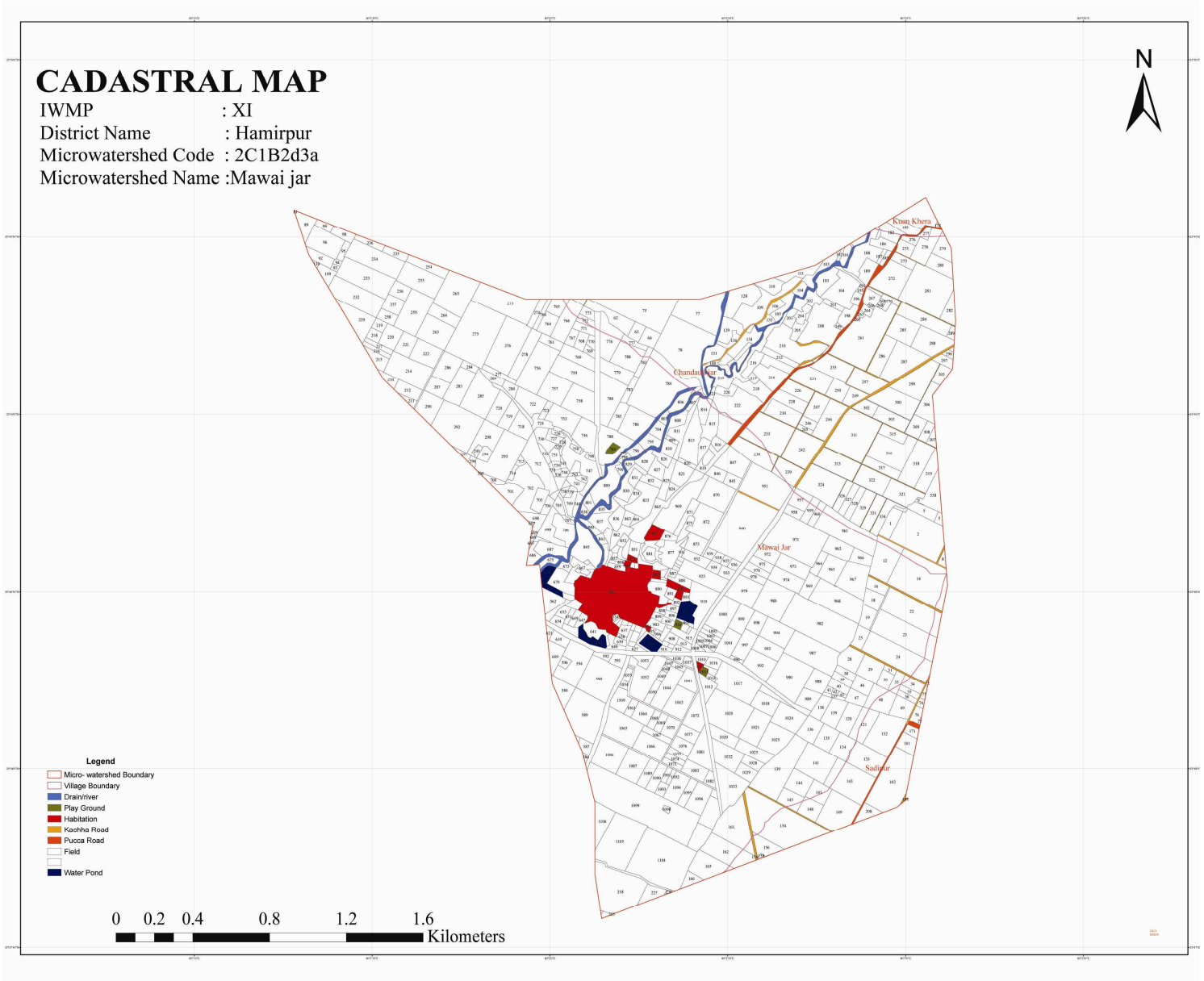

LANDUSE MAP
IWMP : XI
District Name : Hamirpur
Microwatershed Code : 2C1B2d3d
Microwatershed Name : Chhani Bujurg-II
Legend
Microwatershed Boundary
Village Boundary
Habitation
Pucca Road
Field
Dhanpura
Araji Sager
Kalla
Chani Bujurg
Aarji sani Dhanpura
Kalla
Lodi jalalpur
0
0.4
0.8
1.6 Kilometers
1:4000

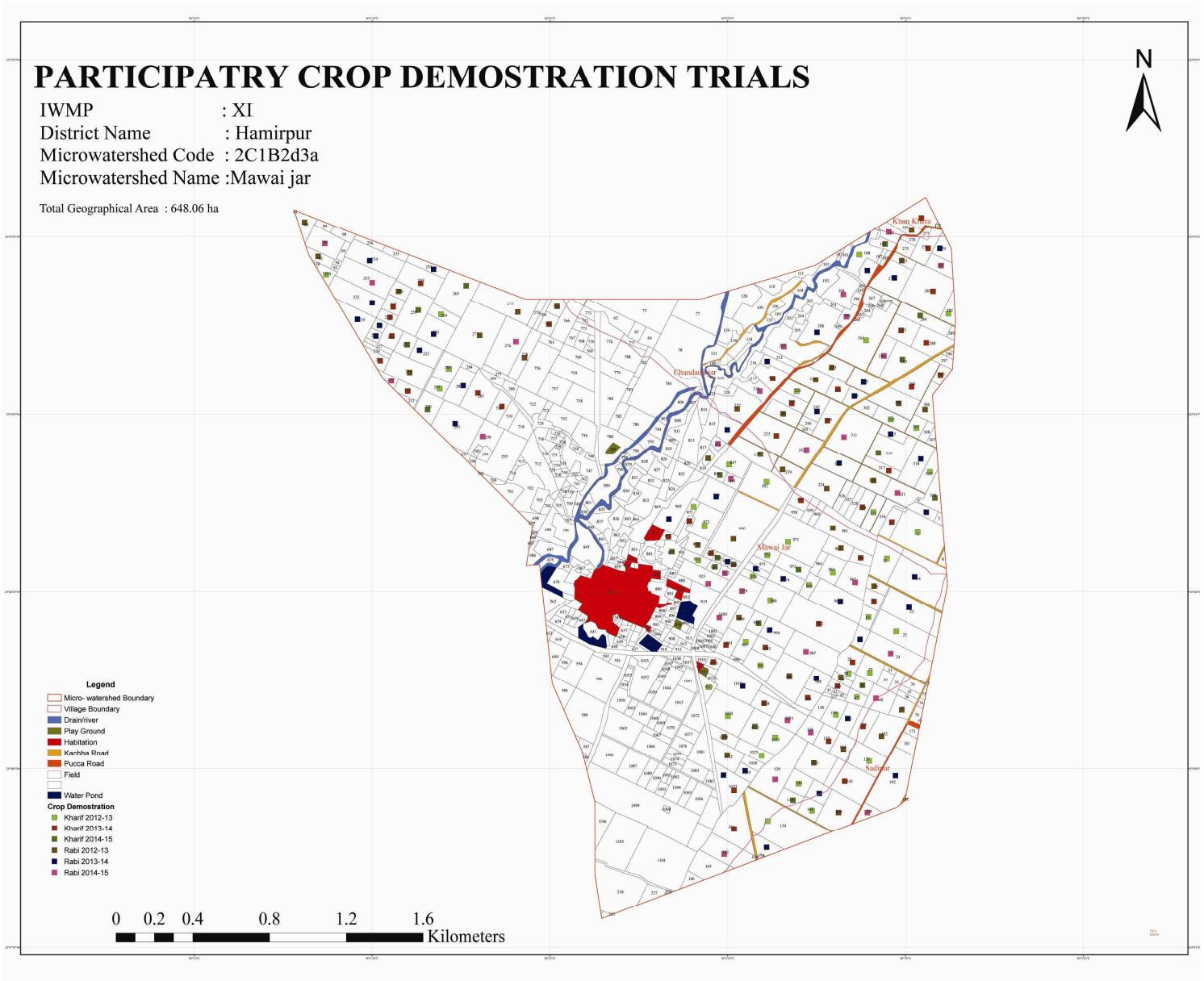

TREATED AREA AND PROPOSED PLAN MAP
IWMP : XI
District Name : Hamirpur
Microwatershed Code : 2C1B2d3d
Microwatershed Name : Chhani Bujurg-II
Legend
Microwatershed Boundary
Village Boundary
Proposed Plan
Check Dam
Peripheral Bund
Submerged Bund
Field
Habitation
Pucca Road
Already Treated Area
N
Total Area : 961 ha
RBC Area : 76 ha
Treatable Area : 508 ha
Cultivated Area : 884 ha
0 0.375 0.75 1.5 Kilometers
1:4000

