CHAPTER - 1

INTRODUCTION AND BACKGROUND

Status of watershed programme and approved plan by Steering committee, Govt. of India and status of previous Detailed Project Reports for Banda district, Deptt. of Agriculture, Uttar Pradesh is given in following Tables 1.1 and 1.2.

Table 1.1: Status of watershed programme **District- Mahoba**

Details	No.	Area (ha.)
Total Micro watersheds in the district	634	446000
Workable Micro Watersheds	590	415061
Micro Watersheds already treated (partially) by Deptt of Agriculture, Dist.- Banda Uttar Pradesh	44	30939
Micro Watersheds (MWS) available for treatment (begning IWMP in the district)	78	47400

Table 1.2: Approved plan (PPRs) by Steering Committee (SC)/Govt. of India, **District- Banda**

Year	Project	MWS	Area (Treatable) (ha)	Project Cost (Rs. Lakh)	Name of PIA	Date of Sanction by S.C. Got. Of India
2011-12	IWMP-X	6	4835	580.2	BSA (Agri), Banda-I	26.09.2011
2011-12	IWMP-XI	10	3727	447.24	BSA (Agri), Banda-I	-do-
2011-12	IWMP-XIII	9	5538	664.56	BSA (Agri), Rastriya Jalagam, Banda	-do-
2011-12	IWMP-XV	8	4436	532.32	BSA (Agri), Banda-I	-do-
2011-12	IWMP-XVI	8	4436	532.32	BSA (Agri), Rastriya Jalagam, Banda	-do-
Total		**87**	**34277.90**	**4376.86**		

1.1 Project Background

Integrated Watershed Management Programme-XVI comprises eight micro-watersheds namely Mau (2C1A6d1b), Mau (2C1A6d4a), Kharauli (2C1A6f2g), Pachauhan (2C1A6a2c), Budhauli (2C1A6f2a), Pali (2C1A6f2b), Kamasin (2C1A6f1c) and Budhauli (2C1A6f4e). Watershed project is situated in Kamasin block of district Banda and spread over in 13 villages of 13 gram panchayat. The total geographical area of the IWMP-XVI is 6041.00 ha due to same area treated earlier however treatable area limited to 4344.00 ha is treatable under Integrated Watershed Management Programme (IWMP-XVI).

Table 1.3: Details of IWMP-XVI for which this DPR is Prepared

Watershed project	Micro Watersheds (MWS) detail	Micro watersheds code	Treatable Area (ha)	Treatede Area (ha)	Name of Watershed in which MWS is falling (River / Nala name)
IWMP-XVI	Mau	2C1A6d1b	511	322.76	Yamuna River
	Mau	2C1A6d4a	651	168.33	-do-
	Kharauli	2C1A6f2g	469	133.40	-do-
	Pachauhan	2C1A6a2c	710	13.84	-do-
	Budhauli	2C1A6f2a	501	111.84	-do-
	Pali	2C1A6f2b	504	131.55	-do-
	Kamasin	2C1A6f1c	657	167.56	-do-
	Budhauli	2C1A6f4e	341	95.85	-do-
Total			**4344.00**	**1145.14**	

(Source: Participatory rural appraisal by PIA, (Soil Conservation Division, Rashtriya Jalagam-Banda, Banda, U.P.)

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 1.2 and composite ranking was developed on the basis of these parameters. The seventeen criteria were taken with total of 205 weightage points. The criterion taken are availability of drinking water, irrigation, 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 (% of poor population), virginity of land, productivity potential of land and soil organic carbon status. The weightage for project is about 82.93 per cent (Table 1.3).

Table 1.4: 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 1.5: 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	15
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)	**170**
	Weightage Percentage	**82.93**

(Source: Participatory rural appraisal by PIA, (Soil Conservation Division, Rashtriya Jalagam-Banda, Banda, U.P.)

1.4 Details of ongoing watershed programme

Presently, no watershed development programme is going on in the micro-watershed**.**

CHAPTER - 2

GENERAL DESCRIPTION OF PROJECT AREA

2.1 Location:

The micro-watersheds of IWMP-XVI is located in Kamasin block of Banda district. It is about 60 km. from Banda to Kamasin road. Location (lat/long), Gram Panchayat, villages and its geographical area for each micro-watershed are depicted in Table 2.1. Total area of the project is 6041.00 ha, out of which 4344.00 ha is treatable. The geographical area of micro-watershed varied between of 485.39 to 926.40 ha.

Table 2.1: Micro-watershed wise details of villages and geographical area of IWMP-XVI

Sl. No.	Name of micro watershed with Code	Names of villages	Longitude	Latitude	Name of Block	Area of village included in MWS(Geographical)	Details of important /approach road with distance km
1	Mau 2C1A6d1b	Mau	80° 51' 30.0"- 80° 53' 0.0"	25° 36' 30.0"- 25° 38' 30.0"	Kamasin	926.40	Banda to Baberu to Kamasin road
2	Mau 2C1A6d4a	Mau, Armar	80° 50' 0.0"- 80° 52' 0.0"	25° 34' 30.0"- 25° 37' 0.0"	Kamasin	910.37	-do-
3	Kharauli 2C1A6f2g	Kharauli ,Kumhera sani, Kadohar, Kamasin	80° 51' 30.0"- 80° 53' 30.0"	25° 36' 30.0"- 25° 38' 30.0"	Kamasin	669.33	-do-
4	Pachauhan 2C1A6a2c	Pachauhan, Kamasin	80° 53' 30.0"- 80° 56' 0.0"	25° 33' 0.0"- 25° 34' 30.0"	Kamasin	746.23	-do-
5	Budhauli 2C1A6f2a	Budhauli, Mau, Devrar, Kumhera sani	80° 50' 30.0"- 80° 53' 0.0"	25° 30' 0.0"- 25° 32' 30.0"	Kamasin	680.93	-do-
6	Pali 2C1A6f2b	Pali, Budhauli, Kumhera sani, Kadohar, Kharauli	80° 49' 30.0"- 80° 52' 0.0"	25° 31' 30.0"- 25° 34' 0.0"	Kamasin	706.17	-do-
7	Kamasin 2C1A6f1c	Kamasin, Kumhera sani	80° 52' 30.0"- 80° 54' 30.0"	25° 31' 0.0"- 25° 33' 30.0"	Kamasin	916.18	-do-
8	Budhauli 2C1A6f4e	Budhauli, Bhati, Bamhraula	80° 49' 30.0"- 80° 51' 0.0"	25° 33' 30.0"- 25° 36' 0.0"	Kamasin	485.39	-do-
	Total					**6041.00**	

(Source: Participatory rural appraisal by PIA, (Soil Conservation Division, Rashtriya Jalagam-Banda, Banda, U.P.)

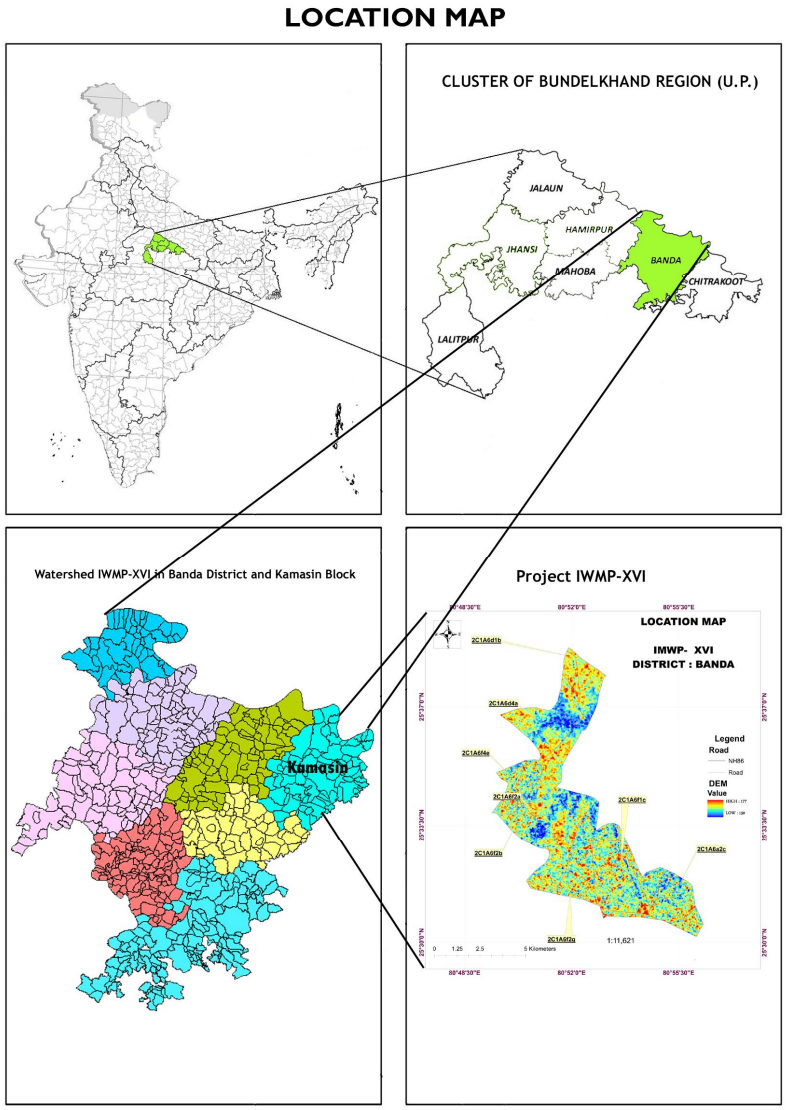


Fig 2.1 Location map IWMP-XVI

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 5090.36 ha, out of which 1207.61 (22.00%) ha land is under assured irrigation mainly by means of open shallow dug wells. The cultivable rainfed, temporary and permanent wastelands are about 73.00, 4.00 and 1.00 per cent, respectively, of culturable land of the project.

Table 2.2: Details of land resources in IWMP-XVI of Banda 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	Mau 2C1A6d1b	Mau	608.64	183.427	33.35	8.34	150.08	175.09	508.59	833.76	0.00	21.31	71.33	926.40
2	Mau 2C1A6d4a	Mau, Armar	598.11	180.253	32.77	8.19	147.48	172.06	499.79	819.33	0.00	20.94	70.10	910.37
3	Kharauli 2C1A6f2g	Kharauli ,Kumhera sani, Kadohar, Kamasin	439.75	132.527	24.10	6.02	108.43	126.50	367.46	602.40	0.00	15.39	51.54	669.33
4	Pachauhan 2C1A6a2c	Pachauhan, Kamasin	528.41	159.245	28.95	7.24	130.29	152.01	441.54	723.84	0.00	7.46	14.92	746.23
5	Budhauli 2C1A6f2a	Budhauli, Mau, Devrar, Kumhera sani	447.37	134.824	24.51	6.13	110.31	128.70	373.83	612.84	0.00	15.66	52.43	680.93
6	Pali 2C1A6f2b	Pali, Budhauli,	463.95	139.822	25.42	6.36	114.40	133.47	387.69	635.55	0.00	16.24	54.38	706.17

		Kumhera sani, Kadohar, Kharauli												
7	Kamasin 2C1A6f1c	Kamasin, Kumhera sani	601.93	181.404	32.98	8.25	148.42	173.16	502.98	824.56	0.00	21.07	70.55	916.18
8	Budhauli 2C1A6f4e	Budhauli, Bhati, Bamhraula	318.90	96.107	17.47	4.37	78.63	91.74	266.48	436.85	0.00	11.16	37.38	485.39
	Total		**4007.07**	**1207.61**	**219.57**	**54.89**	**988.04**	**1152.72**	**3348.37**	**5489.14**	**0.00**	**129.24**	**422.62**	**6041.00**

(Source: Participatory rural appraisal by PIA, (Soil Conservation Division, Rashtriya Jalagam-Banda, Banda, U.P.)

2.3 Physiography

The micro-watersheds of IWMP-XVI is situated at an elevation of some 79 to 124 m above mean sea level and has relief from 29 to 45 m. General topography of the watershed is mild to gentle.

Name of MWS	Maximum (m)	Minimum (m)	Relief (m)
Mau 2C1A6d1b	124	87	37
Mau 2C1A6d4a	119	86	33
Kharauli 2C1A6f2g	121	92	29
Pachauhan 2C1A6a2c	120	91	29
Budhauli 2C1A6f2a	120	86	34
Pali 2C1A6f2b	119	90	29
Kamasin 2C1A6f1c	124	79	45
Budhauli 2C1A6f4e	122	92	30

Source:Aster DEM 30m

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 (72%) followed by 3-5 per cent (10%).

2.4 Climate

The annual rainfall of the Bundelkhand region varies from 800 to 1300 mm, about 90% of which is received during South-West monsoon period. The major part of the rainfall is received during the month of July and August. The length of growing season in Bundelkhand ranges between 90 to 150 days depending upon rainfall and temperature regimes. The winter rains are erratic, occasional, meager and uncertain. The total rainy days/year vary from 30-45 in the region with an average of 37. The distribution of rainfall is very erratic. Low rainfall and drought are common features. Long dry spells during rainy season are also experienced often, which adversely affect the crops. It has been observed that in a cycle of 5 years, 2 are normal, 2 drought years and 1 is excessive rainfall year.

The climate of Banda is characterized by a hot dry summer and cold winter and is marked for high variability of rainfall year to year. There are primarily four seasons: – Dry Summer season – from March to May i.e. before advent of monsoon, moist summer season – from June to September (Monsoon) transition period - in October and November, which is the post monsoon period, and winter season – from December to February The coldest months in the year are December and January. Average monthly rainfall and temperature

Table 2.4: Average monthly rainfall and temperature at IWMP-XVI, Banda, U.P.

Month	Rainfall in mm.					Temperature c	
	2007	2008	2009	2010	2011	Max.	Min.
January	0.0	-	0.0	13.7	0.3	6.5	3.5
February	93.9	-	0.0	37.0	9.8	11.2	8.4
March	41.2	0.0	-	0.0	0.0	32.8	21.6
April	0.0	0.0	-	0.0	0.0	38.4	29.7
May	0.0	16.1	47.0	1.7	38.5	45.4	34.2
June	36.0	121	544	7.1	218	47.2	35.1
July	144.5	444.2	143.1	243.4	245.1	46.4	33.6
August	186.7	193.9	194.0	168.7	316.2	42.3	31.7
September	93.9	66.0	178.1	167.9	146.6	37.4	29.2
October	0.0	6.0	74.5	7.3	0.0	34.7	28.5
November	0.0	9.7	16.3	22.2	0.0	31.4	19.8
December	0.0	0.0	8.7	0.5	0.0	24.4	9.3

Source: Indian Metrological Department (Pune).

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 showed in Table 2.5.\

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

Name of Micro Watershed	Particulars	Villages	Periodicity		Not affected
			Annual	Any other (please specify)	
Mau Mau Kharauli Pachauhan Budhauli Pali Kamasin Budhauli	Flood	No. of villages: 13	NA	NA	NA
		Name(s) of villages	NA	NA	NA
	Drought	**No. of villages**- 13 **Name of Village:** Mau, Arambhar, Kharauli, Kumhoasin, Kadohar, Pachauhan, Kamasin, Devrad, Pali, Budhauli, Kadohar, Bhati, Bamhraula	**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		

(Source: Participatory rural appraisal by PIA, (Soil Conservation Division, Rashtriya Jalagam-Banda, Banda, U.P.)

CHAPTER – 3

BASELINE SURVEY AND PARTICIPATORY RURAL APPRAISAL

Participatory rural appraisal (PRA) is a tool to appraise the socio-economic conditions along with all kind of resources available in the watershed through the active participation of the villagers. There are several tools and techniques of PRA. The PRA including house hold survey of Mau, Mau, Kharauli, Pachauhan, Budhauli, Pali, Kamasin and Budhauli micro-watershed was conducted by PIA and described in the subsequent sections.

3.1. Social-Economic Analysis

About 21 per cent of the population is scheduled caste. Population details of the IWMP-XVI are given in Table 3.1. In general 9.00 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-XVI, Banda)

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	Mau 2C1A6d1b	Mau	2431	1264	1167	510	265	245
2	Mau 2C1A6d4a	Mau, Armar	2393	1244	1149	502	261	241
3	Kharauli 2C1A6f2g	Kharauli ,Kumhera sani, Kadohar, Kamasin	1793	932	861	375	195	180
4	Pachauhan 2C1A6a2c	Pachauhan, Kamasin	1869	972	897	392	204	188
5	Budhauli 2C1A6f2a	Budhauli, Mau, Devrar, Kumhera sani	1738	904	834	364	189	175
6	Pali 2C1A6f2b	Pali, Budhauli, Kumhera sani, Kadohar, Kharauli	1939	1008	931	406	211	195

7	Kamasin 2C1A6f1c	Kamasin, Kumhera sani	2456	1277	1179	515	268	247
8	Budhauli 2C1A6f4e	Budhauli, Bhati, Bamhraula	1339	696	643	281	146	135
	Total		**15958**	**8297**	**7661**	**3345**	**1739**	**1606**

(Source: Participatory rural appraisal by PIA, (Soil Conservation Division, Rashtriya Jalagam-Banda, Banda, U.P.)

Table 3.2: Details of land holding pattern in IWMP-XVI, Banda

Sr. No.	Names MWS with code	Type of Farmer	No. of households	No. of BPL households	Land holding (ha)		
					Irrigated	Rainfed	Total
1	**Mau 2C1A6d1b**	(i) Big (above 4 ha.)	35	-	99.05	47.95	147.00
		(ii) Medium (2-4 ha.)	150	-	62.37	267.63	330.00
		(iii) Small (1-2 ha.)	190	19	22.01	224.99	247.00
		(iv) Marginal (0-1ha.)	250	215	-	109.76	109.76
		(v) Landless	15	15	-	-	-
		Total	**640**	**249**	**183.43**	**650.33**	**833.76**
2	**Mau 2C1A6d4a**	(i) Big (above 4 ha.)	34	-	97.34	45.46	142.80
		(ii) Medium (2-4 ha.)	160	-	61.29	290.71	352.00
		(iii) Small (1-2 ha.)	180	18	21.63	212.37	234.00
		(iv) Marginal (0-1ha.)	241	207	-	90.53	90.53
		(v) Landless	15	15	-	-	-
		Total	**630**	**240**	**180.25**	**639.08**	**819.33**
3	**Kharauli 2C1A6f2g**	(i) Big (above 4 ha.)	25	-	71.56	35.94	107.50

		(ii) Medium (2-4 ha.)	104	-	45.06	204.54	249.60
		(iii) Small (1-2 ha.)	135	14	15.90	159.60	175.50
		(iv) Marginal (0-1ha.)	186	160	-	69.80	69.80
		(v) Landless	10	10	-	-	-
		Total	**460**	**183**	**132.53**	**469.87**	**602.40**
4	**Pachauhan 2C1A6a2c**	(i) Big (above 4 ha.)	31	-	85.99	44.21	130.20
		(ii) Medium (2-4 ha.)	130	-	54.14	257.86	312.00
		(iii) Small (1-2 ha.)	160	16	19.11	188.89	208.00
		(iv) Marginal (0-1ha.)	216	186	-	73.64	73.64
		(v) Landless	13	13	-	-	-
		Total	**550**	**215**	**159.25**	**564.59**	**723.84**
5	**Budhauli 2C1A6f2a**	(i) Big (above 4 ha.)	28	-	72.81	41.99	114.80
		(ii) Medium (2-4 ha.)	115	-	45.84	207.16	253.00
		(iii) Small (1-2 ha.)	139	14	16.18	150.62	166.80
		(iv) Marginal (0-1ha.)	176	151	-	78.24	78.24
		(v) Landless	12	12	-	-	-
		Total	**470**	**177**	**134.82**	**478.02**	**612.84**
6	**Pali 2C1A6f2b**	(i) Big (above 4 ha.)	29	-	75.50	43.40	118.90
		(ii) Medium (2-4 ha.)	120	-	47.54	216.46	264.00

		(iii) Small (1-2 ha.)	145	15	16.78	157.22	174.00
		(iv) Marginal (0-1ha.)	178	153	-	78.65	78.65
		(v) Landless	13	13	-	-	-
		Total	**485**	**181**	**139.82**	**495.73**	**635.55**
7	**Kamasin 2C1A6f1c**	(i) Big (above 4 ha.)	38	-	97.96	57.84	155.80
		(ii) Medium (2-4 ha.)	140	-	61.68	246.32	308.00
		(iii) Small (1-2 ha.)	180	18	21.77	194.23	216.00
		(iv) Marginal (0-1ha.)	248	213	-	144.76	144.76
		(v) Landless	24	24	-	-	-
		Total	**630**	**255**	**181.40**	**643.16**	**824.56**
8	**Budhauli 2C1A6f4e**	(i) Big (above 4 ha.)	22	-	51.90	44.90	96.80
		(ii) Medium (2-4 ha.)	75	-	32.68	132.32	165.00
		(iii) Small (1-2 ha.)	96	10	11.53	103.67	115.20
		(iv) Marginal (0-1ha.)	133	114	-	59.85	59.85
		(v) Landless	9	9	-	-	-
		Total	**335**	**133**	**96.11**	**340.74**	**436.85**
		Grand Total	**4200**	**1634**	**1207.61**	**4281.52**	**5489.13**

(Source: Participatory rural appraisal by PIA, (Soil Conservation Division, Rashtriya Jalagam-Banda, Banda, U.P.)

Table 3.3: Details of migration from Project area (IWMP-XVI, Banda): 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	Mau 2C1A6d1b	Mau	218	110-150	Drought / Earn money	700-1400 Km	Labour	0.25-0.40
2	Mau 2C1A6d4a	Mau, Armar	215	110-150	-do-	700-1400 Km	Labour	0.25-0.40
3	Kharauli 2C1A6f2g	Kharauli, Kumhera sani, Kadohar, Kamasin	161	110-150	-do-	700-1400 Km	Labour	0.25-0.40
4	Pachauhan 2C1A6a2c	Pachauhan, Kamasin	168	110-150	-do-	700-1400 Km	Labour	0.25-0.40
5	Budhauli 2C1A6f2a	Budhauli, Mau, Devrar, Kumhera sani	156	110-150	-do-	700-1400 Km	Labour	0.25-0.40
6	Pali 2C1A6f2b	Pali, Budhauli, Kumhera sani, Kadohar, Kharauli	174	110-150	-do-	700-1400 Km	Labour	0.25-0.40
7	Kamasin 2C1A6f1c	Kamasin, Kumhera sani	221	110-150	-do-	700-1400 Km	Labour	0.25-0.40
8	Budhauli 2C1A6f4e	Budhauli, Bhati, Bamhraula	120	110-150	-do-	700-1400 Km	Labour	0.25-0.40
	Total		**1433**					

(Source: Participatory rural appraisal by PIA, (Soil Conservation Division, Rashtriya Jalagam-Banda, Banda, U.P.)

Table 3.4: Details of infrastructure in IWMP-XVI, Banda

Name of Project	Parameters		Status			
IWMP XVI	(i)	Name of villages connected to the main road by an all-weather road	Baberu to Kamasin road			
	(ii)	Village's Name provided with electricity	All villages			
	(iii)	No. of households without access to drinking water	About 5-10 per cent households depends on others' source of drinking water			
	(iv)	No. of educational institutions : Primary(P)/ Secondary(S)/ Higher Secondary(HS)/ vocational institution(VI)	(P) 14	(S) 04	(HS) 02	(VI) -
	(v)	Names of villages with access to Primary Health Centre	01			
	(vi)	Names of villages with access to Veterinary Dispensary	01			
	(vii)	Names of villages with access to Post Office	03			
	(viii)	Names of villages with access to Banks	01			
	(ix)	Names of villages with access to Markets/ mandis	N.A			
	(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, Rashtriya Jalagam-Banda, Banda, U.P.)

Table 3.5: Details of common property resources In IWMP-XVI, Banda, U.P.

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-XVI	(i) Wasteland/ degraded land	215.34	-	26.49		215.34		26.49	
		(ii) Pastures	-	-	-	-	-	-	-	-
		(iii) Orchards	-	-	-	-	-	-	-	-
		(iv) Village Woodlot	26.38	-	16.38	-	26.38	-	16.38	-
		(v) Forest	-	-	-	-	-	-	-	-
		(vi) Village Ponds/ Tanks	-	-	7.95	-	-	-	-	-
		(vii) Community Buildings	-	-	28.75	-	-	-	-	-
		(viii) Weekly Markets	-	--	-	--	-	--	-	--
		(ix) Permanent markets	-	--	--	--	-	--	--	--
		(x) Temples/ Places of worship			14.96	--		--	--	--
		(xi) Habitat, Chakmarg, Sector, Road etc	-	148.00	-	-	-	-	-	-
	Total		**241.72**	**148**	**94.53**		**241.72**		**42.87**	

(Source: Participatory rural appraisal by PIA, (Soil Conservation Division, Rashtriya Jalagam-Banda, Banda, 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-XVI, Banda

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	Mau 2C1A6d1b	277.92	185.28	463.20	Purwa, Mar+kabar
2	Mau 2C1A6d4a	273.11	182.07	455.19	Purwa, Mar+kabar
3	Kharauli 2C1A6f2g	200.80	133.87	334.67	Purwa, Mar+kabar
4	Pachauhan 2C1A6a2c	223.87	149.25	373.12	Purwa, Mar+kabar
5	Budhauli 2C1A6f2a	204.28	136.19	340.47	Purwa, Mar+kabar
6	Pali 2C1A6f2b	211.85	141.23	353.09	Purwa, Mar+kabar
7	Kamasin 2C1A6f1c	45.81	366.47	503.90	Purwa, Mar+kabar
8	Budhauli 2C1A6f4e	145.62	97.08	242.70	Purwa, Mar+kabar
	Total	**1583.26**	**1391.44**	**3066.31**	**6041.00**

(Source: Participatory rural appraisal by PIA, (Soil Conservation Division, Rashtriya Jalagam-Banda, Banda, 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 96.54 to 114.59 per cent with 112.54 per cent for the project.

Table 3.7: Micro-watershed wise details of Crops, their Productivity and Production in IWMP-XVI, Banda Mau 2C1A6d1b

S.No	Crop	Area in (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	24.36	0.00	3.00	0.00	73.08	0.00	146.16
2	Moong	0.00	31.98	0.00	2.90	0.00	92.74	0.00	166.94
3	Arhar	0.00	95.36	0.00	5.20	0.00	495.87	0.00	84.30
4	Bajra	0.00	55.4	0.00	4.80	0.00	265.92	0.00	1223.23
5	Sorghum	0.00	75.36	0.00	5.80	0.00	437.09	0.00	2010.60
6	Til	0.00	34.92	0.00	1.80	0.00	62.86	0.00	119.43
7	Paddy	55.03	0.00	10.20	0.00	561.29	0.00	505.16	0.00
	Total	**55.03**	**317.38**			**561.29**	**1427.56**	**505.16**	**3750.66**
B	**Rabi**								
1	Wheat	128.40	13.58	20.40	11.50	2619.34	156.17	2750.31	154.61
2	Masoor	0.00	115.24	0.00	10.60	0.00	1221.54	0.00	1209.33
3	Gram	0.00	174.26	0.00	4.60	0.00	801.60	0.00	793.58
4	Pea	0.00	36.15	0.00	5.60	0.00	202.44	0.00	200.42
5	Mustard	0.00	34.59	0.00	7.20	0.00	249.05	0.00	246.56

	Total	**128.40**	**373.82**			**2619.34**	**2630.80**	**2750.31**	**2604.49**
C	**Zaid**								
	Nil								
	Cultivable Area	**833.76**	**Cropping Intensity**		**104.90**				

(Source: Participatory rural appraisal by PIA, (Soil Conservation Division, Rashtriya Jalagam-Banda, Banda, U.P.)

Mau 2C1A6d4a

S.No	**Crop**	**Area in (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	12.35	0.00	3.00	0.00	37.05	0.00	74.10
2	Moong	0.00	24.18	0.00	2.90	0.00	70.12	0.00	126.22
3	Arhar	0.00	103.25	0.00	5.20	0.00	536.90	0.00	91.27
4	Bajra	0.00	59.28	0.00	4.80	0.00	284.54	0.00	1308.90
5	Sorghum	0.00	74.18	0.00	5.80	0.00	430.24	0.00	1979.12
6	Til	0.00	26.37	0.00	1.80	0.00	47.47	0.00	90.19
7	Paddy	54.08	0.00	10.20	0.00	551.57	0.00	496.42	0.00
	Total	**54.08**	**299.61**			**551.57**	**1406.33**	**496.42**	**3669.80**
B	**Rabi**								

1	Wheat	126.18	12.34	20.40	11.50	2574.02	141.91	2702.72	140.49
2	Masoor	0.00	145.26	0.00	10.60	0.00	1539.76	0.00	1524.36
3	Gram	0.00	194.05	0.00	4.60	0.00	892.63	0.00	883.70
4	Pea	0.00	24.35	0.00	5.60	0.00	136.36	0.00	135.00
5	Mustard	0.00	25.31	0.00	7.20	0.00	182.23	0.00	180.41
	Total	**126.18**	**401.31**			**2574.02**	**2892.89**	**2702.72**	**2863.96**
C	**Zaid**								
	Nil								
	Cultivable Area	**819.33**	**Cropping Intensity**		**107.55**				

(Source: Participatory rural appraisal by PIA, (Soil Conservation Division, Rashtriya Jalagam-Banda, Banda, U.P.)

Kharauli 2C1A6f2g

S.No	Crop	Area in (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	16.94	0.00	3.00	0.00	50.82	0.00	101.64
2	Moong	0.00	12.30	0.00	2.90	0.00	35.67	0.00	64.21
3	Arhar	0.00	69.24	0.00	5.20	0.00	360.05	0.00	61.21
4	Bajra	0.00	41.24	0.00	4.80	0.00	197.95	0.00	910.58

5	Sorghum	0.00	53.26	0.00	5.80	0.00	308.91	0.00	1420.98
6	Til	0.00	24.18	0.00	1.80	0.00	43.52	0.00	82.70
7	Paddy	39.76	0.00	10.20	0.00	405.53	0.00	364.98	0.00
	Total	**39.76**	**217.16**			**405.53**	**996.92**	**364.98**	**2641.31**
B	**Rabi**								
1	Wheat	92.77	25.35	20.40	11.50	1892.49	291.53	1987.11	288.61
2	Masoor	0.00	86.35	0.00	10.60	0.00	915.31	0.00	906.16
3	Gram	0.00	112.31	0.00	4.60	0.00	516.63	0.00	511.46
4	Pea	0.00	34.59	0.00	5.60	0.00	193.70	0.00	191.77
5	Mustard	0.00	26.57	0.00	7.20	0.00	191.30	0.00	189.39
	Total	**92.77**	**285.17**			**1892.49**	**2108.47**	**1987.11**	**2087.38**
C	**Zaid**								
	Nil								
	Cultivable Area	**602.40**	**Cropping Intensity**		**105.39**				

(Source: Participatory rural appraisal by PIA, (Soil Conservation Division, Rashtriya Jalagam-Banda, Banda, U.P.)

Pachauhan 2C1A6a2c

S.No	Crop	Area in (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	26.35	0.00	3.00	0.00	79.05	0.00	158.10
2	Moong	0.00	21.48	0.00	2.90	0.00	62.29	0.00	112.13
3	Arhar	0.00	63.46	0.00	5.20	0.00	329.99	0.00	56.10
4	Bajra	0.00	34.26	0.00	4.80	0.00	164.45	0.00	756.46
5	Sorghum	0.00	58.24	0.00	5.80	0.00	337.79	0.00	1553.84
6	Til	0.00	19.35	0.00	1.80	0.00	34.83	0.00	66.18
7	Paddy	47.77	0.00	10.20	0.00	487.29	0.00	438.56	0.00
	Total	**47.77**	**223.14**			**487.29**	**1008.40**	**438.56**	**2702.81**
B	**Rabi**								
1	Wheat	111.47	36.25	20.40	11.50	2274.03	416.88	2387.73	412.71
2	Masoor	0.00	114.25	0.00	10.60	0.00	1211.05	0.00	1198.94
3	Gram	0.00	158.37	0.00	4.60	0.00	728.50	0.00	721.22
4	Pea	0.00	45.26	0.00	5.60	0.00	253.46	0.00	250.92
5	Mustard	0.00	35.26	0.00	7.20	0.00	253.87	0.00	251.33

	Total	**111.47**	**389.39**			**2274.03**	**2863.76**	**2387.73**	**2835.12**
C	**Zaid**								
	Nil								
	Cultivable Area	**723.84**	**Cropping Intensity**		**106.62**				

(Source: Participatory rural appraisal by PIA, (Soil Conservation Division, Rashtriya Jalagam-Banda, Banda, U.P.)

Budhauli 2C1A6f2a

S.No	**Crop**	**Area in (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	18.87	0.00	3.00	0.00	56.61	0.00	113.22
2	Moong	0.00	26.48	0.00	2.90	0.00	76.79	0.00	138.23
3	Arhar	0.00	74.26	0.00	5.20	0.00	386.15	0.00	65.65
4	Bajra	0.00	55.32	0.00	4.80	0.00	265.54	0.00	1221.47
5	Sorghum	0.00	43.65	0.00	5.80	0.00	253.17	0.00	1164.58
6	Til	0.00	12.38	0.00	1.80	0.00	22.28	0.00	42.34
7	Paddy	40.45	0.00	10.20	0.00	412.56	0.00	371.31	0.00
	Total	**40.45**	**230.96**			**412.56**	**1060.54**	**371.31**	**2745.48**
B	**Rabi**								

1	Wheat	94.38	24.36	20.40	11.50	1925.29	280.14	2021.55	277.34
2	Masoor	0.00	59.26	0.00	10.60	0.00	628.16	0.00	621.87
3	Gram	0.00	123.59	0.00	4.60	0.00	568.51	0.00	562.83
4	Pea	0.00	39.15	0.00	5.60	0.00	219.24	0.00	217.05
5	Mustard	0.00	35.47	0.00	7.20	0.00	255.38	0.00	252.83
	Total	**94.38**	**281.83**			**1925.29**	**1951.43**	**2021.55**	**1931.92**
C	**Zaid**								
	Nil								
	Cultivable Area	**612.84**	**Cropping Intensity**		**105.67**				

(Source: Participatory rural appraisal by PIA, (Soil Conservation Division, Rashtriya Jalagam-Banda, Banda, U.P.)

Pali 2C1A6f2b

S.No	**Crop**	**Area in (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	19.38	0.00	3.00	0.00	58.14	0.00	116.28
2	Moong	0.00	18.47	0.00	2.90	0.00	53.56	0.00	96.41
3	Arhar	0.00	59.26	0.00	5.20	0.00	308.15	0.00	52.39
4	Bajra	0.00	48.26	0.00	4.80	0.00	231.65	0.00	1065.58
5	Sorghum	0.00	31.26	0.00	5.80	0.00	181.31	0.00	834.02

6	Til	0.00	11.35	0.00	1.80	0.00	20.43	0.00	38.82
7	Paddy	62.92	0.00	10.20	0.00	641.78	0.00	577.60	0.00
	Total	**62.92**	**187.98**			**641.78**	**853.24**	**577.60**	**2203.49**
B	**Rabi**								
1	Wheat	76.90	31.26	20.40	11.50	1568.80	359.49	1647.24	355.90
2	Masoor	0.00	112.36	0.00	10.60	0.00	1191.02	0.00	1179.11
3	Gram	0.00	143.26	0.00	4.60	0.00	659.00	0.00	652.41
4	Pea	0.00	39.26	0.00	5.60	0.00	219.86	0.00	217.66
5	Mustard	0.00	34.26	0.00	7.20	0.00	246.67	0.00	244.21
	Total	**76.90**	**360.40**			**1568.80**	**2676.03**	**1647.24**	**2649.27**
C	**Zaid**								
	Nil								
	Cultivable Area	**635.55**	**Cropping Intensity**		**108.28**				

(Source: Participatory rural appraisal by PIA, (Soil Conservation Division, Rashtriya Jalagam-Banda, Banda, U.P.)

Kamasin 2C1A6f1c

S.No	Crop	Area in (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	28.67	0.00	3.00	0.00	86.01	0.00	172.02
2	Moong	0.00	21.25	0.00	2.90	0.00	61.63	0.00	110.93
3	Arhar	0.00	74.48	0.00	5.20	0.00	387.30	0.00	65.84
4	Bajra	0.00	46.28	0.00	4.80	0.00	222.14	0.00	1021.86
5	Sorghum	0.00	58.24	0.00	5.80	0.00	337.79	0.00	1553.84
6	Til	0.00	14.36	0.00	1.80	0.00	25.85	0.00	49.11
7	Paddy	74.38	0.00	10.20	0.00	758.63	0.00	682.77	0.00
	Total	**74.38**	**243.28**			**758.63**	**1120.72**	**682.77**	**2973.60**
B	**Rabi**								
1	Wheat	107.03	35.26	20.40	11.50	2183.37	405.49	2292.54	401.44
2	Masoor	0.00	125.47	0.00	10.60	0.00	1329.98	0.00	1316.68
3	Gram	0.00	174.26	0.00	4.60	0.00	801.60	0.00	793.58
4	Pea	0.00	78.34	0.00	5.60	0.00	438.70	0.00	434.32
5	Mustard	0.00	37.94	0.00	7.20	0.00	273.17	0.00	270.44

	Total	**107.03**	**451.27**			**2183.37**	**3248.94**	**2292.54**	**3216.45**
C	**Zaid**								
	Nil								
	Cultivable Area	**824.56**	**Cropping Intensity**		**106.23**				

(Source: Participatory rural appraisal by PIA, (Soil Conservation Division, Rashtriya Jalagam-Banda, Banda, U.P.)

Budhauli 2C1A6f4e

S.No	**Crop**	**Area in (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	12.35	0.00	3.00	0.00	37.05	0.00	74.10
2	Moong	0.00	15.26	0.00	2.90	0.00	44.25	0.00	79.66
3	Arhar	0.00	54.89	0.00	5.20	0.00	285.43	0.00	48.52
4	Bajra	0.00	35.84	0.00	4.80	0.00	172.03	0.00	791.35
5	Sorghum	0.00	24.16	0.00	5.80	0.00	140.13	0.00	644.59
6	Til	0.00	14.95	0.00	1.80	0.00	26.91	0.00	51.13
7	Paddy	42.29	0.00	10.20	0.00	431.33	0.00	388.20	0.00
	Total	**42.29**	**157.45**			**431.33**	**705.80**	**388.20**	**1689.34**
B	**Rabi**								

1	Wheat	53.82	26.48	20.40	11.50	1097.93	304.52	1152.83	301.47
2	Masoor	0.00	43.26	0.00	10.60	0.00	458.56	0.00	453.97
3	Gram	0.00	95.28	0.00	4.60	0.00	438.29	0.00	433.91
4	Pea	0.00	26.48	0.00	5.60	0.00	148.29	0.00	146.81
5	Mustard	0.00	22.84	0.00	7.20	0.00	164.45	0.00	162.80
	Total	**53.82**	**214.34**			**1097.93**	**1514.10**	**1152.83**	**1498.96**
C	**Zaid**								
	Nil								
	Cultivable Area	**436.85**	**Cropping Intensity**		**107.11**				

(Source: Participatory rural appraisal by PIA, (Soil Conservation Division, Rashtriya Jalagam-Banda, Banda, 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 (last 10 years- *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-XVI, District- Banda)

Summary	**Unit**	**Production During Kharif**	**Production during Rabi**	**Total Production**	**Remarks**
Food Production (Atlas.)					
Cereals	q	11570.48	18491.38	30061.87	-
Pulses	q	974.87	15714.17	16689.04	-
Oilseed	q	210.96	1816.13	2027.09	-
Grand Total	q	12756	36022	48777.99	-
					-

Fodder Production (Atlas.)					-
Dry Fodder	q	60507.82			-
Green Fodder	q	0.00			-
Fuel Production					
Arhar+Mustard+Til Plants	q	2323.24			-
Over all Cropping Intensity		106.47			

(Source: Participatory rural appraisal by PIA, (Soil Conservation Division, Rashtriya Jalagam-Banda, Banda, U.P.)

3.4 Agroforestry and Horticulture

There is no systematic agroforestry and orchard in the project area, however, few scattered trees of desi ber, aonla, guava, kathal, etc. was found in the micro-watersheds which is consumed locally (Table 3.9).

Table 3.9: Agroforestry and Horticulture Status in Microwatershed

S. N.	Name of micro watershed with code	Name of village	Name of Important horticultural crop						
			Orchard				Scattered Fruit Crop		
			Name	Area ha.	Productivity qtl/ha	Production qtls	No.	Productivity qtl/No.	Production qtls
1	Mau 2C1A6d1b	Mau	-	-	-	-	23	0.28	6.4
2	Mau 2C1A6d4a	Mau, Armar	-	-	-	-	22	0.24	5.3
3	Kharauli 2C1A6f2g	Kharauli, Kumhera sani, Kadohar, Kamasin	-	-	-	-	17	0.28	4.8
4	Pachauhan 2C1A6a2c	Pachauhan, Kamasin	-	-	-	-	20	0.25	5.0
5	Budhauli 2C1A6f2a	Budhauli, Mau, Devrar, Kumhera sani	-	-	-	-	18	0.27	4.9
6	Pali 2C1A6f2b	Pali, Budhauli, Kumhera sani, Kadohar, Kharauli	-	-	-	-	19	0.26	4.9

7	Kamasin 2C1A6f1c	Kamasin, Kumhera sani	-	-	-	-	26	0.27	7.0
8	Budhauli 2C1A6f4e	Budhauli, Bhati, Bamhraula	-	-	-	-	22	0.29	6.4
	Total		-	-	-	-	**167**	**0.27**	**44.7**
	(Scattered fruit plant of Papaya, Kathal, Ber, Aonla, Guava, etc)								

(Source: Participatory rural appraisal by PIA, (Soil Conservation Division, Rashtriya Jalagam-Banda, Banda, U.P.)