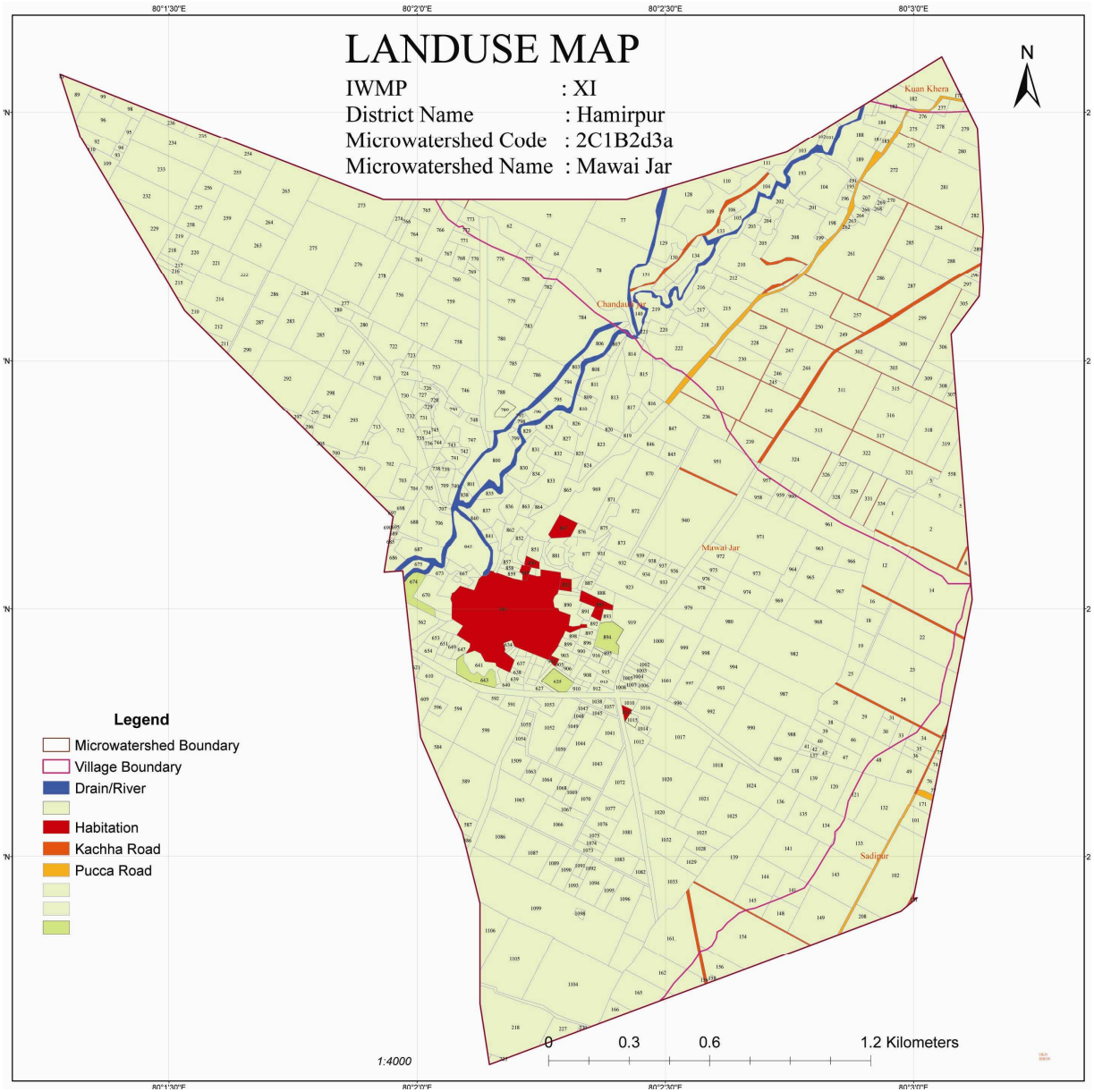

TREATED AREA AND PROPOSED PLAN MAP
IWMP : XI
District Name : Hamirpur
Microwatershed Code : 2C1B2d3e
Microwatershed Name : Atarar
N
Legend
Microwatershed Boundary
Village Boundary
Pheripheral Bund
Submermerged Bund
Canal
Drain/River
Habitation
Kachha Road
Pucca Road
Water Pond
Field
Old Work
Total Area : 1212 ha
RBC Area : 96 ha
Treatable Area : 525 ha
Cultivated Area : 1115 ha
0
0.45
0.9
1.8 Kilometers
1:4000


TREATED AREA AND PROPOSED PLAN MAP
IWMP : XI
District Name : Hamirpur
Microwatershed Code : 2C1A2I3
Microwatershed Name : Chhani Bujurg-I
N
Memreipur Danda
Parsani
Swasa khurd
Bajehta danda
Mora Kander
Swasa Bujurg
Dhanpura
Bhuj pur
Chani Khurd
Rani pata
Chani Bujurg
Chani Bujurg
Chedi vasayak
Baghraka
Chandauli ahir
Lodi jalalpur
Chedi Vasayak
Nivada
Total Area : 5255 ha
RBC Area : 420 ha
Treatable Area : 2131 ha
Cultivated Area : 4834 ha
0
1
2
4 Kilometers
Legend
Microwatershed Boundary
Village Boundary
Planing
Type
Check Dam
Pheripheral Bunds
Submerged Bund
Bund
Canal
Drain/River
Habitation
Kachha Road
Pucca Road
Pond
Field
Already Treated Area


CADSTRAL MAP ALONG WITH DEM AND DRAINS
IWMP - XI
BLOCK - SUMERPUER
DISTRICT - HAMIRPUR
N
Legend
Micro -Watershed Boundary
Drain
Bund
Canal
Drain/River
Habitation
Kachha Road
Pucca Road
Water Pond
Field
dem
Value
High : 140
Low : 108

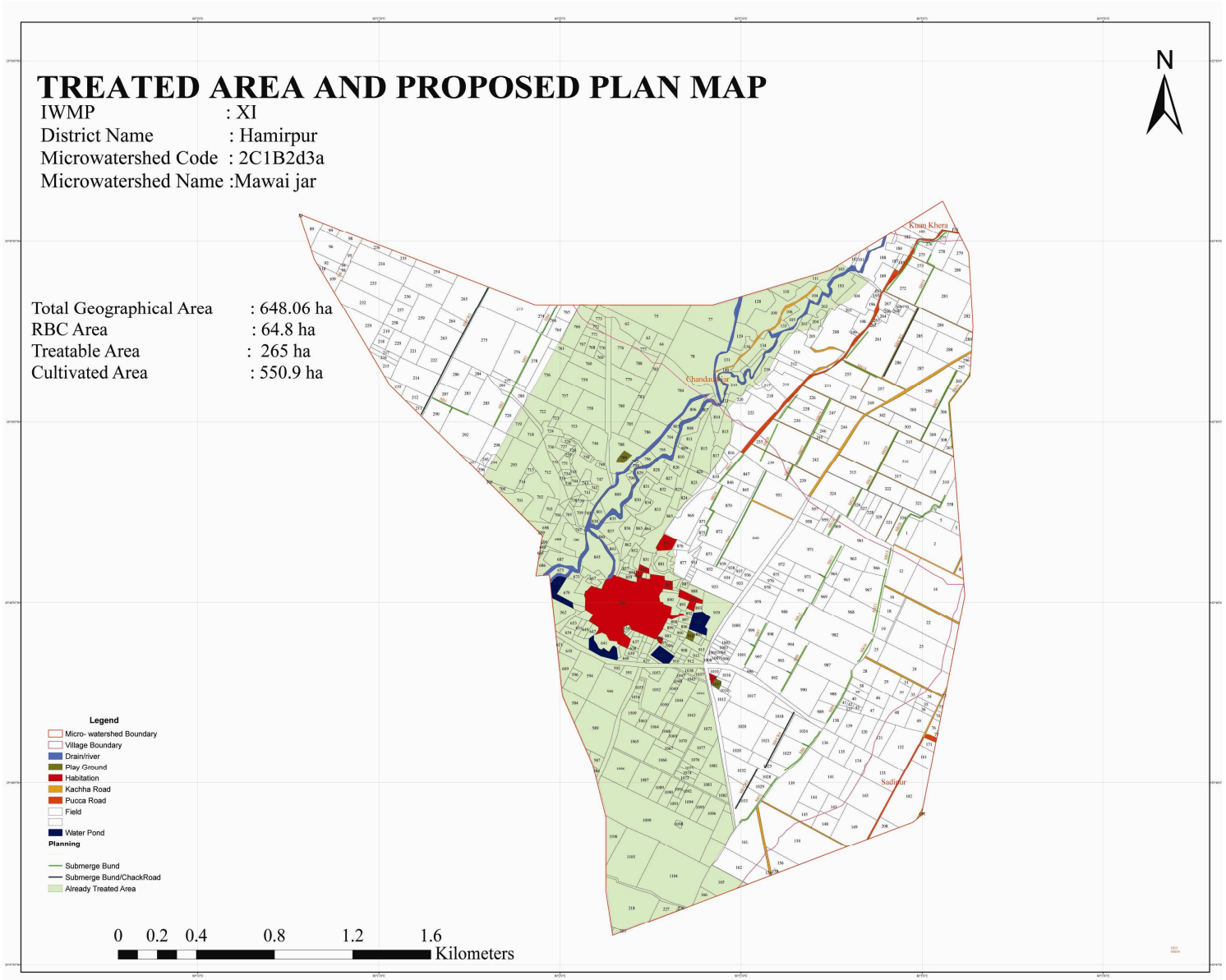

CADASTRAL MAP
IWMP : XI
District Name : Hamirpur
Microwatershed Code : 2C1B2d3a
Microwatershed Name :Mawai jar
N
Khan Khera
Chandauli Jar
Mawai Jar
Sadipur
Legend
Micro- watershed Boundary
Village Boundary
Drain/river
Play Ground
Habitation
Kachha Road
Pucca Road
Field
Water Pond
0 0.2 0.4 0.8 1.2 1.6
Kilometers

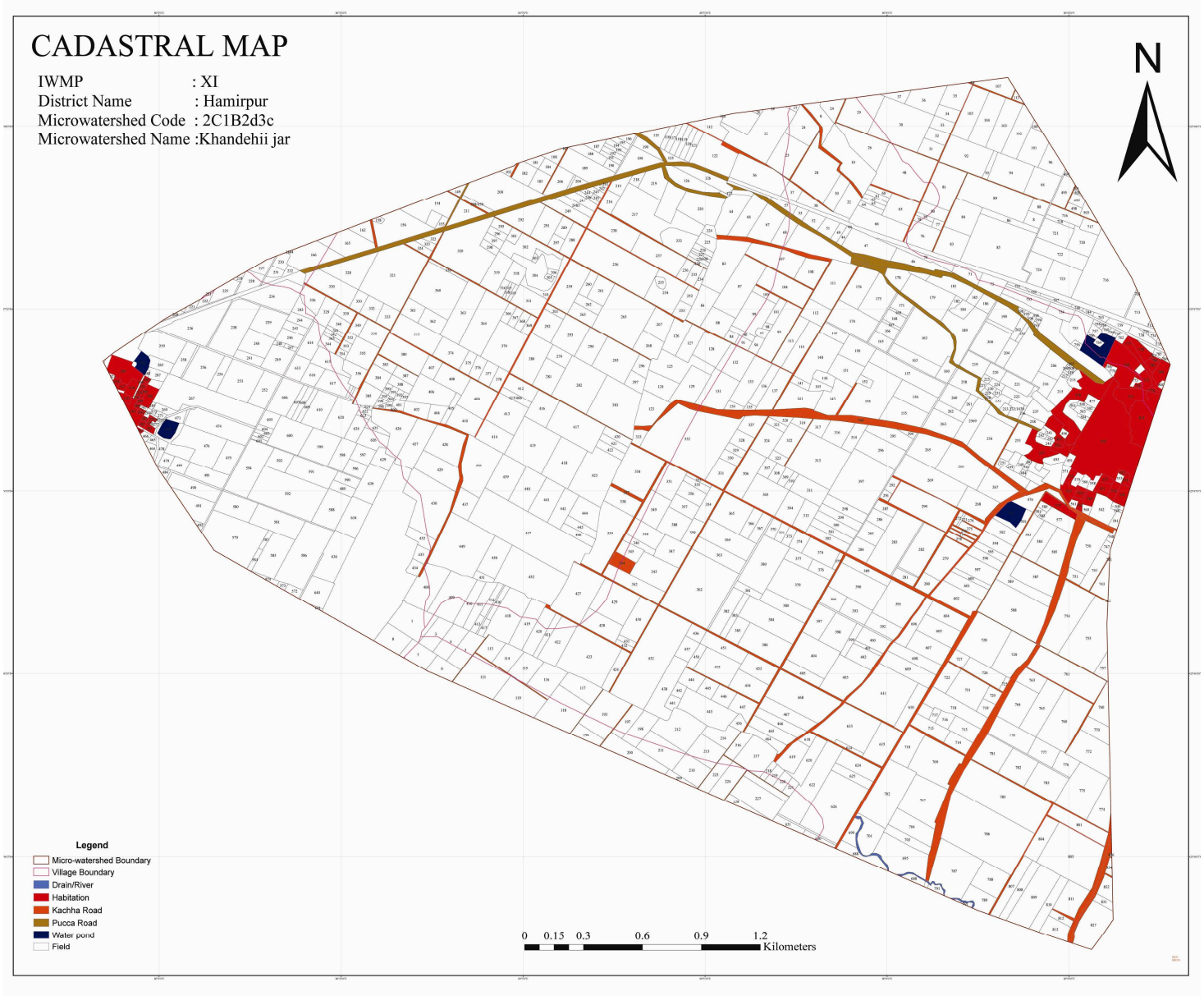

PARTICIPATRY CROP DEMOSTRATION TRIALS
IWMP : XI
District Name : Hamirpur
Microwatershed Code : 2C1B2d3a
Microwatershed Name :Mawai jar
Total Geographical Area : 648.06 ha
N
Khan Khera
Chandauli Jar
Mawai Jar
Sadipur
Legend
Micro- watershed Boundary
Village Boundary
Drain/river
Play Ground
Habitation
Kachha Road
Pucca Road
Field
Water Pond
Crop Demostration
Kharif 2012-13
Kharif 2013-14
Kharif 2014-15
Rabi 2012-13
Rabi 2013-14
Rabi 2014-15
0 0.2 0.4 0.8 1.2 1.6
Kilometers