3.5 Livestock and Fisheries

In the name of cattle mainly desi cow are found in the project which productivity is significantly lower than the average productivity of the state. The Details of livestock and its productivity are available in Table 3.10 and 3.11, respectively.

Table 3.10: Livestock Population (no.) in IWMP -XVI, Banda

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	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**
1	Mau 2C1A6d1b	Mau	237	25	130	30	36	840	25	26	-	20	493
2	Mau 2C1A6d4a	Mau, Armar	232	26	131	26	36	826	20	24	-	24	483
3	Kharauli 2C1A6f2g	Kharauli ,Kumhera sani, Kadohar, Kamasin	168	20	91	24	26	603	17	21	-	21	362
4	Pachauhan 2C1A6a2c	Pachauhan, Kamasin	202	25	118	20	31	728	19	25	-	23	432
5	Budhauli 2C1A6f2a	Budhauli, Mau, Devrar,	171	21	99	18	26	616	16	22	-	25	372

		Kumhera sani											
6	Pali 2C1A6f2b	Pali, Budhauli, Kumhera sani, Kadohar, Kharauli	172	26	101	20	27	636	14	26	-	24	383
7	Kamasin 2C1A6f1c	Kamasin, Kumhera sani	234	24	128	29	36	826	22	21	-	26	484
8	Budhauli 2C1A6f4e	Budhauli, Bhati, Bamhraula	116	21	68	15	20	439	15	20	-	18	273
	Total		**1532**	**188**	**866**	**182**	**238**	**5514**	**148**	**185**	**0**	**181**	**3282**

(Source: Participatory rural appraisal by PIA, (Soil Conservation Division, Rashtriya Jalagam-Banda, Banda, U.P.)

Table 3.11: Productivity of livestock in IWMP-XVI, Banda

SN	Name of Micro watershed with code	Name of Village	Milk Production (Liter Per day)				Goatry	Poultry		Piggeries weight Kg/Pig
			Cows		Buffalos		Weight in Kg/goat	Broiler Weight in Kg/ Brl	Layers No. of eggs/day	
			Desi	Crossed	Desi	Murrah				
1	Mau 2C1A6d1b	Mau	1.6	5.2	2.5	6.8	24.0	-	175	-
2	Mau 2C1A6d4a	Mau, Armar	1.5	4.9	2.4	6.3	26.0	-	184	-
3	Kharauli 2C1A6f2g	Kharauli, Kumhera sani, Kadohar, Kamasin	1.2	6.8	2.1	6.7	25.0	-	174	-
4	Pachauhan 2C1A6a2c	Pachauhan, Kamasin	1.8	6.8	2.8	6.4	25.0	-	172	-

5	Budhauli 2C1A6f2a	Budhauli, Mau, Devrar, Kumhera sani	1.4	5.8	2.7	6.2	23.0	-	175	-
6	Pali 2C1A6f2b	Pali, Budhauli, Kumhera sani, Kadohar, Kharauli	1.5	6.2	2.8	6.5	24.0	-	164	-
7	Kamasin 2C1A6f1c	Kamasin, Kumhera sani	1.3	5.8	2.6	6.9	22.0	-	174	-
8	Budhauli 2C1A6f4e	Budhauli, Bhati, Bamhraula	1.9	5.5	2.3	7.2	21.0	-	171	-
	Average		1.5	5.9	2.5	6.6	23.8	-	174	-

(Source: Participatory rural appraisal by PIA, (Soil Conservation Division, Rashtriya Jalagam-Banda, Banda, U.P.)

3.6 Forest and Grassland

There is no grassland available in the project area, however, information on naturally generated/grown degraded forest is given in Table 3.12.

Table 3.12: Forest, vegetative cover/grassland in IWMP-XVI, Banda

Sr. No.	Name & Code of Micro watershed	Name of Village	Forest (Area ha)			Grassland (Area ha)		Other vegetative cover (Area ha)	
			Reserve	Gram Samaj (Natural /Planted)	Total	Gram Samaj	Private	Gram Samaj	Private
1	2	3	4	5	6	7		8	9
1	Mau 2C1A6d1b	Mau	-	-	-	6.5	-	1.4	2.5
2	Mau 2C1A6d4a	Mau, Armar	-	-	-	5.2	-	2.0	3.5
3	Kharauli 2C1A6f2g	Kharauli, Kumhera sani, Kadohar, Kamasin	-	-	-	5.1	-	1.3	2.0

4	Pachauhan 2C1A6a2c	Pachauhan, Kamasin	-	-	-	5.0	-	0.9	2.0
5	Budhauli 2C1A6f2a	Budhauli, Mau, Devrar, Kumhera sani	-	-	-	8.1	-	1.1	3.0
6	Pali 2C1A6f2b	Pali, Budhauli, Kumhera sani, Kadohar, Kharauli	-	-	-	6.1	-	1.5	3.1
7	Kamasin 2C1A6f1c	Kamasin, Kumhera sani	-	-	-	6.2	-	1.5	2.0
8	Budhauli 2C1A6f4e	Budhauli, Bhati, Bamhraula	-	-	-	3.9	-	1.1	2.2
	Total		**-**	**-**	**-**	**46.1**		**10.8**	**20.3**

(Source: Participatory rural appraisal by PIA, (Soil Conservation Division, Rashtriya Jalagam-Banda, Banda, U.P.)

3.7 Livelihood Status

Assestless/landless people earn their livelihood mainly from labour and *batai (share cropping)*. They about Rs. 3000/per month for share cropping. It is expected that their income will enhance due to watershed management as it will generate share cropping employment opportunity on sustainable basis. Intervention presently on piggeries, fisheries, black smithy and carpentry are not in 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	Other	Women	Total				
1	Mau 2C1A6d1b	Mau	Labour/ Batai	3	9	3	15	25,000-30,000	The landless people can increase their income by adoting one or two activities of goatary, poultry,	50,000-55,000	Income may be increased by about two times
2	Mau 2C1A6d4a	Mau, Armar		3	10	2	15				
3	Kharauli 2C1A6f2g	Kharauli, Kumhera sani, Kadohar, Kamasin		2	7	1	10				
4	Pachauhan 2C1A6a2c	Pachauhan, Kamasin		3	9	1	13				

5	Budhauli 2C1A6f2a	Budhauli, Mau, Devrar, Kumhera sani		3	8	1	12		dairy, technical shop, general store, dona making, Rope making, etc. besides Batai/labour work		
6	Pali 2C1A6f2b	Pali, Budhauli, Kumhera sani, Kadohar, Kharauli		3	8	2	13				
7	Kamasin 2C1A6f1c	Kamasin, Kumhera sani		5	17	2	24				
8	Budhauli 2C1A6f4e	Budhauli, Bhati, Bamhraula		2	7	0	9				
	Total			**24**	**75**	**12**	**111**	**25,000-30,000**	**-**	**50,000-55,000**	**-**

(Source: Participatory rural appraisal by PIA, (Soil Conservation Division, Rashtriya Jalagam-Banda, Banda, 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	Other	Women	Total				
1	Mau 2C1A6d1b	Mau	Agriculture + A.H., Labour, Batai	131	439	55	625	40000-50000	Productivity could be enhance through natural resource conservation, livestock management and micro-enterprises	55,000-65,000	Income may be increased by about 30 to 40 per cent
2	Mau 2C1A6d4a	Mau, Armar		129	441	45	615				
3	Kharauli 2C1A6f2g	Kharauli, Kumhera sani, Kadohar, Kamasin		94	316	40	450				
4	Pachauhan 2C1A6a2c	Pachauhan, Kamasin		112	383	42	537				
5	Budhauli 2C1A6f2a	Budhauli, Mau, Devrar, Kumhera sani		96	323	39	458				

6	Pali 2C1A6f2b	Pali, Budhauli, Kumhera sani, Kadohar, Kharauli		99	332	41	472				
7	Kamasin 2C1A6f1c	Kamasin, Kumhera sani		127	419	60	606				
8	Budhauli 2C1A6f4e	Budhauli, Bhati, Bamhraula		68	234	24	326				
	Total			856	2887	346	4089	**35000-45000**	**-**	**55,000-65,000**	**-**

(Source: Participatory rural appraisal by PIA, (Soil Conservation Division, Rashtriya Jalagam-Banda, Banda, U.P.)

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

'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	Mau 2C1A6d1b	Mau	195	11,500-13,500	**25**	13,000-16,000	**290**	21000-35000	5	7500-9000	-	-	3	2000-4000	2	2500-4500	-	-	45	11,000-13,000	245	25,000-30,000
2	Mau 2C1A6d4a	Mau, Armar	200		**22**		**300**		6		-		5		2		-		48		268	
3	Kharauli 2C1A6f2g	Kharauli, Kumhera	18		**2**		**2**		4		-		4		3		-		6		27	

		sani, Kadohar, Kamasin	5		**4**		**75**												5		8	
4	Pachauhan 2C1A6a2c	Pachauhan, Kamasin	190		**28**		**285**		8		-		3		2		-		35		269	
5	Budhauli 2C1A6f2a	Budhauli, Mau, Devrar, Kumhera sani	180		**21**		**270**		7		-		5		2		-		48		278	
6	Pali 2C1A6f2b	Pali, Budhauli, Kumhera sani, Kadohar, Kharauli	165		**26**		**245**		5		-		4		3		-		59		268	
7	Kamasin 2C1A6f1c	Kamasin, Kumhera sani	175		**24**		**260**		7		-		5		3		-		25		287	
8	Budhauli 2C1A6f4e	Budhauli, Bhati, Bamhraula	100		**10**		**150**		3		-		2		1		-		**387**		213	
	Total		**1390**	**11,500-13,500**	**180**	**13,000-16,000**	**2075**	**21000-35000**	**45**	**7500 - 9000**	**-**	**-**	**31**	**2000 - 4000**	**18**	**2500 - 4500**	**-**	**-**	**45**	**11,000-13,000**	**2106**	**25,000-30,000**

(Source: Participatory rural appraisal by PIA, (Soil Conservation Division, Rashtriya Jalagam-Banda, Banda, 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-XVI, Banda

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	Mau 2C1A6d1b	Mau	Avrg.14.36	Avrg.11.93	06	-
2	Mau 2C1A6d4a	Mau, Armar	Avrg.15.36	Avrg.12.34	07	-
3	Kharauli 2C1A6f2g	Kharauli, Kumhera sani, Kadohar, Kamasin	Avrg.13.94	Avrg.10.18	03	
4	Pachauhan 2C1A6a2c	Pachauhan, Kamasin	Avrg.14.92	Avrg.11.37	08	
5	Budhauli 2C1A6f2a	Budhauli, Mau, Devrar, Kumhera sani	Avrg.15.31	Avrg.12.94	04	
6	Pali 2C1A6f2b	Pali, Budhauli, Kumhera sani, Kadohar, Kharauli	Avrg.15.19	Avrg.12.19	09	
7	Kamasin 2C1A6f1c	Kamasin, Kumhera sani	Avrg.12.37	Avrg.10.61	07	
8	Budhauli 2C1A6f4e	Budhauli, Bhati, Bamhraula	Avrg.12.39	Avrg.09.50	05	
	Avrg. of IWMP-XVI		**12.37-15.36**	**09.50-12.94**		

(Source: Participatory rural appraisal by PIA, (Soil Conservation Division, Rashtriya Jalagam-Banda, Banda, 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 16 m during pre monsoon, however it was in the range of 09-13 m during post monsoon season.

Table 3.17: Irrigation Status in IWMP-XVI, Banda

Sr. No.	Name & Micro Watershed with code	Name of Village	Gross Cultivated Area				Net Cultivated Area	Gross Irrigated Area				Net Irrigated Area	Rainfed Area
			Kharif	Rabi	Zaid	Total		Kharif	Rabi	Zaid	Total		
1	Mau 2C1A6d1b	Mau	317.38	502.22	-	819.60	833.76	55.03	128.40	-	183.43	183.43	650.33
2	Mau 2C1A6d4a	Mau, Armar	299.61	527.49	-	827.0973	819.33	54.08	126.18	-	180.25	180.25	639.08
3	Kharauli 2C1A6f2g	Kharauli, Kumhera sani, Kadohar, Kamasin	217.16	377.94	-	595.0991	602.40	39.76	92.77	-	132.53	132.53	469.87
4	Pachauhan 2C1A6a2c	Pachauhan, Kamasin	223.14	500.86	-	724.0018	723.84	47.77	111.47	-	159.25	159.25	564.60
5	Budhauli 2C1A6f2a	Budhauli, Mau, Devrar, Kumhera sani	230.96	376.21	-	607.1669	612.84	40.45	94.38	-	134.82	134.82	478.01
6	Pali 2C1A6f2b	Pali, Budhauli, Kumhera sani, Kadohar, Kharauli	187.98	437.30	-	625.2819	635.55	62.92	76.90	-	139.82	139.82	495.73
7	Kamasin 2C1A6f1c	Kamasin, Kumhera sani	243.28	558.30	-	801.5781	824.56	74.38	107.03	-	181.40	181.40	643.16
8	Budhauli 2C1A6f4e	Budhauli, Bhati, Bamhraula	157.45	268.16	-	425.61	436.85	42.29	53.82	-	96.11	96.11	340.74
	Total		**1876.96**	**3548.47**	**-**	**5425.43**	**5489.14**	**416.67**	**790.94**	**-**	**1207.61**	**1207.61**	**4281.53**

(Source: Participatory rural appraisal by PIA, (Soil Conservation Division, Rashtriya Jalagam-Banda, Banda, U.P.)

Table 3.18: Source wise Area Irrigated in IWMP-XVI, Banda (area in 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	Mau 2C1A6d1b	Mau	0.00	-	-	-	-	25.00	44.02	35.00	115.56	-	23.85	-	-	183.43	-
2	Mau 2C1A6d4a	Mau, Armar	0.00	-	-	-	-	17.00	36.05	39.00	117.16	-	27.04	-	-	180.25	-
3	Kharauli 2C1A6f2g	Kharauli, Kumhera sani, Kadohar, Kamasin	15.90	-	-	-	-	12.00	23.85	28.00	79.52	-	13.25	-	-	132.53	-
4	Pachauhan 2C1A6a2c	Pachauhan, Kamasin	31.85	-	-	-	-	15.00	31.85	25.00	79.62	-	15.92	-	-	159.25	-
5	Budhauli 2C1A6f2a	Budhauli, Mau, Devrar, Kumhera sani	0.00	-	-	-	-	14.00	31.01	32.00	83.59	-	20.22	-	-	134.82	-
6	Pali 2C1A6f2b	Pali, Budhauli, Kumhera sani, Kadohar, Kharauli	0.00	-	-	-	-	16.00	34.96	36.00	90.88	-	13.98	-	-	139.82	-
7	Kamasin 2C1A6f1c	Kamasin, Kumhera sani	54.42	-	-	-	-	10.00	18.14	30.00	72.56	-	18.14	-	-	181.40	-
8	Budhauli 2C1A6f4e	Budhauli, Bhati, Bamhraula	0.00	-	-	-	-	18.00	19.22	25.00	67.28	-	9.61	-	-	96.11	-
	Total		**102.17**	**-**	**-**	**-**	**-**	**127.00**	**239.10**	**250.00**	**706.17**	**-**	**142.02**	**-**	**-**	**1207.61**	**-**

(Source: Participatory rural appraisal by PIA, (Soil Conservation Division, Rashtriya Jalagam-Banda, Banda, U.P.)

CHAPTER – 4

INSTITUTIONAL BUILDING AND PROJECT MANAGEMENT

4.1 Project Implementing Agency

The Project Implementing Agency (PIA) is Soil Conservation Officer, Department of Agriculture, IWMP-XVI, Rastriya Jalagam Banda, Uttar Pradesh. The PIA was given responsibility to develop the micro-watershed by Watershed Cell cum Data Centre (WCDC) 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 Banda. Details of PIA are presented in subsequent section.

Table 4.1: Details of Project Implementing Agency (PIA), IWMP-XVI, Banda

Sr. No.	Particulars of PIA	
(i)	Date of selection of PIA	
(ii)	Type of organization	U.P. Government
(iii)	Name of organization	Soil Conservation Division, Deptt. of Agriculture
(iv)	Principal Implementing Agency & Address	Soil Conservation Officer, Rastriya Jalagam Banda, U.P.
(v)	Telephone	
(vi)	Fax	
(vii)	E-mail	

Table 4.2: Details of Staff at PIA, IWMP-

Sr. No.	Designation	Name	M/F	Qualification	Field of Experience & Period	Remarks
1	B.S.A.	Shri. S.C. Ahirwar	M	Civil Eng.	All the staff are experienced and wellworsed with watershed management	
2	J.E.	Shri.D.P. Singh	M	Civil Eng.		
3	S.C.I.	Shri.B.L. Verma	M	B.Sc.. Ag.		
4	S.C.I.	Shri.R.S. Madhur	M	Ag. Diploma		
5	S.C.I.	Shri.Chhote Lal	M	Ag. Diploma		
6	S.C.I.	Shri.S. P. Singh	M	Ag. Diploma		
7	A.S.C.I.	Shri. R.R. Singh	M	B.Sc.. Ag.		
8	A.S.C.I.	Shri.K.P. Singh	M	Ag. Diploma		
9	A.S.C.I.	Shri. Digambar singh	M	Ag. Diploma		
10	A.S.C.I.	Shri. S.B. Yadav	M	M.Sc. Ag		
11	A.S.C.I.	Shri. N.D. Sahu	M	Ag. Diploma		
12	A.S.C.I.	Shri. B.L. Pal	M	B.Sc.. Ag.		
13	A.S.C.I.	Shri. K.K. Diwedi	M	B.Sc.. Ag.		
14	A.S.C.I.	Shri. N.S. Tomar	M	M.Sc. Ag		
15	A.S.C.I.	Shri. O.P. Singh	M	B.Sc.. Ag.		
16	A.S.C.I.	Shri. Kaptan Singh	M	Ag. Diploma		

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

Project- IWMP-XVI **PIA- BSA,** Rastriya Jalagam Banda **District-Banda**

Sr. No.	Name of WDT member	M/F	Age	Qualification / Experience	Description of professional training	Role/ Function	Date of appointment of WDT member
1.	Shri D.P. Singh	M	52	Diploma Civil Eng.	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	18.9.11
2.	Shri R.S. Madhur	M	57	Ag. Diploma			
3.	Shri. N.S. Tomar	M	46	M.Sc. (Ag)			

Table 4.4: Details of Watershed Committee (WC)
Jal Sanrakshan Samiti- Marka, Gram Panchayat: Marka Name of Project:- IWMP XVI
District- Banda

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	Marka	10.10.11	President	M	-	-	Y	-	-	-	-	-	-	-	Y	5TH	WC will act as per Common Guidelines for watershed Development Projects 2008
			Secretary	M	-	-	-	Y	-	-	-	-	-	-	-	10TH	
			Team leader	M	Y	-	-	-	-	Y	-	-	Y	-	-	Diploma Ag	
			Member	M	-	-	Y	-	Y	-	-	-	-	-	-	8TH	
			Member	M	-	-	Y	-	-	-	-	-	-	-	-	8TH	
			Member	M	Y	-	-	-	-	-	Y	-	-	Y	-	5TH	
			Member	F	-	-	Y	-	Y	-	-	-	Y	-	-	5TH	
			Member	M	-	-	Y	-	-	-	-	-	Y	-	Y	5TH	
			Member	M	Y	-	-	-	-	-	-	Y	-	Y	-	8TH	
			Member	M	-	-	-	Y	-	-	-	-	Y	-	-	8TH	
			Member	M	-	-	Y	-	-	-	-	-	-	-	-	8TH	

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- Sanda, District- Banda **Gram Panchayat: Sanda** **Name of Project:- IWMP XVI**

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	Sanda	13.10.11	President	M	-	-	Y	-	-	-	Y	-	-	-	-	5^{TH}	WC will act as per Common Guidelines for watershed Development Projects 2008
			Secretary	M	-	-	-	Y	Y	-	-	-	-	-	-	B.A	
			Team Leader	M	Y	-	-	-	Y	-	-	-	-	-	-	B.Sc AG	
			Member	M	-	-	Y	-	Y	-	-	-	Y	-	-	8^{TH}	
			Member	M	-	-	Y	-	-	-	-	-	-	-	-	10^{TH}	
			Member	M	-	-	-	-	-	-	Y	-	-	-	-	8^{TH}	
			Member	F	-	-	-	Y	Y	Y	-	-	-	Y	-	8^{TH}	
			Member	M	-	-	Y		Y	-	-	-	-	Y	-	8^{TH}	
			Member	M	Y	-	-	-	-	Y	-	Y	-	-	-	5^{TH}	
			Member	M	-	-	Y	-	Y	-	-	-	-	-	-	5^{TH}	
			Member	M	-	-	-	Y	-	-	-	-	Y	-	Y	5^{TH}	

Jal Sanrakshan Samiti- Mau, District- Banda **Gram Panchayat: Mau** **Name of Project:- IWMP XVI**

Sl. No.	Name of Gram Sabha/ GP	Date of Constitution/ Registration as a Society (dd/mm/ yyyy)	Designation	SC	ST	OBC	Gen	SF	MF	LF	Land-less	UG	SHG	GP	SC	Educa-tional qualification	Function(s) assigned
3	Mau	11.10.11	President	-	-	-	Y	-	Y	-	-	-	-	-	-	5^{TH}	WC will act as per Common Guidelines for watershed Development Projects 2008
			Secretary	-	-	Y		-	Y	-	-	Y	-	-	-	B.A	
			Team leader	-	-	-	Y	-	-	-	-	-	-	-	-	B.Sc AG	
			Member	-	-	-	Y	-	Y	-	-	Y	-	-	-	8^{TH}	
			Member	-	-	Y	-	-	Y	-	-	-	-	-	-	10^{TH}	
			Member	Y	-	-	-	-	-	-	Y	-	Y	-	Y	8^{TH}	
			Member	-	-	Y	-	-	Y	-	-	-	-	-	-	8^{TH}	
			Member	-	-	Y	-	-	-	-	Y	-	Y	-	-	8^{TH}	
			Member	Y	-	-	-	Y	-	-	-	Y	-	-	Y	5^{TH}	
			Member	-	-	Y	-	-	Y	-	-	-	-	-	-	5^{TH}	
			Member	-	-	Y	-	Y	-	-	-	Y	-	-	-	5^{TH}	

Jal Sanrakshan Samiti- Armar, District- Banda **Gram Panchayat: Armar** **Name of Project:- IWMP XVI**

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	Armar	28.10.11	President	M	Y	-	-	-	-	Y	-	-	-	-	Y	8^{TH}	WC will act as per Common Guidelines for watershed Development Projects 2008
			Secretary	M	-	-	Y	-	-	Y	-	-	Y	-	-	10^{TH}	
			Team leader	M	-	-	Y	-	-	-	-	-	-	-	-	Diploma Ag	
			Member	M	-	-	Y	-	Y	-	-	-	Y	-	-	8^{TH}	
			Member	M	-	-	Y	-	-	-	Y	-	Y	-	-	8^{TH}	
			Member	F	-	-	-	-	-	-	-	Y	-	Y	-	8^{TH}	
			Member	M	Y	-	-	-	Y	-	-	-	-	-	-	5^{TH}	
			Member	M	-	-	Y	-	-	Y	-	-	Y	-	-	5^{TH}	
			Member	F	Y	-	-	-	-	-	-	Y	-	Y	-	8^{TH}	
			Member	M	-	-	-	Y	-	Y	-	-	-	-	-	8^{TH}	
			Member	M	-	-	-	Y	-	Y	-	-	-	-	-	8^{TH}	

Jal Sanrakshan Samiti- Para Banno Begum, District- Banda **Gram Panchayat: Para Banno Begum** **Name of Project:- IWMP XVI**

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	Para Banno Begum	29.10.11	President	M	-	-	-	Y	-	Y	-	-	-	-	-	10^{TH}	WC will act as per Common Guidelines for watershed Development Projects 2008
			Secretary	M	-	-	Y		-	Y	-	-	Y	-	-	10^{TH}	
			Team leader	M	-	-	-	Y	-	-	-	-	-	-	-	Diploma Ag	
			Member	M	-	-	-	Y	-	Y	-	-	Y	-	-	10^{TH}	
			Member	M	-	-	Y	-	-	Y	-	-	-	-	-	10^{TH}	
			Member	M	Y	-	-	-	-	-	-	Y	-	Y	-	B.A	
			Member	M	-	-	Y	-	-	Y	-	-	-	-	-	5^{TH}	
			Member	M	-	-	Y	-	-	-	-	Y	-	Y	-	5^{TH}	
			Member	F	Y	-	-	-	Y	-	-	-	Y	-	-	8^{TH}	
			Member	M	-	-	Y	-	-	Y	-	-	-	-	-	8^{TH}	
			Member	M	-	-	Y	-	Y	-	-	-	Y	-	-	8^{TH}	

Jal Sanrakshan Samiti- Budhaule, District- Banda **Gram Panchayat: Budhaule** **Name of Project:- IWMP XVI**

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	Budhaule	28.10.11	President	M	-	-	-	Y	-	Y	-	-	Y	-	Y	12^{TH}	WC will act as per Common Guidelines for watershed Development Projects 2008
			Secretary	M	-	-	Y	-	-	Y	-	-	-	-	-	10^{TH}	
			Team leader	M	-	-	Y	-	-	-	-	-	-	-	-	Diploma Ag	
			Member	M	-	-	Y	-	-	Y	-	-	Y	-	-	8^{TH}	
			Member	M	-	-	Y	-	-	Y	-	-	-	-	-	8^{TH}	
			Member	M	Y	-	-	-	Y	-	-	-	Y	-	-	8^{TH}	
			Member	M	-	-	-	Y	-	-	Y	-	-	-	-	8^{TH}	
			Member	M	-	-	-	Y	Y	-	-	-	Y	-	-	8^{TH}	
			Member	F	-	-	Y	-	-	-	-	Y	-	Y	-	10^{TH}	
			Member	M	Y	-	-	-	-	-	-	Y	-	Y	-	5^{TH}	
			Member	M	-	-	Y	-	-	Y	-	-	Y	-	-	5^{TH}	

Jal Sanrakshan Samiti- Kumhedasani, District- Banda **Gram Panchayat: Kumhedasani** **Name of Project:- IWMP XVI**

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	Kumhedasani	29.10.11	President	M	-	-	-	Y	-	Y	-	-	-	-	-	10^{TH}	WC will act as per Common Guidelines for watershed Development Projects 2008
			Secretary	M	-	-	Y		-	Y	-	-	Y	-	-	10^{TH}	
			Team leader	M	-	-	-	Y	-	-	-	-	-	-	-	Diploma Ag	
			Member	M	-	-	-	Y	-	Y	-	-	Y	-	-	10^{TH}	
			Member	M	-	-	Y	-	-	Y	-	-	-	-	-	10^{TH}	
			Member	M	Y	-	-	-	-	-	-	Y	-	Y	-	B.A	
			Member	M	-	-	Y	-	-	Y	-	-	-	-	-	5^{TH}	
			Member	M	-	-	Y	-	-	-	-	Y	-	Y	-	5^{TH}	
			Member	F	Y	-	-	-	Y	-	-	-	Y	-	-	8^{TH}	
			Member	M	-	-	Y	-	-	Y	-	-	-	-	-	8^{TH}	
			Member	M	-	-	Y	-	Y	-	-	-	Y	-	-	8^{TH}	

Jal Sanrakshan Samiti- Pannah, District- Banda **Gram Panchayat: Pannah** **Name of Project:- IWMP XVI**

Sl. No.	Name of Gram Sabha/ GP	Date of Constitution/ Registration as a Society (dd/mm/ yyyy)	Designation	SC	ST	OBC	Gen	SF	MF	LF	Land-less	UG	SHG	GP	SC	Educa-tional qualification	Function(s) assigned
8	Pannah	11.10.11	President	-	-	-	Y	-	Y	-	-	-	-	-	-	5^{TH}	WC will act as per Common Guidelines for watershed Development Projects 2008
			Secretary	-	-	Y		-	Y	-	-	Y	-	-	-	B.A	
			Team leader	-	-	-	Y	-	-	-	-	-	-	-	-	B.Sc AG	
			Member	-	-	-	Y	-	Y	-	-	Y	-	-	-	8^{TH}	
			Member	-	-	Y	-	-	Y	-	-	-	-	-	-	10^{TH}	
			Member	Y	-	-	-	-	-	-	Y	-	Y	-	Y	8^{TH}	
			Member	-	-	Y	-	-	Y	-	-	-	-	-	-	8^{TH}	
			Member	-	-	Y	-	-	-	-	Y	-	Y	-	-	8^{TH}	
			Member	Y	-	-	-	Y	-	-	-	Y	-	-	Y	5^{TH}	
			Member	-	-	Y	-	-	Y	-	-	-	-	-	-	5^{TH}	
			Member	-	-	Y	-	Y	-	-	-	Y	-	-	-	5^{TH}	

Jal Sanrakshan Samiti- Pali, District- Banda **Gram Panchayat: Pali** **Name of Project:- IWMP XVI**

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
9	Pali	28.10.11	President	M	-	-	-	Y	-	Y	-	-	Y	-	Y	12^{TH}	WC will act as per Common Guidelines for watershed Development Projects 2008
			Secretary	M	-	-	Y	-	-	Y	-	-	-	-	-	10^{TH}	
			Team leader	M	-	-	Y	-	-	-	-	-	-	-	-	Diploma Ag	
			Member	M	-	-	Y	-	-	Y	-	-	Y	-	-	8^{TH}	
			Member	M	-	-	Y	-	-	Y	-	-	-	-	-	8^{TH}	
			Member	M	Y	-	-	-	Y	-	-	-	Y	-	-	8^{TH}	
			Member	M	-	-	-	Y	-	-	Y	-	-	-	-	8^{TH}	
			Member	M	-	-	-	Y	Y	-	-	-	Y	-	-	8^{TH}	
			Member	F	-	-	Y	-	-	-	-	Y	-	Y	-	10^{TH}	
			Member	M	Y	-	-	-	-	-	-	Y	-	Y	-	5^{TH}	
			Member	M	-	-	Y	-	-	Y	-	-	Y	-	-	5^{TH}	

Jal Sanrakshan Samiti- Andauli, District- Banda **Gram Panchayat: Andauli** **Name of Project:- IWMP XVI**

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	Andauli	29.10.11	President	M	-	-	-	Y	-	Y	-	-	-	-	-	10^{TH}	WC will act as per Common Guidelines for watershed Development Projects 2008
			Secretary	M	-	-	Y		-	Y	-	-	Y	-	-	10^{TH}	
			Team leader	M	-	-	-	Y	-	-	-	-	-	-	-	Diploma Ag	
			Member	M	-	-	-	Y	-	Y	-	-	Y	-	-	10^{TH}	
			Member	M	-	-	Y	-	-	Y	-	-	-	-	-	10^{TH}	
			Member	M	Y	-	-	-	-	-	-	Y	-	Y	-	B.A	
			Member	M	-	-	Y	-	-	Y	-	-	-	-	-	5^{TH}	
			Member	M	-	-	Y	-	-	-	-	Y	-	Y	-	5^{TH}	
			Member	F	Y	-	-	-	Y	-	-	-	Y	-	-	8^{TH}	
			Member	M	-	-	Y	-	-	Y	-	-	-	-	-	8^{TH}	
			Member	M	-	-	Y	-	Y	-	-	-	Y	-	-	8^{TH}	

Jal Sanrakshan Samiti- Kharauli, Banda **Gram Panchayat: Kharauli** **Name of Project:- IWMP XVI** **District-**

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	Kharauli	28.10.11	President	M	-	-	-	Y	-	Y	-	-	Y	-	Y	12^{TH}	WC will act as per Common Guidelines for watershed Development Projects 2008
			Secretary	M	-	-	Y	-	-	Y	-	-	-	-	-	10^{TH}	
			Team leader	M	-	-	Y	-	-	-	-	-	-	-	-	Diploma Ag	
			Member	M	-	-	Y	-	-	Y	-	-	Y	-	-	8^{TH}	
			Member	M	-	-	Y	-	-	Y	-	-	-	-	-	8^{TH}	
			Member	M	Y	-	-	-	Y	-	-	-	Y	-	-	8^{TH}	
			Member	M	-	-	-	Y	-	-	Y	-	-	-	-	8^{TH}	
			Member	M	-	-	-	Y	Y	-	-	-	Y	-	-	8^{TH}	
			Member	F	-	-	Y	-	-	-	-	Y	-	Y	-	10^{TH}	
			Member	M	Y	-	-	-	-	-	-	Y	-	Y	-	5^{TH}	
			Member	M	-	-	Y	-	-	Y	-	-	Y	-	-	5^{TH}	

Jal Sanrakshan Samiti- Kamasin, District- Banda **Gram Panchayat: Kamasin** **Name of Project:- IWMP XVI**

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	Kamasin	29.10.11	President	M	-	-	-	Y	-	Y	-	-	-	-	-	10^{TH}	WC will act as per Common Guidelines for watershed Development Projects 2008
			Secretary	M	-	-	Y		-	Y	-	-	Y	-	-	10^{TH}	
			Team leader	M	-	-	-	Y	-	-	-	-	-	-	-	Diploma Ag	
			Member	M	-	-	-	Y	-	Y	-	-	Y	-	-	10^{TH}	
			Member	M	-	-	Y	-	-	Y	-	-	-	-	-	10^{TH}	
			Member	M	Y	-	-	-	-	-	-	Y	-	Y	-	B.A	
			Member	M	-	-	Y	-	-	Y	-	-	-	-	-	5^{TH}	
			Member	M	-	-	Y	-	-	-	-	Y	-	Y	-	5^{TH}	
			Member	F	Y	-	-	-	Y	-	-	-	Y	-	-	8^{TH}	
			Member	M	-	-	Y	-	-	Y	-	-	-	-	-	8^{TH}	
			Member	M	-	-	Y	-	Y	-	-	-	Y	-	-	8^{TH}	

Jal Sanrakshan Samiti- Pachauha, District- Banda **Gram Panchayat: Pachauha** **Name of Project:- IWMP XVI**

Sl. No.	Name of Gram Sabha/ GP	Date of Constitution/ Registration as a Society (dd/mm/ yyyy)	Designation	SC	ST	OBC	Gen	SF	MF	LF	Land-less	UG	SHG	GP	SC	Educa-tional qualification	Function(s) assigned
13	Pachauha	11.10.11	President	-	-	-	Y	-	Y	-	-	-	-	-	-	5TH	WC will act as per Common Guidelines for watershed Development Projects 2008
			Secretary	-	-	Y		-	Y	-	-	Y	-	-	-	B.A	
			Team leader	-	-	-	Y	-	-	-	-	-	-	-	-	B.Sc AG	
			Member	-	-	-	Y	-	Y	-	-	Y	-	-	-	8TH	
			Member	-	-	Y	-	-	Y	-	-	-	-	-	-	10TH	
			Member	Y	-	-	-	-	-	-	Y	-	Y	-	Y	8TH	
			Member	-	-	Y	-	-	Y	-	-	-	-	-	-	8TH	
			Member	-	-	Y	-	-	-	-	Y	-	Y	-	-	8TH	
			Member	Y	-	-	-	Y	-	-	-	Y	-	-	Y	5TH	
			Member	-	-	Y	-	-	Y	-	-	-	-	-	-	5TH	
			Member	-	-	Y	-	Y	-	-	-	Y	-	-	-	5TH	

Table 4.5: Village wise details of Self Help Groups (SHGs) in the project area IWMP- XVI
Project- IWMP XVI **District – Banda**

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	Mau 2C1A6d1b	Mau	3	1	1	5	(i) Landless	5	2	7	0	0	0	5	2	7	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
							(ii) SF	12	5	17	2	0	2	12	5	17	
							(iii) MF	18	8	26	6	2	8	18	8	26	
							(iv) LF	-	-	-	-	-	-	-	-	-	
							Total	**35**	**15**	**50**	**8**	**2**	**10**	**35**	**15**	**50**	
2	Mau 2C1A6d4a	Mau, Armar	4	1	2	7	(i) Landless	7	4	11	2	0	2	7	4	11	
							(ii) SF	12	9	21	4	1	5	12	9	21	
							(iii) MF	25	13	38	9	4	13	25	13	38	
							(iv) LF	-	-	-	-	-	-	-	-	-	
							Total	**44**	**26**	**70**	**15**	**5**	**20**	**44**	**26**	**70**	
3	Kharauli 2C1A6f2g	Kharauli ,Kumhera sani, Kadohar, Kamasin	3	1	1	5	(i) Landless	5	3	8	0	0	0	5	3	8	
							(ii) SF	12	6	18	3	0	3	12	6	18	
							(iii) MF	15	9	24	5	2	7	15	9	24	
							(iv) LF	-	-	-	-	-	-	-	-	-	
							Total	**32**	**18**	**50**	**8**	**2**	**10**	**32**	**18**	**50**	
4	Pachauhan 2C1A6a2c	Pachauhan, Kamasin	5	1	3	9	(i) Landless	10	4	14	3	0	3	10	4	14	
							(ii) SF	16	7	23	7	3	10	16	7	23	
							(iii) MF	38	15	53	11	6	17	38	15	53	

							(iv) LF	-	-	-	-	-	-	-	-	-	(service bank) has been iniated
							Total	**64**	**26**	**90**	**21**	**9**	**30**	**64**	**26**	**90**	
5	Budhauli 2C1A6f2a	Budhauli, Mau, Devrar, Kumhera sani	2	1	2	5	(i) Landless	5	1	6	1	0	1	5	1	6	
							(ii) SF	12	3	15	3	0	3	12	3	15	
							(iii) MF	21	8	29	5	1	6	21	8	29	
							(iv) LF	-	-	-	-	-	-	-	-	-	
							Total	**38**	**12**	**50**	**9**	**1**	**10**	**38**	**12**	**50**	
6	Pali 2C1A6f2b	Pali, Budhauli, Kumhera sani, Kadohar, Kharauli	3	1	2	6	(i) Landless	7	2	9	3	0	3	7	2	9	
							(ii) SF	13	5	18	4	1	5	13	5	18	
							(iii) MF	21	12	33	9	3	12	21	12	33	
							(iv) LF	-	-	-	-	-	-	-	-	-	
							Total	**41**	**19**	**60**	**16**	**4**	**20**	**41**	**19**	**60**	
7	Kamasin 2C1A6f1c	Kamasin, Kumhera sani	4	2	2	8	(i) Landless	11	3	14	3	1	4	11	3	14	
							(ii) SF	17	8	25	7	2	9	17	8	25	
							(iii) MF	28	13	41	12	5	17	28	13	41	
							(iv) LF	-	-	-	-	-	-	-	-	-	
							Total	**56**	**24**	**80**	**22**	**8**	**30**	**56**	**24**	**80**	
8	Budhauli 2C1A6f4e	Budhauli, Bhati, Bamhraula	2	1	1	4	(i) Landless	5	3	8	0	0	0	5	3	8	
							(ii) SF	7	6	13	2	0	2	7	6	13	
							(iii) MF	10	9	19	5	3	8	10	9	19	
							(iv) LF	-	-	-	-	-	-	-	-	-	
							Total	**22**	**18**	**40**	**7**	**3**	**10**	**22**	**18**	**40**	
	Grand Total		**26**	**9**	**14**	**49**		**332**	**158**	**490**	**106**	**34**	**140**	**332**	**158**	**490**	

(M – Male, F – Female)

There are 13 villages in the project area and village-wise Self Help Groups (SHGs) constituted is given in Table 4.5. A total 49 SHGs were already constituted in the project villages, of them 26 men SHGs, 9 women SHGs and 14 mixed SHGs, respectively. Total 188 SHGs have to be constituted to ensure the livelihood of marginalized population in the project. Formation of remaining 139 SHGs is in progress. Livelihood Action Plan is given in Annexure-I.