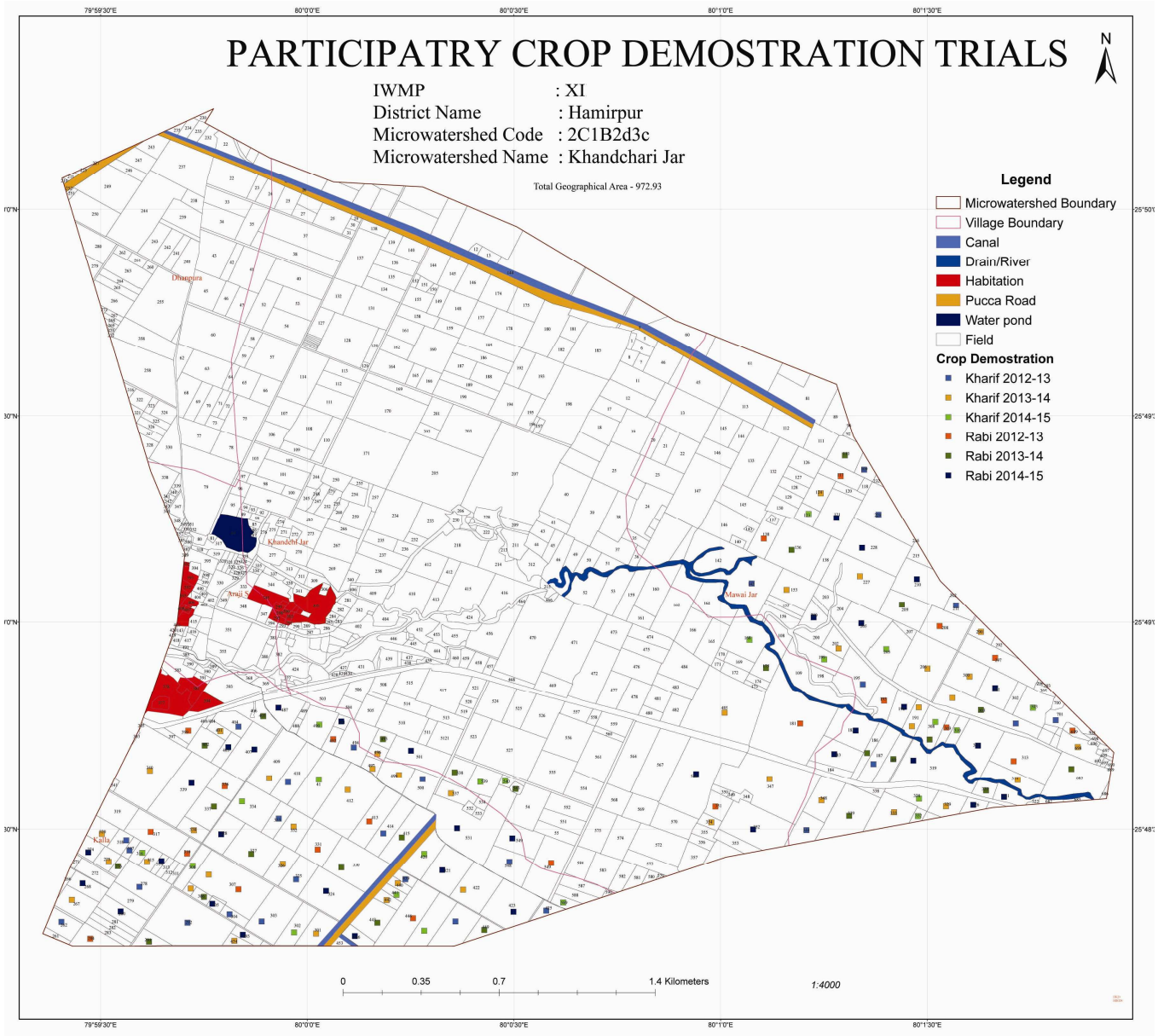

LANDUSE MAP
IWMP : XI
District Name : Hamirpur
Microwatershed Code : 2C1B2d3a
Microwatershed Name : Mawai Jar
N
Kuan Khera
Chandauli
Mawai Jar
Sadipur
Legend
Microwatershed Boundary
Village Boundary
Drain/River
Habitation
Kachha Road
Pucca Road
1:4000
0 0.3 0.6 1.2 Kilometers
80°1'30"E
80°2'0"E
80°2'30"E
80°3'0"E

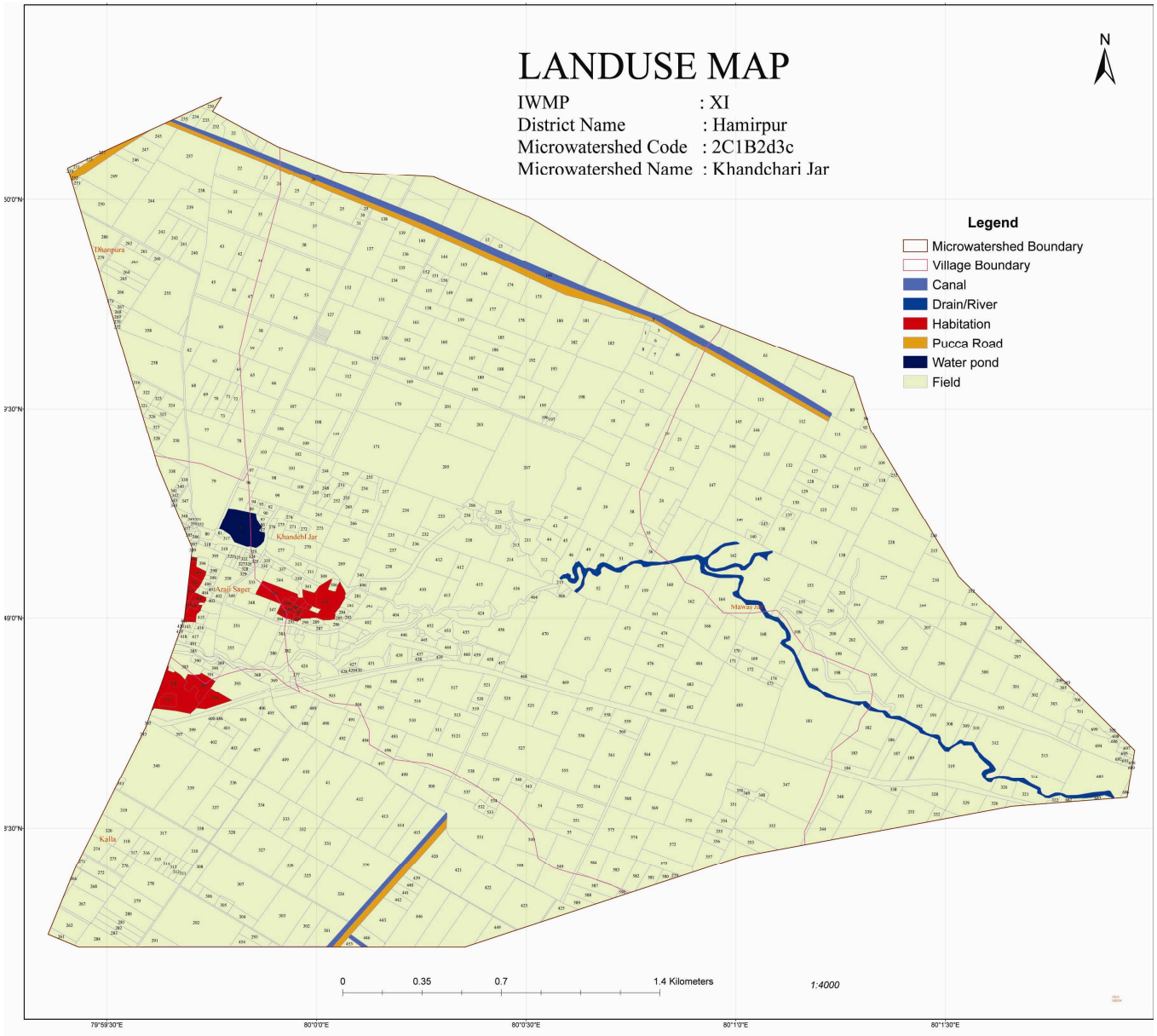
TREATED AREA AND PROPOSED PLAN MAP

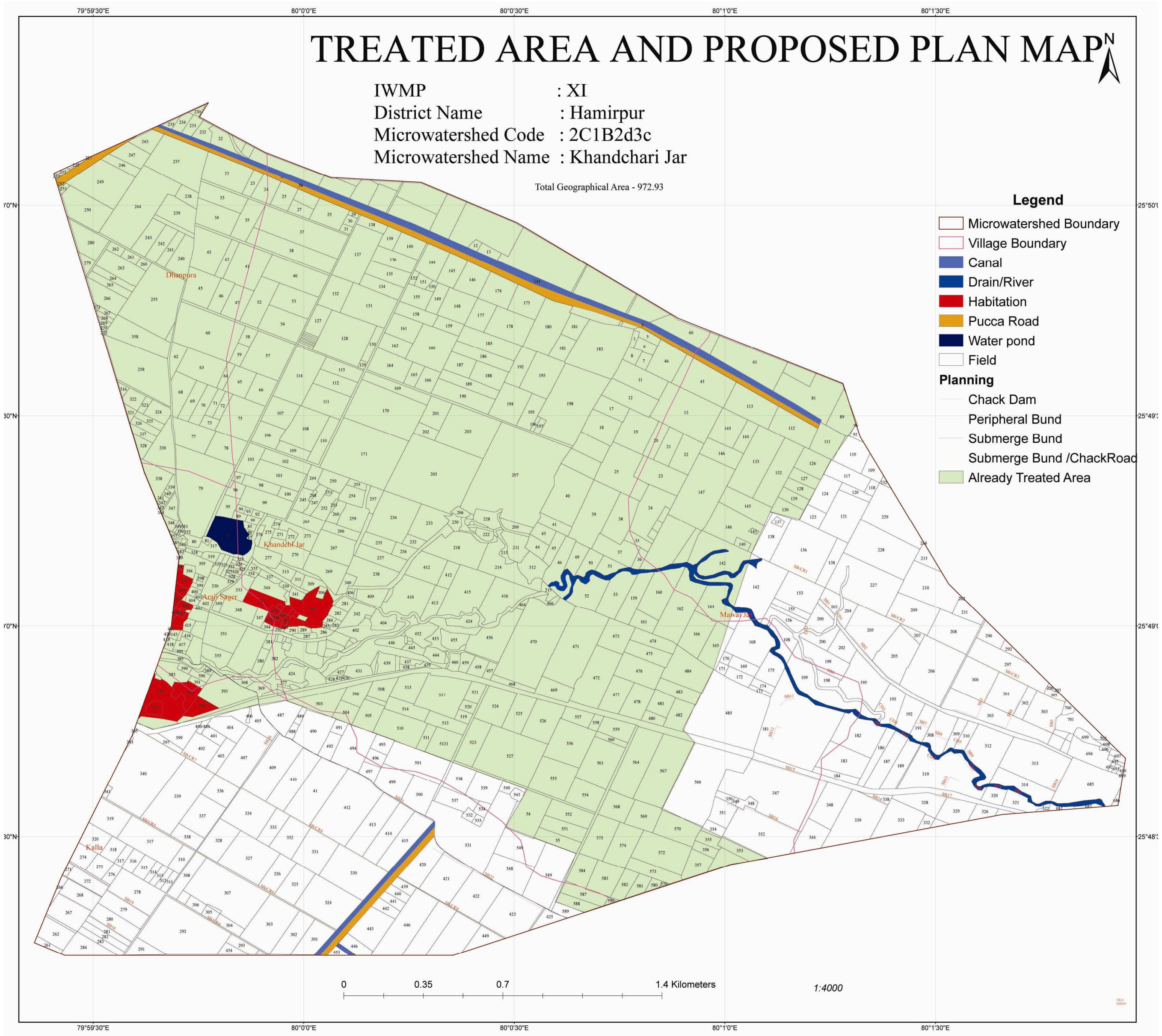
IWMP : XI
District Name : Hamirpur
Microwatershed Code : 2C1B2d3a
Microwatershed Name :Mawai jar