4.2: 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

Name of Work	Benefited area (ha)	Field 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)
Pali (2C1A6f2b)									
CD1	26.25	929	Prahlad	Jaswant	Crop Production	929			
CD2	27.202	927, 929	Sukhnandan	Gyan Babu	Crop Production	927			
WHB/RCD 1	57.976	981, 966	Samarjeet	Jaswant	Crop Production	981			
WHB/RCD 2	67.241	1017, 1016	Sabhajeet	Jaswant	Crop Production	1017			
CD1	35.52	523, 524	Vardani	Brij Kishor	Crop Production	523			
CD2	6.255	564	Hira Lal	Shivram	Crop Production	564			
CD1	11.408	761	Shivkaran	Avadh Bihari	Crop Production	761			
CD1	7.83	132, 130, 137	Bhiya Lal	Samrjeet	Crop Production	132			
CD2	7.83	108, 57	Bhiyadeen	Raghuraj	Crop Production	108			

CD3	37.61	112	Virendra Singh	Baccha	Crop Production	112			
Kharauli (2C1A6f2g)									
CD1	12.128	876, 885	Rameshwar	Ravi Kumar	Crop Production	876			
CD2	26.458	900, 921	Kamlesh	Rajaram	Crop Production	900			
CD3	13.386	939, 941	Vardani	Deena Nath	Crop Production	939			
CD4	8.126	2137, 2134	Neelam	Nankoo Singh	Crop Production	2137			
CD5	32.694	995, 2151	Babadeen	Ramgopal	Crop Production	995			
CD6	29.972	1825	Babu Singh	Rajveer Singh	Crop Production	1825			
CD7	34.462	1138, 1139	Rama Shankar	Rajrani	Crop Production	1138			
CD8	8.124	1126, 1418	Ram Pratap	Chatrpal	Crop Production	1126			
WHB1	51.92	1709, 1674, 1673	Vijay	Jaswant	Crop Production	1709			
WHB2	58.53	1725, 11721, 1431	Ayodhya	Vimla Devi	Crop Production	1725			
Mau (2C1A6d1b)									
CD1	7.22	614	Vinda	Samarjeet	Crop Production	614			
CD2	8.61	664, 662	Shakuntla	Sabhajeet	Crop Production	664			
CD3	7.26	680, 686	Bachuraj	Vardani	Crop Production	680			
CD4	7.26	595	Rajendra	Hira Lal	Crop Production	595			
CD5	8.61	673	Ramsiya	Shivkaran	Crop Production	673			

CD6	9.96	1034	Devi Dayal	Bhiya Lal	Crop Production	1034			
CD7	11.32	698, 691	Bhajan	Vardani	Crop Production	698			
CD8	14.02	7.5, 702	Devi Dayal	Shiv Sagar	Crop Production	702			
CD9	5.91	1003, 1002	Rani	Vardani	Crop Production	1003			
CD10	5.91	712	Baini Madhau	Sukhnandan	Crop Production	712			
CD11	14.02	724, 726	Baini Madhau	Samarjeet	Crop Production	724			
CD12	5.91	788, 781, 802	Vijay	Sabhajeet	Crop Production	788			
CD13	7.26	831	Baddri	Vardani	Crop Production	831			
CD14	8.61	3428, 3330	Ramesh Kumar	Hira Lal	Crop Production	3428			
CD15	17.26	886, 896	Gaya	Shivkaran	Crop Production	886			
CD16	18.32	1114, 1112	Ramchandra	Bhiya Lal	Crop Production	1114			
CD17	19.32	1303	Ramratan	Bhiyadeen	Crop Production	1303			
CD18	21.32	1198	Ramkrishn	Virendra Singh	Crop Production	1198			
CD19	12.67	1172, 1177	Babu Lal	Bhoora	Crop Production	1172			
CD20	14.5	1188	Chatrpal	Dev Pratap	Crop Production	1188			
CD21	11.86	1255, 1256	Chedi Lal	Shivram	Crop Production	1255			
CD22	24.4	1321, 1324	Baini Madhau	Kuldeep Singh	Crop Production	1321			

WHB1	50.05	1368 to 1370	Matganjan	Jitendra kumar	Crop Production	1368			
Budauli (2C1A6f2a)									
CD1	10.53	750, 744	Shivram	Babu	Crop Production	750			
CD2	29.41	833	Kuldeep Singh	Shivram	Crop Production	833			
CD1	4.419	1302, 1229	Rmabhavan	Kunvar Bahadur	Crop Production	1302			
CD2	4.419	707, 742	Prahlad	Shiv Lal	Crop Production	707			
CD3	34.627	675, 676	Sukhnandan	Jagroop	Crop Production	675			
CD4	21.077	168, 166,	Samarjeet	Sabhajeet	Crop Production	168			
CD5	5.892	107	Chunbad	Savitri	Crop Production	107			
CD6	8.824	271, 267	Shivram	Ramnaresh	Crop Production	271			
CD7	4.419	249, 257	Shivram	Ramvishal	Crop Production	249			
CD8	5.587	251, 255	Ratifal	Chunbaad	Crop Production	251			
CD1	8.31	687, 696	Shiv	Pratap Singh	Crop Production	687			
CD2	8.78	719, 720, 721	Devideen	Shiv Lal	Crop Production	719			
CD3	10.74	624, 712	Babu	Krishn Bihari	Crop Production	624			
CD4	38.98	606, 612	Shivram	Savitri	Crop Production	606			
CD5	12.08	739, 733, 736	Kunvar Bahadur	Ramnaresh	Crop Production	739			
CD6	38.8	6042, 6022	Shiv Lal	Ramvishal	Crop	6042			

					Production				
CD7	9.03	6079, 6060	Samarjeet	Sabhajeet	Crop Production	6079			
CD8	9.03	6118, 6119	Chunbad	Savitri	Crop Production	6118			
CD9	40.69	6135, 6123	Shivram	Ramnaresh	Crop Production	6135			
CD10	34.73	6063	Shivram	Ramvishal	Crop Production	6063			
CD11	15.68	5876, 6793	Ratifal	Chunbaad	Crop Production	5876			
CD12	18.8	5772, 5766, 5767	Shiv	Pratap Singh	Crop Production	5772			
Pachoha (2C1A6a2c)									
CD1	5.536	688, 686	Babu	Shivram	Crop Production	688			
CD2	6.458	719	Shivram	Kuldeep Singh	Crop Production	719			
CD3	7.382	1993	Kunvar Bahadur	Rmabhavan	Crop Production	1993			
CD4	27.826	1988	Shiv Lal	Prahlad	Crop Production	1988			
CD5	31.906	2204	Jagroop	Sukhnandan	Crop Production	2204			
CD6	9.97	2350	Sabhajeet	Samarjeet	Crop Production	2350			
CD7	35.172	2407, 2145	Samrjeet	Sabhajeet	Crop Production	2407			
CD8	36.594	902, 904	Ramgopal	Vardani	Crop Production	902			
CD9	38.706	971	Ballu	Hira Lal	Crop Production	971			
CD10	31.518	951, 949	Hira Lal	Shivkaran	Crop Production	951			

CD11	38.91	1264, 1281, 1282	Bacchi	Bhiya Lal	Crop Production	1264			
CD12	30.774	1305, 1353	Swamideen	Bhiyadeen	Crop Production	1305			
CD13	26.49	1565	Jaswant	Virendra Singh	Crop Production	1565			
CD14	36.396	3349	Gyan Babu	Ram Kumari	Crop Production	3349			
CD15	38.716	3346	Jaswant	Vijay	Crop Production	3346			
CD16	41.578	3367, 3472	Jaswant	Savitri	Crop Production	3367			
CD17	42.934	3502, 3503	Brij Kishor	Ramnaresh	Crop Production	3502			
CD18	36.598	3676, 3677	Shivram	Samar Singh	Crop Production	3676			
WHB1	41.358	1939	Avadh Bihari	Sangakara	Crop Production	1939			
Budhauli (2C1A6f4e)									
CD1	5.71	5203, 5215	Prahlad	Shiv Lal	Crop Production	5203			
CD2	21.23	5195, 5189	Sukhnandan	Jagroop	Crop Production	5195			
CD3	6.35	5424	Samarjeet	Sabhajeet	Crop Production	5424			
CD4	22.5	4774, 4776	Chunbad	Savitri	Crop Production	4774			
CD5	8.8	4752	Shivram	Ramnaresh	Crop Production	4752			
CD6	24.81	4695, 5639	Shivram	Ramvishal	Crop Production	4695			
CD7	5.18	5440	Ratifal	Chunbaad	Crop Production	5440			
CD8	7.62	5608, 5590	Shiv	Pratap Singh	Crop	5608			

					Production				
CD9	4.84	5288, 5318	Devideen	Shiv Lal	Crop Production	5288			
CD10	7.05	5450	Babu	Krishn Bihari	Crop Production	5450			
CD11	5.08	5490, 5591,	Shivram	Savitri	Crop Production	5490			
CD12	7.05	5504, 5505	Kunvar Bahadur	Ramnaresh	Crop Production	5504			
CD13	9.29	5572, 3954	Shiv Lal	Ramvishal	Crop Production	5572			
CD14	25.52	5594, 5570	Samarjeet	Sabhajeet	Crop Production	5594			
RCD1	15.23	5729, 5727	Chunbad	Savitri	Crop Production	5729			
RCD2	39.65	5759, 5754	Shivram	Ramnaresh	Crop Production	5759			
Mau (2C1A6d4a)									
CD1	11.44	2212, 2211	Ramsingh		Crop Production	2212			
CD2	19.36	2547, 2575	Ramprasad		Crop Production	2547			
CD3	18.97	2611, 2619	Abhimanyu		Crop Production	2611			
CD4	17.09	2602, 2598	Shivmangal		Crop Production	2602			
CD5	11.64	1745, 1742	Ramashre		Crop Production	1745			
CD6	12.24	1427	Lal singh		Crop Production	1427			
CD7	12.24	2598, 2597	jagmohan		Crop Production	2598			
CD8	11.02	1421 , 1450	Shivsevak		Crop Production	1421			

CD9	12.24	1408, 1410	Bachchuraj		Crop Production	1408			
CD10	12.24	2857	Ramnarayn, Muluva		Crop Production	2857			
CD11	12.24	2865	Anyapurn		Crop Production	2865			
CD12	12.24	2759, 2765	Sukurva		Crop Production	2759			
CD13	12.24	2764, 2684	Narendra		Crop Production	2764			
CD14	20.35	2767, 2683	Shivnarayn		Crop Production	2767			
CD15	12.24	2941, 2938	Baruaputli		Crop Production	2941			
CD16	14.94	2966, 2964	Nandan		Crop Production	2966			
CD17	12.24	3081, 3132	jagatpal		Crop Production	3081			
CD18	10.19	2123, 3128	Shikka, Shivprasad		Crop Production	2123			
CD19	10.19	3117, 4414	Gajodhar		Crop Production	3117			
CD20	8.18	4432, 4424	Ramashanker		Crop Production	4432			
CD21	12.24	3036	Mahaveer		Crop Production	3036			
CD22	10.19	5890	Vinda singh		Crop Production	5890			
CD23	12.24	5903			Crop Production	5903			
CD24	12.24	4084, 4044	Raghuraj singh		Crop Production	4084			
CD25	9.53	4035	Gopal		Crop Production	4035			

CD26	9.53	5659, 5658	Kuvar singh		Crop Production	5659			
CD27	12.24	5808	Balkrashan		Crop Production	5808			
CD28	8.18	4093	Ramprasad	Shivram	Crop Production	4093			
CD29	10.19	4075	Ramsaran	Ratifal	Crop Production	4075			
CD30	12.24	4566	Subihari	Shiv	Crop Production	4566			
CD31	9.53	4555	kaisho	Shivram	Crop Production	4555			
CD32	14.94	4123, 4150	Ramautar	Ratifal	Crop Production	4123			
WHB1	77.34	2830, 2934, 2978, 2979, 2980	Kunvar Bahadur	Ramnaresh	Crop Production	2980			
WHB2	50.08	2798, 4041, 2092, 2830	Shiv Lal	Ramvishal	Crop Production	2830			

4.3 Convergence in IWMP-XVI, Banda

There is no planning of 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 10 EPA activities were executed in the project area which costed Rs. 20.85 lakh.

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	Remarks
Soil Conservation Division-Rastriyta jalagam, Banda	IWMP-XVI	2011-12	Kamasin	Mau	2C1A6d1b	2.45	Puliya Cons. Naali, Kharanja Road Repairment	2.45	
				Mau	2C1A6d4a	3.12		3.12	
				Kharauli	2C1A6f2g	2.25		2.25	
				Pachauhan	2C1A6a2c	3.41		3.41	
				Budhauli	2C1A6f2a	2.40		2.40	
				Pali	2C1A6f2b	2.42		2.42	
				Kamasin	2C1A6f1c	3.15		3.15	
				Budhauli	2C1A6f4e	1.64		1.64	
	Total					**20.85**		**20.85**	

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 wood
- 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 300 mm, equivalent to 30-45 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-XVI, Banda)

Sr. No.	Name of Micro Watershed	Cause	Type of erosion	Area affected (ha)	Run off (mm/ year)	Average Soil Loss (Tonnes/ ha/ year)
1	Mau 2C1A6d1b	Water erosion				
		a	Sheet	490.99	300	10-15
		b	Rill	287.18		
		c	Gully	148.22		
		Total		**926.40**		
2	Mau 2C1A6d4a	Water erosion				

		a	Sheet	482.50	300	10-15
		b	Rill	282.21		
		c	Gully	145.66		
		Total		**910.37**		
3	Kharauli 2C1A6f2g	Water erosion				
		a	Sheet	354.74	300	10-15
		b	Rill	207.49		
		c	Gully	107.09		
		Total		**669.33**		
4	Pachauhan 2C1A6a2c	Water erosion				
		a	Sheet	395.50	300	10-15
		b	Rill	231.33		
		c	Gully	119.40		
		Total		**746.23**		
5	Budhauli 2C1A6f2a	Water erosion				
		a	Sheet	360.89	300	10-15
		b	Rill	211.09		
		c	Gully	108.95		
		Total		**680.93**		
6	Pali 2C1A6f2b	Water erosion				
		a	Sheet	374.27	119	10-15
		b	Rill	218.91		
		c	Gully	112.99		
		Total		**706.17**		
7	Kamasin	Water erosion				

	2C1A6f1c	a	Sheet	485.58	300	10-15
		b	Rill	284.02		
		c	Gully	146.59		
		Total		**916.18**		
8	Budhauli 2C1A6f4e	Water erosion				
		a	Sheet	257.26	300	10-15
		b	Rill	150.47		
		c	Gully	77.66		
		Total		**485.39**		
	IWMP-XVI			**6041.00**		

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-XVI, Banda

Sr. No.	**Particular of Measures/Activities**	**Unit**	**Mau 2C1A6d1b**		**Mau 2C1A6d4a**		**Kharauli 2C1A6f2g**		**Pachauhan 2C1A6a2c**		**Budhauli 2C1A6f2a**	
		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)**
1	2	3	4	5	6	7	8	9	10	11	12	13
I	**Soil & Water Conservation Measures**											
	A- Moisture Conservation Measures											

	1. Peripheral Bund (with Sodding)	cum.	27144	13.27	10483	8.37						
	2. Marginal Bund (with Sodding)	cum.					26184	12.98	15090	9.76		
	3.Submergence Bundhi (with Sodding)	cum.									17232	8.37
	B- <u>Water Resource Development</u>											
	1. Check Dam / Drop Spill Way	No.	30955	18.31	53255.3	27.69	12656	11.12	36103.5	35.18	34916	25.30
	1a- Water storing capacity	cum.	6600	-	11520	-	3120	-	6300	-	8800	-
	1b. Area proposed for irrigation	ha	11.00	-	19.20	-	5.20	-	10.50	-	14.67	-
	2. Water Harvesting Bund with surplushing structure	No.	5400	2.76	10800	7.69	6945.1	7.42	2700	2.78		
	2a-Water storing capacity	cum.	1000		1300		1400		700			
	2b. Area proposed for irrigation by WHB	ha	2		2		2		1			
	Sub Total			**34.34**		**43.75**		**31.52**		**47.71**		**33.67**
II	**<u>Livelihood for landless People</u>**											
	1. Goatary	No. of SHGs/ No. of beneficiaries	3/30	0.75	4/40	1.00	3/30	0.75	4/40	1.00	3/30	0.75
	2. Back Yard Poultry	-do-	3/30	0.75	3/30	0.75	2/20	0.50	4/40	1.00	3/30	0.75
	3. Poultry (Broiler)	-do-	3/30	0.75	3/30	0.75	2/20	0.50	4/40	1.00	2/20	0.50

	4. Black Smithy	-do-	2/20	0.50	3/30	0.75	2/20	0.50	4/40	1.00	2/20	0.50
	5. Rope Making (Linseed)	-do-	2/20	0.50	3/30	0.75	2/20	0.50	3/30	0.75	2/20	0.50
	6. Tailoring	-do-	2/20	0.50	3/30	0.75	2/20	0.50	3/30	0.75	2/20	0.50
	7. Vermi composting	-do-	2/20	0.50	3/30	0.75	2/20	0.50	3/30	0.75	2/20	0.50
	8. Fruit Processing	-do-	2/20	0.50	3/30	0.75	2/20	0.50	3/30	0.75	3/30	0.75
	9. Seed Bank	-do-	3/30	0.77	3/30	0.78	3/30	0.82	3/30	0.67	3/30	0.66
	Sub Total		22/220	5.52	28/280	7.03	20/200	5.07	31/310	7.67	22/220	5.41
III	**Agriculture Production System**											
	A- Crop Demonstrations- (Crop Wise)											
	(1)SMC Area:											
	1. Lentil	No. of farmers / Area (ha)	8/3.2	0.38	9/3.6	0.43	7/2.8	0.33	10/100	0.47	8/3.2	0.38
	2. Chickpea	-do-	8/3.2	0.44	9/3.6	0.49	7/2.8	0.38	10/100	0.54	8/3.2	0.44
	3. Field Pea	-do-	8/3.2	0.46	9/3.6	0.52	7/2.8	0.40	10/100	0.57	7/2.8	0.40
	4. Til	-do-	8/3.2	0.14	9/3.6	0.15	7/2.8	0.12	10/100	0.17	7/2.8	0.12
	5. Urd	-do-	8/3.2	0.28	9/3.6	0.32	7/2.8	0.25	10/100	0.35	7/2.8	0.25
	6. Moong	-do-	8/3.2	0.29	9/3.6	0.33	7/2.8	0.26	10/100	0.36	7/2.8	0.26
	7. Arhar	-do-	8/3.2	0.24	9/3.6	0.27	7/2.8	0.21	10/100	0.30	7/2.8	0.21
	8. Wheat	-do-	8/3.2	0.46	9/3.6	0.52	7/2.8	0.40	10/100	0.58	7/2.8	0.40

	(2) Water Resource Area:											
	B- Production of seeds											
	1. Lentil	No. of farmers / Area (ha)	8/3.2	0.38	9/3.6	0.43	7/2.8	0.33	10/100	0.47	7/2.8	0.33
	2. Chickpea	-do-	8/3.2	0.44	9/3.6	0.49	7/2.8	0.38	10/100	0.54	7/2.8	0.38
	3. Field Pea	-do-	7/2.8	0.40	9/3.6	0.52	7/2.8	0.40	10/100	0.57	7/2.8	0.40
	4. Til	-do-	7/2.8	0.12	9/3.6	0.15	7/2.8	0.12	10/100	0.17	7/2.8	0.12
	5. Urd	-do-	7/2.8	0.25	9/3.6	0.32	7/2.8	0.25	10/100	0.35	7/2.8	0.25
	6. Moong	-do-	7/2.8	0.26	9/3.6	0.33	7/2.8	0.26	10/100	0.36	7/2.8	0.26
	7. Arhar	-do-	7/2.8	0.21	8/3.2	0.24	6/2.4	0.18	10/100	0.30	7/2.8	0.21
	8. Wheat	-do-	7/2.8	0.40	8/3.2	0.46	6/2.4	0.35	9/3.6	0.52	7/2.8	0.40
	Agro forestry:-											
	A. Agri-Horticultural System											
	Species											
	1- Aonla	Area in ha	2	0.36	3	0.54	2	0.36	3	0.54	2	0.36
	2. Guava	Area in ha	1	0.18	3	0.54	1	0.18	3	0.54	2	0.36
	Live Stock Management											
	A. fodder production	Farmers/ No. of Units	31	0.19	43	0.26	34	0.20	44	0.26	36	0.22

	B. Vaccination/Medication	No. of Animals	33	0.02	44	0.03	36	0.02	44	0.03	38	0.02
	C. Artificial Insemination	No. of Animals	33	0.01	44	0.02	36	0.01	44	0.02	38	0.02
	D. Natural Service.	He Buffalo	1	0.24	2	0.48	1	0.24	2	0.48	1	0.24
	Total for Ag. Production System			**6.13**		**7.81**		**5.63**		**8.52**		**6.01**
Grand Total				**39.86**		**50.78**		**36.58**		**55.38**		**39.08**

Cont.

Sr. No.	**Particular of Measures/Activities**	**Unit**	**Pali 2C1A6f2b**		**Kamasin 2C1A6f1c**		**Budhauli 2C1A6f4e**		**IWMP-XVI**	
		No., Length / ha, Volume	**Qanty.**	**Cost (Rs. In lakh)**	**Qanty.**	**Cost (Rs. In lakh)**	**Qanty.**	**Cost (Rs. In lakh)**	**Qanty.**	**Cost (Rs. In lakh)**
1	2	3	4	5	6	7	8	9	10	11
I	**Soil & Water Conservation Measures**									
	A- Moisture Conservation Measures									
	1. Peripheral Bund (with Sodding)	cum.	33810	13.93	32768	13.51	10888	4.48	115092	53.55
	2. Marginal Bund (with Sodding)	cum.					5200	2.14	46473	24.88
	3.Submergence Bundhi (with Sodding)	cum.	1890	0.78	62556	30.64	3336	1.38	85014	41.17
	B- <u>Water Resource Development</u>									
	1. Check Dam / Drop Spill Way	No.	11178.5	10.75			19357.9	14.92	198422	143.26

	1a- Water storing capacity	cum.	1800	-			5460	-	43600	
	1b. Area proposed for irrigation	ha	3.00	-			9.10	-	73	
	2. Water Harvesting Bund with surplushing structure	No.	10080	8.41					35925	29.06
	2a-Water storing capacity	cum.	1200						5600	
	2b. Area proposed for irrigation by WHB	ha	2						9	
	Sub Total			**33.87**		**44.15**		**22.92**		**291.92**
II	**Livelihood for landless People**									
	1. Goatary	No. of SHGs/ No. of beneficiaries	3/30	0.75	4/40	1.00	2/20	0.50	26	6.50
	2. Back Yard Poultry	-do-	3/30	0.75	3/30	0.75	2/20	0.50	23	5.75
	3. Poultry (Broiler)	-do-	3/30	0.75	3/30	0.75	1/10	0.25	21	5.25
	4. Black Smithy	-do-	2/20	0.50	3/30	0.75	1/10	0.25	19	4.75
	5. Rope Making (Linseed)	-do-	2/20	0.50	3/30	0.75	1/10	0.25	18	4.50
	6. Tailoring	-do-	2/20	0.50	3/30	0.75	2/20	0.50	19	4.75
	7. Vermi composting	-do-	2/20	0.50	3/30	0.75	2/20	0.50	19	4.75
	8. Fruit Processing	-do-	2/20	0.50	3/30	0.75	2/20	0.50	20	5.00
	9. Seed Bank	-do-	3/30	0.69	3/30	0.85	2/20	0.43	23	5.67
	Sub Total		22/220	5.44	28/280	7.10	15/150	3.68	188/1880	46.92
III	**Agriculture Production System**									

	(1)SMC Area									
	A- Crop Demonstrations- (Crop Wise)									
	1. Lentil	No. of farmers / Area (ha)	8/3.2	0.38	10/4.0	0.47	5/2.0	0.24	65/26.0	3.08
	2. Chickpea	-do-	8/3.2	0.44	10/4.0	0.54	5/2.0	0.27	65/26.0	3.54
	3. Field Pea	-do-	8/3.2	0.46	10/4.0	0.57	5/2.0	0.29	64/25.6	3.68
	4. Til	-do-	8/3.2	0.14	10/4.0	0.17	5/2.0	0.08	64/25.6	1.08
	5. Urd	-do-	8/3.2	0.28	10/4.0	0.35	5/2.0	0.18	64/25.6	2.27
	6. Moong	-do-	8/3.2	0.29	10/4.0	0.36	5/2.0	0.18	64/25.6	2.33
	7. Arhar	-do-	8/3.2	0.24	10/4.0	0.30	5/2.0	0.15	64/25.6	1.89
	8. Wheat	-do-	8/3.2	0.46	10/4.0	0.58	5/2.0	0.29	64/25.6	3.70
	(2) Water Resource Area:									
	B- Production of seeds									
	1. Lentil	No. of farmers / Area (ha)	7/2.8	0.33	9/3.6	0.43	5/2.0	0.24	62/24.8	2.94
	2. Chickpea	-do-	7/2.8	0.38	9/3.6	0.49	5/2.0	0.27	62/24.8	3.37
	3. Field Pea	-do-	7/2.8	0.40	9/3.6	0.52	5/2.0	0.29	61/24.4	3.50
	4. Til	-do-	7/2.8	0.12	9/3.6	0.15	5/2.0	0.08	61/24.4	1.03
	5. Urd	-do-	7/2.8	0.25	9/3.6	0.32	5/2.0	0.18	61/24.4	2.16
	6. Moong	-do-	7/2.8	0.26	9/3.6	0.33	5/2.0	0.18	61/24.4	2.22

	7. Arhar	-do-	7/2.8	0.21	9/3.6	0.27	5/2.0	0.15	59/23.6	1.74
	8. Wheat	-do-	7/2.8	0.40	9/3.6	0.52	4/1.6	0.23	57/22.8	3.30
	Agro forestry:-									
	1- Aonla	Area in ha	2	0.36	2	0.36	1	0.18	17	3.06
	2. Guava	Area in ha	1	0.18	2	0.36	1	0.18	14	2.52
	Live Stock Management									
	A. fodder production	Farmers/ No. of Units	34	0.20	44	0.26	28	0.17	294	1.76
	B. Vaccination/Medication	No. of Animals	34	0.02	43	0.03	28	0.02	300	0.18
	C. Artificial Insemination	No. of Animals	34	0.01	43	0.02	28	0.01	300	0.12
	D. Natural Service.	He Buffalo	1	0.24	2	0.48	1	0.24	11	2.64
	Total for Ag. Production System			**6.05**		**7.88**		**4.09**		**52.13**
Grand Total				**39.31**		**51.25**		**26.60**		**390.96**

Table 5.3: Gram Panchayat wise details of Watershed Development Activities proposed in IWMP-XVI, Banda

Sr. No.	Particular of Measures/Activities	Unit	Marka		Sanda		Mau		Armar		Para Banno Begum	
		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)
1	2	3	4	5	6	7	8	9	10	11	12	13
I	**Soil & Water Conservation Measures**											
	A- Moisture Conservation Measures											
	1. Peripheral Bund (with Sodding)	cum.			1669	0.78	38576	17.95	3611	1.68	0.91	1961
	2. Marginal Bund (with Sodding)	cum.			674	0.36	15577	8.34			0.42	792
	3.Submergence Bundhi (with Sodding)	cum.	2359	1.14	1233	0.60	28495	13.80			0.70	1448
	B- <u>Water Resource Development</u>										3380	2.44
	1. Check Dam / Drop Spill Way	No.			2878	2.08	66506	48.02			743	0.00
	1a- Water storing capacity	cum.			632	0.00	14614	0.00			1	0.00
	1b. Area proposed for irrigation	ha			1.1	0.00	24	0.00			612	0.49
	2. Water Harvesting Bund with surplushing structure	No.			521	0.42	12041	9.74			95	0.00
	2a-Water storing capacity	cum.			81	0.00	1877	0.00			0.16	0.00

	2b. Area proposed for irrigation by WHB	ha			0.1	0.00	3	0.00			3380	2.44
	Sub Total			**1.14**		**4.23**		**97.84**		**1.68**		**4.97**
II	**Livelihood for landless People**											
	1. Goatary	No. of SHGs/ No. of beneficiaries	0	0.00	1/10	0.25	8/80	2.00	0	0.00	1/10	0.25
	2. Back Yard Poultry	-do-	0	0.00	1/10	0.25	7/70	1.75	0	0.00	1/10	0.25
	3. Poultry (Broiler)	-do-	0	0.00	0	0.00	7/70	1.75	0	0.00	0	0.00
	4. Black Smithy	-do-	0	0.00	0	0.00	7/70	1.75	0	0.00	0	0.00
	5. Rope Making (Linseed)	-do-	0	0.00	0	0.00	9/90	2.25	0	0.00	0	0.00
	6. Tailoring	-do-	0	0.00	0	0.00	7/70	1.75	0	0.00	0	0.00
	7. Vermi composting	-do-	0	0.00	0	0.00	7/70	1.75	0	0.00	0	0.00
	8. Fruit Processing	-do-	0	0.00	0	0.00	7/70	1.75	0	0.00	0	0.00
	9. Seed Bank	-do-	1/10	0.18	1/10	0.18	3/30	0.97	1/10	0.27	1/10	0.30
	Sub Total		1/10	0.18	3/30	0.68	62/620	15.72	1/10	0.27	3/30	0.80
III	**Agriculture Production System**											
	A- Crop Demonstrations- (Crop Wise)											
	(1)SMC Area:											
	1. Lentil	No. of farmers / Area (ha)	1/0.4	0.05	2/0.8	0.09	17	0.81	1/0.4	0.05	2	0.09
	2. Chickpea	-do-	1/0.4	0.05	1/0.4	0.05	18	0.98	1/0.4	0.05	2	0.11

	3. Field Pea	-do-	1/0.4	0.06	1/0.4	0.06	18	1.03	1/0.4	0.06	1/0.4	0.06
	4. Til	-do-	1/0.4	0.02	1/0.4	0.02	18	0.30	1/0.4	0.02	1/0.4	0.02
	5. Urd	-do-	0	0.00	1/0.4	0.04	19	0.67	1/0.4	0.04	1/0.4	0.04
	6. Moong	-do-	0	0.00	1/0.4	0.04	19	0.69	1/0.4	0.04	1/0.4	0.04
	7. Arhar	-do-	0	0.00	1/0.4	0.03	20	0.59	1/0.4	0.03	1/0.4	0.03
	8. Wheat	-do-	0	0.00	1/0.4	0.06	22	1.27	0	0.00	1/0.4	0.06
	(2) Water Resource Area:											
	B- Production of seeds											
	1. Lentil	No. of farmers / Area (ha)	0	0.00	1/0.4	0.05	21/8.4	1.00	0	0.00	1/0.4	0.05
	2. Chickpea	-do-	0	0.00	1/0.4	0.05	21/8.4	1.14	0	0.00	1/0.4	0.05
	3. Field Pea	-do-	0	0.00	1/0.4	0.06	21/8.4	1.21	0	0.00	1/0.4	0.06
	4. Til	-do-	0	0.00	1/0.4	0.02	21/8.4	0.36	0	0.00	1/0.4	0.02
	5. Urd	-do-	0	0.00	1/0.4	0.04	21/8.4	0.74	0	0.00	1/0.4	0.04
	6. Moong	-do-	0	0.00	1/0.4	0.04	21/8.4	0.77	0	0.00	1/0.4	0.04
	7. Arhar	-do-	0	0.00	1/0.4	0.03	20/8.0	0.59	0	0.00	1/0.4	0.03
	8. Wheat	-do-	0	0.00	1/0.4	0.06	18/7.2	1.04	0	0.00	1/0.4	0.06
	Agro forestry:-											
	A. Agri-Horticultural System											

	Species											
	1- Aonla	Area in ha	0	0.00	0	0.00	8	1.44	0	0.00	0	0.00
	2. Guava	Area in ha	0	0.00	0	0.00	6	1.08	0	0.00	0	0.00
	Live Stock Management											
	A. fodder production	Farmers/ No. of Units	3	0.02	3	0.02	88	0.53	0	0.00	15	0.09
	B. Vaccination/Medication	No. of Animals	16	0.01	19	0.01	30	0.02	22	0.01	25	0.02
	C. Artificial Insemination	No. of Animals	0	0.00	19	0.01	30	0.01	22	0.01	25	0.01
	D. Natural Service.	He Buffalo	0	0.00	0	0.00	5	1.20	0	0.00	0	0.00
	Total for Ag. Production System			**0.20**		**0.76**		**17.47**		**030**		**0.89**
Grand Total				**1.33**		**4.91**		**113.57**		**1.95**		**5.77**

Cont.

Sr. No.	Particular of Measures/Activities	Unit	Budhaule		Kumhedasani		Pannah		Pali		Andauli	
		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. Peripheral Bund (with Sodding)	cum.	10253	4.77	24792	11.54	2199	1.02	1007	0.47	1466	0.68
	2. Marginal Bund (with Sodding)	cum.	4140	2.22	11469	6.14	888	0.48	407	0.22	1613	0.86
	3.Submergence Bundhi (with Sodding)	cum.	7574	3.67	18620	9.02	1624	0.79	744	0.36		
	B- <u>Water Resource Development</u>											
	1. Check Dam / Drop Spill Way	No.	17677	12.76	48966	35.35	3791	2.74	1736	1.25		
	1a- Water storing capacity	cum.	3884	0.00	10759	0.00	833	0.00	381	0.00		
	1b. Area proposed for irrigation	ha	6	0.00	18	0.00	1.39	0.00	0.64	0.00		
	2. Water Harvesting Bund with surplushing structure	No.	3201	2.59	8865	7.17	686	0.56	314	0.25		
	2a-Water storing capacity	cum.	499	0.00	1382	0.00	107	0.00	49	0.00		
	2b. Area proposed for irrigation by WHB	ha	1	0.00	2	0.00	0.18	0.00	0.08	0.00		
	Sub Total			**26.01**		**69.22**		**5.58**		**2.55**		**1.55**

II	**Livelihood for landless People**											
	1. Goatary	No. of SHGs/ No. of beneficiaries	2/20	0.50	5/50	1.25	1/10	0.25	1/10	0.25	0	0.00
	2. Back Yard Poultry	-do-	2/20	0.50	5/50	1.25	1/10	0.25	0	0.00	0	0.00
	3. Poultry (Broiler)	-do-	2/20	0.50	5/50	1.25	1/10	0.25	0	0.00	0	0.00
	4. Black Smithy	-do-	2/20	0.50	5/50	1.25	0	0.00	0	0.00	0	0.00
	5. Rope Making (Linseed)	-do-	1	0.25	4	1.00	0	0.00	0	0.00	0	0.00
	6. Tailoring	-do-	2/20	0.50	5/50	1.25	0	0.00	0	0.00	0	0.00
	7. Vermi composting	-do-	2/20	0.50	5/50	1.25	0	0.00	0	0.00	0	0.00
	8. Fruit Processing	-do-	2/20	0.50	5/50	1.25	0	0.00	0	0.00	0	0.00
	9. Seed Bank	-do-	2/20	0.43	5/50	1.37	1/10	0.15	1/10	0.16	1/10	0.25
	Sub Total		17/170	4.18	44/440	11.12	4/40	0.90	2/20	0.41	1/10	0.25
III	**Agriculture Production System**											
	(1)SMC Area											
	A- Crop Demonstrations- (Crop Wise)											
	1. Lentil	No. of farmers / Area (ha)	6/2.4	0.28	15/6.0	0.71	2/0.8	0.09	1/0.4	0.05	1	0.05
	2. Chickpea	-do-	6/2.4	0.33	15/6.0	0.82	2/0.8	0.11	1/0.4	0.05	1	0.05
	3. Field Pea	-do-	6/2.4	0.34	15/6.0	0.86	2/0.8	0.11	1/0.4	0.06	1	0.06
	4. Til	-do-	6/2.4	0.10	15/6.0	0.25	2/0.8	0.03	1/0.4	0.02	1	0.02

	5. Urd	-do-	6/2.4	0.21	15/6.0	0.53	2/0.8	0.07	1/0.4	0.04	1	0.04
	6. Moong	-do-	6/2.4	0.22	15/6.0	0.55	2/0.8	0.07	1/0.4	0.04	1	0.04
	7. Arhar	-do-	6/2.4	0.18	15/6.0	0.44	2/0.8	0.06	1/0.4	0.03	0	0.00
	8. Wheat	-do-	6/2.4	0.35	15/6.0	0.87	1/0.4	0.06	1/0.4	0.06	0	0.00
	(2) Water Resource Area:											
	B- Production of seeds											
	1. Lentil	No. of farmers / Area (ha)	6/2.4	0.28	14/5.6	0.66	1/0.4	0.05	1/0.4	0.05	0	0.00
	2. Chickpea	-do-	6/2.4	0.33	14/5.6	0.76	1/0.4	0.05	1/0.4	0.05	0	0.00
	3. Field Pea	-do-	6/2.4	0.34	14/5.6	0.80	1/0.4	0.06	0	0.00	0	0.00
	4. Til	-do-	6/2.4	0.10	14/5.6	0.24	1/0.4	0.02	0	0.00	0	0.00
	5. Urd	-do-	6/2.4	0.21	14/5.6	0.50	1/0.4	0.04	0	0.00	0	0.00
	6. Moong	-do-	6/2.4	0.22	14/5.6	0.51	1/0.4	0.04	0	0.00	0	0.00
	7. Arhar	-do-	6/2.4	0.18	14/5.6	0.41	1/0.4	0.03	0	0.00	0	0.00
	8. Wheat	-do-	6/2.4	0.35	14/5.6	0.81	1/0.4	0.06	0	0.00	0	0.00
	Agro forestry:-											
	1- Aonla	Area in ha	2	0.36	4	0.72	0	0.00	0	0.00	0	0.00
	2. Guava	Area in ha	1	0.18	4	0.72	0	0.00	0	0.00	0	0.00
	Live Stock Management											
	A. fodder production	Farmers/ No. of Units	11	0.07	73	0.44	5	0.03	0	0.00	2	0.01

	B. Vaccination/Medication	No. of Animals	14	0.01	21	0.02	18	0.01	19	0.01	16	0.01
	C. Artificial Insemination	No. of Animals	14	0.01	49	0.02	17	0.01	19	0.01	16	0.01
	D. Natural Service.	He Buffalo	0	0.00	3	0.72	0	0.00	0	0.00	0	0.00
	Total for Ag. Production System			**4.64**		**12.36**		**1.00**		**0.46**		**0.28**
Grand Total				**30.19**		**80.34**		**6.47**		**2.96**		**1.79**

Cont.

Sr. No.	**Particular of Measures/Activities**	**Unit**	**Kharauli**		**Kamasin**		**Pachauha**		**IWMP-XVI**	
		No., Length / ha, Volume	**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. Peripheral Bund (with Sodding)	cum.	2861	1.33	21955	10.22	4743	2.21	115092	53.55
	2. Marginal Bund (with Sodding)	cum.	1155	0.62	7845	4.20	1915	1.03	46473	24.88
	3.Submergence Bundhi (with Sodding)	cum.	2114	1.02	17300	8.38	3503	1.70	85014	41.17
	B- <u>Water Resource Development</u>									
	1. Check Dam / Drop Spill Way	No.	4933	3.56	40379	29.15	1797	0.00	198422	143.26
	1a- Water storing capacity	cum.	1084	0.00	8873	0.00	3.0	0.00	43600	
	1b. Area proposed for irrigation	ha	1.8	0.00	15	0.00	1480.3	1.20	73	

	2. Water Harvesting Bund with surplushing structure	No.	893	0.72	7311	5.91	230.8	0.00	35925	29.06
	2a-Water storing capacity	cum.	139	0.00	1140	0.00	0.4	0.00	5600	
	2b. Area proposed for irrigation by WHB	ha	0.2	0.00	2	0.00	1797	0.00	9	
	Sub Total			**7.26**		**57.86**		**12.03**		**291.92**
II	**Livelihood for landless People**									
	1. Goatary	No. of SHGs/ No. of beneficiaries	1/10	0.25	5/50	1.25	1/10	0.25	26/260	6.50
	2. Back Yard Poultry	-do-	1/10	0.25	4/40	1.00	1/10	0.25	23/230	5.75
	3. Poultry (Broiler)	-do-	1/10	0.25	4/40	1.00	1/10	0.25	21/210	5.25
	4. Black Smithy	-do-	0	0.00	4/40	1.00	1/10	0.25	19/190	4.75
	5. Rope Making (Linseed)	-do-	0	0.00	4/40	1.00	0	0.00	18/180	4.50
	6. Tailoring	-do-	0	0.00	4/40	1.00	1/10	0.25	19/190	4.75
	7. Vermi composting	-do-	0	0.00	4/40	1.00	1/10	0.25	19/190	4.75
	8. Fruit Processing	-do-	1/10	0.25	4/40	1.00	1/10	0.25	20/200	5.00
	9. Seed Bank	-do-	1/10	0.17	4/40	1.05	1/10	0.18	23/230	5.67
	Sub Total		5/50	1.17	37/370	9.30	8/80	1.93	188/1880	46.92
III	**Agriculture Production System**									
	(1)SMC Area									
	A- Crop Demonstrations-									

	(Crop Wise)									
	1. Lentil	No. of farmers / Area (ha)	2/0.8	0.09	12/4.8	0.57	3/1.2	0.14	65/26.0	3.08
	2. Chickpea	-do-	2/0.8	0.11	12/4.8	0.65	3/1.2	0.16	65/26.0	3.54
	3. Field Pea	-do-	2/0.8	0.11	12/4.8	0.69	3/1.2	0.17	64/25.6	3.68
	4. Til	-do-	2/0.8	0.03	12/4.8	0.20	3/1.2	0.05	64/25.6	1.08
	5. Urd	-do-	2/0.8	0.07	12/4.8	0.43	3/1.2	0.11	64/25.6	2.27
	6. Moong	-do-	2/0.8	0.07	12/4.8	0.44	3/1.2	0.11	64/25.6	2.33
	7. Arhar	-do-	2/0.8	0.06	12/4.8	0.35	3/1.2	0.09	64/25.6	1.89
	8. Wheat	-do-	2/0.8	0.12	12/4.8	0.69	3/1.2	0.17	64/25.6	3.70
	(2) Water Resource Area:									
	B- Production of seeds									
	1. Lentil	No. of farmers / Area (ha)	2/0.8	0.09	12/4.8	0.57	3/1.2	0.14	62/24.8	2.94
	2. Chickpea	-do-	2/0.8	0.11	12/4.8	0.65	3/1.2	0.16	62/24.8	3.37
	3. Field Pea	-do-	2/0.8	0.11	12/4.8	0.69	3/1.2	0.17	61/24.4	3.50
	4. Til	-do-	2/0.8	0.03	12/4.8	0.20	3/1.2	0.05	61/24.4	1.03
	5. Urd	-do-	2/0.8	0.07	12/4.8	0.43	3/1.2	0.11	61/24.4	2.16
	6. Moong	-do-	2/0.8	0.07	12/4.8	0.44	3/1.2	0.11	61/24.4	2.22
	7. Arhar	-do-	1/0.4	0.03	12/4.8	0.35	3/1.2	0.09	59/23.6	1.74

	8. Wheat	-do-	1/0.4	0.06	12/4.8	0.69	3/1.2	0.17	57/22.8	3.30
	Agro forestry:-									
	1- Aonla	Area in ha	0	0.00	3	0.54	0	0.00	17	3.06
	2. Guava	Area in ha	0	0.00	3	0.54	0	0.00	14	2.52
	Live Stock Management									
	A. fodder production	Farmers/ No. of Units	6	0.04	69	0.41	19	0.11	294	1.76
	B. Vaccination/Medication	No. of Animals	10	0.01	68	0.04	22	0.01	300	0.18
	C. Artificial Insemination	No. of Animals	0	0.00	68	0.03	21	0.01	300	0.12
	D. Natural Service.	He Buffalo	0	0.00	3	0.72	0	0.00	11	2.64
	Total for Ag. Production System			**1.30**		**10.33**		**2.15**		**52.13**
Grand Total				**8.42**		**67.16**		**13.96**		**390.96**

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			

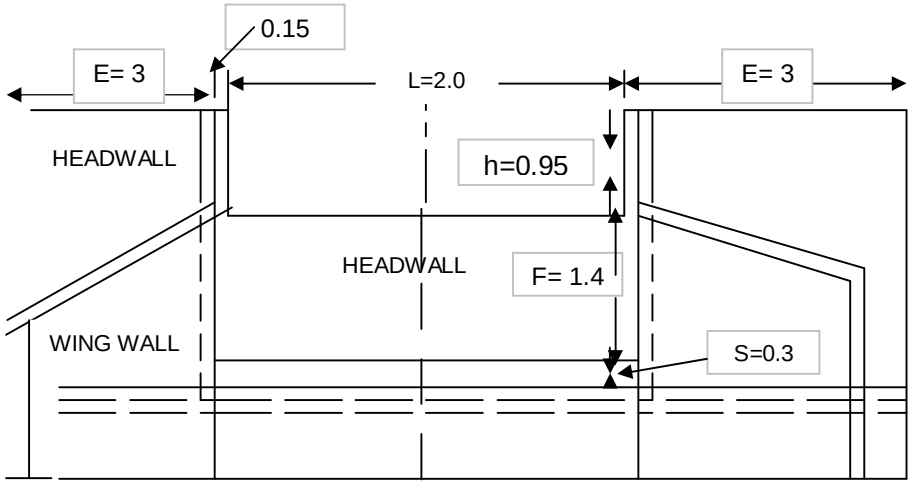
	o) Wing wall on both side-Above Part-I mentioned in (l): Part -II	4.00	0.60	0.30	0.72	Avg. ht. of triangle portion=	0.30	
	p) Toe wall: Part I	2.30	0.70	0.50	0.81			
	q) Toe wall: Part II	2.30	0.60	0.50	0.69			
	r) Transverse Sill	2.30	0.50	0.30	0.35			
	s) Apron	2.70	2.30	0.25	1.55			
					56.16			
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**

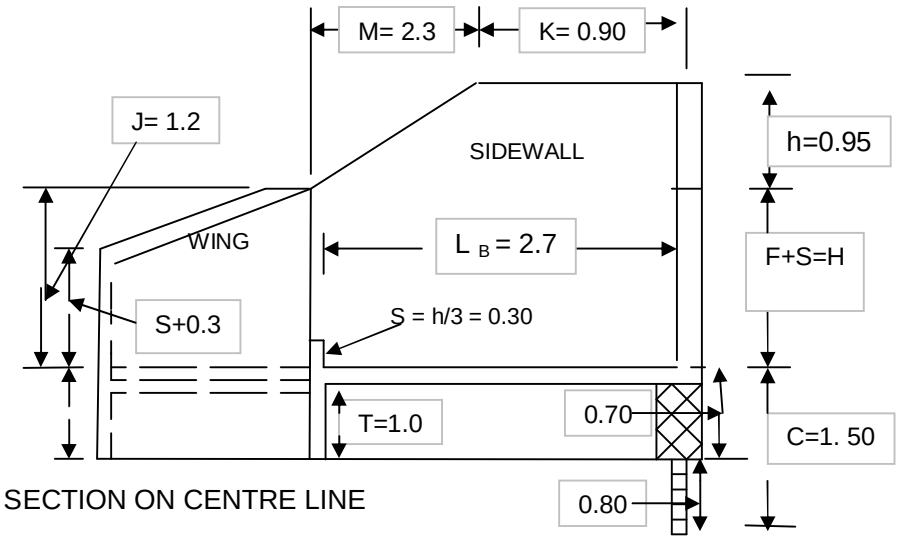
COST ABSTRACT

	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)				

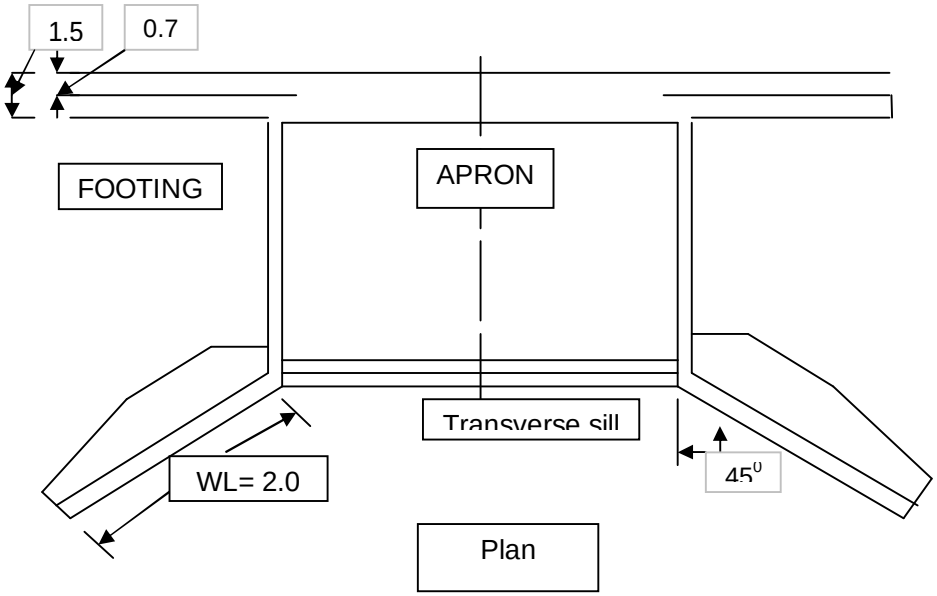
Note: The cost of materials is inclusive of all taxes and transportation to the site. It is based on the prevailing market rates. It may vary with respect to time



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			

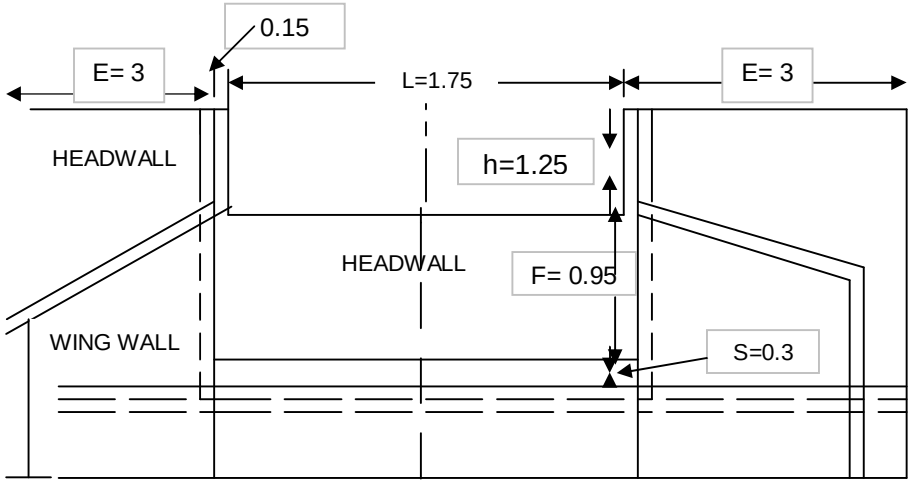
	d) Side wall both side (RHS and LHS)-Part-III	4.00		0.500	2.00	Avg. ht. of triangle portion=	0.500	
	e) Wing wall both side-Part I	4.00		0.60	2.40			
	f) Wing wall both side-Part I	4.00		0.30	1.20	Avg. ht. of triangle portion=	0.30	
				Total	**24.49**			
9	**Filling of black clay soil in the up stream (free from any kind of gravel)**				**5.00**	trolly		

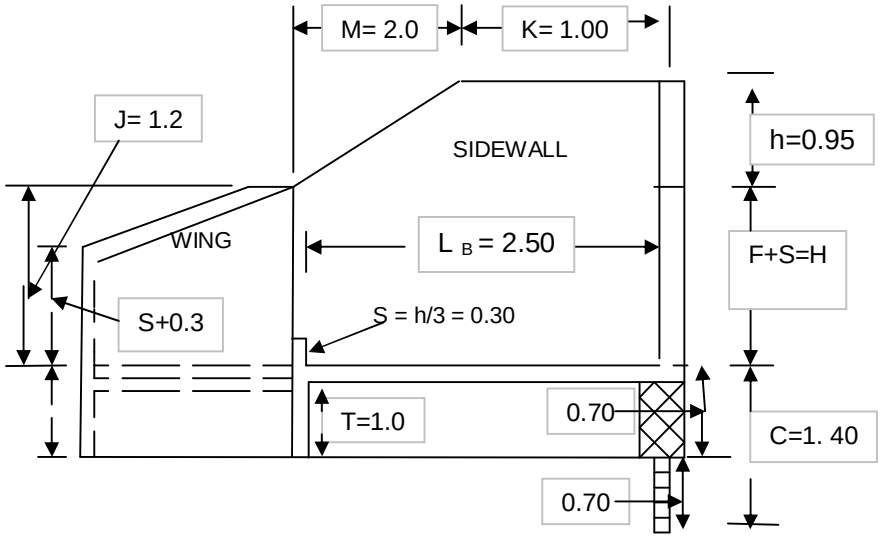
MATERIAL ABSTRACT												
						Required Quantiy						
						Quantiy,cum	Cement,bags	Sand,cum	Conc ,cum	Khanda (cum)	Boulder(cum)	MS Bar (q)
1	Cement Concrete mix (1:2:4): 12 mm conc.					0.71	4.51	0.32	0.63			
2	Cement Concrete mix (1:4:8); 20 mm conc.					2.94	10.00	1.38	2.76			
3	Stone Maspnary 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**

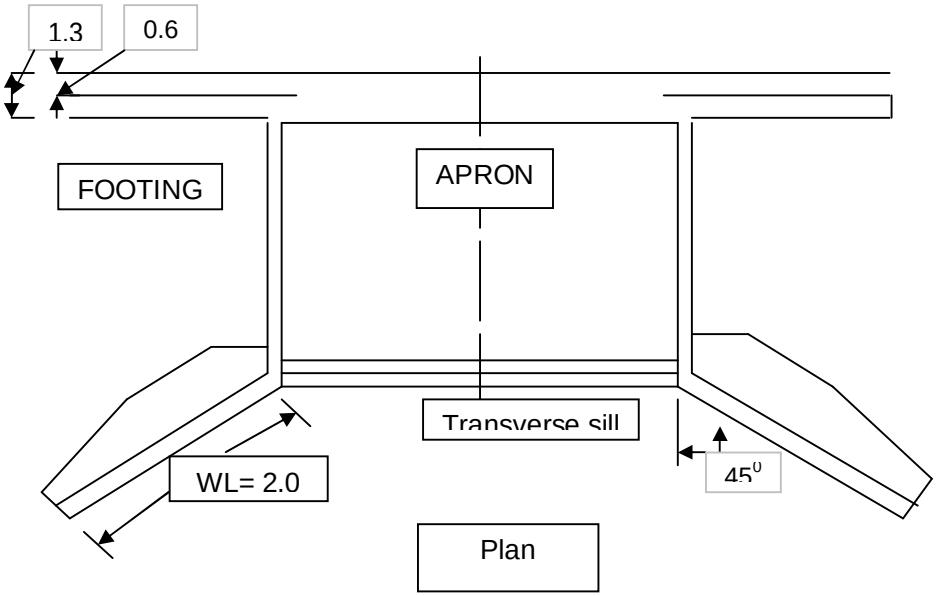
COST ABSTRACT

	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

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. 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			

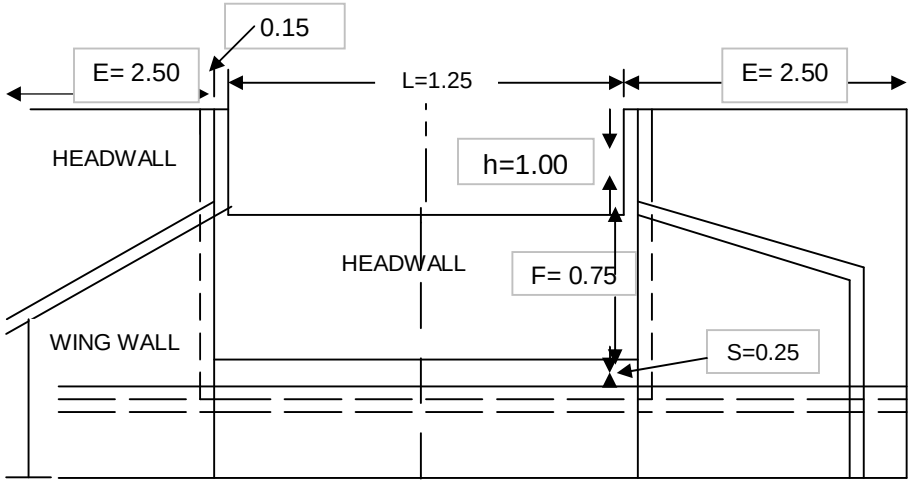
	r) End Sill	1.50	0.50	0.25	0.19			
	s) Apron	2.00	1.50	0.25	0.75			
					29.11			
6	**M S Bar (10 mm, q)**				**1.00**			
7	**Providing rough stone pitching in u/s (both side)**	35.00	1.75	0.20	**12.25**			
8	**Cement pointing to stone masonary in CM 1:3 (sqm)**							
	a) Headwall both side + Extension 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**

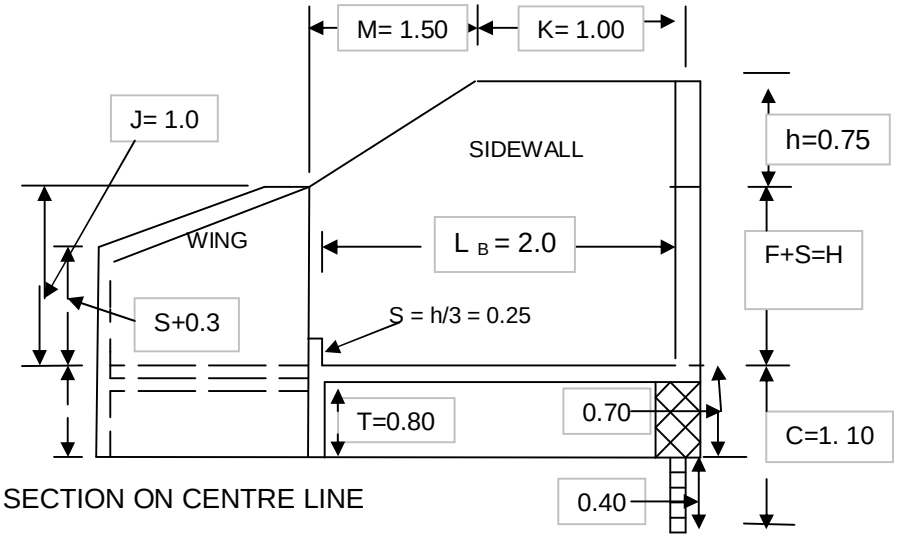
COST ABSTRACT

	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)				

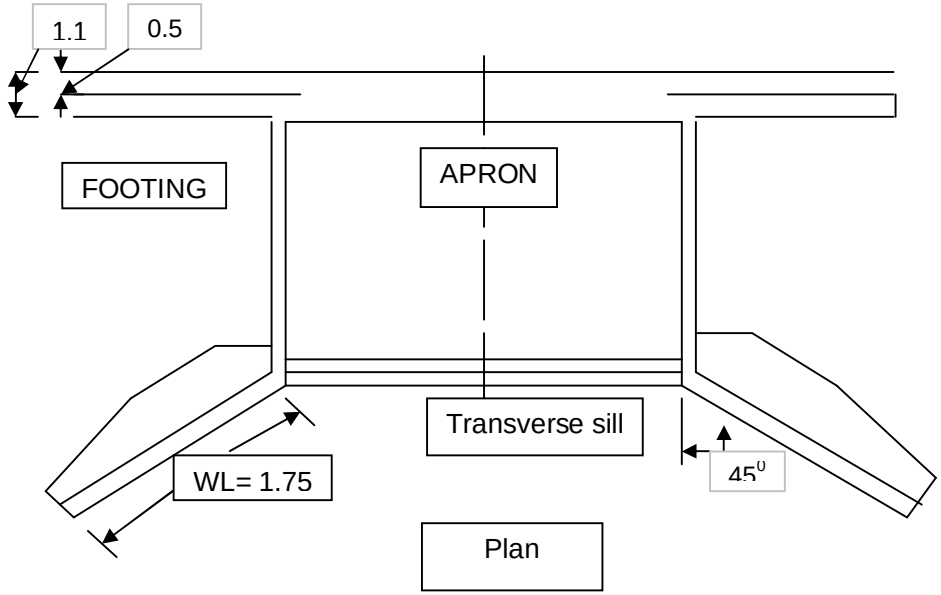
Note: The cost of materials is inclusive of all taxes and transportation to the site. It is based on the prevailing market rates. It may vary with respect to time



DOWN STREAM ELEVATION



SECTION ON CENTRE LINE



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

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.

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	Area(s) of specialization	No. of training assigned	No. of persons to be trained	Allocation to be made to the institute
1.	Krishi Vigyan Kendra	Kamasin, Banda	Programme Coordinator	Agriculture University	Extension Agronomy Home Science Soil Science	16	800	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	16	800	-do-
3	District Gram Vikash Sansthan	Vikash Bhawan, Banda	Coordinator	State Govt.	Small scale	4	100	-do-
4	Indian Institute of Grass Land	Gwalior Road, Jhansi	Director, Jhansi	GoI (ICAR)	Grasses and fodder	4	100	-do-
5	Deptt. Of Horticulture	Banda	Deputy Director	State Govt.	Fruit and Vegetable Production	2	50	-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, Kamasin, Banda
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	Lectures and practical exercise	National Research Center for Agro-forestry, Gwalior Road, Jhansi

				accounts		
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. Frontier technologies viz. GIS and Remote Sensing techniques will be used by the PIA/District Watershed Committee Development (DWCD) 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 parametes 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. 521.28 lakh) with IWMP-XVI, district Banda is given in Table 7.2.

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

Project - IWMP-XVI			**PIA-Soil Conservation Unit, Rastriya jalagam- Banda**						**District-Banda**			
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	2	3	4	5	6	7.00	8	9.00			10	11.00
1	Administration			2.61		26.06		15.64		7.82	0	52.13
2	Monitoring			0.00		2.61		1.30		1.30	0	5.21
3	Evaluation			0.00		1.04		2.35		1.82	0	5.21
4	**Entry point activities**	No.									0	0.00
	(1) Planned		10	20.85	0	0.00	0	0.00	0	0.00	10	20.85
	(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		196	1.3032	1960	13	1740	12			3896	26.06
	(a) SLNA level	No.	20	0.18	180	2	180	2			380	3.42
	(b) District level	,,	25	0.2	270	2	270	2			565	4.52
	(c) PIA level (OFFICIAL/WDT/SECARATERY)	,,	25	0.175	270	2	270	2			565	3.96
	(c) PIA level (FARMERS)	,,	126	0.7482	1240	7	1020	6			2386	14.17
6	**DPR Preparation**	MWS No.	8	5.21	0	0.00	0	0.00	0	0.00	3	5.21
7	**Watershed Development Works**		-								0	0.00
	(1) SMC	cum	0	0.00	123290	59.80	73974	35.88	49316	23.92	246580	119.60
	(2) Water Resource Development										0	0.00
	(a) Structures	No.	0		64	86.16	38	51.70	26	34.46	128	172.32
	(b) Storage capacity	cum		-	24600	0.00	14760	0.00	9840	-	49200	0.00
	(c) Life saving irrigation area	Ha.			41	0.00	25	0.00	16		82	0.00
	(d) User Groups	No.			64		38		26		128	0.00
	(4) Afforestation / Pasture development										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	231	9.71	231	9.71	51	2.16	514	21.57
	(2) Area	Ha.			93		93		21		206	0.00
	(b) Seed Production		0								0	0.00
	(1) No. of dem.	No.	0	0.00	218	9.12	218	9.12	48	2.03	484	20.27
	(2) Area	Ha.	0		87		87		19		194	0.00
	(2) Horticulture/ Agri-		0								0	0.00

	Horticulture											
	(a) Area	Ha.	0	0.00	14	2.51	14	2.51	3	0.56	31	5.58
	(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	132	0.79	132	0.79	29	0.18	294	1.76
	B. Vaccination/Medication	No. of Animals			135	0.08	135	0.08	30	0.02	300	0.18
	C. Artificial Insemination	No. of Animals			135	0.05	135	0.05	30	0.01	300	0.12
	D. Natural Service.	He Buffalo			5	1.19	5	1.19	1	0.26	11	2.64
9	**Livelihood activities through SHG's**										0	0.00
	(1) Activity Goatary										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
	(2) Activity- Back Yard Poultry		0	0.00							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
	(3) Activity- Poultry , Broiler		0	0.00							0	0.00
	(a) No. of SHG's	No.	0	0.00	9	2.36	9	2.36	2	0.53	21	5.25
	(b) No. of members	No.	0	0.00	95	0.00	95	0.00	21	0.00	210	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	9	2.14	9	2.14	2	0.48	19	4.75
	(b) No. of members	No.	0	0.00	86	0.00	86	0.00	19	0.00	190	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	9	2.14	9	2.14	2	0.48	19	4.75
	(b) No. of members	No.	0	0.00	86	0.00	86	0.00	19	0.00	190	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	9	2.14	9	2.14	2	0.48	19	4.75
	(b) No. of members	No.	0	0.00	86	0.00	86	0.00	19	0.00	190	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	9	2.25	9	2.25	2	0.50	20	5.00
	(b) No. of members	No.	0	0.00	90	0.00	90	0.00	20	0.00	200	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	10	2.55	10	2.55	2	0.57	23	5.67
	(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
	(14) Others (specify)										0	0.00
10	**Consolidation & Withdrawal Phase activities**		0	0.00	0	0.00	0	0.00	0	15.64	0	15.64
Grand Total											252739	521.28

Table 7.2: Year wise financial phasing (Rs in Lakh) Project IWMP-XVI, Banda, U.P.

Particulars	1st Year	2nd Year	3rd Year	4th Year	Total
Administrative Cost-10%	2.61	26.06	15.64	7.82	52.128
Monitering-1%	0.00	2.61	1.30	1.30	5.213
Evalution-1%	0.00	1.04	2.35	1.82	5.213
Entry Point Activity-4%	20.85	0.00	0.00	0.00	20.851
Institution & Capacity Building-5%	1.30	13.03	11.73	0.00	26.064
DPR-1%	5.21	0.00	0.00	0.00	5.213
Watershed Dev. Work-56%	0.00	145.96	87.58	58.38	291.917
Livelihood Activity-9%	0.00	21.11	21.11	4.69	46.915
Production System & Micro enterprises-10%	0.00	23.46	23.46	5.21	52.128
Consolidation-3%	0.00	0.00	0.00	15.64	15.638
Total	**29.97**	**233.27**	**163.16**	**94.87**	**521.280**

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 were given in Table 7.3 and 7.4, respectively. The overall B:C ratio for pre and post project is 1.70 and 2.04, respectively,

Table 7.3: Micro-watershed wise benefit cost analysis of IWMP-XVI, Banda

Present Outcome (Crops)

S. No.	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
1	Urd	159.27	477.81	3.00	10000	4800	2293488	14400.00	764496	1528992	9600	1.44
2	Moong	171.40	497.06	2.90	9100	3300	1640298	9570.00	565620	1074678	6270	1.05
3	Arhar	594.20	3089.84	5.20	13000	9000	27808560	46800.00	5347800	22460760	37800	3.60
4	Bajra	375.88	1804.22	4.80	4000	1300	2345491	6240.00	488644	1856847	4940	1.56
5	Sorghum	418.35	2426.43	5.80	5600	2700	6551361	15660.00	1129545	5421816	12960	2.80
6	Til	157.86	284.15	1.80	7000	5000	1420740	9000.00	789300	631440	4000	1.29
7	Paddy	416.67	4249.99	10.20	10000	2000	8499979	20400.00	833331	7666648	18400	2.04
	Total	**2134.36**	**12829.50**				**50559917**		**9918736**	**40641181**		
1	Wheat	995.82	15883.40	15.95	12400	1300	20648417	20735	1294572	19353845	19435	1.67
2	Barley	801.45	9216.68	11.50	8000	1600	14746680	18400	1282320	13464360	16800	2.30
3	Masoor	1175.38	12459.03	10.60	10000	3400	42360695	36040	3996292	38364403	32640	3.60
4	Gram	323.58	1488.47	4.60	9000	3600	5358485	16560	1164888	4193597	12960	1.84
5	Field Pea	252.24	1412.54	5.60	8800	2400	3390106	13440	605376	2784730	11040	1.53
	Total	**3548.47**	**40460.11**				**86504382**		**8343448**	**78160935**		1.68
	Cropping Intensity	103.53			Over All B:C	1.68						

	Cultivable Area (ha)	5489.14										
	Total Number of Farm Families in MWS	**4200.00**										
	Net Return per Household	18609.7										

Expected Outcome (Crops)

S. No.	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
1	Urd	207.05	683.27	3.3	10000	4800	3279688	15840	993845	2285843	11040	1.58
2	Moong	222.82	713.02	3.2	9100	3300	2352979	10560	735306	1617673	7260	1.16
3	Arhar	772.46	4403.02	5.7	13000	9000	39627198	51300	6952140	32675058	42300	3.95
4	Bajra	488.64	2589.81	5.3	4000	1300	3366757	6890	635237	2731520	5590	1.72
5	Sorghum	543.86	3480.67	6.4	5600	2700	9397814	17280	1468409	7929406	14580	3.09
6	Til	205.22	410.44	2	7000	5000	2052180	10000	1026090	1026090	5000	1.43
7	Paddy	541.67	6066.65	11.2	10000	2000	12133304	22400	1083331	11049973	20400	2.24
	Total	**2981.71**	**18346.89**				**72209920**	**134270**	**12894357**	**59315563**		

1	Wheat	1095.41	20045.94	18.3	12400	1300	26059726	23790	1424029	24635697	22490	1.92
2	Barley	881.60	11637.05	13.2	8000	1600	18619286	21120	1410552	17208734	19520	2.64
3	Masoor	1292.92	15773.60	12.2	10000	3400	53630239	41480	4395921	49234317	38080	4.15
4	Gram	355.94	1886.47	5.3	9000	3600	6791297	19080	1281377	5509920	15480	2.12
5	Field Pea	277.46	1775.77	6.4	8800	2400	4261847	15360	665914	3595933	12960	1.75
	Total	**3903.32**	**51118.84**				**109362395**	**120830**	**9177792**	**100184603**		1.93
	Cropping Intensity	125.43			Over All B:C	1.93						
	Cultivable Area (ha)	5489.14										
	Total Number of Farm Families in MWS	**4200.00**										
	Net Return per Household	23853.48										

Present Outcome (Livestock)

Particulars	Cows	Buffaloes	Goat	Bullocks
Total Animals in Micro watershed Area	1720	1048	5514	238
Milking Animals	800	450	2100	
Average Milk Production Lit. / day	1264	1737	672	
Average Milk Production /Animal/ day	1.58	3.86	0.32	
Sale of Milk per day (Rs) @ Rs 15/Lit	18960	26055	10080	
Average 150 day milking days & Goat 90 days in a year (Total Rs)	**2844000**	**3908250**	**907200**	
Meat Animals			2500	
Average rate of one kids Rs			2500	
Total Sale in a year Rs			**6250000**	
Working Animals (Bullocks)				238
One year work one agriculture fields 200 days @ 220/ day (One pair)				36000
Total Work value of all Draft animals				**4284000**
Total monetary worth (Rs.)	**2844000**	**3908250**	**7157200**	**4284000**
				18193450
Total Family				4200
Total Income/Family				4331.77
Total Expenditure / family				2500
B:C Ratio				1.73

Projected Outcome (Livestock)

Particulars	Cows	Buffaloes	Goat	Bullocks
Total Animals in Micro watershed Area	2000	1500	7000	350
Milking Animals	1200	850	2500	
Average Milk Production Lit. / day	2640	4590	1500	
Average Milk Production /Animal/ day	2.2	5.4	0.6	
Sale of Milk per day (Rs) @ Rs 15/Lit	39600	68850	22500	
Average 150 day milking days & Goat 90 days in a year (Total Rs)	**5940000**	**10327500**	**2025000**	
Meat Animals			3600	
Average rate of one kids Rs			2800	
Total Sale in a year Rs			**10080000**	
Working Animals (Bullocks)				350
One year work one agriculture fields 200 days @ 220/ day (One pair)				44000
Total Work value of all Draft animals				**7700000**
Total monetary worth (Rs.)	**5940000**2000	**10327500**	**12105000**	**7700000**
				36072500
Total Family				4200
Total Income/Family				8588.69
Total Expenditure / family				4000
B:C Ratio				2.15

Table 7.4 : Outcomes & Benefit cost analysis of IWMP-XVI, Banda

Net Income / Family	**Present**	**Projected**
Agriculture	18610	23853
Animal Husbandry	4332	8589
Total (Ag+AH)	**22942**	**32442**
Over All B:C of MWS		
Agriculture	1.68	1.93
Animal Husbandry	1.73	2.15
Over All B: C MWS	**1.70**	**2.04**

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 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 labors, 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 21.90 per cent, in turn acreage in agricultural activities will be increased by about 1200 ha. Therefore, an additional employment of about 1,20,000 human-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 2,43,000 human-days 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 2.04 as compared to the 1.70 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 the 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

Village- Pali Block- Kamasin Tehsil- Baberu Distt. Banda (2C1A6f2b)

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						
PB1	13.91	557, 555, 540, 541, 522, 524, 508	600	5.00+0.60*1.35/2	3.78	2268	41.22	93486.96	779.058	
PB2	16.23	600, 567, 569, 574, 534, 532, 667, 469, 471, 594, 591, 590	700	5.00+0.60*1.35/2	3.78	2646	41.22	109068.12	908.901	
PB3	7.86	589, 586, 585, 584	339	5.00+0.60*1.35/2	3.78	1281.42	41.22	52820.1324	440.16777	
Total			**1639**			**6195.42**		**255375.2124**	**2128.12677**	

Village- Budauli

PB1	5.788	377, 351	250	5.00+0.60*1.35/2	3.78	945	41.22	38952.9	324.6075	
PB2	6.95	359, 360, 362, 367	300	5.00+0.60*1.35/2	3.78	1134	41.22	46743.48	389.529	
PB3	9.27	460, 487 to 490, 491 to 493	400	5.00+0.60*1.35/2	3.78	1512	41.22	62324.64	519.372	
PB4	5.788	434, 437, 445	250	5.00+0.60*1.35/2	3.78	945	41.22	38952.9	324.6075	
PB5	6.95	528, 529	300	5.00+0.60*1.35/2	3.78	1134	41.22	46743.48	389.529	
PB6	5.788	629 to 634, 638	250	5.00+0.60*1.35/2	3.78	945	41.22	38952.9	324.6075	
PB7	9.27	402 to 405	400	5.00+0.60*1.35/2	3.78	1512	41.22	62324.64	519.372	
PB8	4.628	413, 414	200	5.00+0.60*1.35/2	3.78	756	41.22	31162.32	259.686	
PB9	13.899	959, 953, 950, 942	600	5.00+0.60*1.35/2	3.78	2268	41.22	93486.96	779.058	
Total			**2950**			**11151**		**459644.22**	**3830.3685**	
CD1	26.25	929	80	12.00+2.50*2.00/2	14.5	1160	41.22	47815.2	398.46	

CD2	27.202	927, 929	90	12.00+2.50*2.00/2	14.5	1305	41.22	53792.1	448.2675	
Total			**170**			**2465**		**101607.3**	**846.7275**	
WHB/RCD 1	57.976	981, 966	130	20.00+4.00*3/2	36	4680	51.2	239616	1996.8	
WHB/RCD 2	67.241	1017, 1016	150	20.00+4.00*3/2	36	5400	51.2	276480	2304	
Total			**280**			**10080**		**516096**	**4300.8**	
Village- Kumheda Sani										
PB1	5.922	510, 511, 512, 492	300	5.00+0.60*1.35/2	3.22	966	41.22	39818.52	331.821	
PB2	1.98	594	100	5.00+0.60*1.35/2	3.22	322	41.22	13272.84	110.607	
PB3	3.944	503, 54	200	5.00+0.60*1.35/2	3.22	644	41.22	26545.68	221.214	
PB4	4.94	543, 546	250	5.00+0.60*1.35/2	3.22	805	41.22	33182.1	276.5175	
PB5	2.962	561	150	5.00+0.60*1.35/2	3.22	483	41.22	19909.26	165.9105	
PB6	3.944	554, 556	200	5.00+0.60*1.35/2	3.22	644	41.22	26545.68	221.214	
PB7	5.922	575, 574, 580, 582, 583	300	5.00+0.60*1.35/2	3.22	966	41.22	39818.52	331.821	
PB8	3.944	776, 778, 792, 793	200	5.00+0.60*1.35/2	3.22	644	41.22	26545.68	221.214	
PB9	5.922	803, 14, 15, 16	300	5.00+0.60*1.35/2	3.22	966	41.22	39818.52	331.821	
PB10	3.943	781, 782	200	5.00+0.60*1.35/2	3.22	644	41.22	26545.68	221.214	
PB11	7.901	8, 10, 20	400	5.00+0.60*1.35/2	3.22	1288	41.22	53091.36	442.428	
PB12	7.901	73, 79, 70, 89, 12, 49, 83, 82	400	5.00+0.60*1.35/2	3.22	1288	41.22	53091.36	442.428	
Total			**3000**			**9660**		**398185.2**	**3318.21**	
CD1	35.52	523, 524	150	12.00+2.50*2.00/2	14.35	2152.5	41.22	88726.05	739.38375	
CD2	6.255	564	70	12.00+2.50*2.00/2	14.7	1029	41.22	42415.38	353.4615	
Total			**220**			**3181.5**		**131141.43**	**1092.84525**	
Village- Andauli										
SB1	4.637	812, 841	200	5.00+0.60*1.35/2	3.78	756	41.22	31162.32	259.686	
SB2	6.955	681, 694, 693, 692	300	5.00+0.60*1.35/2	3.78	1134	41.22	46743.48	389.529	
Total			**500**			**1890**		**77905.8**	**649.215**	
CD1	11.408	761	100	14.00+2.50*2.10/2	17.32	1732	41.22	71393.04	594.942	

Village- Gharauli										
PB1	11.59	515, 520, 522, 529, 526	500	5.00+0.60*1.35/2	3.78	1890	41.22	77905.8	649.215	
PB2	10.43	186, 184, 173, 169, 168, 167	450	5.00+0.60*1.35/2	3.78	1701	41.22	70115.22	584.2935	
PB3	8.12	139, 160, 159, 157	350	5.00+0.60*1.35/2	3.78	1323	41.22	54534.06	454.4505	
PB4	11.59	212, 186, 195	500	5.00+0.60*1.35/2	3.78	1890	41.22	77905.8	649.215	
Total			**1800**			**6804**		**280460.88**	**2337.174**	
CD1	7.83	132, 130, 137	50	16.00+3.00*2.5/2	23.75	1187.5	44.34	52653.75	438.78125	
CD2	7.83	108, 57	50	16.00+3.00*2.5/2	23.75	1187.5	44.34	52653.75	438.78125	
CD3	37.61	112	60	16.00+3.00*2.5/2	23.75	1425	44.34	63184.5	526.5375	
Total			**160**			**3800**		**168492**	**1404.1**	

Village- Kharauli Block- Kamasin Tehsil- Baberu Distt. Banda (2C1A6f2g)

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						
MB1	13	598, 599, 600	440	5.40+1.00*1.50/2	4.8	2112	41.22	87056.6	725.472	Rajkumar, Jaikaran, Matadeen etc.

Village- Kamasin

MB2	6.175	155, 157 to 160	30	4.80+0.80*1.20/2	3.36	100.8	41.22	4154.98	34.6248	Ilwas, Ganesh Dutt, Foolchandra etc.
MB3	6.17	181, 191 to 194	300	4.80+0.80*1.20/2	3.36	1008	41.22	41549.8	346.248	Indra Sen, Ramsharan, Shivram etc.
MB4	8.235	212, 213, 235, 237, 256	400	4.80+0.80*1.20/2	3.36	1344	41.22	55399.7	461.664	Shiv Nandan, Vishram, Ramsewak etc.
MB5	6.176	127 to 134	300	4.80+0.80*1.20/2	3.36	1008	41.22	41549.8	346.248	Bhagvandeen, Natthu, Mahipal etc.
MB6	4.12	106, 274, 291	200	4.80+0.80*1.20/2	3.36	672	41.22	27699.8	230.832	Surendra Dev, Pachuva, Ghadka etc.
MB7	4.124	23, 32, 42	200	4.80+0.80*1.20/2	3.36	672	41.22	27699.8	230.832	Ram Dutt, Prakash, Ram Khilavan etc.
Total			**1430**			**4804.8**		**198054**	**1650.4488**	

Village- Kumheda Sani

MB8	20.876	219, 218, 210	500	5.50+1.00*1.50/2	4.87	2435	41.22	100371	836.4225	Ram Lal, Devnath, Vijay Kishor etc.
MB9	8.958	200 to 203	300	5.50+1.00*1.50/2	4.87	1461	41.22	60222.4	501.8535	Ram Dev, Nankai, Chunna, etc.
MB10	9.554	168, 169, 174	320	5.50+1.00*1.50/2	4.87	1558.4	41.22	64237.2	535.3104	Nankai, Rameshwar, Rajaram etc.
MB11	34.316	98, 108, 110, 111, 114	800	5.50+1.00*1.50/2	4.87	3896	41.22	160593	1338.276	Ramdutt, Prakash, Gauri Shankar, etc.
MB12	7.456	845, 850, 855	250	5.50+1.00*1.50/2	4.87	1217.5	41.22	50185.4	418.21125	Baddri, Rajendra Singh, Nathuva etc.
MB13	34.418	2350, 2351, 2354, 2368 to 2373	800	5.50+1.00*1.50/2	4.87	3896	41.22	160593	1338.276	Asgar, Ram milan, etc.
MB14	19.166	2415, 2404, 2399 to 2402	450	5.50+1.00*1.50/2	4.87	2191.5	41.22	90333.6	752.78025	Munna, Hira Lal, Ram Bhavan
MB15	10.546	2393 2299, 2300	350	5.50+1.00*1.50/2	4.87	1704.5	41.22	70259.5	585.49575	Baini Singh, Rajendra Singh, Santan Singh etc.
Total			**3770**			**18359.9**		**756795**	**6306.62565**	
CD1	12.128	876, 885	100	14.50+1.50*2.30/2	18.4	1840	44.34	81585.6	679.88	Rameshwar, Ravi Kumar, Rajesh Kumar etc.
CD2	26.458	900, 921	70	12.50+1.50*2.20/2	15.4	1078	44.34	47798.5	398.321	Kamlesh, Rajaram, Satymaan etc.
CD3	13.386	939, 941	110	14.50+1.50*2.30/2	18.4	2024	44.34	89744.2	747.868	Vardani, Deena Nath etc.
CD4	8.126	2137, 2134	80	12.50+1.50*2.20/2	15.4	1232	44.34	54626.9	455.224	Neelam, Nankoo Singh etc.
CD5	32.694	995, 2151	110	14.50+1.50*2.30/2	18.4	2024	44.34	89744.2	747.868	Babadeen, Ramgopal etc.
CD6	29.972	1825	90	12.50+1.50*2.20/2	15.4	1386	44.34	61455.2	512.127	Babu Singh, Rajveer Sing etc.
CD7	34.462	1138, 1139	100	14.50+1.50*2.30/2	18.4	1840	44.34	81585.6	679.88	Rama Shankar, Rajrani etc.
CD8	8.124	1126, 1418	80	12.50+1.50*2.20/2	15.4	1232	44.34	54626.9	455.224	Ram Pratap, Chatrpal, etc.
Total			**740**			**12656**		**561167**	**4676.392**	
WHB1	51.92	1709, 1674, 1673	110	16.50+2.50*3.10/2	29.45	3239.5	52.16	168972	1408.102667	Ayodhya, Ramautar, Vimla Devi etc.
WHB2	58.53	1725, 11721, 1431	120	16.80+2.50*3.20/2	30.88	3705.6	52.16	193284	1610.7008	Rambhajan, Rajaram, Shyam Lal etc.
Total			**230**			**6945.1**		**362256**	**3018.803467**	

Village- Mau Block- Kamasin Tehsil- Baberu Distt. Banda (2C1A6d1b)

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						
PB1	16.44	24, 34, 270, 272	700	5.00+0.80*1.20/2	3.48	2436	41.22	100412	836.766	Kuber etc.
PB2	27.11	69, 44, 52, 76, 165, 176, 184, 185, 187	1200	5.00+0.80*1.20/2	3.48	4176	41.22	172135	1434.456	Ruddra Prasad etc.
PB3	39.92	83, 82, 133, 141, 140, 147, 150, 1168, 1169, 1165, 1164, 1163, 1149, 1184, 1147, 1144, 1110, 1108, 970, 945, 946	1800	5.00+0.80*1.20/2	3.48	6264	41.22	258202	2151.684	Chote etc.
PB4	12.17	253, 257, 259, 264, 263	500	5.00+0.80*1.20/2	3.48	1740	41.22	71722.8	597.69	Ramratan etc.
PB5	20.71	214 to 217, 559, 222, 233, 239	900	5.00+0.80*1.20/2	3.48	3132	41.22	129101	1075.842	Rajendra etc.
Total			**5100**			**17748**		**731573**	**6096.438**	
PB6	16.44	551, 602, 604, 605, 606	700	5.00+0.80*1.20/2	3.48	2436	41.22	100412	836.766	Matganjan, Devi Dayal etc.
PB7	14.32	595, 581, 590, 569	600	5.00+0.80*1.20/2	3.48	2088	41.22	86067.4	717.228	Rajendra etc.
PB8	31.38	962, 982, 10089, 1081, 166, 1065	1400	5.00+0.80*1.20/2	3.48	4872	41.22	200824	1673.532	Shiv Balak etc.
Total			**2700**			**9396**		**387303**	**3227.526**	
CD1	7.22	614	50	5.00+0.80*1.20/2	20.5	1025	44.34	45448.5	378.7375	Vinda etc.
CD2	8.61	664, 662	60	5.00+0.80*1.20/2	20.5	1230	44.34	54538.2	454.485	Shakuntla etc.
CD3	7.26	680, 686	50	5.00+0.80*1.20/2	20.5	1025	44.34	45448.5	378.7375	Bachuraj etc.
CD4	7.26	595	50	5.00+0.80*1.20/2	20.5	1025	44.34	45448.5	378.7375	Rajendra etc.
CD5	8.61	673	60	5.00+0.80*1.20/2	20.5	1230	44.34	54538.2	454.485	Ramsiya etc.
CD6	9.96	1034	70	5.00+0.80*1.20/2	20.5	1435	44.34	63627.9	530.2325	Devi Dayal
CD7	11.32	698, 691	80	5.00+0.80*1.20/2	20.5	1640	44.34	72717.6	605.98	Bhajan etc.