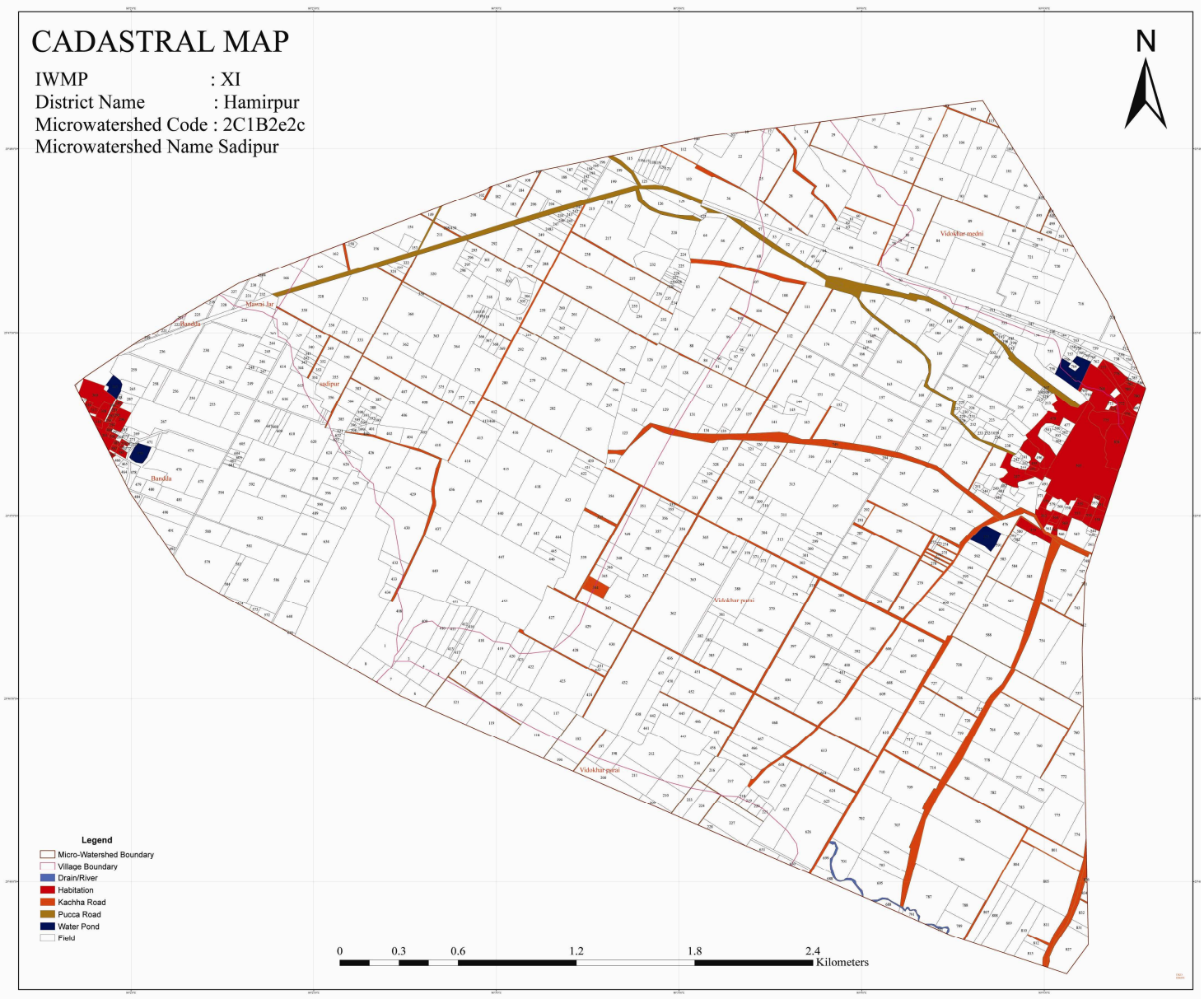

CADASTRAL MAP
IWMP : XI
District Name : Hamirpur
Microwatershed Code : 2C1B2d3c
Microwatershed Name :Khandehii jar
N
Legend
Micro-watershed Boundary
Village Boundary
Drain/River
Habitation
Kachha Road
Pucca Road
Water pond
Field
0 0.15 0.3 0.6 0.9 1.2
Kilometers