Total			**420**			**8610**		**381767**	**3181.395**	
CD8	14.02	7.5, 702	100	5.00+0.80*1.20/2	20.5	2050	44.34	90897	757.475	Devi Dayal, Shiv Sagar etc.
CD9	5.91	1003, 1002	40	5.00+0.80*1.20/2	20.5	820	44.34	36358.8	302.99	Rani etc.
CD10	5.91	712	40	5.00+0.80*1.20/2	20.5	820	44.34	36358.8	302.99	Baini Madhau etc.
CD11	14.02	724, 726	100	5.00+0.80*1.20/2	20.5	2050	44.34	90897	757.475	Baini Madhau etc.
CD12	5.91	788, 781, 802	40	5.00+0.80*1.20/2	20.5	820	44.34	36358.8	302.99	Vijay etc.
CD13	7.26	831	50	5.00+0.80*1.20/2	20.5	1025	44.34	45448.5	378.7375	Baddri etc.
CD14	8.61	3428, 3330	60	5.00+0.80*1.20/2	20.5	1230	44.34	54538.2	454.485	-
Total			**430**			**8815**		**390857**	**3257.1425**	
CD15	17.26	886, 896	50	5.00+0.80*1.20/2	20.5	1025	44.34	45448.5	378.7375	Gaya etc.
CD16	18.32	1114, 1112	80	5.00+0.80*1.20/2	20.5	1640	44.34	72717.6	605.98	Ramchandra etc.
CD17	19.32	1303	80	5.00+0.80*1.20/2	20.5	1640	44.34	72717.6	605.98	Ramratan etc.
CD18	21.32	1198	80	5.00+0.80*1.20/2	20.5	1640	44.34	72717.6	605.98	Ramkrishn etc.
CD19	12.67	1172, 1177	990	5.00+0.80*1.20/2	20.5	20295	44.34	899880	7499.0025	Babu Lal etc.
CD20	14.5	1188	100	5.00+0.80*1.20/2	20.5	2050	44.34	90897	757.475	Chatrpal etc.
CD21	11.86	1255, 1256	80	5.00+0.80*1.20/2	20.5	1640	44.34	72717.6	605.98	Chedi Lal etc.
CD22	24.4	1321, 1324	100	5.00+0.80*1.20/2	20.5	2050	44.34	90897	757.475	Baini Madhau etc.
Total			**1560**			**31980**		**1417993**	**11816.61**	
WHB1	50.05	1368 to 1370	150	-	36	5400	51.08	275832	2298.6	Matganjan etc.

Village- Kamasin Block- Kamasin Tehsil- Baberu Distt. Banda (2C1A6f1c)

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						
SB1	4.969	2368	200	5.20+0.80*1.35/2	4.05	810	41.22	33388.2	278.235	Ram Dutt etc.
SB2	9.947	2432/1	400	5.20+0.80*1.35/2	4.05	1620	41.22	66776.4	556.47	Omkeshwari, Devi, Baini etc.
SB3	13.667	2465, 2464, 2463	550	5.20+0.80*1.35/2	4.05	2227.5	41.22	91817.6	765.14625	Chedi Lal, Balgovind, Dharmpal etc.
SB4	13.688	2455	550	5.20+0.80*1.35/2	4.05	2227.5	41.22	91817.6	765.14625	Ramnarayan, Ramashankar etc.
SB5	7.48	1998, 1999	300	5.20+0.80*1.35/2	4.05	1215	41.22	50082.3	417.3525	Ramcharan, Suleman etc.
SB6	14.909	1955, 1956, 1957, 1959	600	5.20+0.80*1.35/2	4.05	2430	41.22	100165	834.705	Ramabai, Ramesh, Ganga Prasad etc.
SB7	9.936	1836, 1835	400	5.20+0.80*1.35/2	4.05	1620	41.22	66776.4	556.47	Vijay Kumar, Hardev Singh etc.
SB8	8.795	2099, 2086	350	5.20+0.80*1.35/2	4.05	1417.5	41.22	58429.4	486.91125	Rajrani, Hardev, Ramswaroop etc.
SB9	8.794	1916, 1923	350	5.20+0.80*1.35/2	4.05	1417.5	41.22	58429.4	486.91125	Chaali, Ramdas, etc.
SB10	8.796	1915	350	5.20+0.80*1.35/2	4.05	1417.5	41.22	58429.4	486.91125	Rajrani, Hardev, Ramswaroop etc.
SB11	7.489	1840, 1844, 1847	300	5.20+0.80*1.35/2	4.05	1215	41.22	50082.3	417.3525	Shiv Kumar, Udayveer etc.
Total			**4350**			**17617.5**		**726193**	**6051.61125**	
PB1	17.666	2389 to 2392	800	4.50+0.05*1.40/2	3.6	2880	41.22	118714	989.28	Bhagvant, Babu Prasad etc.
PB2	26.5	2493, 2420, 2419, 2394	1200	4.50+0.05*1.40/2	3.6	4320	41.22	178070	1483.92	Omkeshwari, Devi, Baini etc.
PB3	12.145	2432/2, 2435, 2438, 2440	550	4.50+0.05*1.40/2	3.6	1980	41.22	81615.6	680.13	Dev Dutt, Bhavani Sewak etc.

PB4	5.3	2441, 2448, 2447	240	4.50+0.05*1.40/2	3.6	864	41.22	35614.1	296.784	
PB5	4.637	2041, 2043, 2048, 2040, 2047	210	4.50+0.05*1.40/2	3.6	756	41.22	31162.3	259.686	Gandhi etc.
PB6	20.2	2011	350	4.50+0.05*1.40/2	3.6	1260	41.22	51937.2	432.81	Binda Prasad, Shyam Lal etc.
PB7	9.054	1991, 1992, 1993, 1995, 1996	410	4.50+0.05*1.40/2	3.6	1476	41.22	60840.7	507.006	Munna Lal, Ramcharan etc.
PB8	8.833	1980, 1979, 1985	400	4.50+0.05*1.40/2	3.6	1440	41.22	59356.8	494.64	Ramsajeevan, Binda Prasad etc.
PB9	6.624	2004, 2005, 2007, 2008	300	4.50+0.05*1.40/2	3.6	1080	41.22	44517.6	370.98	Ramraja, Dayashankar etc.
PB10	25.316	2003, 2057, 2064, 2060, 2065	550	4.50+0.05*1.40/2	3.6	1980	41.22	81615.6	680.13	Babu Singh, Ramkaran, etc.
PB11	13.249	2073, 2072	600	4.50+0.05*1.40/2	3.6	2160	41.22	89035.2	741.96	Sudmi, Kanji, Rajrani etc.
PB12	3.533	2173, 2119, 2115, 2116, 2177	160	4.50+0.05*1.40/2	3.6	576	41.22	23742.7	197.856	Udaybhaan Singh etc.
PB13	5.82	2123, 2126, 2128	250	4.50+0.05*1.40/2	3.6	900	41.22	37098	309.15	Jagannath, Bhola, Hardayal etc.
PB14	17.666	1914, 1913, 1912, 1911, 1909, 1907, 1906, 1904	800	4.50+0.05*1.40/2	3.6	2880	41.22	118714	989.28	Rajesh Kumar, Gore Lal etc.
PB15	26.641	1869, 1870, 1872, 1875, 1876	610	4.50+0.05*1.40/2	3.6	2196	41.22	90519.1	754.326	Jairaj, Kalicharan, Bhaiyadeen etc.
PB16	18.328	1881 to 1885, 1897	830	4.50+0.05*1.40/2	3.6	2988	41.22	123165	1026.378	Chandrshekhar, Ram Manohar etc.
PB17	11.482	1889 to 1895	520	4.50+0.05*1.40/2	3.6	1872	41.22	77163.8	643.032	Binda Prasad, Shyam Lal etc.
PB18	6.183	1886, 1865, 1858, 1860	280	4.50+0.05*1.40/2	3.6	1008	41.22	41549.8	346.248	Gaya Prasad, Maudeen, etc.
PB19	14.353	1933, 1935, 1937, 1938, 1942	650	4.50+0.05*1.40/2	3.6	2340	41.22	96454.8	803.79	Maharaj, Ram Prakash, Ram Prasad etc.
Total			**9710**			**34956**		**1440886**	**12007.386**	

Village- Kamasin

SB1	8.281	1671, 1672, 1674	450	4.20+0.60*1.25/2	3	1350	41.22	55647	463.725	Ganga Prasad, Dev Dutt, Dinesh etc.
SB2	4.6	1466	250	4.20+0.60*1.25/2	3	750	41.22	30915	257.625	Brajesh Kumar Singh
SB3	3.68	1504, 1502, 1501, 1497	200	4.20+0.60*1.25/2	3	600	41.22	24732	206.1	Santosh Kumar, Ram Kumar etc.
SB4	3.68	353	200	4.20+0.60*1.25/2	3	600	41.22	24732	206.1	Hira Lal etc.
SB5	8.281	527, 528, 530, 540, 545	450	4.20+0.60*1.25/2	3	1350	41.22	55647	463.725	Harvilash, Om Prakash etc.
SB6	3.682	1345, 1346	200	4.20+0.60*1.25/2	3	600	41.22	24732	206.1	Shiv Mangal, Jagdish Prasad etc.
SB7	3.681	1332, 1327	200	4.20+0.60*1.25/2	3	600	41.22	24732	206.1	Vikram Singh etc.
SB8	2.766	1322	150	4.20+0.60*1.25/2	3	450	41.22	18549	154.575	Bheemeshwar Singh etc.
SB9	3.681	755	200	4.20+0.60*1.25/2	3	600	41.22	24732	206.1	Jai Bahadur Singh, Yogendra Singh etc.
SB10	3.68	106, 107, 111, 125	200	4.20+0.60*1.25/2	3	600	41.22	24732	206.1	Jaikaran, Surendra Dev etc.
SB11	8.281	162, 169, 167, 165, 162, 161	450	4.20+0.60*1.25/2	3	1350	41.22	55647	463.725	Indrpal, Chuniya etc.
SB12	7.36	819, 821, 825, 826	400	4.20+0.60*1.25/2	3	1200	41.22	49464	412.2	Ramfal, Gajju, Chandrpal etc.
SB13	5.52	375, 376	300	4.20+0.60*1.25/2	3	900	41.22	37098	309.15	Chandrpal etc.
SB14	3.68	396, 397	200	4.20+0.60*1.25/2	3	600	41.22	24732	206.1	Bavan, Ramanuj etc.
SB15	7.36	786	400	4.20+0.60*1.25/2	3	1200	41.22	49464	412.2	Deepak Singh etc.
SB16	7.36	786 to 790	400	4.20+0.60*1.25/2	3	1200	41.22	49464	412.2	Jangbahadur, Foolvati, Jamil Ahmad etc.
SB17	7.36	799, 800, 801, 804, 807	400	4.20+0.60*1.25/2	3	1200	41.22	49464	412.2	Rampratap, Sukhiya etc
Total			**5050**			**15150**		**624483**	**5204.025**	
PB1	4.6	1485, 1488, 1489	250	4.20+0.60*1.25/2	3	750	41.22	30915	257.625	Mukund Lal, Om Prakash etc.
PB1 A	4.6	1885/1, 1488/1, 1489/1	250	4.20+0.60*1.25/2	3	750	41.22	30915	257.625	Mukund Lal, Om Prakash etc.
PB2	9.2	1443 to 1446	500	4.20+0.60*1.25/2	3	1500	41.22	61830	515.25	Ramraj, Avadhsharan, etc.
PB3	3.68	418, 419, 420	200	4.20+0.60*1.25/2	3	600	41.22	24732	206.1	Nathuva, Budhuva, Kailash etc.

PB4	5.52	363, 361	300	4.20+0.60*1.25/2	3	900	41.22	37098	309.15	Chunkai, Jagannath etc.
PB5	7.36	314, 315, 334, 318, 337	400	4.20+0.60*1.25/2	3	1200	41.22	49464	412.2	Jainarayan, Hari Lal, Namdev etc.
PB6	11.05	77, 73, 71, 86	600	4.20+0.60*1.25/2	3	1800	41.22	74196	618.3	Jhabar Singh, Santram, Ram Lal etc.
PB7	11.045	442, 439, 434, 433, 432, 431, 430	600	4.20+0.60*1.25/2	3	1800	41.22	74196	618.3	Kallu, Laccharam, Ramdeen etc.
PB8	21.495	475, 472, 473, 471, 470, 468, 467, 464	600	4.20+0.60*1.25/2	3	1800	41.22	74196	618.3	Govind, Rajuva, Chandrshekahr etc.
PB9	11.045	506 to 515	600	4.20+0.60*1.25/2	3	1800	41.22	74196	618.3	Kunvariya, Prema Devi, Balram etc.
PB10	9.2	1418, 1420, 1421, 1428, 1432, 1433	500	4.20+0.60*1.25/2	3	1500	41.22	61830	515.25	Ramdayal, Insan Khan etc.
PB11	3.68	1395	200	4.20+0.60*1.25/2	3	600	41.22	24732	206.1	Shiv Lal etc.
PB12	7.36	1416, 1473 to 1476	400	4.20+0.60*1.25/2	3	1200	41.22	49464	412.2	Ram Singh, Narendra, Lalbua etc.
PB13	11.045	567 to 570, 577, 579, 580	600	4.20+0.60*1.25/2	3	1800	41.22	74196	618.3	Bharosa, Pancha, Gajodhar etc.
PB14	27.725	604, 607, 609, 613, 616, 617, 618, 620	900	4.20+0.60*1.25/2	3	2700	41.22	111294	927.45	Bhaddu, Shivsharan etc.
PB15	27.725	729, 706, 704, 651 to 660	900	4.20+0.60*1.25/2	3	2700	41.22	111294	927.45	Nagendra Singh, Ramkripal etc.
PB16	7.36	678 to 681	400	4.20+0.60*1.25/2	3	1200	41.22	49464	412.2	Matganjan, Ramraj, Devraj etc.
PB17	11.045	729, 734, 735	600	4.20+0.60*1.25/2	3	1800	41.22	74196	618.3	Nagendra Singh, Ramkripal etc.
PB18	7.35	745, 746	400	4.20+0.60*1.25/2	3	1200	41.22	49464	412.2	Rajendra Prasad etc.
Total			**9200**			**27600**		**1137672**	**9480.6**	

Village- Budauli, Block- Kamasin Tehsil- Baberu Distt. Banda (2C1A6f2a)

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						
PB1	9.57	629, 624, 603, 602	400	5.30+.70/2*1.30	3.9	1560	41.22	64303.2	535.86	
PB2	7.18	599, 596, 595	300	5.30+.70/2*1.30	3.9	1170	41.22	48227.4	401.895	
PB3	10.77	774, 775, 792 Tto 797	450	5.30+.70/2*1.30	3.9	1755	41.22	72341.1	602.8425	
PB4	9.57	666, 661, 663, 664	400	5.30+.70/2*1.30	3.9	1560	41.22	64303.2	535.86	
PB5	7.19	813, 866	300	5.30+.70/2*1.30	3.9	1170	41.22	48227.4	401.895	
PB6	10.78	737, 866, 737, 701, 709 to 665, 678, 679	450	5.30+.70/2*1.30	3.9	1755	41.22	72341.1	602.8425	
Total	**55.06**		**2300**			**8970**		**369743.4**	**3081.195**	
CD1	10.53	750, 744	70	16.0+3.0/2*2.40	22.8	1596	41.21	65771.16	548.093	
CD2	29.41	833	70	15.0+2.50/2*2.40	21	1470	41.21	60578.7	504.8225	
Total	**39.94**		**140**			**3066**		**126349.9**		

Village-Kumheda sani

PB1	4.627	1251, 1192, 1189, 1156	300	4.20+.60/2*1.05	2.52	756	41.22	31162.32	259.686	
PB2	7.723	1198, 1187, 1161, 1163, 1166, 1170	500	4.20+.60/2*1.05	2.52	1260	41.22	51937.2	432.81	
PB3	3.08	1112, 1115, 1081	200	4.20+.60/2*1.05	2.52	504	41.22	20774.88	173.124	
PB4	5.409	1033, 1034, , 1043, 1044	350	4.20+.60/2*1.05	2.52	882	41.22	36356.04	302.967	
PB5	3.406	1001, 1000, 986, 958, 959	250	4.20+.60/2*1.05	2.52	630	41.22	25968.6	216.405	
PB6	3.406	434, 436, 226, 207, 208, 210	250	4.20+.60/2*1.05	2.52	630	41.22	25968.6	216.405	
PB7	11.205	500	100	4.20+.60/2*1.05	2.52	252	41.22	10387.44	86.562	
PB8	7.923	414, 401, 400, 388, 389, 351, 357, 342, 317	500	4.20+.60/2*1.05	2.52	1260	41.22	51937.2	432.81	
PB9	3.906	233, 270, 231	250	4.20+.60/2*1.05	2.52	630	41.22	25968.6	216.405	

PB10	1.832	84 , 96, 97	100	4.20+.60/2*1.05	2.52	252	41.22	10387.44	86.562	
PB11	2.819	69, 80, 81	150	4.20+.60/2*1.05	2.52	378	41.22	15581.16	129.843	
Total	**55.336**		**2950**			**7434**		**306429.5**		
CD1	4.419	1302, 1229	60	10.0+2.0/2*2.0	12	720	41.22	29678.4	247.32	
CD2	4.419	707, 742	60	10.0+2.0/2*2.0	12	720	41.22	29678.4	247.32	
CD3	34.627	675, 676	230	12.0+2.0/2*2.0	14	3220	41.22	132728.4	1106.07	
CD4	21.077	168, 166,	130	12.0+2.0/2*2.0	14	1820	41.22	75020.4	625.17	
CD5	5.892	107	80	10.0+2.0/2*2.0	12	960	41.22	39571.2	329.76	
CD6	8.824	271, 267	120	10.0+2.0/2*2.0	12	1440	41.22	59356.8	494.64	
CD7	4.419	249, 257	60	10.0+2.0/2*2.0	12	720	41.22	29678.4	247.32	
CD8	5.587	251, 255	70	10.0+2.0/2*2.0	12	840	41.22	34624.8	288.54	
Total	**89.264**		**810**			**10440**		**430336.8**		

Village-Mau + Devrat

PB1	9.57	667, 666, 649, 653	400	5.30+.70/2*1.30	3.9	1560	41.22	64303.2	535.86	
PB2	4.78	6153, 6145	200	5.30+.70/2*1.30	3.9	780	41.22	32151.6	267.93	
Total	**14.35**		**600**			**2340**		**96454.8**		
CD1	8.31	687, 696	70	16.0+2.0/2*2.0	18	1260	44.34	55868.4	465.57	
CD2	8.78	719, 720, 721	70	16.0+3.0/2*2.0	19	1330	44.34	58972.2	491.435	
CD3	10.74	624, 712	80	16.0+2.50/2*2.20	20.35	1628	44.34	72185.52	601.546	
CD4	38.98	606, 612	90	16.0+2.50/2*2.20	20.35	1831.5	44.34	81208.71	676.7393	
CD5	12.08	739, 733, 736	90	16.0+2.50/2*2.20	20.35	1831.5	44.34	81208.71	676.7393	
CD6	38.8	6042, 6022	70	16.0+3.0/2*2.40	22.8	1596	44.34	70766.64	589.722	
CD7	9.03	6079, 6060	60	16.0+3.0/2*2.40	22.8	1368	44.34	60657.12	505.476	
CD8	9.03	6118, 6119	60	16.0+3.0/2*2.40	22.8	1368	44.34	60657.12	505.476	

CD9	40.69	6135, 6123	90	16.0+3.0/2*2.20	20.9	1881	44.34	83403.54	695.0295	
CD10	34.73	6063	90	16.0+3.0/2*2.20	20.9	1881	44.34	83403.54	695.0295	
CD11	15.68	5876, 6793	100	16.0+3.0/2*2.50	23.75	2375	44.34	105307.5	877.5625	
CD12	18.8	5772, 5766, 5767	120	16.0+3.0/2*2.50	23.75	2850	44.34	126369	1053.075	
Total	**245.65**		**990**			**21200**		**940008**		

Village- Pachoha, Block- Kamasin Tehsil- Baberu Distt. Banda (2C1A6a2c)

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						
MB1	5.742	2488, 2499	300	4.60+0.60/2*1.20	3.12	936	41.22	38581.92	321.516	
MB2	7.65	2099, 2133, 2134	400	4.60+0.60/2*1.20	3.12	1248	41.22	51442.56	428.688	
Total	**13.392**		**700**			**2184**		**90024.48**		
CD1	5.536	688, 686	60	12.50+1.50/2*2.10	14	840	44.34	37245.6	310.38	
CD2	6.458	719	70	12.50+1.50/2*2.10	14	980	44.34	43453.2	362.11	
CD3	7.382	1993	80	13.50+1.50/2*2.10	15.75	1260	44.34	55868.4	465.57	
CD4	27.826	1988	90	15.50+1.50/2*2.20	18.7	1683	44.34	74624.22	621.8685	
CD5	31.906	2204	120	15.50+1.50/2*2.20	18.7	2244	44.34	99498.96	829.158	
CD6	9.97	2350	90	14.50+1.50/2*2.10	16.8	1512	44.34	67042.08	558.684	
CD7	35.172	2407, 2145	140	15.50+1.50/2*2.20	18.7	2618	44.34	116082.1	967.351	
Total	**124.25**		**650**			**11137**		**493814.6**		
WHB1	41.358	1939	100	16.50+2.50/2*3.10	29.45	2945	41.22	121392.9	1011.608	

Village-Kamasin

MB3	19.39	3584	400	5.50+1.00/2*1.50	4.87	1948	41.22	80296.56	669.138	
MB4	17.887	3754. 3755. 3759. 3760	350	5.50+1.00/2*1.50	4.87	1704.5	41.22	70259.49	585.4958	
MB5	17.886	3828. 3829. 3883	350	5.50+1.00/2*1.50	4.87	1704.5	41.22	70259.49	585.4958	
MB6	16.402	3824. 3841. 3840	300	5.50+1.00/2*1.50	4.87	1461	41.22	60222.42	501.8535	
MB7	30.401	3881, 3882, 3892, 3894, 3900	650	5.50+1.00/2*1.50	4.87	3165.5	41.22	130481.9	1087.349	
MB8	29.82	3843, 3854, 3874, 3871	600	5.50+1.00/2*1.50	4.87	2922	41.22	120444.8	1003.707	
Total	**131.786**		**2650**			**12905.5**		**531964.7**	**4433.039**	
CD8	36.594	902, 904	110	16.0+2.0/2*2.30	20.7	2277	44.34	100962.2	841.3515	
CD9	38.706	971	120	16.0+2.0/2*2.30	20.7	2484	44.34	110140.6	917.838	
CD10	31.518	951, 949	100	16.0+2.0/2*2.30	20.7	2070	44.34	91783.8	764.865	
CD11	38.91	1264, 1281, 1282	120	16.0+2.0/2*2.30	20.7	2484	44.34	110140.6	917.838	
CD12	30.774	1305, 1353	100	16.0+2.0/2*2.30	20.7	2070	44.34	91783.8	764.865	
CD13	26.49	1565	90	15.50+1.50/2*2.30	19.55	1759.5	44.34	78016.23	650.1353	
CD14	36.396	3349	110	16.0+2.0/2*2.30	20.7	2277	44.34	100962.2	841.3515	
CD15	38.716	3346	120	16.0+2.0/2*2.30	20.7	2484	44.34	110140.6	917.838	
CD16	41.578	3367, 3472	130	16.0+2.0/2*2.30	20.7	2691	44.34	119318.9	994.3245	
CD17	42.934	3502, 3503	140	16.0+2.0/2*2.30	20.7	2898	44.34	128497.3	1070.811	
CD18	36.598	3676, 3677	110	16.0+2.0/2*2.30	20.7	2277	44.34	100962.2	841.3515	
Total	**399.214**		**1250**			**25771.5**		**1142708**		

Village- Budhauli, Block- Kamasin Tehsil- Baberu Distt. Banda (2C1A6f4e)

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						
PB1	3.066	120	200	3.40+.60/2*1.25	2.5	500	41.22	20610	171.75	Manoj kumar, etc.
PB2	4.602	74, 87, 88	300	3.40+.60/2*1.25	2.5	750	41.22	30915	257.625	Vijay bahadur, Rameshvar, lakhan etc.
PB3	2.3	24, 25, 26	150	3.40+.60/2*1.25	2.5	375	41.22	15457.5	128.8125	Vijay bahadur, Rameshvar, lakhan etc.
PB4	2.305	31, 32, 33	150	3.40+.60/2*1.25	2.5	375	41.22	15457.5	128.8125	Vijay bahadur, Rameshvar, lakhan etc.
PB5	3.067	161, 38	200	3.40+.60/2*1.25	2.5	500	41.22	20610	171.75	Vijay bahadur, Rameshvar, lakhan etc.
PB6	3.069	56, 51	200	3.40+.60/2*1.25	2.5	500	41.22	20610	171.75	Chandrabhan, Shivprakash etc.
PB7	3.834	40, 41, 42, 43, 45	250	3.40+.60/2*1.25	2.5	625	41.22	25762.5	214.6875	Gorelal, Shivpal, Rajkaran etc.
PB8	2.293	38	150	3.40+.60/2*1.25	2.5	375	41.22	15457.5	128.8125	Sunil kumar, Usha devi
Total	**24.536**		**1600**			**4000**		**164880**	**1374**	
PB1	9.2	161, 162, 139, 138	500	4.20+.60/2*1.25	3	1500	41.22	61830	515.25	Rameshvar, umasanker etc.
PB2	9.2	202, 204,203, 193	500	4.20+.60/2*1.25	3	1500	41.22	61830	515.25	Bhura, Ramkaran etc.
PB3	9.2	231, 239, 225, 222	500	4.20+.60/2*1.25	3	1500	41.22	61830	515.25	Ramkhilavan, Ramratan etc.
PB4	7.288	235, 232, 228, 225	396	4.20+.60/2*1.25	3	1188	41.22	48969.36	408.078	Hariprasad, Ramautar etc.
PB5	7.36	226, 218	400	4.20+.60/2*1.25	3	1200	41.22	49464	412.2	Narayan, Ghanraj etc.
Total	**42.248**		**2296**			**6888**		**283923.4**		
MB1	14.601	213, 214, 215, 209, 177, 178, 180	600	5.30+.65/2*1.35	4	2400	41.22	98928	824.4	Satrughan, Bhura prasad etc.

MB2	17.151	170, 171, 172, 136, 137, 140, 149	700	5.30+.65/2*1.35	4	2800	41.22	115416	961.8	Gyaprasad, Ramautar etc.
Total	**31.752**		**1300**			**5200**		**214344**		
CD1	5.71	5203, 5215	50	14.0+2.50/2-*2.10	17.32	866	44.34	38398.44	319.987	
CD2	21.23	5195, 5189	50	15.0+2.50/2*2.20	19.25	962.5	44.34	42677.25	355.6438	
CD3	6.35	5424	50	15.0+2.50/2*2.20	19.25	962.5	44.34	42677.25	355.6438	
CD4	22.5	4774, 4776	60	15.0+2.50/2*2.20	19.25	1155	44.34	51212.7	426.7725	
CD5	8.8	4752	70	15.0+2.50/2*2.20	19.25	1347.5	44.34	59748.15	497.9013	
CD6	24.81	4695, 5639	70	15.0+2.50/2*2.20	19.25	1347.5	44.34	59748.15	497.9013	
CD7	5.18	5440	50	14.0+2.50/2*2.10	17.32	866	44.34	38398.44	319.987	
CD8	7.62	5608, 5590	60	15.0+2.50/2*2.20	19.25	1155	44.34	51212.7	426.7725	
CD9	4.84	5288, 5318	50	12.0+2.0/2*2.10	14.7	735	4435	3259725	27164.38	
CD10	7.05	5450	60	14.0+2.20/2*2.20	17.82	1069.2	4435	4741902	39515.85	
CD11	5.08	5490, 5591,	50	12.0+2.0/2*2.20	15.4	770	4435	3414950	28457.92	
CD12	7.05	5504, 5505	60	14.0+2.20/2*2.20	17.82	1069.2	4435	4741902	39515.85	
CD13	9.29	5572, 3954	70	15.0+2.50/2*2.30	20.12	1408.4	4435	6246254	52052.12	
CD14	25.52	5594, 5570	70	14.50+2.50/2*2.30	19.55	1368.5	4435	6069298	50577.48	
Total	**161.03**		**820**			**15082.3**		**28858104**		
RCD1	15.23	5729, 5727	70	16.0+3.00/2*3.00	28.5	1995	51.2	102144	851.2	
RCD2	39.65	5759, 5754	80	16.0+3.00/2*3.00	28.5	2280	51.2	116736	972.8	
Total	**54.88**		**150**			**4275**		**218880**		

Village- Mau, Block- Kamasin Tehsil- Baberu Distt. Banda (2C1A6d4a)

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						
PB1	16.74	1940, 1947, 1943, 1926	430	5+.80/2*1.20	3.48	1496.4	41.22	61681.61	514.0134	Shivmohan, Mataprasad etc.
PB2	17.92	2162, 2184, 2183, 1955, 1910	485	5+.80/2*1.20	3.48	1687.8	41.22	69571.12	579.7593	Raghuveer, Shivnarayn etc.
PB3	12.47	1735, 1732, 1731	230	5+.80/2*1.20	3.48	800.4	41.22	32992.49	274.9374	Lallu, baldev etc.
PB4	33.53	4908, 4986, 4981, 4929, 4625, 4616, 4615, 4609, 4608, 4607	1130	6+.80/2*1.10	3.74	4226.2	41.22	174204	1451.7	Pratap etc.
PB5	24.77	4613, 4542, 4239, 4279,	750	6+.80/2*1.10	3.74	2805	41.22	115622.1	963.5175	Ramautar etc.
PB6	21.33	3109, 3097, 3095, 3089, 3088	600	6+.80/2*1.10	3.74	2244	41.22	92497.68	770.814	Shivnarayn etc.
Total	**126.76**		**3625**			**13259.8**		**546569**	**4554.741**	
CD1	11.44	2212, 2211	80	6+.80/2*1.10	19	1520	44.34	67396.8	561.64	Ramsingh etc.
CD2	19.36	2547, 2575	135	6+.80/2*1.10	20.15	2720.25	44.34	120615.9	1005.132	Ramprasad etc.
CD3	18.97	2611, 2619	140	6+.80/2*1.10	19	2660	44.34	117944.4	982.87	Abhimanyu etc.
CD4	17.09	2602, 2598	125	6+.80/2*1.10	19	2375	44.34	105307.5	877.5625	Shivmangal etc.
CD5	11.64	1745, 1742	100	6+.80/2*1.10	15.5	1550	44.34	68727	572.725	Ramashre etc.
CD6	12.24	1427	80	6+.80/2*1.10	20.5	1640	44.34	72717.6	605.98	Lal singh
CD7	12.24	2598, 2597	80	6+.80/2*1.10	20.5	1640	44.34	72717.6	605.98	jagmohan etc.
CD8	11.02	1421 , 1450	80	6+.80/2*1.10	20.5	1640	44.34	72717.6	605.98	Shivsevak etc.
CD9	12.24	1408, 1410	80	6+.80/2*1.10	20.5	1640	44.34	72717.6	605.98	Bachchuraj etc.
CD10	12.24	2857	80	6+.80/2*1.10	20.5	1640	44.34	72717.6	605.98	Ramnarayn, Muluva etc.
CD11	12.24	2865	80	6+.80/2*1.10	20.5	1640	44.34	72717.6	605.98	Anyapurn

CD12	12.24	2759, 2765	80	6+.80/2*1.10	20.5	1640	44.34	72717.6	605.98	Sukurva etc.
CD13	12.24	2764, 2684	80	6+.80/2*1.10	20.5	1640	44.34	72717.6	605.98	Narendra etc.
CD14	20.35	2767, 2683	140	6+.80/2*1.10	20.5	2870	44.34	127255.8	1060.465	Shivnarayn etc.
CD15	12.24	2941, 2938	80	6+.80/2*1.10	20.5	1640	44.34	72717.6	605.98	Baruaputli etc.
CD16	14.94	2966, 2964	100	6+.80/2*1.10	20.5	2050	44.34	90897	757.475	Nandan
CD17	12.24	3081, 3132	80	6+.80/2*1.10	20.5	1640	44.34	72717.6	605.98	jagatpal etc.
CD18	10.19	2123, 3128	50	6+.80/2*1.10	20.5	1025	44.34	45448.5	378.7375	Shikka, Shivprasad etc.
CD19	10.19	3117, 4414	70	6+.80/2*1.11	19	1330	44.34	58972.2	491.435	Gajodhar etc.
CD20	8.18	4432, 4424	50	6+.80/2*1.12	20.5	1025	44.34	45448.5	378.7375	Ramashanker etc.
CD21	12.24	3036	80	6+.80/2*1.13	20.5	1640	44.34	72717.6	605.98	Mahaveer
CD22	10.19	5890	70	6+.80/2*1.14	19	1330	44.34	58972.2	491.435	Vinda singh
CD23	12.24	5903	80	6+.80/2*1.15	20.55	1644	44.34	72894.96	607.458	
CD24	12.24	4084, 4044	80	6+.80/2*1.16	20.5	1640	44.34	72717.6	605.98	Raghuraj singh etc.
CD25	9.53	4035	60	6+.80/2*1.17	20.5	1230	44.34	54538.2	454.485	Gopal
CD26	9.53	5659, 5658	60	6+.80/2*1.18	20.5	1230	44.34	54538.2	454.485	Kuvar singh etc.
CD27	12.24	5808	80	6+.80/2*1.19	20.5	1640	44.34	72717.6	605.98	Balkrashan etc.
CD28	8.18	4093	50	6+.80/2*1.20	20.5	1025	44.34	45448.5	378.7375	Ramprasad etc.
CD29	10.19	4075	70	6+.80/2*1.21	20.5	1435	44.34	63627.9	530.2325	Ramsaran etc.
CD30	12.24	4566	80	6+.80/2*1.22	20.5	1640	44.34	72717.6	605.98	Subihari etc.
CD31	9.53	4555	60	6+.80/2*1.23	20.5	1230	44.34	54538.2	454.485	kaisho
CD32	14.94	4123, 4150	100	6+.80/2*1.24	20.5	2050	44.34	90897	757.475	Ramautar etc.
Total	**396.82**		**2660**			**53259.25**		**2361515**	**19679.29**	
WHB1	77.34	2830, 2934, 2978, 2979, 2980	150	6+.80/2*1.24	36	5400	51.08	275832	2298.6	
WHB2	50.08	2798, 4041, 2092, 2830	150	6+.80/2*1.24	36	5400	51.08	275832	2298.6	
Total	**127.42**		**300**			**10800**		**551664**		

ANNEXURE-II

LIVELIHOOD ACTION PLAN

Annaual Action Plan for Livelihood (Physical & Financial)

Livelihood activities through SHG's												
	(1) Activity Goatary										0	0.00
	(a) No. of SHG's	No.	0	0.0	21	5.3	21	5.3	5	1.2	47	11.76
	(b) No. of members	No.	0	0.0	210		210		50		470	
	(c) Estimated income per year	Rs.	0	0.0		10.6		10.6		2.4	0	23.52
	(2) Activity- Back Yard Poultry											
	(a) No. of SHG's	No.	0	0.0	18	3.4	18	3.4	3	0.8	39	7.50
	(b) No. of members	No.	0	0.0	180		180		30		390	
	(c) Estimated income per year	Rs.	0	0.0		6.8		6.8		1.6		15.0
	(3) Activity- Poultry , Broiler		0	0.0							0	0.00
	(a) No. of SHG's	No.	0	0.0	18	4.3	18	4.3	3	1.0	39	9.65
	(b) No. of members	No.	0	0.0	180		180		30		390	
	(c) Estimated income per year	Rs.	0	0.0		8.6		8.6		2.0	0	19.30
	(4) Black Smithy										0	0.00
	(a) No. of SHG's	No.	0	0.0	4	0.8	3	0.8	1	0.2	8	1.75
	(b) No. of members	No.	0	0.0	40		30		10		80	
	(c) Estimated income per year	Rs.	0	0.0		1.6		1.6		0.4		3.50
	(5) Rope making										0	0.00
	(a) No. of SHG's	No.	0	0.0	7	1.7	7	1.7	2	0.4	16	3.71

	(b) No. of members	No.	0	0.0	70		70		20		160	
	(c) Estimated income per year	Rs.	0	0.0		3.4		3.4		0.8		7.42
	(6) Tailoring										0	0.00
	(a) No. of SHG's	No.	0	0.0	6	1.5	6	1.5	1	0.3	13	3.25
	(b) No. of members	No.	0	0.0	60		60		10		130	
	(c) Estimated income per year	Rs.	0	0.0		3.0		3.0		0.6		6.50
	(8) Vermi Composting										0	0.00
	(a) No. of SHG's	No.	0	0.0	17	4.3	17	4.3	4	1.0	38	9.50
	(b) No. of members	No.	0	0.0	170		170		40		380	
	(c) Estimated income per year	Rs.	0	0.0		8.6		8.6		2.0		19.0
	(9) Food processing										0	0.00
	(a) No. of SHG's	No.	0	0.0	14	3.6	14	3.6	4	0.8	32	8.03
	(b) No. of members	No.	0	0.0	140		140		40		320	
	(c) Estimated income per year	Rs.	0	0.0		7.2		7.2		1.6		16.06
	(13) Seed Bank										0	0.00
	(a) No. of SHG's	No.	0	0.0	16	4.2	16	4.2	4	0.9	36	9.24
	(b) No. of members	No.	0	0.0	160		160		40		360	
	(c) Estimated income per year	Rs.	0	0.0		8.4		8.4		1.8		18.48

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

	(1) Agriculture											
	(a) Crop demonstration											
	(1) No. of dem.	No.	92	2.290	416	10.304	416	10.304			924	22.897
	(2) Area	Ha.	46		208		208					
	(b) Seed Production											
	(1) No. of dem.	No.	37	0.954	166	4.294	166	4.294			368	9.542
	(2) Area	Ha.	18.4		82.8		82.8				184	
	(2) Horticulture/ Agri-Horticulture											
	(a) Area	Ha.	3.26	0.811	14.67	3.647	14.67	3.647			32.6	8.105
	(b) No. of Plants	No.										
	(3) Agro- forestry											
	(a) Scattered Plantation											
	(i) No. of plants	No.	479	0.271	2156	1.2195	2156	1.2195			4790	2.71
	(c) Block Plantation											
	(i) Area	ha	4.02	0.452	18.09	2.036	18.09	2.036			40.2	4.524
	(4) Animal husbandry											
	(a) Green fodder	Ha./no. farmer	4/8	0.329	16/32	1.316	16/32	1.316	4/8	0.329	40/80	3.29
	(b) Rearing of milch cattle											
	(i) Cow	No. of unit/ farmer	48/70	0.0304	192/278	0.1216	192/278	0.1216	48/70	0.0304	480/696	0.304

		no.										
	(ii) Buffalows	No. of unit/ farmer no.	0	0	8	0.96	8	0.96			16	1.92
	(c) Goatary	,,	269/25	0.014	1077/98	0.056	1077/98	0.056	269/25	0.014	2692/245	0.1396
	(d) Poultry	,,	4	0.36	15	1.44	15	1.44	4	0.36	38/38	3.6
	(e) Fisheries		0	0	3	0.252	6	0.504	6	0.504	15/30	1.26
	(f) Dairy		10	0.196	38	0.784	38	0.784	10	0.196	95	1.96
	(g) Health camps	No.	1256	0.058	3769	0.174	3769	0.174	3769	0.174	12562	0.57925
	(h) Artificial insemination	No. of animals	377	0.190	880	0.443	880	0.443	377	0.190	2513	1.265
	(i) Natural service bull	No.	-	-	8	1.92	-	-	-	-	8	1.92
	(5) Micro Interprises											
	(a) No. of units	No.	-	-	2	4.00	-	-	-	-	2	4.00
	(b) No. of beneficiaries	No.			25							
	(c) Income per year	Rs.			2.500							