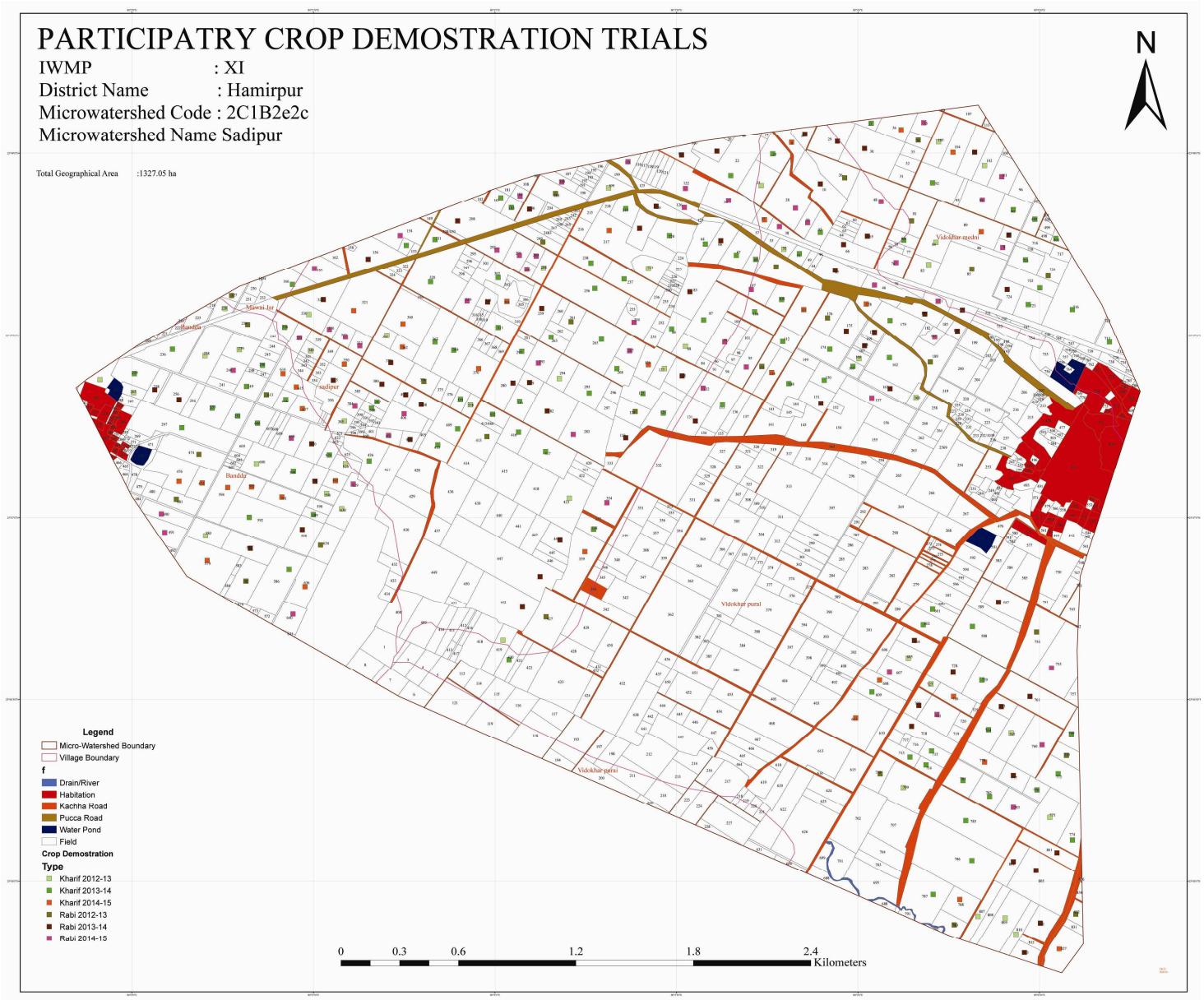

PARTICIPATRY CROP DEMOSTRATION TRIALS
N
IWMP : XI
District Name : Hamirpur
Microwatershed Code : 2C1B2d3c
Microwatershed Name : Khandchari Jar
Total Geographical Area - 972.93
Legend
Microwatershed Boundary
Village Boundary
Canal
Drain/River
Habitation
Pucca Road
Water pond
Field
Crop Demostration
Kharif 2012-13
Kharif 2013-14
Kharif 2014-15
Rabi 2012-13
Rabi 2013-14
Rabi 2014-15
Dhaspura
Khandchi Jar
Mawai Jar
Kalla
0
0.35
0.7
1.4 Kilometers
1:4000
79°59'30"E
80°0'0"E
80°0'30"E
80°1'0"E
80°1'30"E

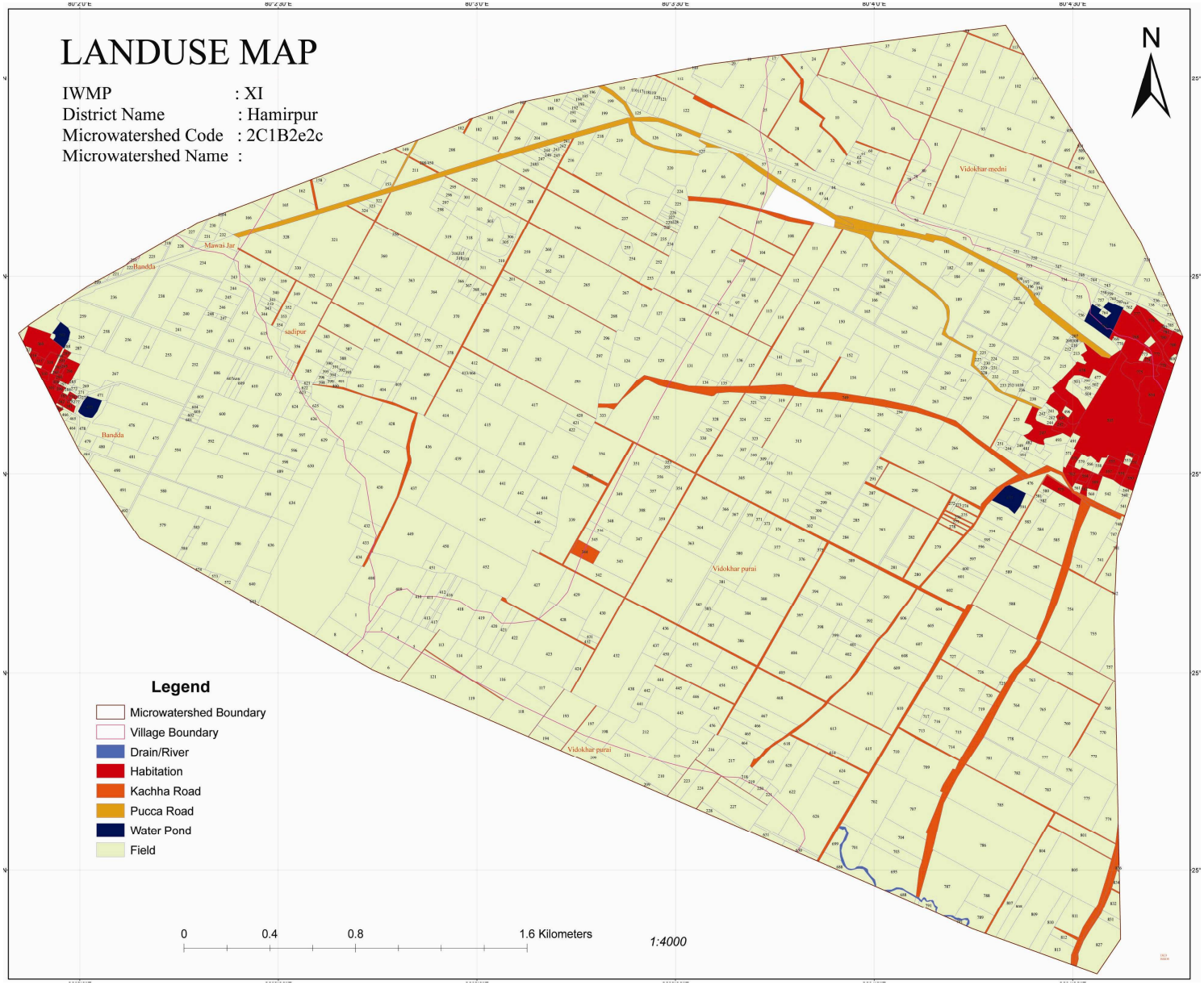

LANDUSE MAP
IWMP : XI
District Name : Hamirpur
Microwatershed Code : 2C1B2d3c
Microwatershed Name : Khandchari Jar
N
Legend
Microwatershed Boundary
Village Boundary
Canal
Drain/River
Habitation
Pucca Road
Water pond
Field
Dhanpura
Khandehl Jar
Araji Sagar
Mawai Jar
Kalla
0
0.35
0.7
1.4 Kilometers
1:4000
50'0"N
9'30"N
49'0"N
9'30"N
79°59'30"E
80°0'0"E
80°0'30"E
80°1'0"E
80°1'30"E

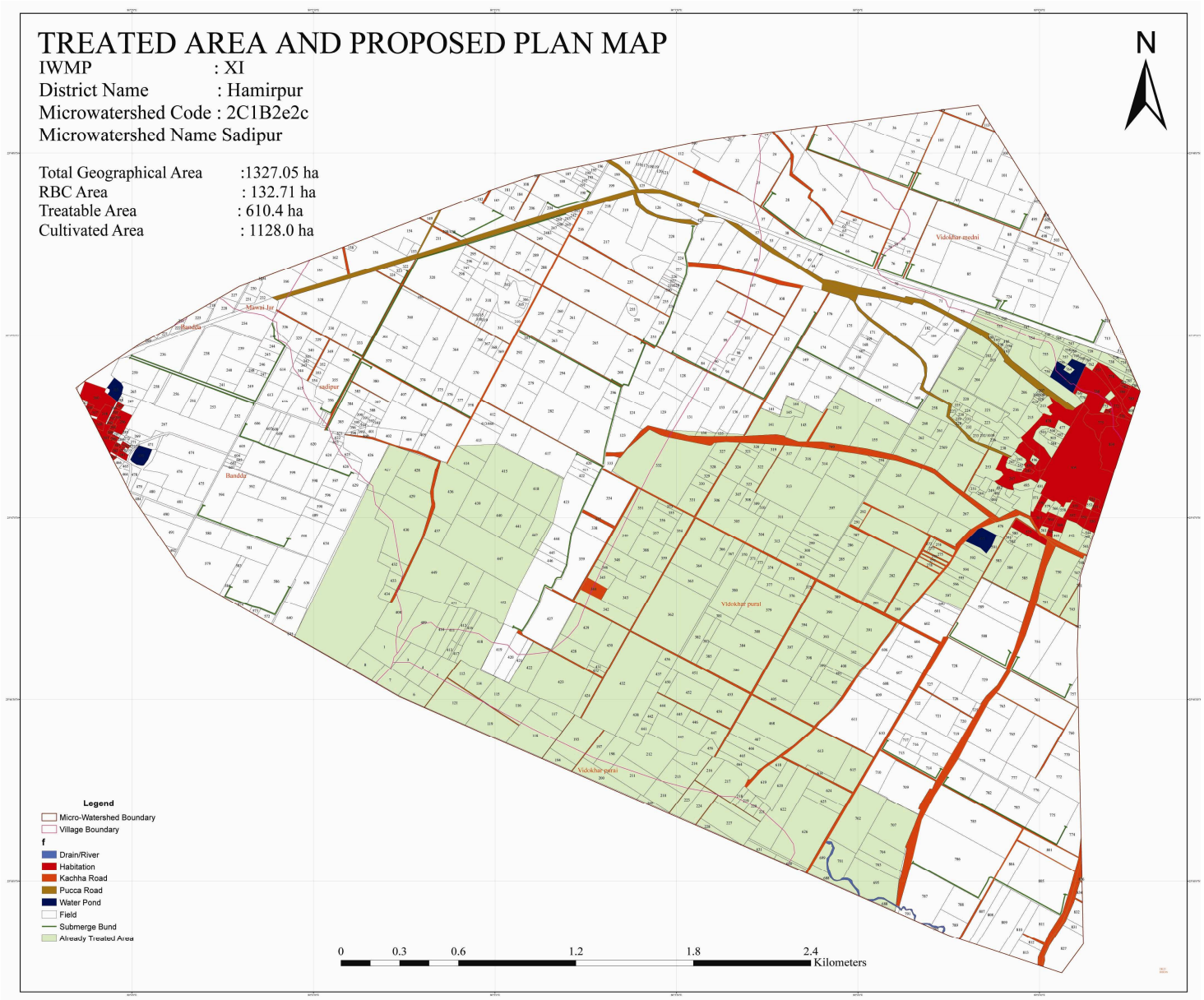


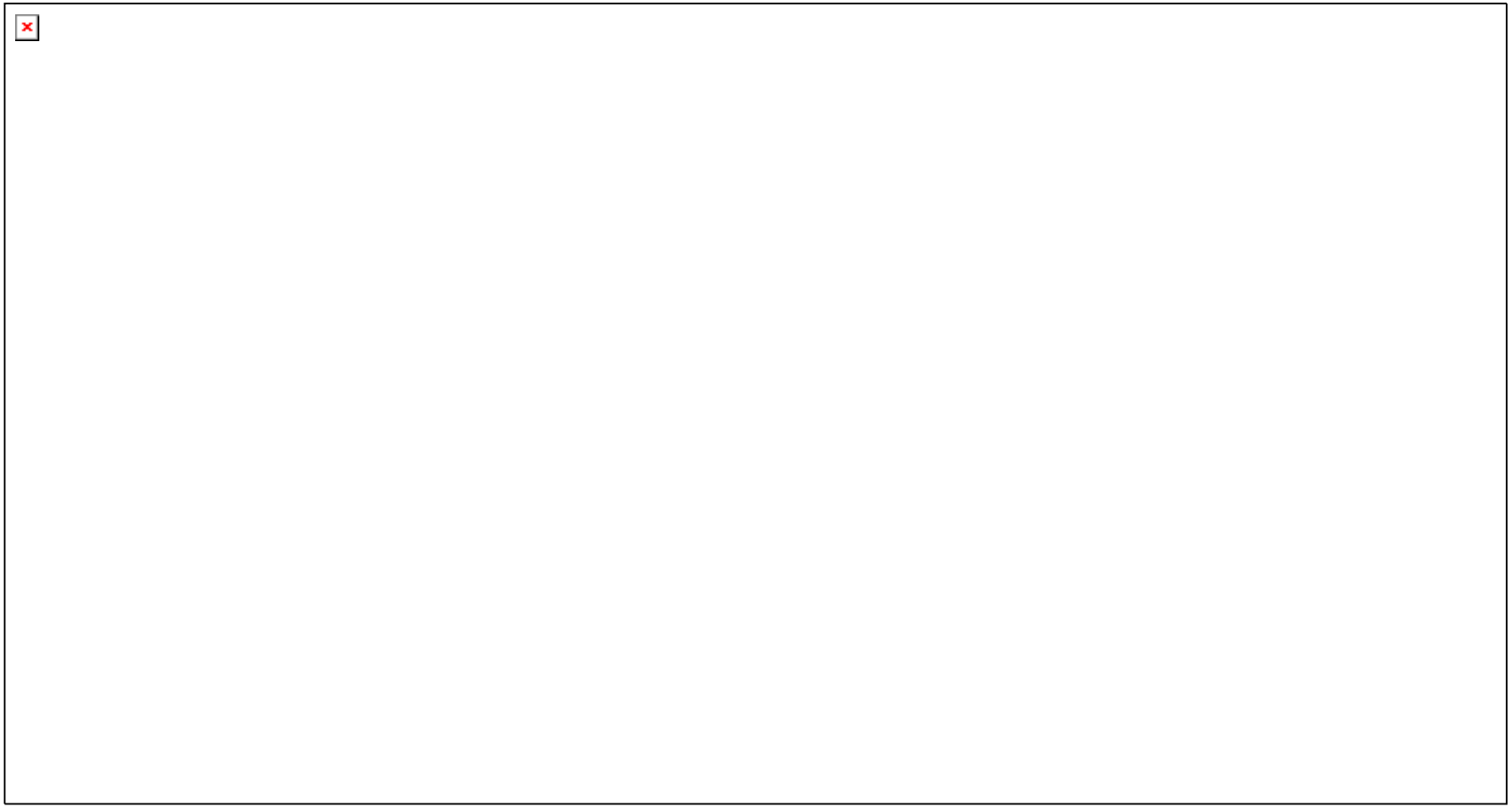
TREATED AREA AND PROPOSED PLAN MAP
N
IWMP : XI
District Name : Hamirpur
Microwatershed Code : 2C1B2d3c
Microwatershed Name : Khandchari Jar
Total Geographical Area - 972.93
Legend
Microwatershed Boundary
Village Boundary
Canal
Drain/River
Habitation
Pucca Road
Water pond
Field
Planning
Chack Dam
Peripheral Bund
Submerge Bund
Submerge Bund /ChackRoad
Already Treated Area
0 0.35 0.7 1.4 Kilometers
1:4000
79°59'30"E
80°0'0"E
80°0'30"E
80°1'0"E
80°1'30"E