2. **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	5000	2000.00
7. Use Weedicide	Pendimethalin 3.3 li/ha	465	1918	767.25
	(Pre emergence)			
11. Bio Fertilizers/Bio-agents				
i) Azatobactor + PSB	-			
ii) Rhizobium + PSB	5 Pkt + 5 Pkt = 10 Pkt @ Rs	7.5	94	37.50
iii) Trichoderma	1.50 kg /ha (Soil treatment)	136	255	102.00
12. Recommended dose of fertilizers				
25:60:30 NPK				
i) DAP*	130 kg	15	2438	975.00
ii) SSP*	375 kg	8	3750	1500.00
iii) Urea	In case of SSP 54 kg Urea applied	6	405	162.00
iv) MOP	50 kg	7	438	175.00
* Either one	40 kg /ha Sulphur added if SSP used			

13. IPM				
Spray of Neem Seed Kernal	10	30	375	150.00
Mataka Khad	15 lit/kg Gobar+Neemleaf+water+Desi cow urine+2 kg Molasis mix & Deco	2	155	62.00
Insecticides/Fungicides	If required One Dusting of Methyle Paratheon powder			
	25 kg / ha	25	781	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	6500	2600.00
7. Use Weedicide	Pendimethalin 3.3 li/ha	465	1918	767.25
	(Pre emergence)			
11. Bio Fertilizers/Bio-agents				
i) Azatobactor + PSB	-			
ii) Rhizobium + PSB	5 Pkt + 5 Pkt = 10 Pkt @ Rs	7.5	94	37.50
iii) Trichoderma	1.50 kg /ha (Soil treatment)	136	255	102.00
12. Recommended dose of fertilizers				
25:60:30 NPK				

i) DAP*	130 kg	15	2438	975.00
ii) SSP*	375 kg	8	3750	1500.00
iii) Urea	In case of SSP 54 kg Urea applied	6	405	162.00
iv) MOP	50 kg	7	438	175.00
* Either one	40 kg /ha Sulphur added if SSP used			
13. IPM				
Spray of Neem Seed Kernal	10	30	375	150.00
Mataka Khad	15 lit/kg Gobar+Neemleaf+water+Desi cow urine+2 kg Molasis mix & Deco	2	155	62.00
NPV	250 LE /ha at the time pod formation	200	250	100.00
Insecticides/Fungicides	If required One Dusting of Methyle Paratheon powder			
	25 kg / ha	25	781	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	7500	3000.00
7. Use Weedicide	Pendimethalin 3.3 li/ha	465	1918	767.25
	(Pre emergence)			

11. Bio Fertilizers/Bio-agents				
i) Azatobactor + PSB	-			
ii) Rhizobium + PSB	5 Pkt + 5 Pkt = 10 Pkt @ Rs	7.5	94	37.50
iii) Trichoderma	1.50 kg /ha (Soil treatment)	136	255	102.00
12. Recommended dose of fertilizers				
25:60:30 NPK				
i) DAP*	130 kg	15	2438	975.00
ii) SSP*	375 kg	8	3750	1500.00
iii) Urea	In case of SSP 54 kg Urea applied	6	405	162.00
iv) MOP	50 kg	7	438	175.00
* Either one	40 kg /ha Sulphur added if SSP used			
13. IPM				
Spray of Neem Seed Kernal	10	30	375	150.00
Mataka Khad	15 lit/kg Gobar+Neemleaf+water+Desi cow urine+2 kg Molasis mix & Deco	2	155	62.00
Insecticides/Fungicides	If required One Dusting of Methyle Paratheon powder			
	25 kg / ha	25	781	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	2000	800.00
7. Use Weedicide	Pendimethalin 3.3 li/ha	465	1918	767.25
	(Pre emergence)			
11. Bio Fertilizers/Bio-agents				
i) Azatobactor + PSB	-			
ii) Rhizobium + PSB	5 Pkt + 5 Pkt = 10 Pkt @ Rs	7.5	94	37.50
iii) Trichoderma	1.50 kg /ha (Soil treatment)	136	255	102.00
12. Recommended dose of fertilizers				
25:60:30 NPK				
i) DAP*	130 kg	15	2438	975.00
ii) SSP*	375 kg	8	3750	1500.00
iii) Urea	In case of SSP 54 kg Urea applied	6	405	162.00
iv) MOP	50 kg	7	438	175.00
* Either one	40 kg /ha Sulphur added if SSP used			
13. IPM				
Spray of Neem Seed Kernal	10	30	375	150.00
Mataka Khad	15 lit/kg Gobar+Neemleaf+water+Desi cow urine+2 kg Molasis mix & Deco	2	155	62.00
Insecticides/Fungicides	If required One Dusting of Methyle Paratheon powder			
	25 kg / ha	25	781	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	2000	800.00
7. Use Weedicide	Pendimethalin 3.3 li/ha	465	1918	767.25
	(Pre emergence)			
11. Bio Fertilizers/Bio-agents				
i) Azatobactor + PSB	-			
ii) Rhizobium + PSB	5 Pkt + 5 Pkt = 10 Pkt @ Rs	7.5	94	37.50
iii) Trichoderma	1.50 kg /ha (Soil treatment)	136	255	102.00
12. Recommended dose of fertilizers				
25:60:30 NPK				
i) DAP*	130 kg	15	2438	975.00
ii) SSP*	375 kg	8	3750	1500.00
iii) Urea	In case of SSP 54 kg Urea applied	6	405	162.00
iv) MOP	50 kg	7	438	175.00
* Either one	40 kg /ha Sulphur added if SSP used			
13. IPM				
Spray of Neem Seed Kernal	10	30	375	150.00
Mataka Khad	15 lit/kg Gobar+Neemleaf+water+Desi cow urine+2 kg Molasis mix & Deco	2	155	62.00
NPV	250 LE /ha at the time pod	200	250	100.00

	formation			
Insecticides/Fungicides	If required One Dusting of Methyle Paratheon powder			
	25 kg / ha	25	781	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	3000	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	94	37.50
iii) Trichoderma	1.50 kg /ha (Soil treatment)	136	255	102.00
12. Recommended dose of fertilizers				
15:45:20 NPK				
i) DAP*	100 kg	15	2438	750.00

ii) SSP*	250 kg	8	3750	1000.00
iii) Urea	In case of SSP 54 kg Urea applied	6	405	162.00
iv) MOP	50 kg	7	438	175.00
* Either one	30 kg /ha Sulphur added if SSP used			
13. IPM				
Spray of Neem Seed Kernal	10	30	375	150.00
Mataka Khad	15 lit/kg Gobar+Neemleaf+water+Desi cow urine+2 kg Molasis mix & Deco	2	155	62.00
Insecticides/Fungicides	If required One Dusting of Methyle Paratheon powder		0	
	25 kg / ha	25	781	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	2813	1125.00
7. Use Weedicide	-	-	-	-
11. Bio Fertilizers/Bio-agents				
i) Azatobactor + PSB	5 Pkt + 5 Pkt = 10 Pkt @ Rs	7.5	94	37.50
ii) Rhizobium + PSB	-	-	-	-

iii) Trichoderma	-	-	-	-
12. Recommended dose of fertilizers				
50:40:40 NPK				
i) DAP*	125 kg	15	2344	937.50
ii) SSP*	275 kg	8	2750	1100.00
iii) Urea	50 kg	6	375	150.00
iv) MOP	50 kg	7	438	175.00
* Either one	30 kg /ha Sulphur added if SSP used			
13. IPM				
Spray of Neem Seed Kernal	10	30	375	150.00
Mataka Khad	15 lit/kg Gobar+Neemleaf+water+Desi cow urine+2 kg Molasis mix & Deco	2	155	62.00
Insecticides/Fungicides	If required One Dusting of Methyle Paratheon powder		0	
	25 kg / ha	25	781	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	1125	450.00

7. Use Weedicide	-	-	-	-
11. Bio Fertilizers/Bio-agents				
i) Azatobactor + PSB	5 Pkt + 5 Pkt = 10 Pkt @ Rs	7.5	94	37.50
ii) Rhizobium + PSB	-	-	-	-
iii) Trichoderma	-	-	-	-
12. Recommended dose of fertilizers				
60:50:30 NPK				
i) DAP*	180 kg	15	3375	1350.00
ii) SSP*	275 kg	8	2750	1100.00
iii) Urea	75 kg	6	563	225.00
iv) MOP	50 kg	7	438	175.00
* Either one	30 kg /ha Sulphur added if SSP used			
13. IPM				
Spray of Neem Seed Kernal	10	30	375	150.00
Mataka Khad	15 lit/kg Gobar+Neemleaf+water+Desi cow urine+2 kg Molasis mix & Deco	2	155	62.00
Insecticides/Fungicides	If required One Dusting of Methyle Paratheon powder			
	25 kg / ha	25	781	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		

	Late-Bhawani	Pulse Research, Kalyanpur Kanpur. IARI, Pusa New Delhi		
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	1000	400.00
7. Use Weedicide	-	-	-	-
11. Bio Fertilizers/Bio-agents				
i) Azatobactor + PSB	5 Pkt + 5 Pkt = 10 Pkt @ Rs	7.5	94	37.50
ii) Rhizobium + PSB	-	-	-	-
iii) Trichoderma	-	-	-	-
12. Recommended dose of fertilizers				
50:30:30 NPK				
i) DAP*	125 kg	15	2344	937.50
ii) SSP*	275 kg	8	2750	1100.00
iii) Urea	50 kg	6	375	150.00
iv) MOP	50 kg	7	438	175.00
* Either one	30 kg /ha Sulphur added if SSP used			
13. IPM				
Spray of Neem Seed Kernal	10	30	375	150.00
Mataka Khad	15 lit/kg Gobar+Neemleaf+water+Desi cow urine+2 kg Molasis mix & Deco	2	155	62.00
Insecticides/Fungicides	If required One Dusting of Methyle Paratheon powder		0	
	25 kg / ha	25	781	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 Late- Pragati, Tarun	C. S. A. University of Ag. & Technology, Kanpur, Indian Institute of Pulse Research, Kalyanpur Kanpur. IARI, Pusa New Delhi		
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	750	300.00
7. Use Weedicide	-	-	-	-
11. Bio Fertilizers/Bio-agents				
i) Azatobactor + PSB	5 Pkt + 5 Pkt = 10 Pkt @ Rs	7.5	94	37.50
ii) Rhizobium + PSB	-	-	-	-
iii) Trichoderma	-	-	-	-
12. Recommended dose of fertilizers				
30:15:25 NPK				
i) DAP*	80 kg	15	1500	600.00
ii) SSP*	225 kg	8	2250	900.00
iii) Urea	30 kg	6	225	90.00
iv) MOP	40 kg	7	350	140.00
* Either one	30 kg /ha Sulphur added if SSP used			
13. IPM				
Spray of Neem Seed Kernal	10	30	375	150.00
Mataka Khad	15 lit/kg Gobar+Neemleaf+water+Desi cow urine+2 kg Molasis mix & Deco	2	155	62.00

Insecticides/Fungicides	If required One Dusting of Methyle Paratheon powder			
	25 kg / ha	25	781	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	3125	1250.00
7. Use Weedicide	Total - at 28 to 32 at after sowing	950	1188	475.00
11. Bio Fertilizers/Bio-agents				
i) Azatobactor + PSB	5 Pkt + 5 Pkt = 10 Pkt @ Rs	7.5	94	37.50
ii) Rhizobium + PSB	-	-	-	-
iii) Trichoderma	1.50 kg /ha (Soil treatment)	136	255	102.00
12. Recommended dose of fertilizers				
120:60:40 NPK				
i) DAP*	325 kg	15	6094	2437.50
ii) SSP*	-	-	0	0.00
iii) Urea	100 kg	6	750	300.00
iv) MOP	80 kg	7	700	280.00

v) Zinc	30 kg /ha	25	938	375.00
13. IPM				
Spray of Neem Seed Kernal	10	30	375	150.00
Mataka Khad	15 lit/kg Gobar+Neemleaf+water+Desi cow urine+2 kg Molasis mix & Deco	2	155	62.00
Insecticides/Fungicides	If required One Dusting of Methyle Paratheon powder		0	
	25 kg / ha	25	781	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	1650	660.00
4. Seed Treatement	Thirum & 25 ml Chloropiryphose	60	75	30.00
11. Bio Fertilizers/Bio-agents				
i) Azatobactor + PSB	5 Pkt + 5 Pkt = 10 Pkt @ Rs	7.5	94	37.50
ii) Rhizobium + PSB	-	-	-	-
iii) Trichoderma	1.50 kg /ha (Soil treatment)	136	255	102.00
12. Recommended dose of				

fertilizers				
100:60:40 NPK				
i) DAP*	265 kg	15	4969	1987.50
ii) SSP*	-	-	0	0.00
iii) Urea	80 kg	6	600	240.00
iv) MOP	50 kg	7	438	175.00
v) Zinc	-	-	0	0.00
13. IPM				
Spray of Neem Seed Kernal	10	30	375	150.00
Mataka Khad	15 lit/kg Gobar+Neemleaf+water+Desi cow urine+2 kg Molasis mix & Deco	2	155	62.00
Insecticides/Fungicides	If required One Dusting of Methyle Paratheon powder		0	
	25 kg / ha	25	781	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	1000	400.00
4. Seed Treatement	Thirum & 25 ml Chloropiryphose	60	75	30.00

11. Bio Fertilizers/Bio-agents				
i) Azatobactor + PSB	5 Pkt + 5 Pkt = 10 Pkt @ Rs	7.5	94	37.50
ii) Rhizobium + PSB	-	-	-	-
iii) Trichoderma	1.50 kg /ha (Soil treatment)	136	255	102.00
12. Recommended dose of fertilizers				
100:60:40 NPK				
i) DAP*	265 kg	15	4969	1987.50
ii) SSP*	-	-	0	0.00
iii) Urea	80 kg	6	600	240.00
iv) MOP	50 kg	7	438	175.00
v) Zinc	-	-	0	0.00
13. IPM				
Spray of Neem Seed Kernal	10	30	375	150.00
Mataka Khad	15 lit/kg Gobar+Neemleaf+water+Desi cow urine+2 kg Molasis mix & Deco	2	155	62.00
Insecticides/Fungicides	If required One Dusting of Methyle Paratheon powder		0	
	25 kg / ha	25	781	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	600	240.00
4. Seed Treatement	Thirum & 25 ml Chloropiryphose	60	75	30.00
11. Bio Fertilizers/Bio-agents				
i) Azatobactor + PSB	5 Pkt + 5 Pkt = 10 Pkt @ Rs	7.5	94	37.50
ii) Rhizobium + PSB	-	-	-	-
iii) Trichoderma	1.50 kg /ha (Soil treatment)	136	255	102.00
12. Recommended dose of fertilizers				
80:40:20 NPK				
i) DAP*	280 kg	15	5250	2100.00
ii) SSP*	-	-	0	0.00
iii) Urea	100 kg	6	750	300.00
iv) MOP	80 kg	7	700	280.00
v) Zinc	-	-	0	0.00
13. IPM				
Spray of Neem Seed Kernal	10	30	375	150.00
Mataka Khad	15 lit/kg Gobar+Neemleaf+water+Desi cow urine+2 kg Molasis mix & Deco	2	155	62.00
Insecticides/Fungicides	If required One Dusting of Methyle Paratheon powder			
	25 kg / ha	25	781	312.50
	Total (Less SSP)			**3614.00**

Details of Demonstration under Agriculture Production System

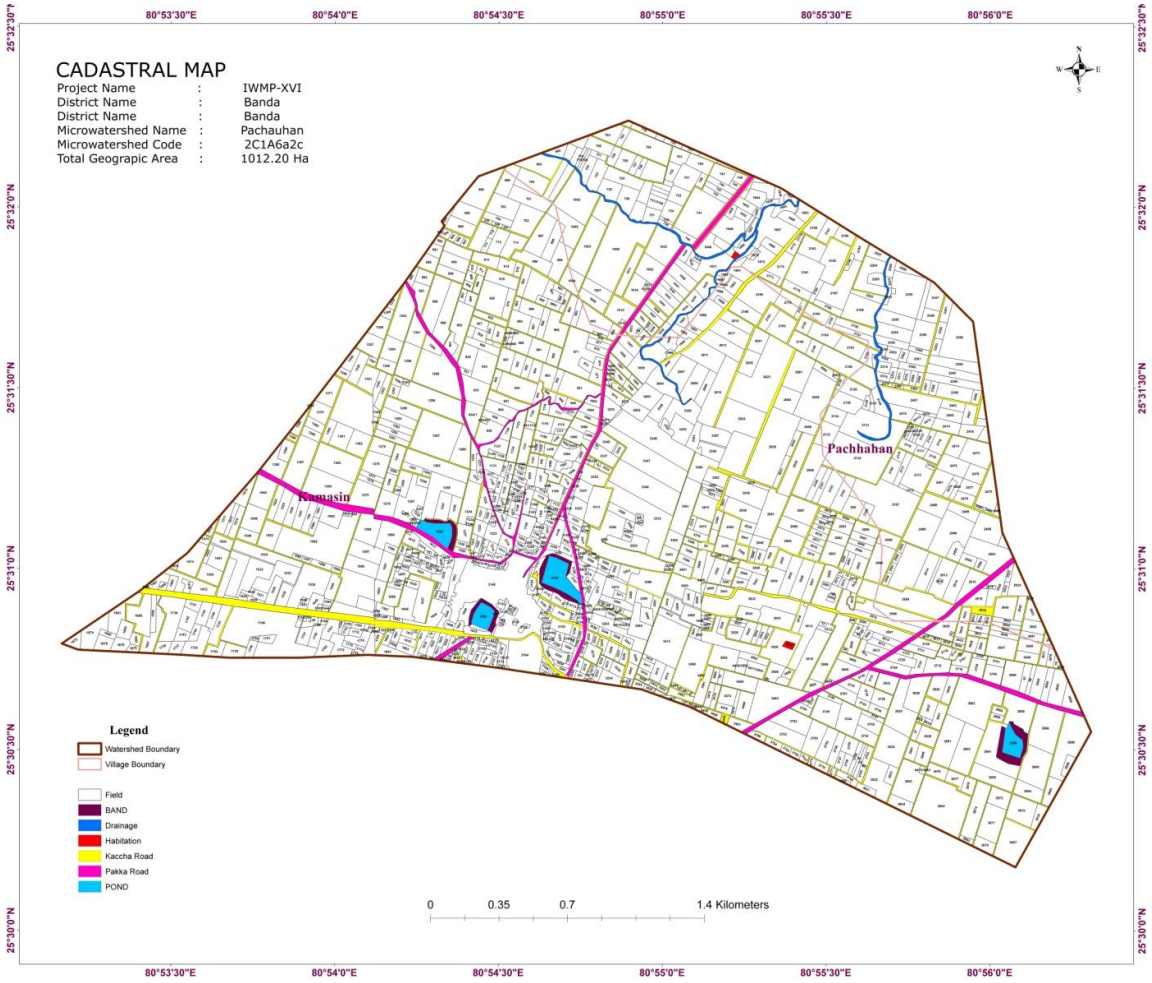
Project- IWMP-XVI															
S. No.	***No. of Farmers***	***Crop***	***Variety***	***Area (ha)***	***Total cost of demon. (Rs.)***	***Beneficiary Contribution (Rs.)***	***Share of Project fund (Rs.)***	***Prop. date of sowing***	***Exp. Crop maturity date***	***Prop. Crop cutting Date***	***Productivity (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									

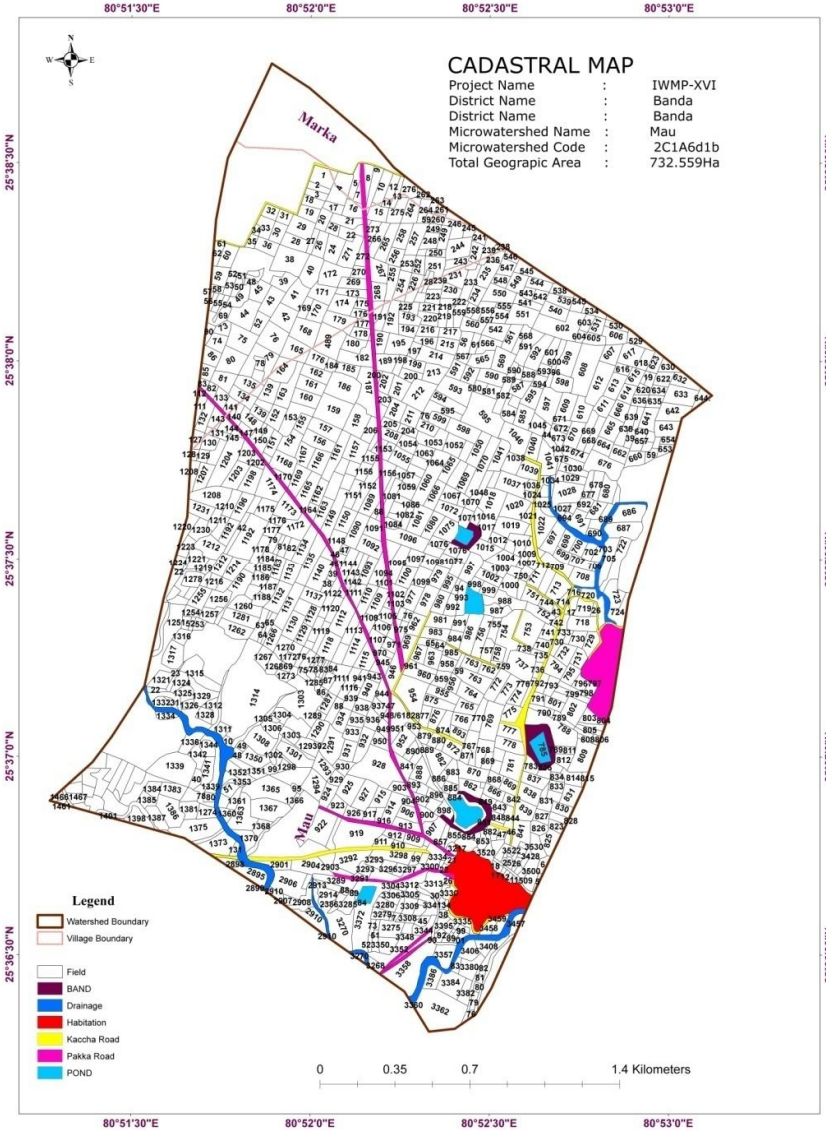
1	400	Lentil	DPL-15, K-75	80.00	3.795	0.133	3.662	15-Oct	Feb	5-Feb	4.9	6.5	520	867	433.33	
						0.493	3.301									
2	320	Chick pea	KDG-1168, KWR-108	64.00	3.484	0.122	3.362	15-30 October	Las Feb to Mid March	2-10 March	5.62	8.5	544	680	476.00	
						0.453	3.031									
3	320	Field Pea	KPMR-400, 522	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**									

NOTE: List of beneficiaries for crop demonstration trials is kept in project file and it is located on the the map of Participatory Crop Demonstration Trials (Crop Action Plan)

MAPS

3.


CADASTRAL MAP
Project Name : IWMP-XVI
District Name : Banda
District Name : Banda
Microwatershed Name : Pachauhan
Microwatershed Code : 2C1A6a2c
Total Geograpic Area : 1012.20 Ha
80°53'30"E
80°54'0"E
80°54'30"E
80°55'0"E
80°55'30"E
80°56'0"E
25°32'30"N
25°32'0"N
25°31'30"N
25°31'0"N
25°30'30"N
25°30'0"N
Pachhahan
Legend
Watershed Boundary
Village Boundary
Field
BAND
Drainage
Habitation
Kaccha Road
Pakka Road
POND
0
0.35
0.7
1.4 Kilometers


CADASTRAL MAP
Project Name : IWMP-XVI
District Name : Banda
District Name : Banda
Microwatershed Name : Mau
Microwatershed Code : 2C1A6d1b
Total Geograpic Area : 732.559Ha
Marka
Mau
Legend
Watershed Boundary
Village Boundary
Field
BAND
Drainage
Habitation
Kaccha Road
Pakka Road
POND
0 0.35 0.7 1.4 Kilometers
80°51'30"E
80°52'0"E
80°52'30"E
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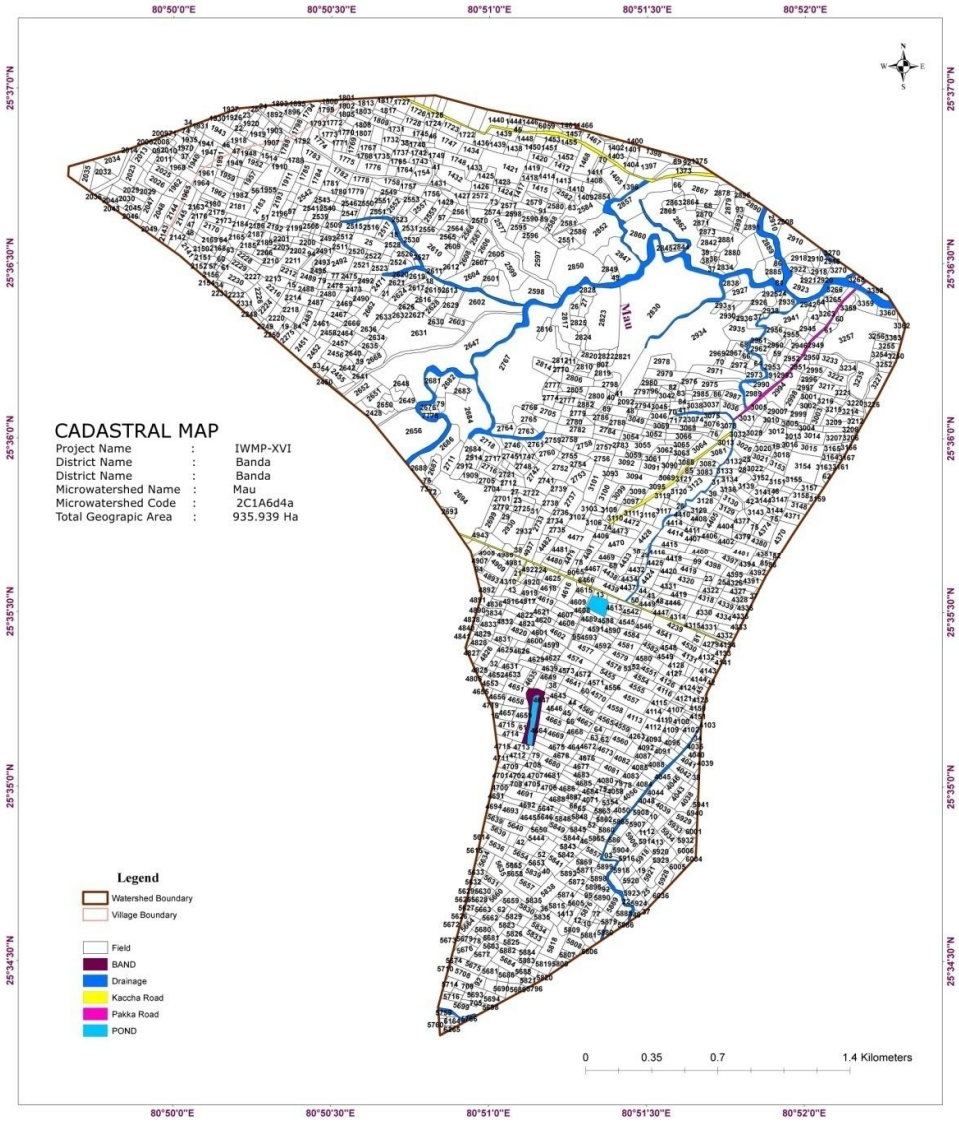
25°38'30"N
25°38'0"N
25°37'30"N
25°37'0"N
25°36'30"N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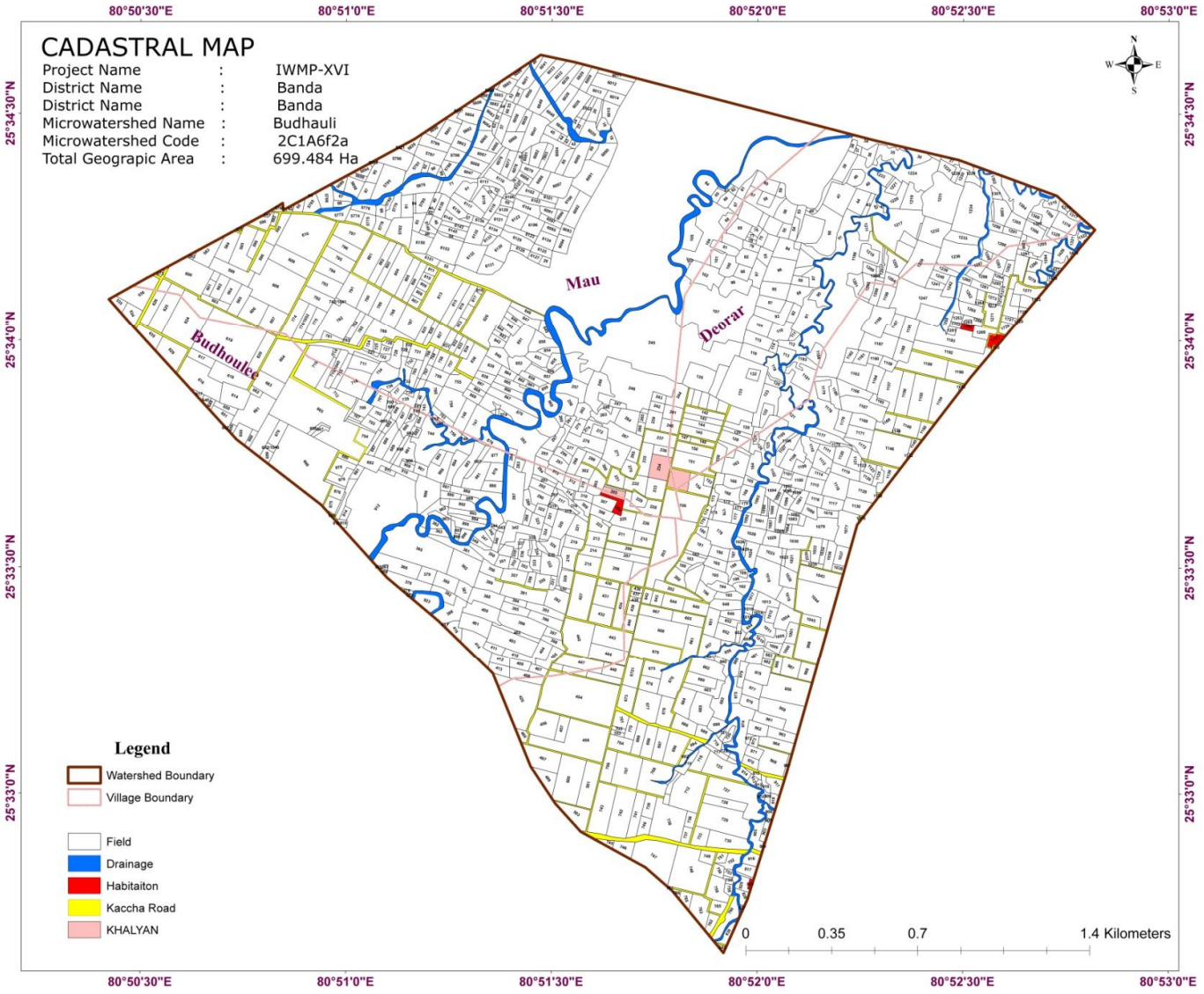
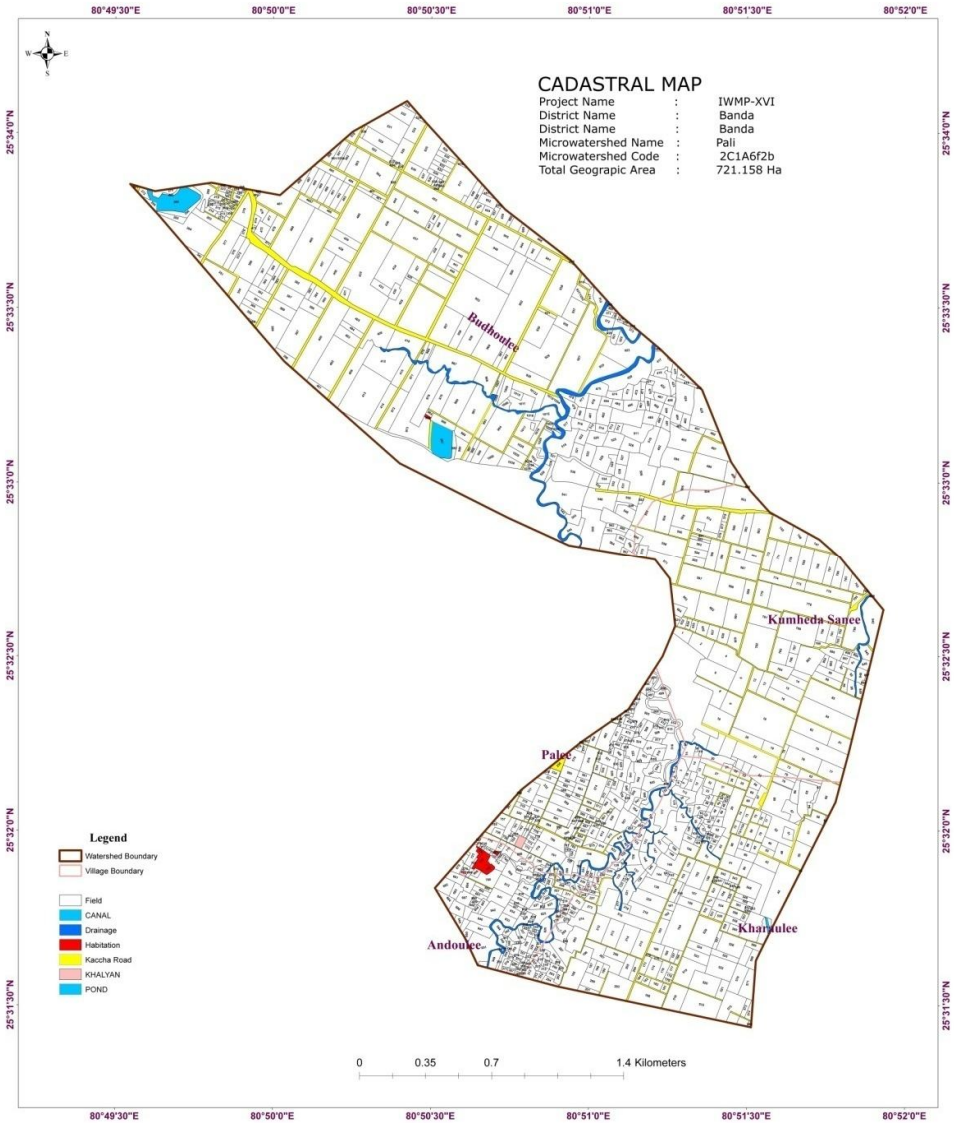
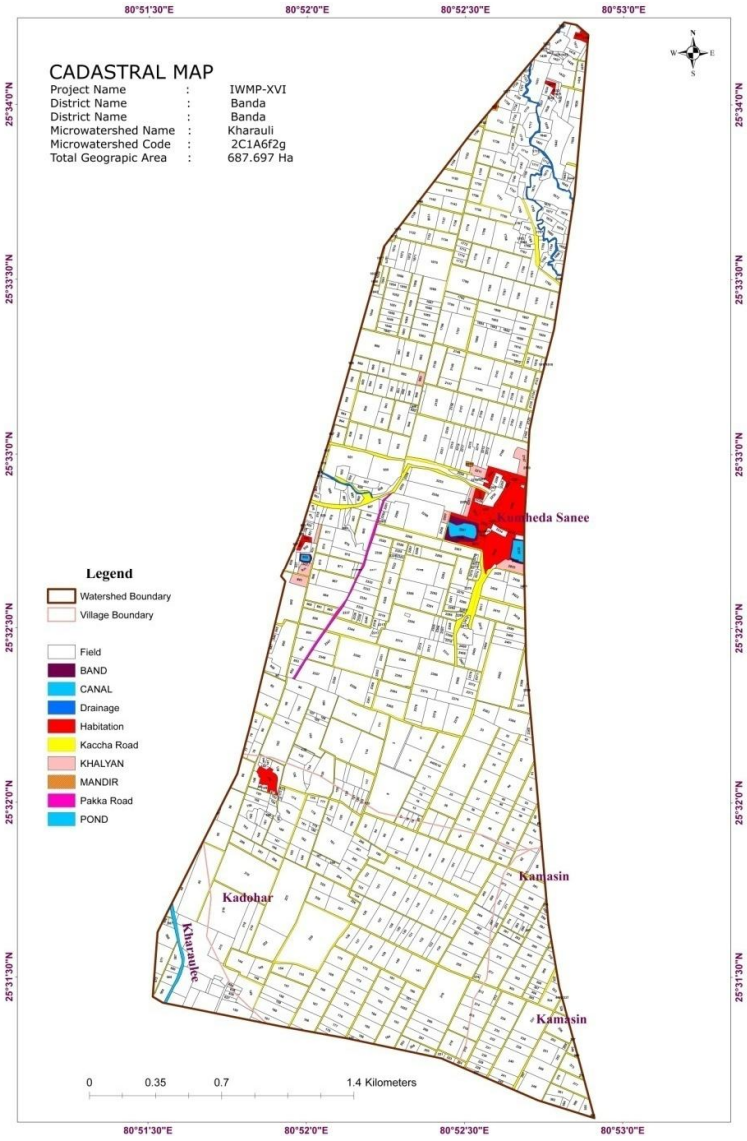
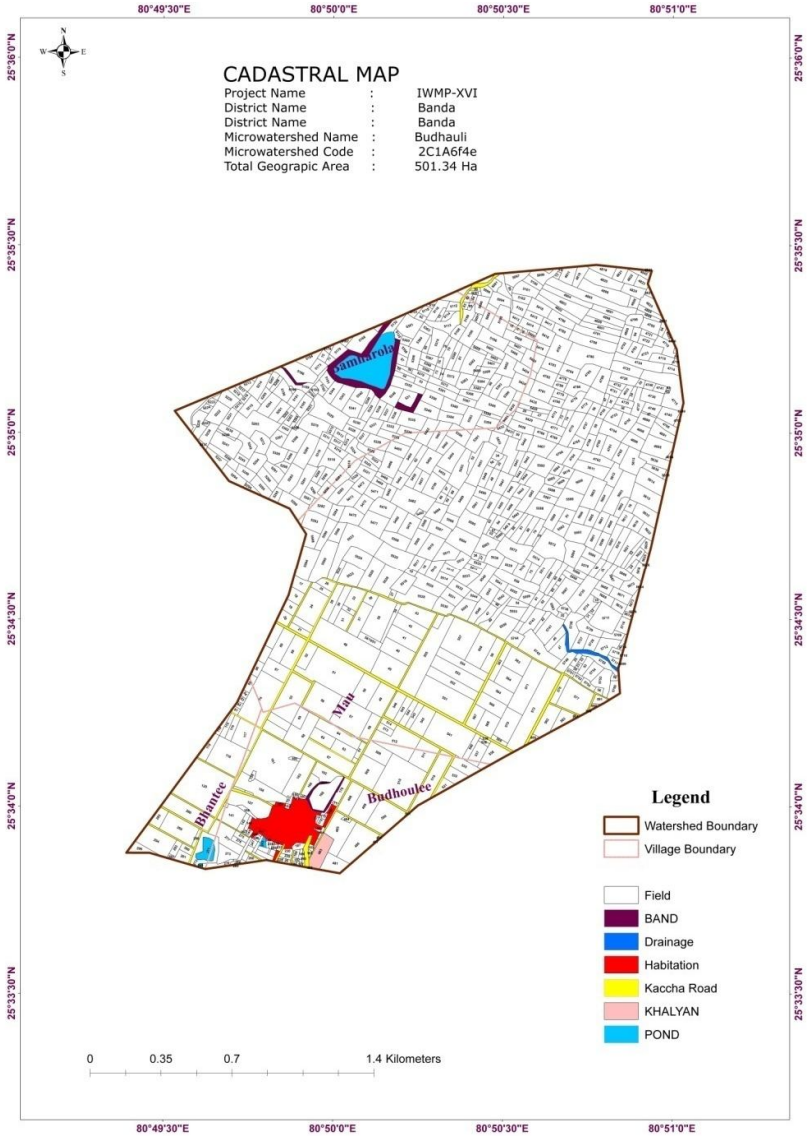
80°50'30"E
80°51'0"E
80°51'30"E
80°52'0"E
25°37'0"N
25°36'30"N
25°36'0"N
25°35'30"N
25°35'0"N
25°34'30"N
CADASTRAL MAP
Project Name : IWMP-XVI
District Name : Banda
District Name : Banda
Microwatershed Name : Mau
Microwatershed Code : 2C1A6d4a
Total Geograpic Area : 935.939 Ha
Legend
Watershed Boundary
Village Boundary
Field
BAND
Drainage
Kaccha Road
Pakka Road
POND
0 0.35 0.7 1.4 Kilometers