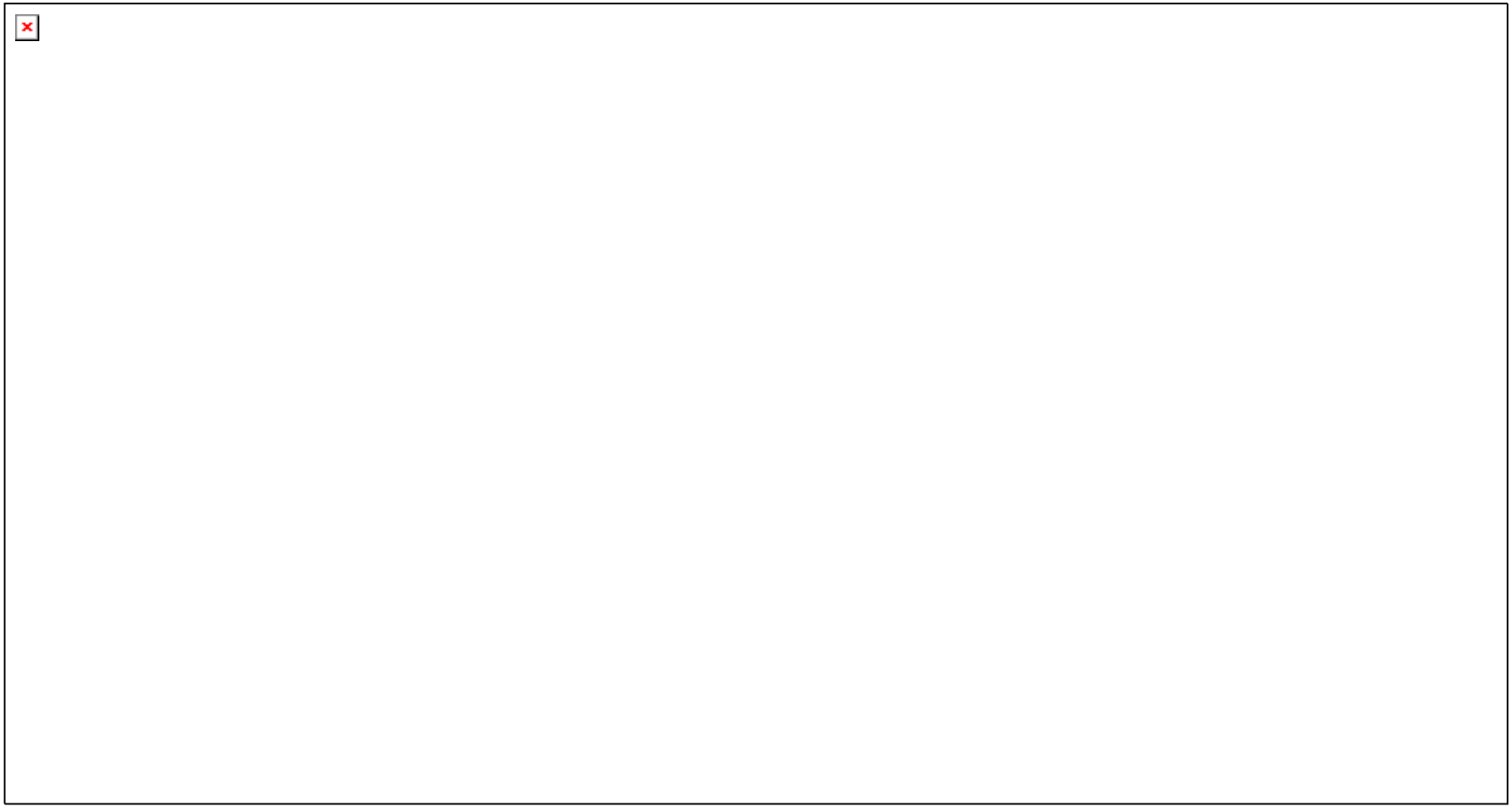

CADASTRAL MAP
IWMP : XI
District Name : Hamirpur
Microwatershed Code : 2C1B2e2c
Microwatershed Name Sadipur
N
Legend
Micro-Watershed Boundary
Village Boundary
Drain/River
Habitation
Kachha Road
Pucca Road
Water Pond
Field
0 0.3 0.6 1.2 1.8 2.4
Kilometers

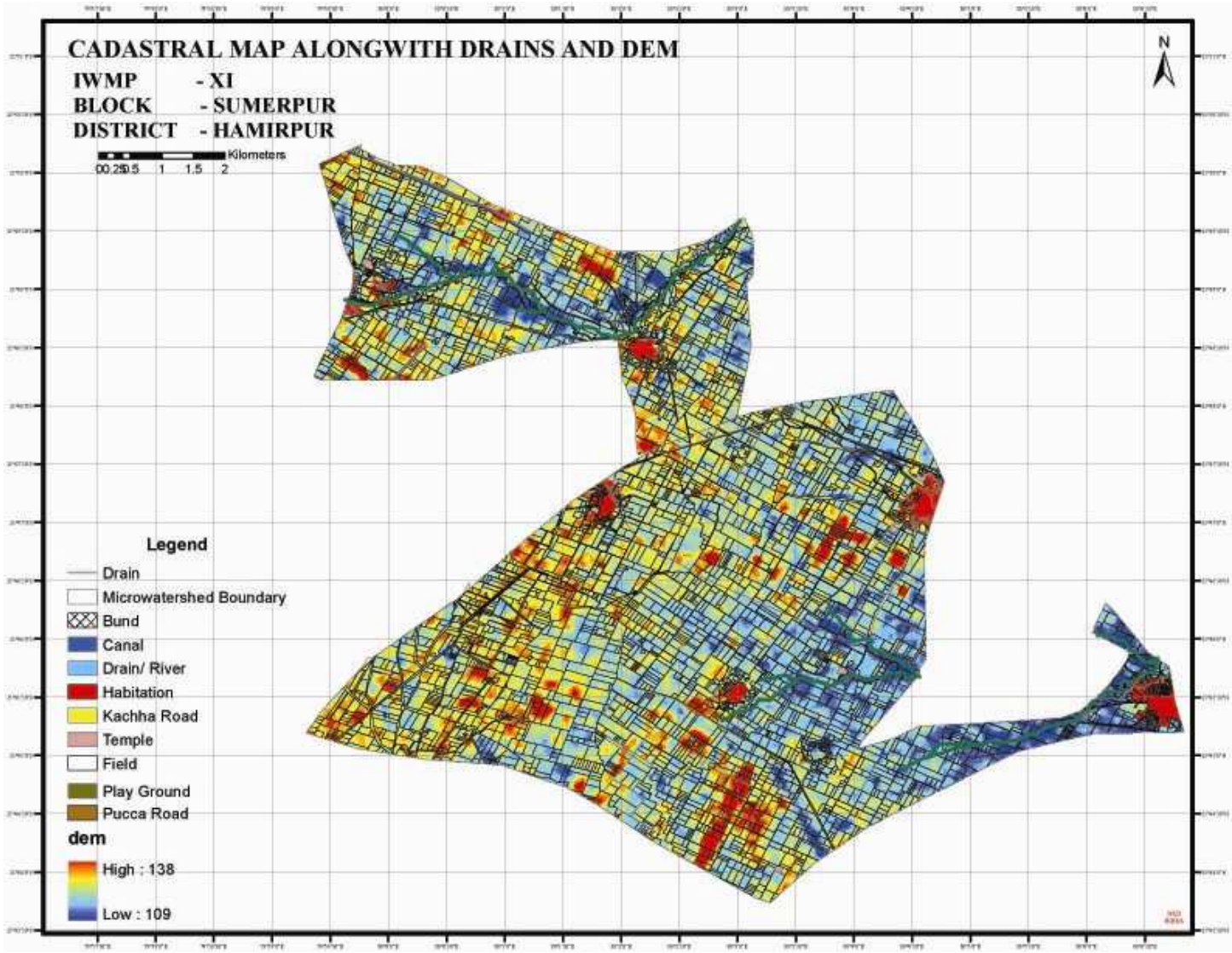

PARTICIPATRY CROP DEMOSTRATION TRIALS
IWMP : XI
District Name : Hamirpur
Microwatershed Code : 2C1B2e2c
Microwatershed Name Sadipur
Total Geographical Area :1327.05 ha
N
Legend
Micro-Watershed Boundary
Village Boundary
f
Drain/River
Habitation
Kachha Road
Pucca Road
Water Pond
Field
Crop Demostration
Type
Kharif 2012-13
Kharif 2013-14
Kharif 2014-15
Rabi 2012-13
Rabi 2013-14
Rabi 2014-15
0 0.3 0.6 1.2 1.8 2.4
Kilometers


LANDUSE MAP
IWMP : XI
District Name : Hamirpur
Microwatershed Code : 2C1B2e2c
Microwatershed Name :
N
Vidokhar medni
Mawai Jar
sadipur
Bandda
Vidokhar purai
Legend
Microwatershed Boundary
Village Boundary
Drain/River
Habitation
Kachha Road
Pucca Road
Water Pond
Field
0
0.4
0.8
1.6 Kilometers
1:4000


TREATED AREA AND PROPOSED PLAN MAP
IWMP : XI
District Name : Hamirpur
Microwatershed Code : 2C1B2e2c
Microwatershed Name Sadipur
Total Geographical Area :1327.05 ha
RBC Area : 132.71 ha
Treatable Area : 610.4 ha
Cultivated Area : 1128.0 ha
N
Legend
Micro-Watershed Boundary
Village Boundary
Drain/River
Habitation
Kachha Road
Pucca Road
Water Pond
Field
Submerge Bund
Already Treated Area
0 0.3 0.6 1.2 1.8 2.4
Kilometers






CADASTRAL MAP ALONGWITH DRAINS AND DEM
IWMP - XI
BLOCK - SUMERPUR
DISTRICT - HAMIRPUR
Kilometers
0 0.25 0.5 1 1.5 2
N
Legend
Drain
Microwatershed Boundary
Bund
Canal
Drain/ River
Habitation
Kachha Road
Temple
Field
Play Ground
Pucca Road
dem
High : 138
Low : 109