CADASTRAL MAP
Project Name : IWMP-XVI
District Name : Banda
District Name : Banda
Microwatershed Name : Kamasin
Microwatershed Code : 2C1A6f1c
Total Geograpic Area : 938.575 Ha
80°52'30"E
80°53'0"E
80°53'30"E
80°54'0"E
80°54'30"E
25°33'30"N
25°33'0"N
25°32'30"N
25°32'0"N
25°31'30"N
25°31'0"N
Kumheda Sance
Kamasin
Legend
Watershed Boundary
Village Boundary
1
Field
BAND
Habitation
Kaccha Road
KHALYAN
MANDIR
Pakka Road
POND
0
0.35
0.7
1.4 Kilometers


CADASTRAL MAP
Project Name : IWMP-XVI
District Name : Banda
District Name : Banda
Microwatershed Name : Budhauli
Microwatershed Code : 2C1A6f2a
Total Geograpic Area : 699.484 Ha
80°50'30"E
80°51'0"E
80°51'30"E
80°52'0"E
80°52'30"E
80°53'0"E
25°34'30"N
25°34'0"N
25°33'30"N
25°33'0"N
N
W
E
S
Mau
Deorar
Budhoulee
Legend
Watershed Boundary
Village Boundary
Field
Drainage
Habitaiton
Kaccha Road
KHALYAN
0
0.35
0.7
1.4 Kilometers


CADASTRAL MAP
Project Name : IWMP-XVI
District Name : Banda
District Name : Banda
Microwatershed Name : Pali
Microwatershed Code : 2C1A6f2b
Total Geograpic Area : 721.158 Ha
Budhoulee
Kumheda Sance
Palee
Khamaulee
Andoulee
Legend
Watershed Boundary
Village Boundary
Field
CANAL
Drainage
Habitation
Kaccha Road
KHALYAN
POND
0 0.35 0.7 1.4 Kilometers
80°49'30"E
80°50'0"E
80°50'30"E
80°51'0"E
80°51'30"E
80°52'0"E
25°34'0"N
25°33'30"N
25°33'0"N
25°32'30"N
25°32'0"N
25°31'30"N


CADASTRAL MAP
Project Name : IWMP-XVI
District Name : Banda
District Name : Banda
Microwatershed Name : Kharauli
Microwatershed Code : 2C1A6f2g
Total Geograpic Area : 687.697 Ha
80°51'30"E
80°52'0"E
80°52'30"E
80°53'0"E
25°34'0"N
25°33'30"N
25°33'0"N
25°32'30"N
25°32'0"N
25°31'30"N
Legend
Watershed Boundary
Village Boundary
Field
BAND
CANAL
Drainage
Habitation
Kaccha Road
KHALYAN
MANDIR
Pakka Road
POND
Kadheda Sanee
Kamasin
Kadohar
Kharaulee
Kamasin
0
0.35
0.7
1.4 Kilometers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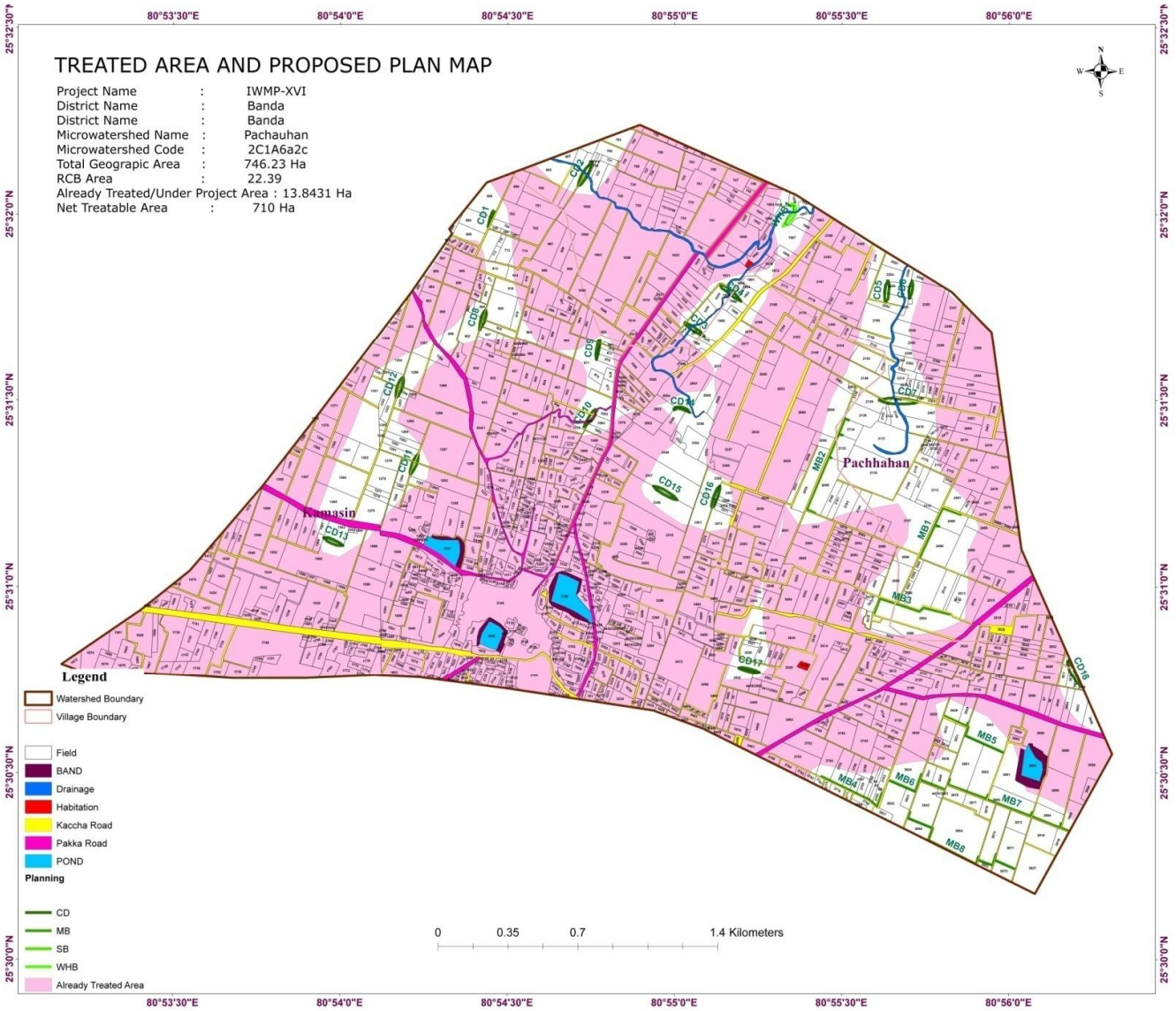
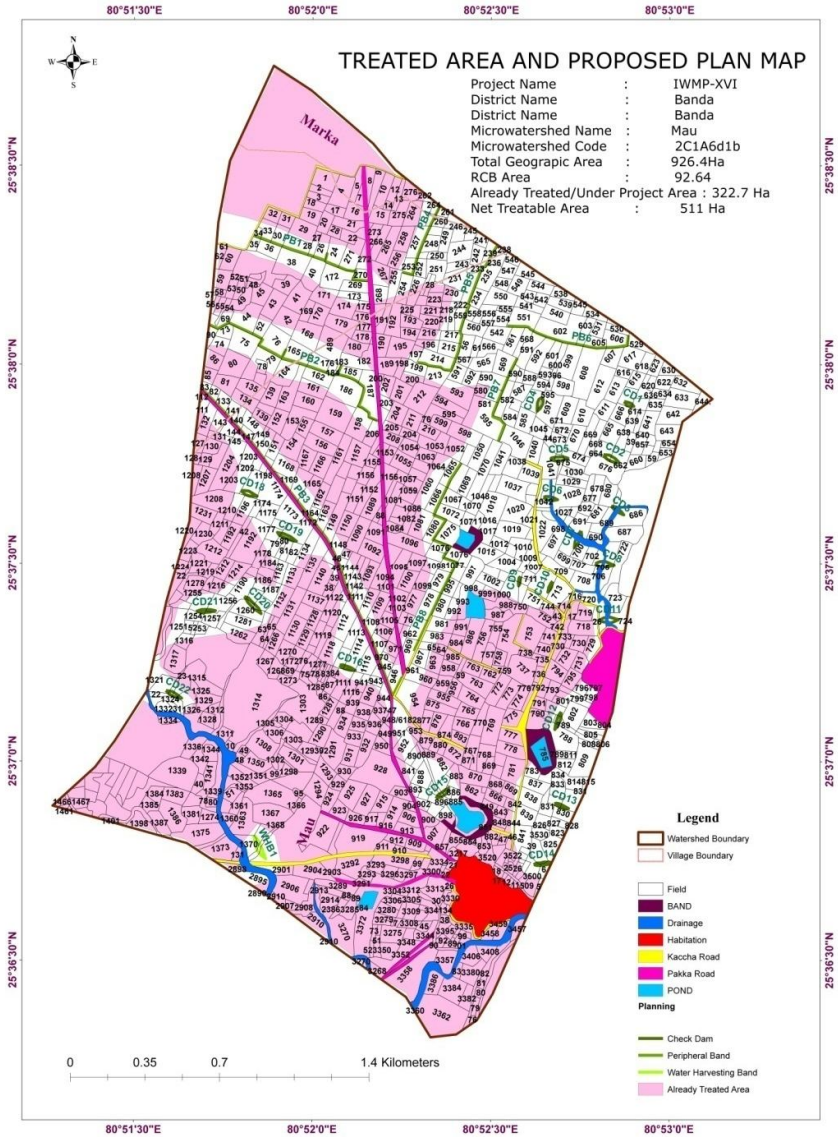
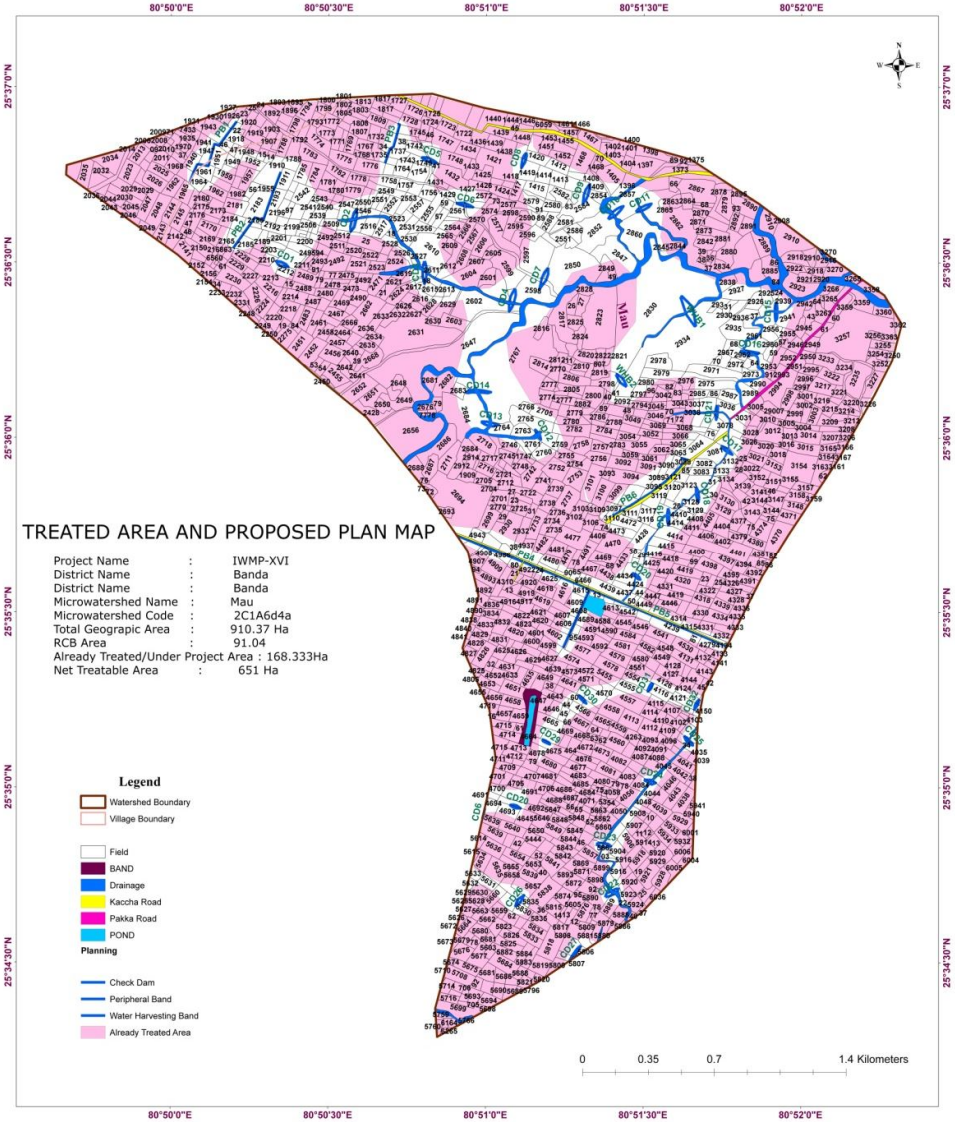
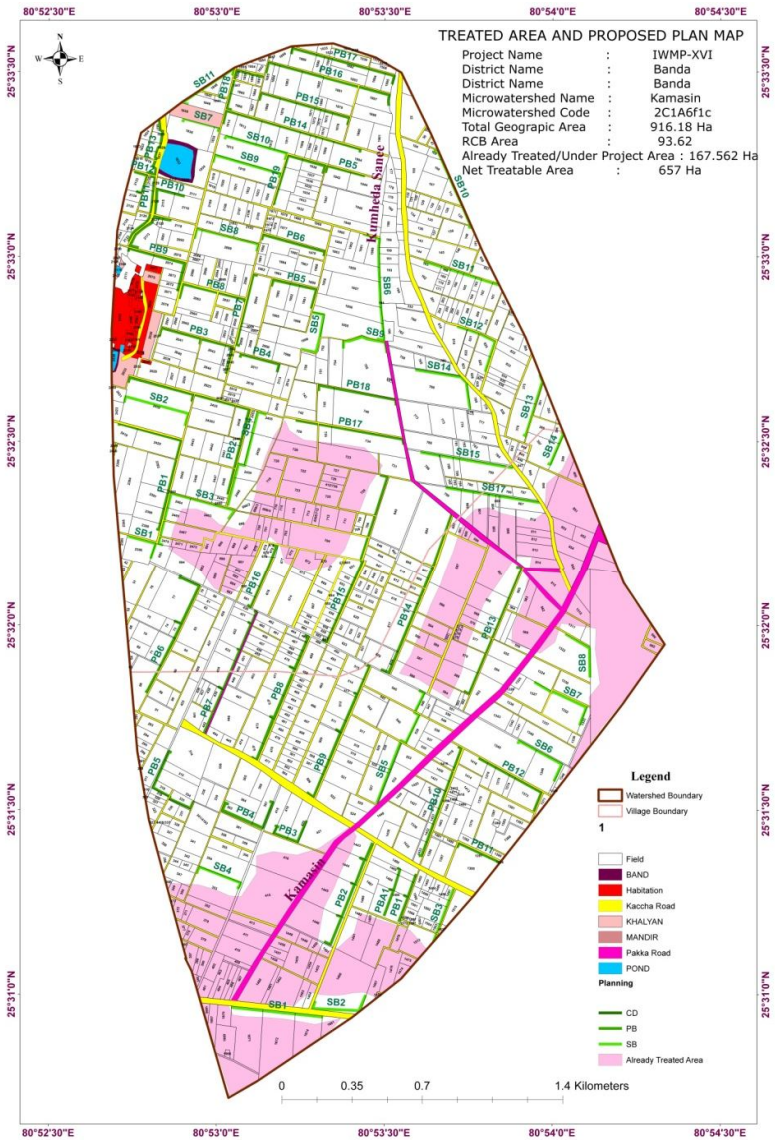
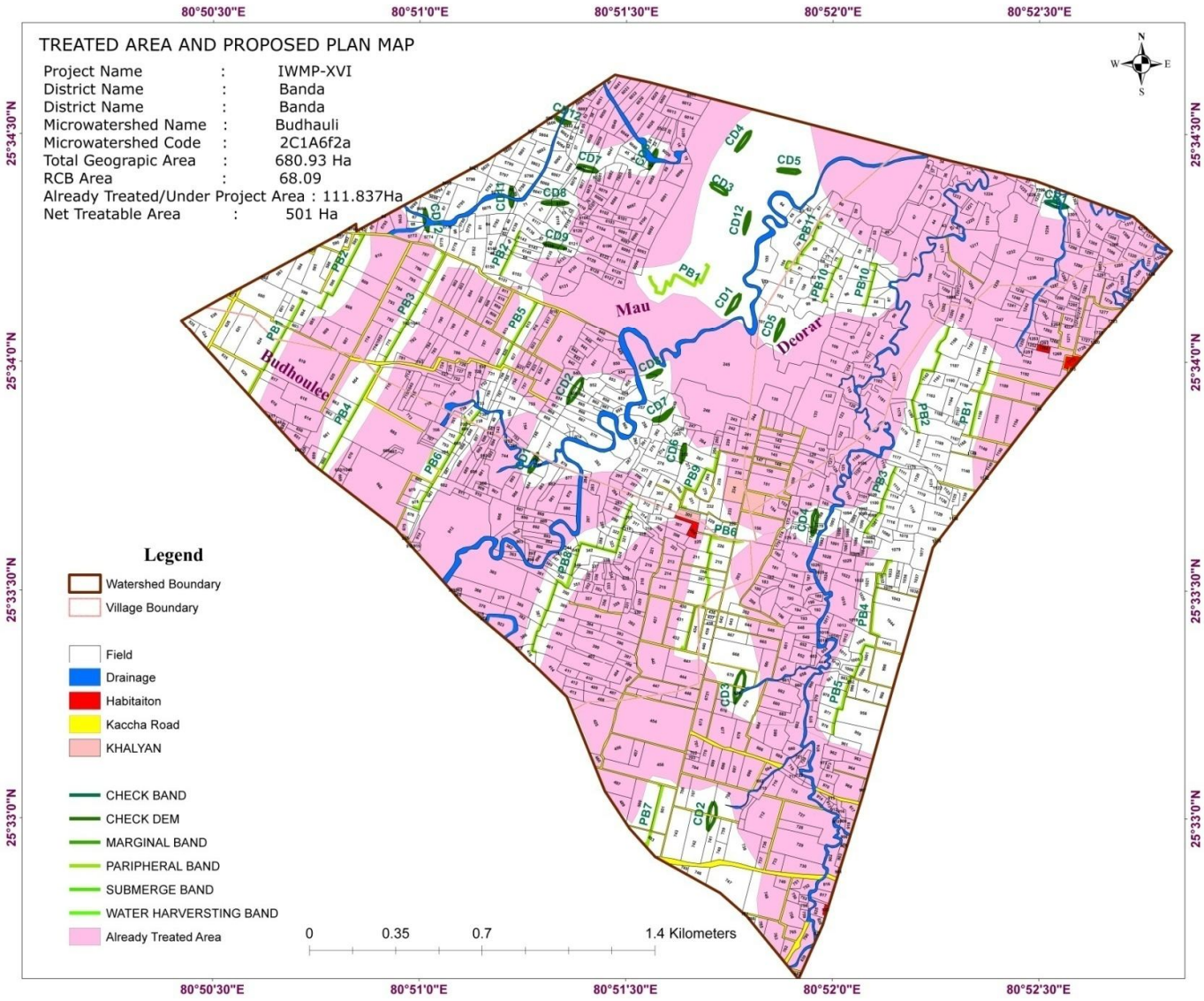
80°50'0"E
80°50'30"E
80°51'0"E
25°36'0"N
25°35'30"N
25°35'0"N
25°34'30"N
25°34'0"N
25°33'30"N
CADASTRAL MAP
Project Name : IWMP-XVI
District Name : Banda
District Name : Banda
Microwatershed Name : Budhauli
Microwatershed Code : 2C1A6f4e
Total Geograpic Area : 501.34 Ha
Jamharola
Nau
Bhantee
Budhoulee
Legend
Watershed Boundary
Village Boundary
Field
BAND
Drainage
Habitation
Kaccha Road
KHALYAN
POND
0
0.35
0.7
1.4 Kilometers

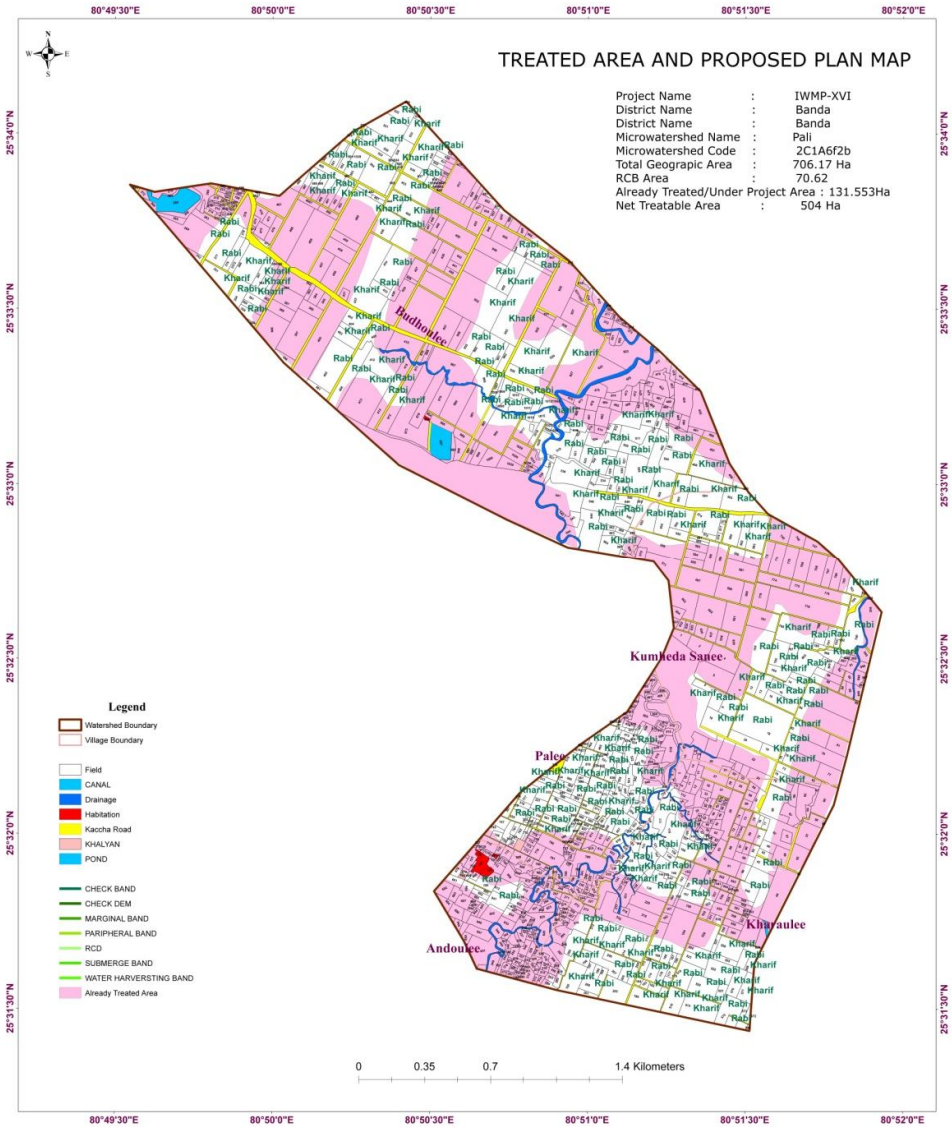

TREATED AREA AND PROPOSED PLAN MAP
Project Name : IWMP-XVI
District Name : Banda
District Name : Banda
Microwatershed Name : Pachauhan
Microwatershed Code : 2C1A6a2c
Total Geograpic Area : 746.23 Ha
RCB Area : 22.39
Already Treated/Under Project Area : 13.8431 Ha
Net Treatable Area : 710 Ha
80°53'30"E
80°54'0"E
80°54'30"E
80°55'0"E
80°55'30"E
80°56'0"E
25°32'30"N
25°32'0"N
25°31'30"N
25°31'0"N
25°30'30"N
25°30'0"N
N
W
E
S
Pachhahan
Kamasin
CD1
CD2
CD3
CD4
CD5
CD6
CD7
CD8
CD9
CD10
CD11
CD12
CD13
CD14
CD15
CD16
CD17
CD18
MB1
MB2
MB3
MB4
MB5
MB6
MB7
MB8
WHB1
WHB2
Legend
Watershed Boundary
Village Boundary
Field
BAND
Drainage
Habitation
Kaccha Road
Pakka Road
POND
Planning
CD
MB
SB
WHB
Already Treated Area
0
0.35
0.7
1.4 Kilometers

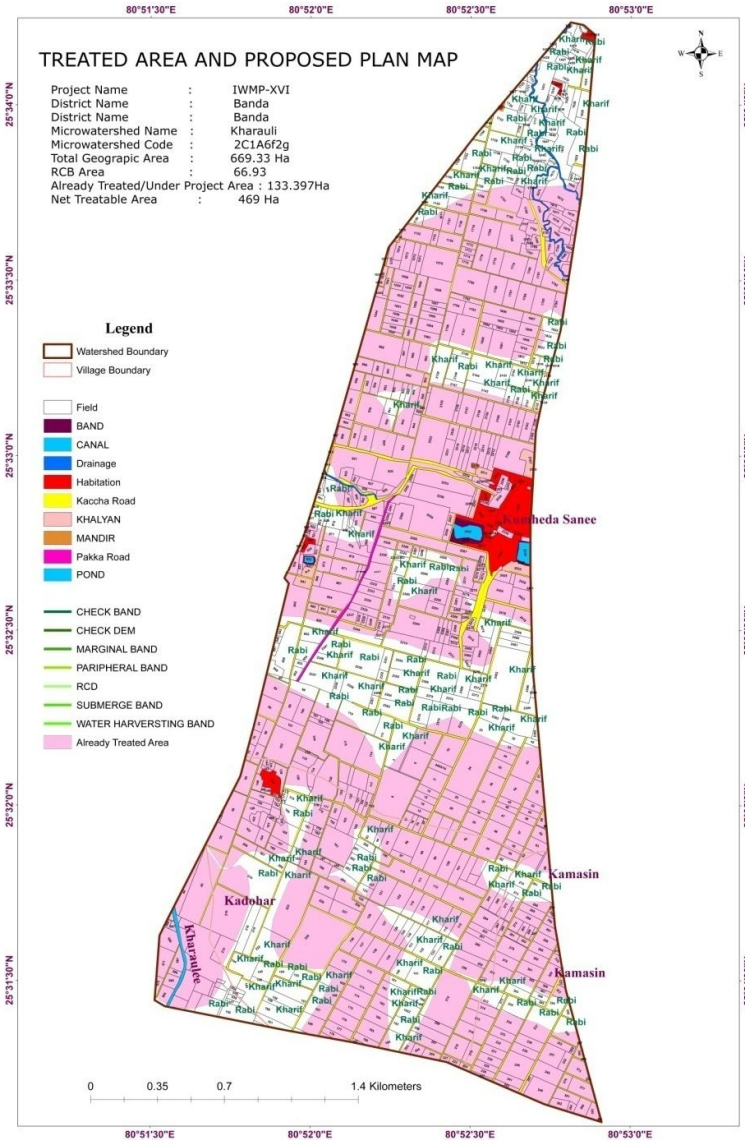

TREATED AREA AND PROPOSED PLAN MAP
Project Name : IWMP-XVI
District Name : Banda
District Name : Banda
Microwatershed Name : Mau
Microwatershed Code : 2C1A6d1b
Total Geograpic Area : 926.4Ha
RCB Area : 92.64
Already Treated/Under Project Area : 322.7 Ha
Net Treatable Area : 511 Ha
Marka
Mau
80°51'30"E
80°52'0"E
80°52'30"E
80°53'0"E
25°38'30"N
25°38'0"N
25°37'30"N
25°37'0"N
25°36'30"N
0 0.35 0.7 1.4 Kilometers
Legend
Watershed Boundary
Village Boundary
Field
BAND
Drainage
Habitation
Kaccha Road
Pakka Road
POND
Planning
Check Dam
Peripheral Band
Water Harvesting Band
Already Treated Area

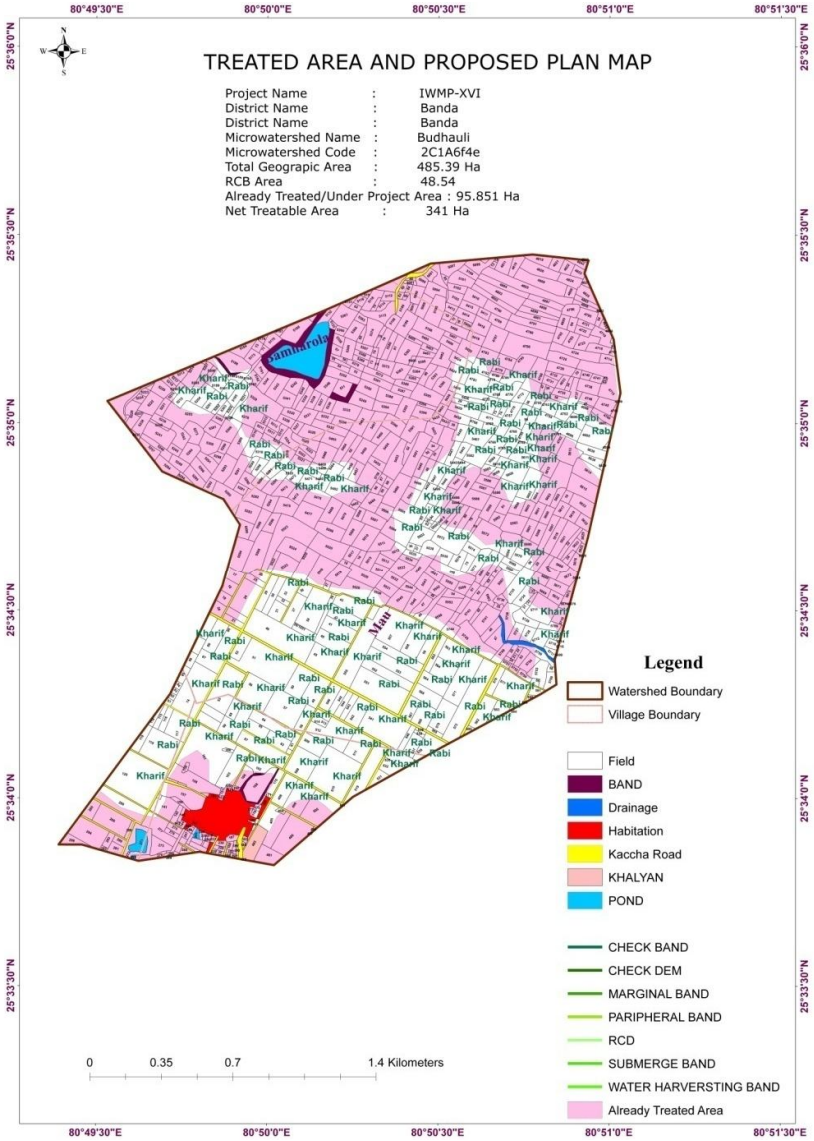

80°50'0"E
80°50'30"E
80°51'0"E
80°51'30"E
80°52'0"E
25°37'0"N
25°36'30"N
25°36'0"N
25°35'30"N
25°35'0"N
25°34'30"N
TREATED AREA AND PROPOSED PLAN MAP
Project Name : IWMP-XVI
District Name : Banda
District Name : Banda
Microwatershed Name : Mau
Microwatershed Code : 2C1A6d4a
Total Geograpic Area : 910.37 Ha
RCB Area : 91.04
Already Treated/Under Project Area : 168.333Ha
Net Treatable Area : 651 Ha
Legend
Watershed Boundary
Village Boundary
Field
BAND
Drainage
Kaccha Road
Pakka Road
POND
Planning
Check Dam
Peripheral Band
Water Harvesting Band
Already Treated Area
0
0.35
0.7
1.4 Kilometers

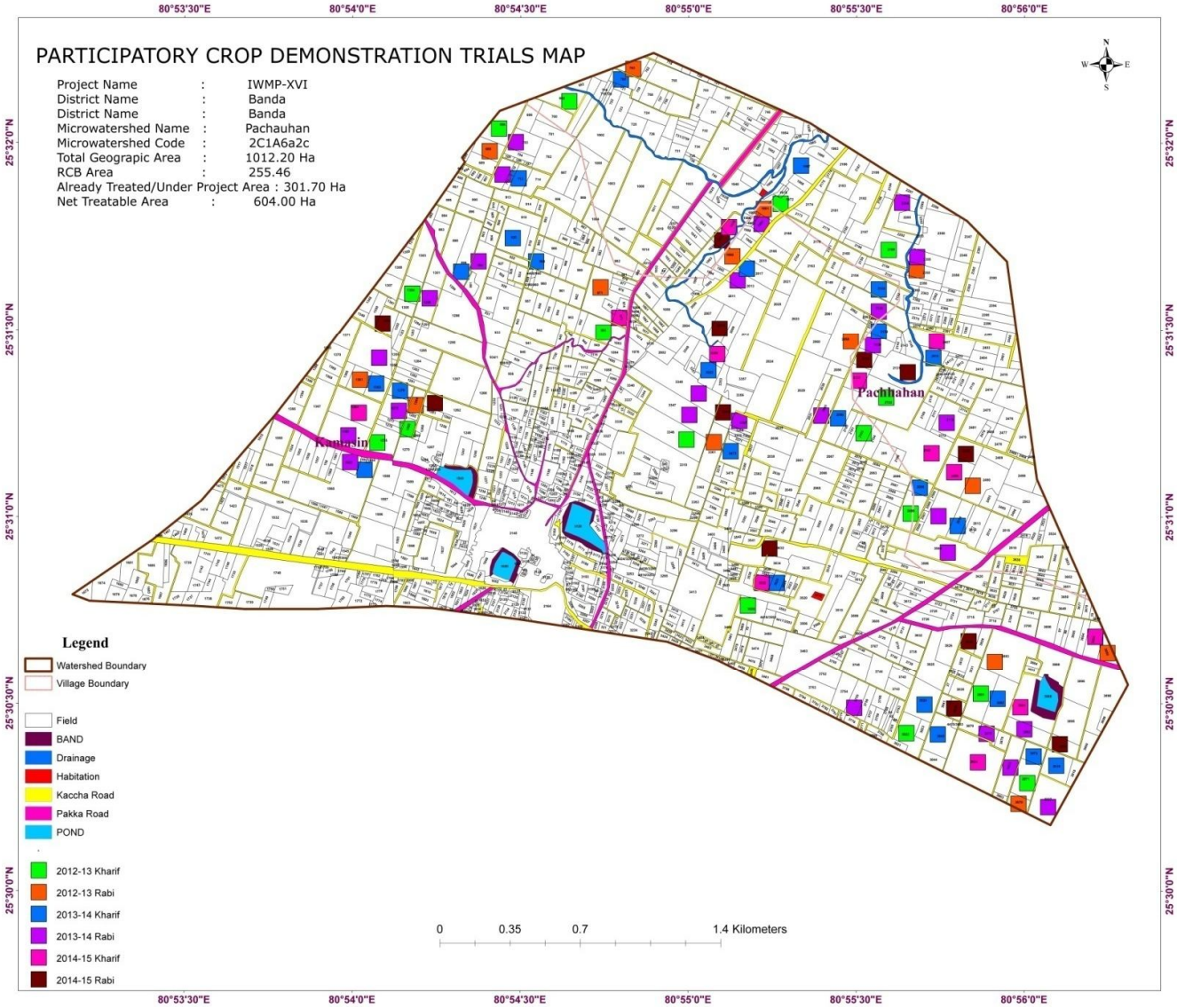

TREATED AREA AND PROPOSED PLAN MAP
Project Name : IWMP-XVI
District Name : Banda
District Name : Banda
Microwatershed Name : Kamasin
Microwatershed Code : 2C1A6f1c
Total Geograpic Area : 916.18 Ha
RCB Area : 93.62
Already Treated/Under Project Area : 167.562 Ha
Net Treatable Area : 657 Ha
Kumheda Sance
Kamasin
Legend
Watershed Boundary
Village Boundary
1
Field
BAND
Habitation
Kaccha Road
KHALYAN
MANDIR
Pakka Road
POND
Planning
CD
PB
SB
Already Treated Area
0
0.35
0.7
1.4 Kilometers
80°52'30"E
80°53'0"E
80°53'30"E
80°54'0"E
80°54'30"E
25°33'30"N
25°33'0"N
25°32'30"N
25°32'0"N
25°31'30"N
25°31'0"N

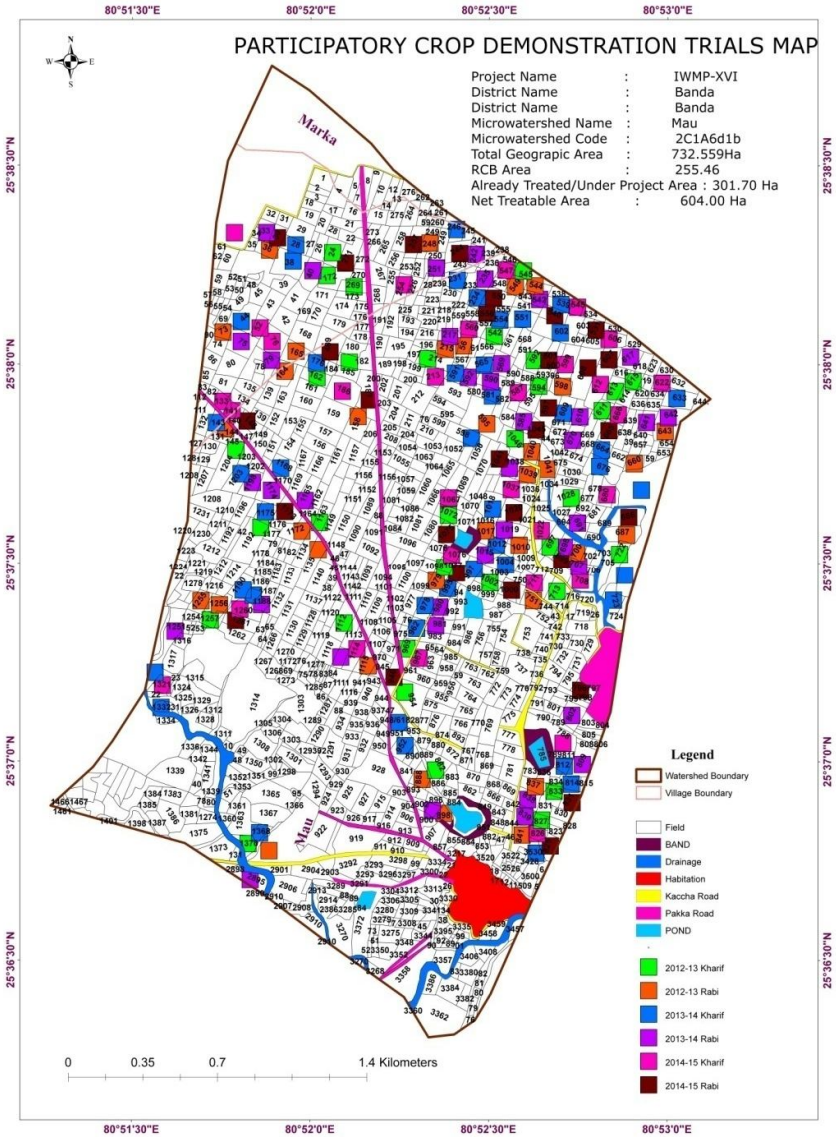

TREATED AREA AND PROPOSED PLAN MAP
Project Name : IWMP-XVI
District Name : Banda
District Name : Banda
Microwatershed Name : Budhauli
Microwatershed Code : 2C1A6f2a
Total Geograpic Area : 680.93 Ha
RCB Area : 68.09
Already Treated/Under Project Area : 111.837Ha
Net Treatable Area : 501 Ha
80°50'30"E
80°51'0"E
80°51'30"E
80°52'0"E
80°52'30"E
25°34'30"N
25°34'0"N
25°33'30"N
25°33'0"N
N
S
E
W
Mau
Budhoulee
Deorar
Legend
Watershed Boundary
Village Boundary
Field
Drainage
Habitaiton
Kaccha Road
KHALYAN
CHECK BAND
CHECK DEM
MARGINAL BAND
PARIPHERAL BAND
SUBMERGE BAND
WATER HARVERSTING BAND
Already Treated Area
0
0.35
0.7
1.4 Kilometers

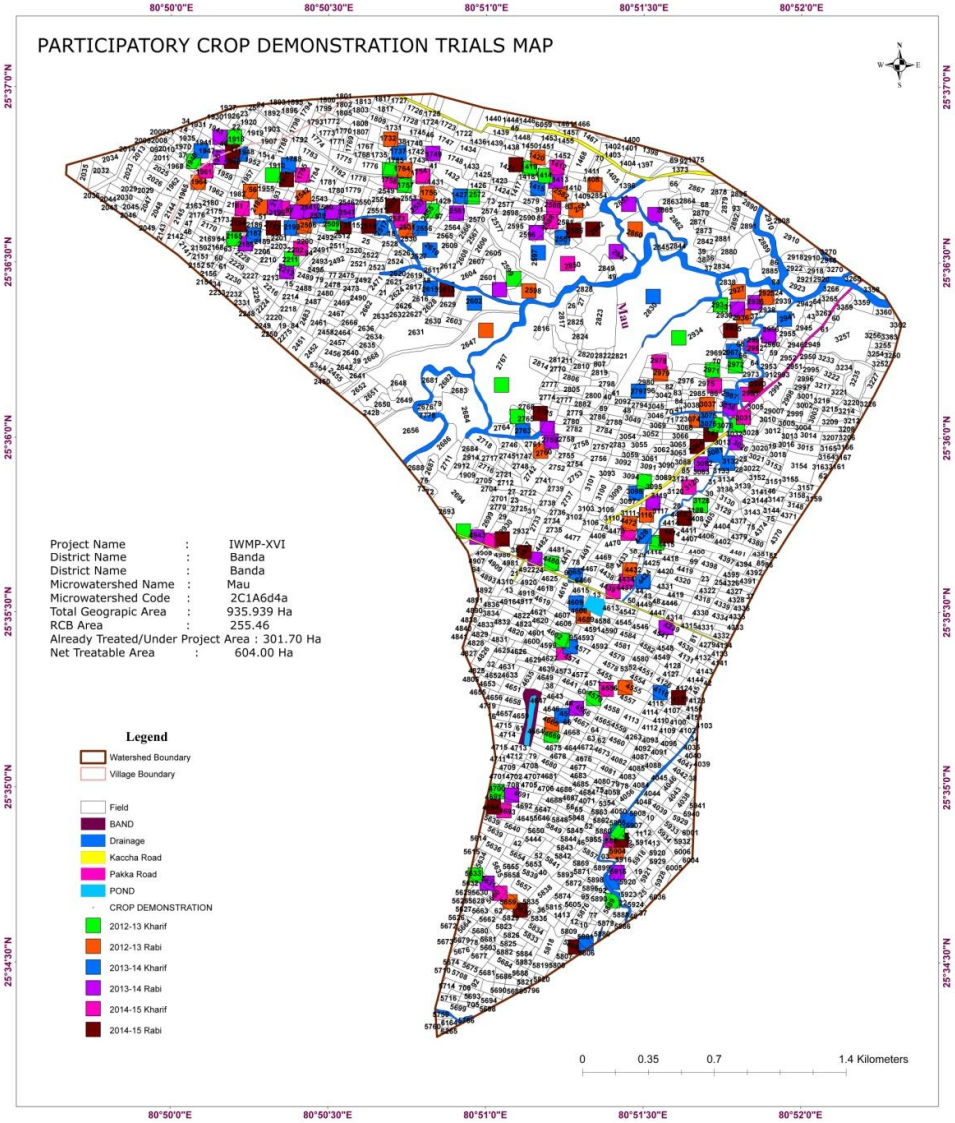

TREATED AREA AND PROPOSED PLAN MAP
Project Name : IWMP-XVI
District Name : Banda
District Name : Banda
Microwatershed Name : Pali
Microwatershed Code : 2C1A6f2b
Total Geograpic Area : 706.17 Ha
RCB Area : 70.62
Already Treated/Under Project Area : 131.553Ha
Net Treatable Area : 504 Ha
Budhoulee
Kumheda Sanee
Paleo
Andoulee
Khiraulee
Legend
Watershed Boundary
Village Boundary
Field
CANAL
Drainage
Habitation
Kaccha Road
KHALYAN
POND
CHECK BAND
CHECK DEM
MARGINAL BAND
PARIPHERAL BAND
RCD
SUBMERGE BAND
WATER HARVERSTING BAND
Already Treated Area
0 0.35 0.7 1.4 Kilometers
80°49'30"E
80°50'0"E
80°50'30"E
80°51'0"E
80°51'30"E
80°52'0"E
25°34'0"N
25°33'30"N
25°33'0"N
25°32'30"N
25°32'0"N
25°31'30"N

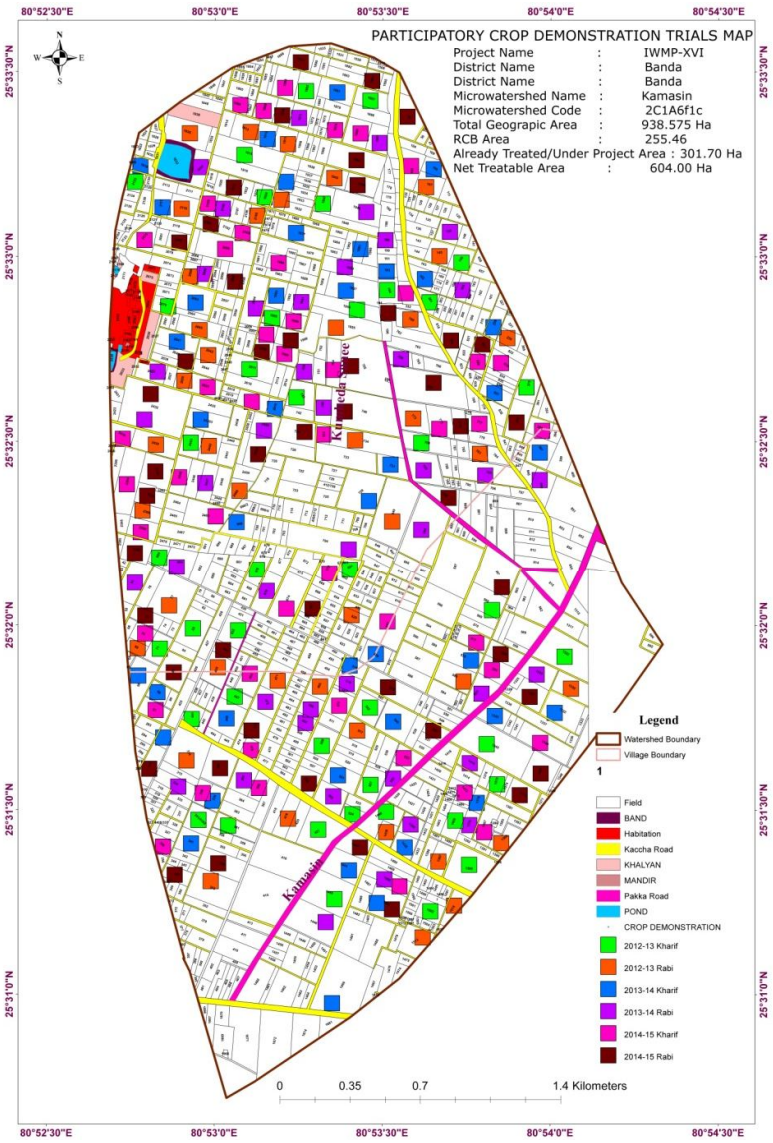

TREATED AREA AND PROPOSED PLAN MAP
Project Name : IWMP-XVI
District Name : Banda
District Name : Banda
Microwatershed Name : Kharauli
Microwatershed Code : 2C1A6f2g
Total Geograpic Area : 669.33 Ha
RCB Area : 66.93
Already Treated/Under Project Area : 133.397Ha
Net Treatable Area : 469 Ha
Legend
Watershed Boundary
Village Boundary
Field
BAND
CANAL
Drainage
Habitation
Kaccha Road
KHALYAN
MANDIR
Pakka Road
POND
CHECK BAND
CHECK DEM
MARGINAL BAND
PARIPHERAL BAND
RCD
SUBMERGE BAND
WATER HARVERSTING BAND
Already Treated Area
Kamasin
Kadohar
Kharzaulee
0 0.35 0.7 1.4 Kilometers
80°51'30"E
80°52'0"E
80°52'30"E
80°53'0"E
25°34'0"N
25°33'30"N
25°33'0"N
25°32'30"N
25°32'0"N
25°31'30"N

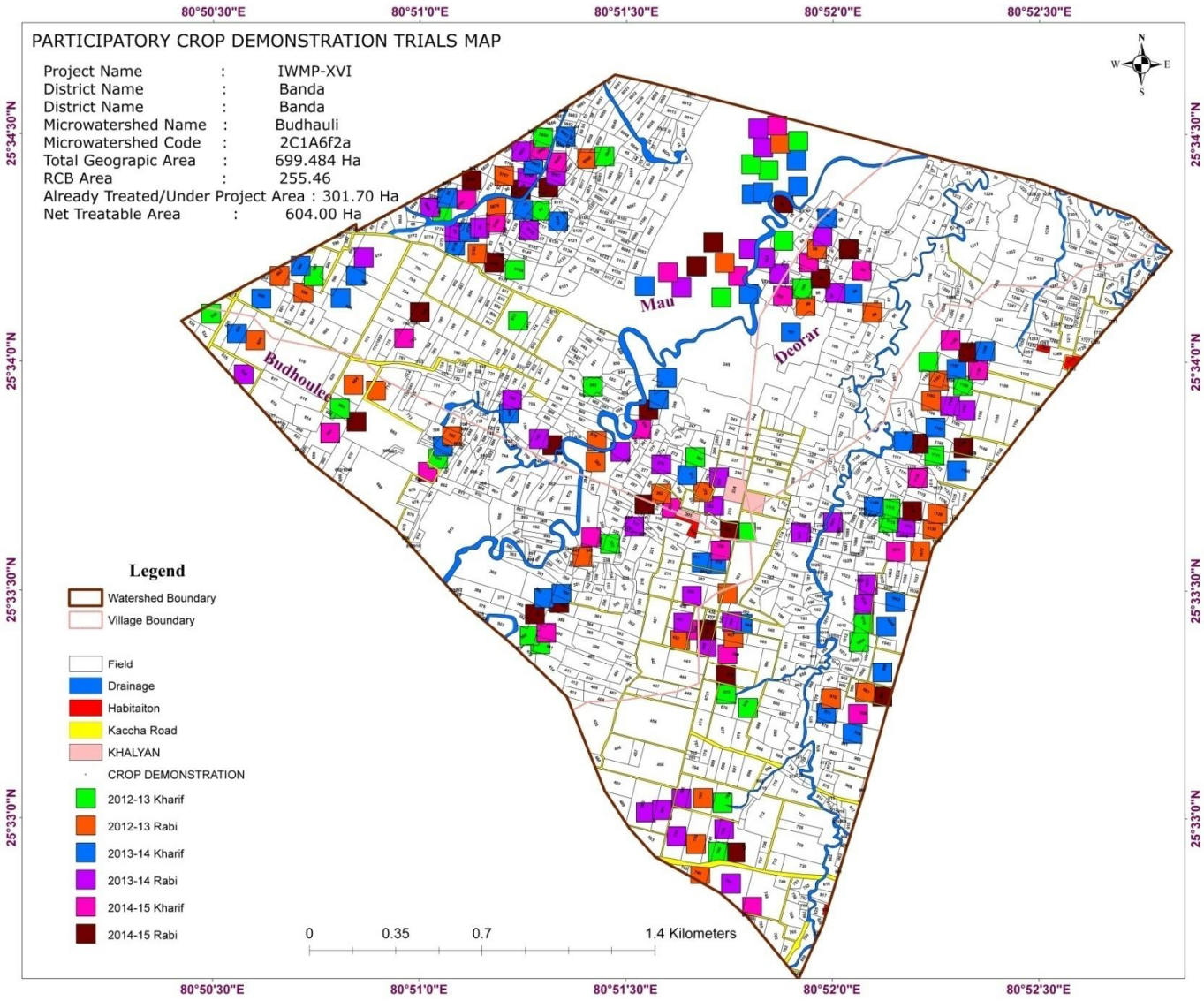

80°49'30"E
80°50'0"E
80°50'30"E
80°51'0"E
80°51'30"E
25°36'0"N
25°35'30"N
25°35'0"N
25°34'30"N
25°34'0"N
25°33'30"N
TREATED AREA AND PROPOSED PLAN MAP
Project Name : IWMP-XVI
District Name : Banda
District Name : Banda
Microwatershed Name : Budhauli
Microwatershed Code : 2C1A6f4e
Total Geograpic Area : 485.39 Ha
RCB Area : 48.54
Already Treated/Under Project Area : 95.851 Ha
Net Treatable Area : 341 Ha
Rabi
Kharif
Legend
Watershed Boundary
Village Boundary
Field
BAND
Drainage
Habitation
Kaccha Road
KHALYAN
POND
CHECK BAND
CHECK DEM
MARGINAL BAND
PARIPHERAL BAND
RCD
SUBMERGE BAND
WATER HARVERSTING BAND
Already Treated Area
0 0.35 0.7 1.4 Kilometers

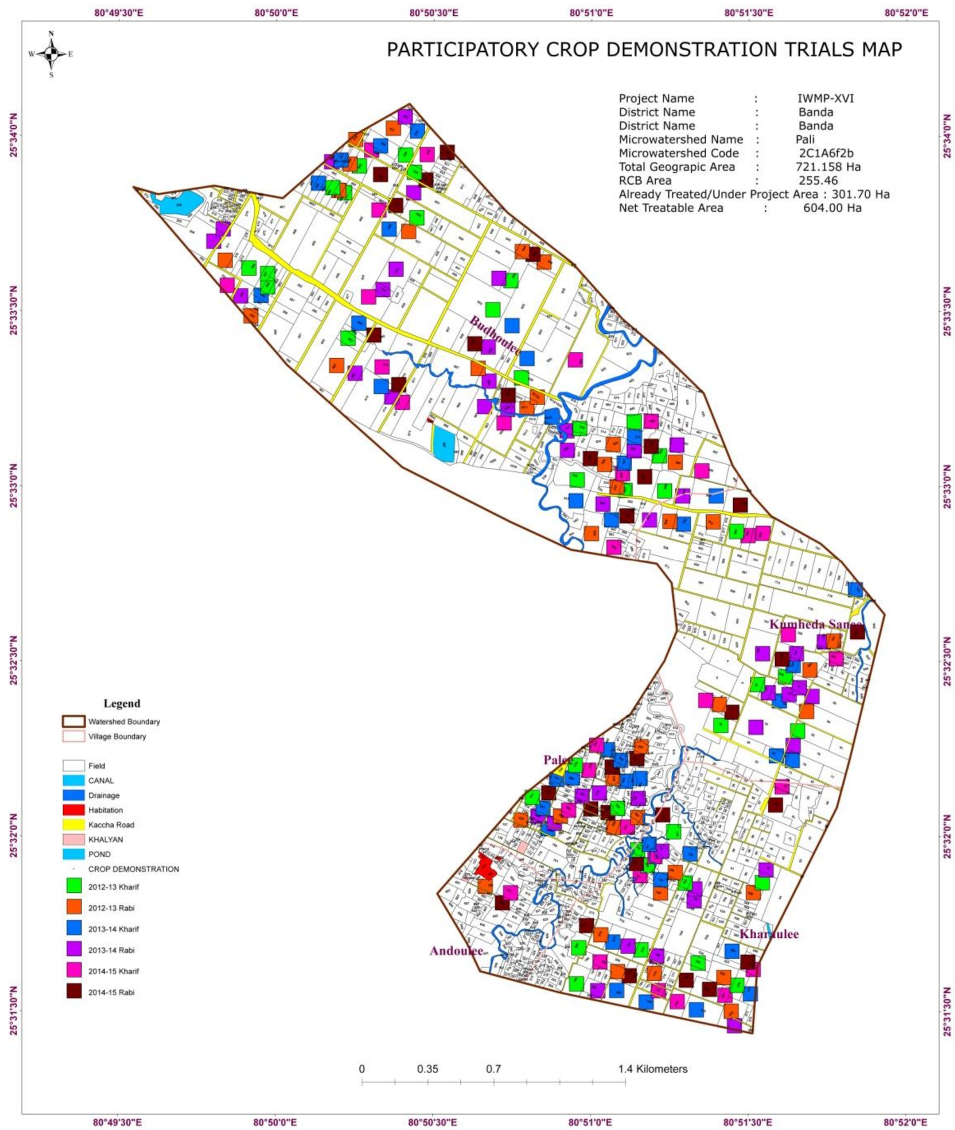

PARTICIPATORY CROP DEMONSTRATION TRIALS MAP
Project Name : IWMP-XVI
District Name : Banda
District Name : Banda
Microwatershed Name : Pachauhan
Microwatershed Code : 2C1A6a2c
Total Geograpic Area : 1012.20 Ha
RCB Area : 255.46
Already Treated/Under Project Area : 301.70 Ha
Net Treatable Area : 604.00 Ha
Pachhahan
Legend
Watershed Boundary
Village Boundary
Field
BAND
Drainage
Habitation
Kaccha Road
Pakka Road
POND
2012-13 Kharif
2012-13 Rabi
2013-14 Kharif
2013-14 Rabi
2014-15 Kharif
2014-15 Rabi
0 0.35 0.7 1.4 Kilometers
80°53'30"E
80°54'0"E
80°54'30"E
80°55'0"E
80°55'30"E
80°56'0"E
25°32'0"N
25°31'30"N
25°31'0"N
25°30'30"N
25°30'0"N

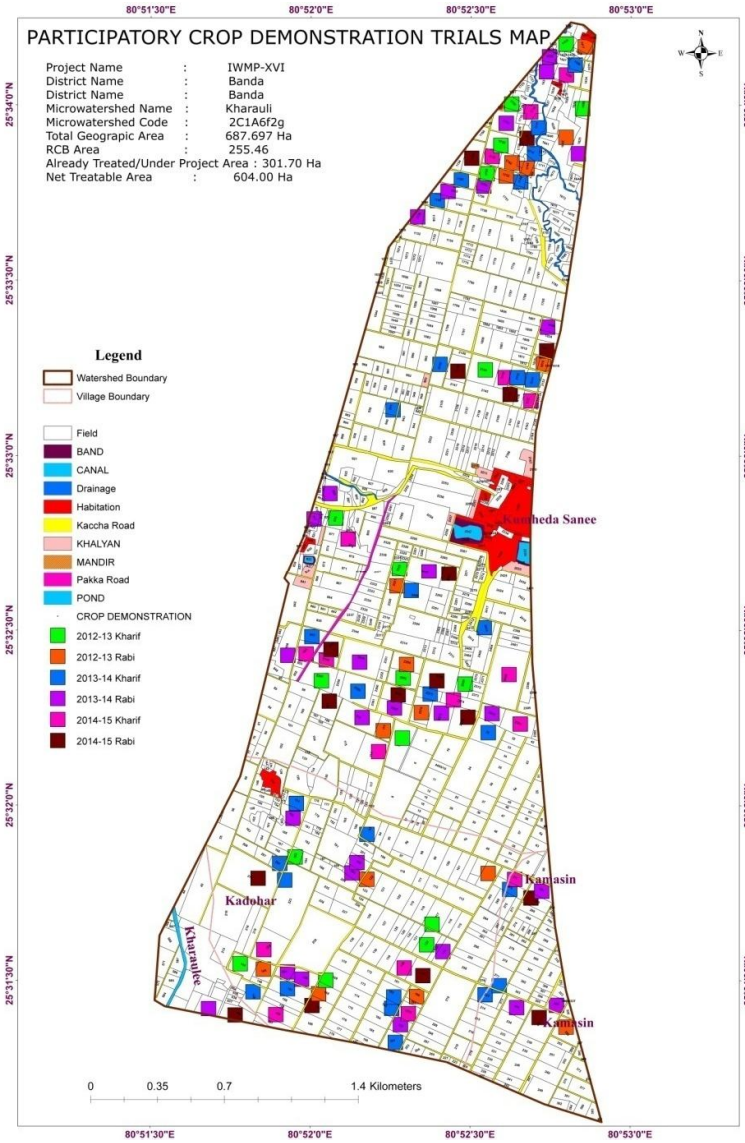

PARTICIPATORY CROP DEMONSTRATION TRIALS MAP
Project Name : IWMP-XVI
District Name : Banda
District Name : Banda
Microwatershed Name : Mau
Microwatershed Code : 2C1A6d1b
Total Geograpic Area : 732.559Ha
RCB Area : 255.46
Already Treated/Under Project Area : 301.70 Ha
Net Treatable Area : 604.00 Ha
Marka
Mau
Legend
Watershed Boundary
Village Boundary
Field
BAND
Drainage
Habitation
Kaccha Road
Pakka Road
POND
2012-13 Kharif
2012-13 Rabi
2013-14 Kharif
2013-14 Rabi
2014-15 Kharif
2014-15 Rabi
0 0.35 0.7 1.4 Kilometers
80°51'30"E
80°52'0"E
80°52'30"E
80°53'0"E
25°38'30"N
25°38'0"N
25°37'30"N
25°37'0"N
25°36'30"N

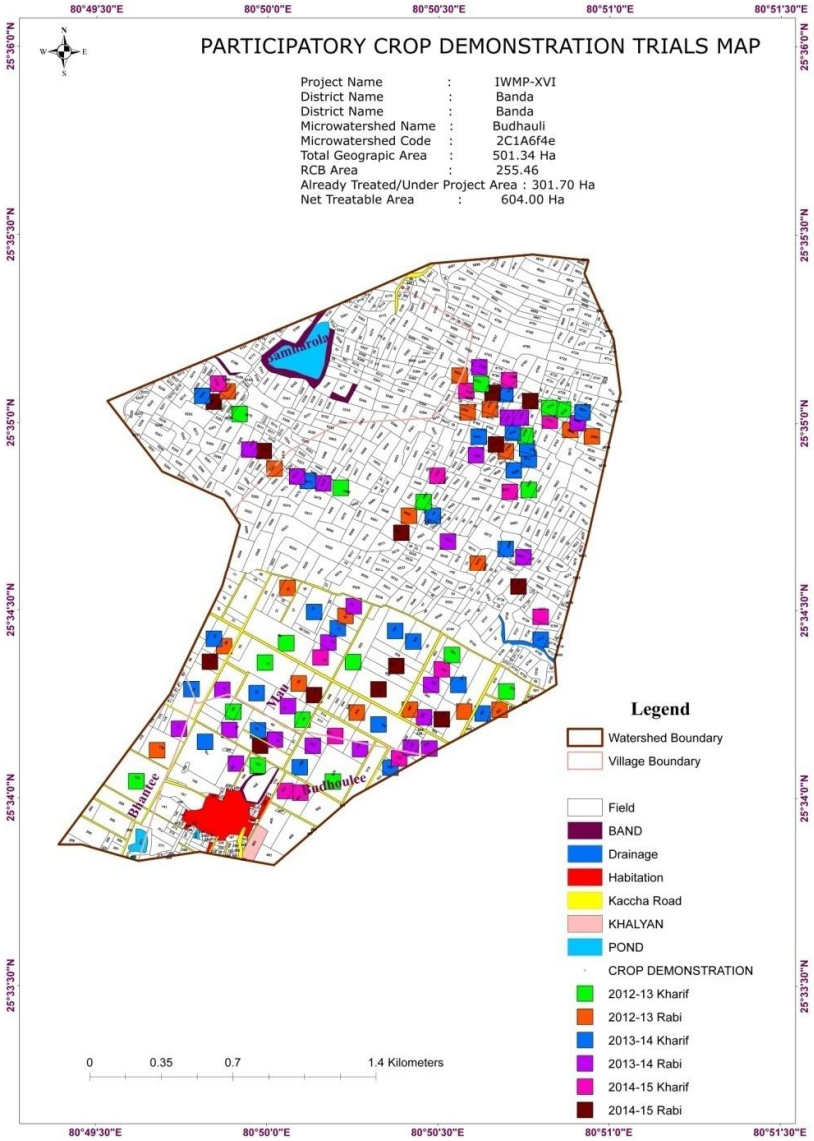

PARTICIPATORY CROP DEMONSTRATION TRIALS MAP
80°50'0"E
80°50'30"E
80°51'0"E
80°51'30"E
80°52'0"E
25°37'0"N
25°36'30"N
25°36'0"N
25°35'30"N
25°35'0"N
25°34'30"N
Project Name : IWMP-XVI
District Name : Banda
District Name : Banda
Microwatershed Name : Mau
Microwatershed Code : 2C1A6d4a
Total Geograpic Area : 935.939 Ha
RCB Area : 255.46
Already Treated/Under Project Area : 301.70 Ha
Net Treatable Area : 604.00 Ha
Legend
Watershed Boundary
Village Boundary
Field
BAND
Drainage
Kaccha Road
Pakka Road
POND
CROP DEMONSTRATION
2012-13 Kharif
2012-13 Rabi
2013-14 Kharif
2013-14 Rabi
2014-15 Kharif
2014-15 Rabi
0
0.35
0.7
1.4 Kilometers

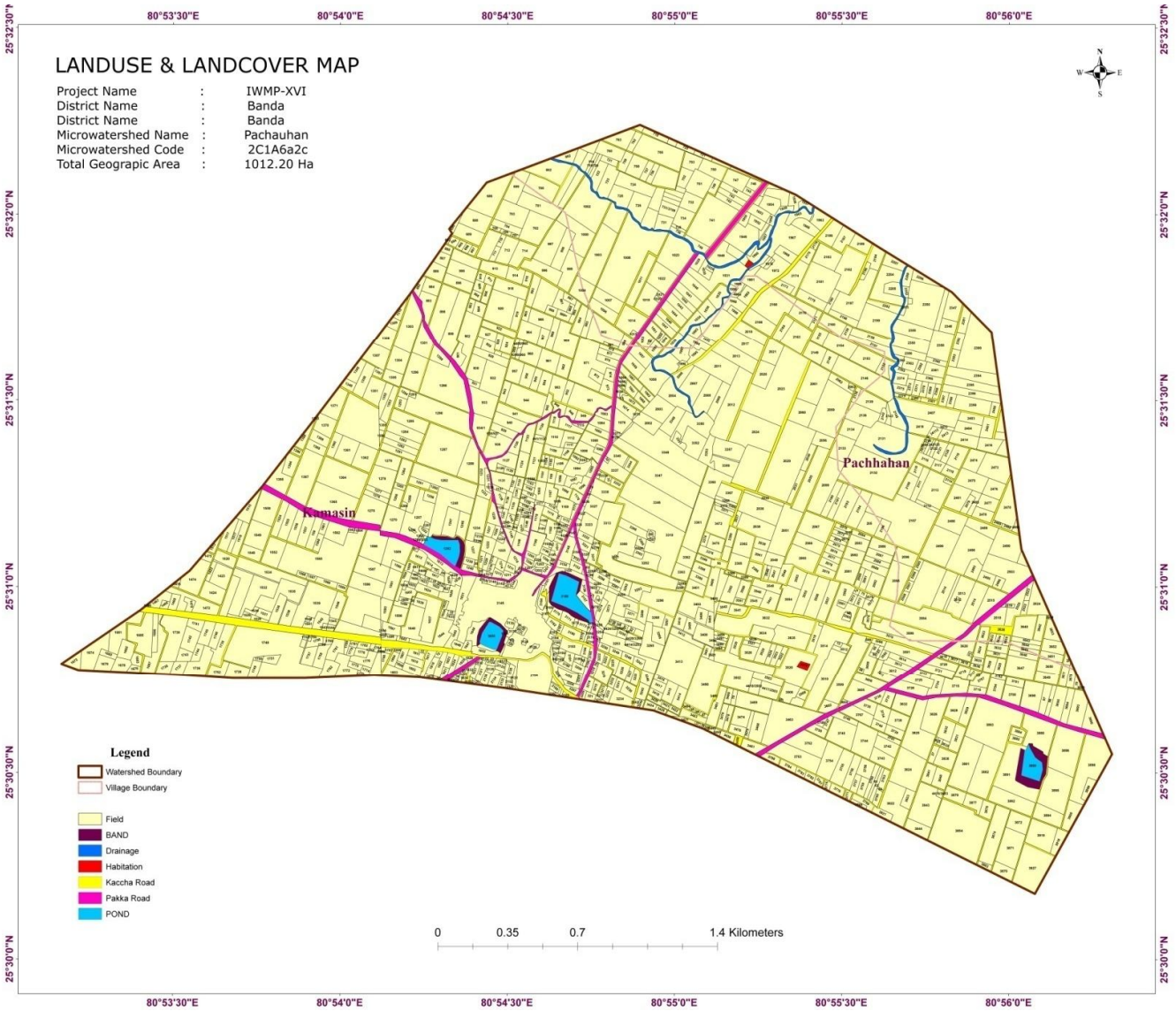

PARTICIPATORY CROP DEMONSTRATION TRIALS MAP
Project Name : IWMP-XVI
District Name : Banda
District Name : Banda
Microwatershed Name : Kamasin
Microwatershed Code : 2C1A6f1c
Total Geograpic Area : 938.575 Ha
RCB Area : 255.46
Already Treated/Under Project Area : 301.70 Ha
Net Treatable Area : 604.00 Ha
80°52'30"E
80°53'0"E
80°53'30"E
80°54'0"E
80°54'30"E
25°33'30"N
25°33'0"N
25°32'30"N
25°32'0"N
25°31'30"N
25°31'0"N
Kamasin
Legend
Watershed Boundary
Village Boundary
1
Field
BAND
Habitation
Kaccha Road
KHALYAN
MANDIR
Pakka Road
POND
CROP DEMONSTRATION
2012-13 Kharif
2012-13 Rabi
2013-14 Kharif
2013-14 Rabi
2014-15 Kharif
2014-15 Rabi
0
0.35
0.7
1.4 Kilometers

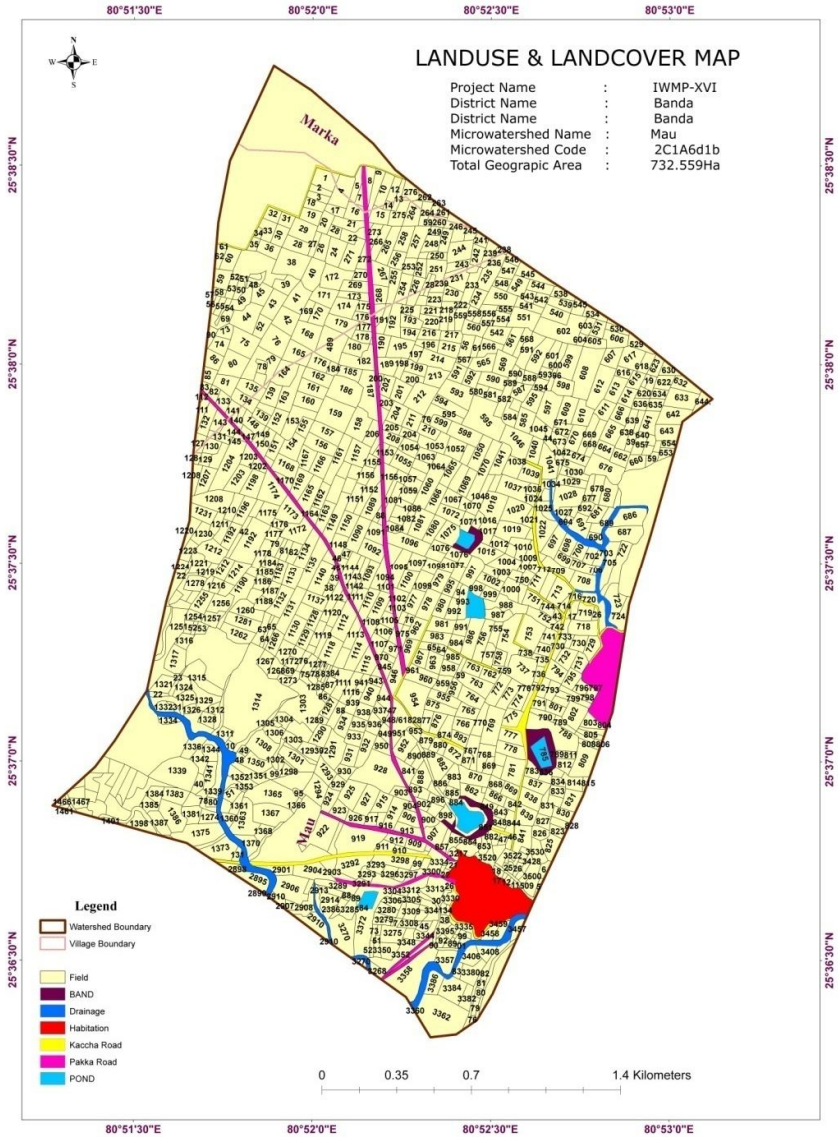

PARTICIPATORY CROP DEMONSTRATION TRIALS MAP
Project Name : IWMP-XVI
District Name : Banda
District Name : Banda
Microwatershed Name : Budhauli
Microwatershed Code : 2C1A6f2a
Total Geograpic Area : 699.484 Ha
RCB Area : 255.46
Already Treated/Under Project Area : 301.70 Ha
Net Treatable Area : 604.00 Ha
80°50'30"E
80°51'0"E
80°51'30"E
80°52'0"E
80°52'30"E
25°34'30"N
25°34'0"N
25°33'30"N
25°33'0"N
N
W
E
S
Mau
Deorar
Budhoulee
Legend
Watershed Boundary
Village Boundary
Field
Drainage
Habitaiton
Kaccha Road
KHALYAN
CROP DEMONSTRATION
2012-13 Kharif
2012-13 Rabi
2013-14 Kharif
2013-14 Rabi
2014-15 Kharif
2014-15 Rabi
0
0.35
0.7
1.4 Kilometers

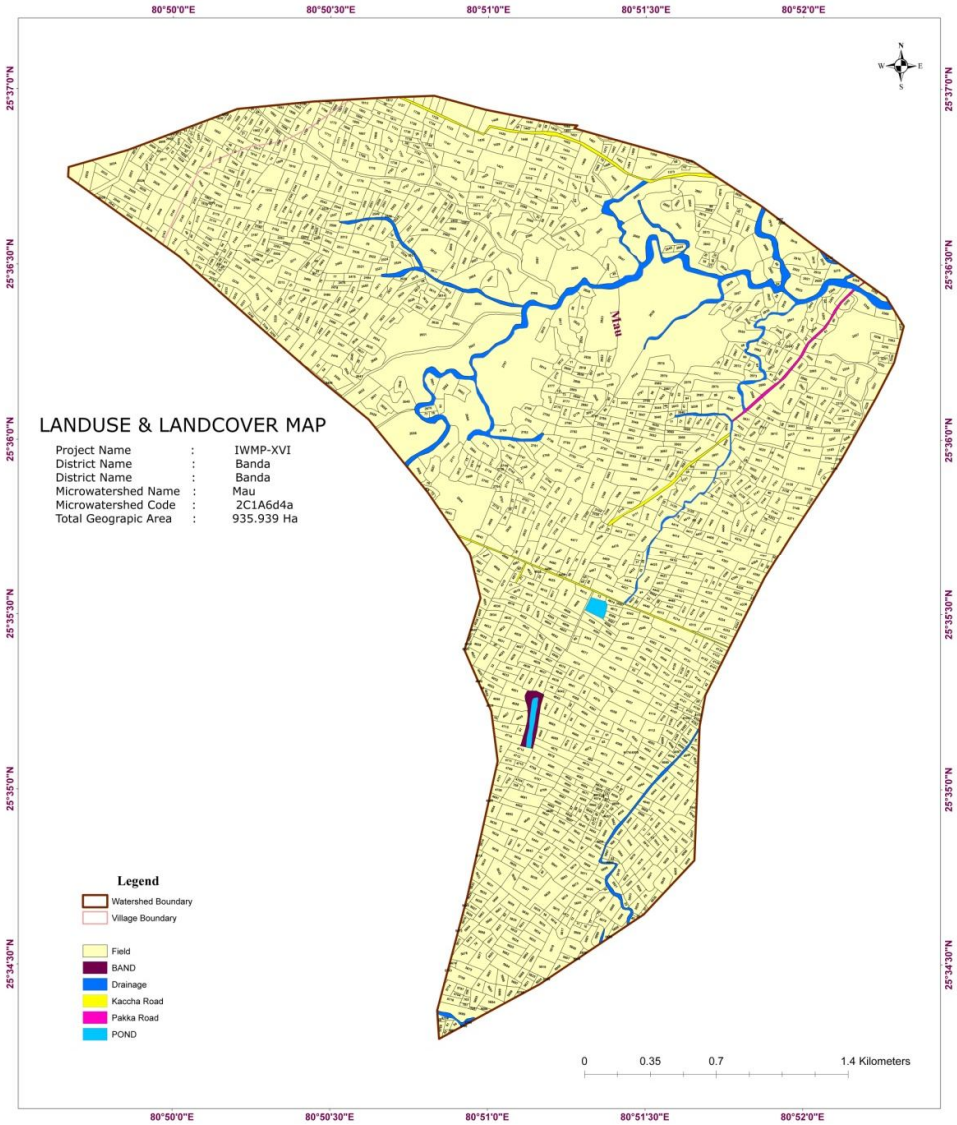

PARTICIPATORY CROP DEMONSTRATION TRIALS MAP
Project Name : IWMP-XVI
District Name : Banda
District Name : Banda
Microwatershed Name : Pali
Microwatershed Code : 2C1A6f2b
Total Geograpic Area : 721.158 Ha
RCB Area : 255.46
Already Treated/Under Project Area : 301.70 Ha
Net Treatable Area : 604.00 Ha
80°49'30"E
80°50'0"E
80°50'30"E
80°51'0"E
80°51'30"E
80°52'0"E
25°34'0"N
25°33'30"N
25°33'0"N
25°32'30"N
25°32'0"N
25°31'30"N
N
S
E
W
Budhoulee
Kumheda Sani
Palee
Kharaulee
Andoulee
Legend
Watershed Boundary
Village Boundary
Field
CANAL
Drainage
Habitation
Kaccha Road
KHALYAN
POND
CROP DEMONSTRATION
2012-13 Kharif
2012-13 Rabi
2013-14 Kharif
2013-14 Rabi
2014-15 Kharif
2014-15 Rabi
0
0.35
0.7
1.4 Kilometers

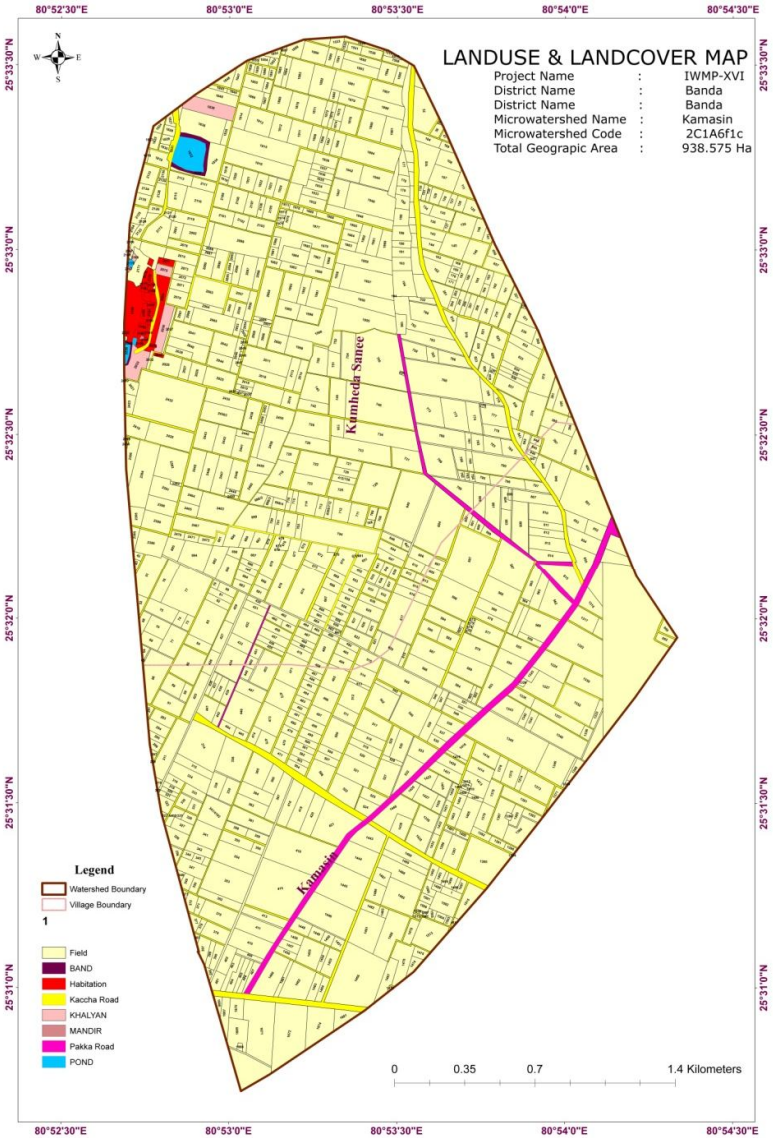

PARTICIPATORY CROP DEMONSTRATION TRIALS MAP
Project Name : IWMP-XVI
District Name : Banda
District Name : Banda
Microwatershed Name : Kharauli
Microwatershed Code : 2C1A6f2g
Total Geograpic Area : 687.697 Ha
RCB Area : 255.46
Already Treated/Under Project Area : 301.70 Ha
Net Treatable Area : 604.00 Ha
Legend
Watershed Boundary
Village Boundary
Field
BAND
CANAL
Drainage
Habitation
Kaccha Road
KHALYAN
MANDIR
Pakka Road
POND
CROP DEMONSTRATION
2012-13 Kharif
2012-13 Rabi
2013-14 Kharif
2013-14 Rabi
2014-15 Kharif
2014-15 Rabi
Kamasin
Kadohar
Kharaulee
Kamasin
0 0.35 0.7 1.4 Kilometers
80°51'30"E
80°52'0"E
80°52'30"E
80°53'0"E
25°34'0"N
25°33'30"N
25°33'0"N
25°32'30"N
25°32'0"N
25°31'30"N

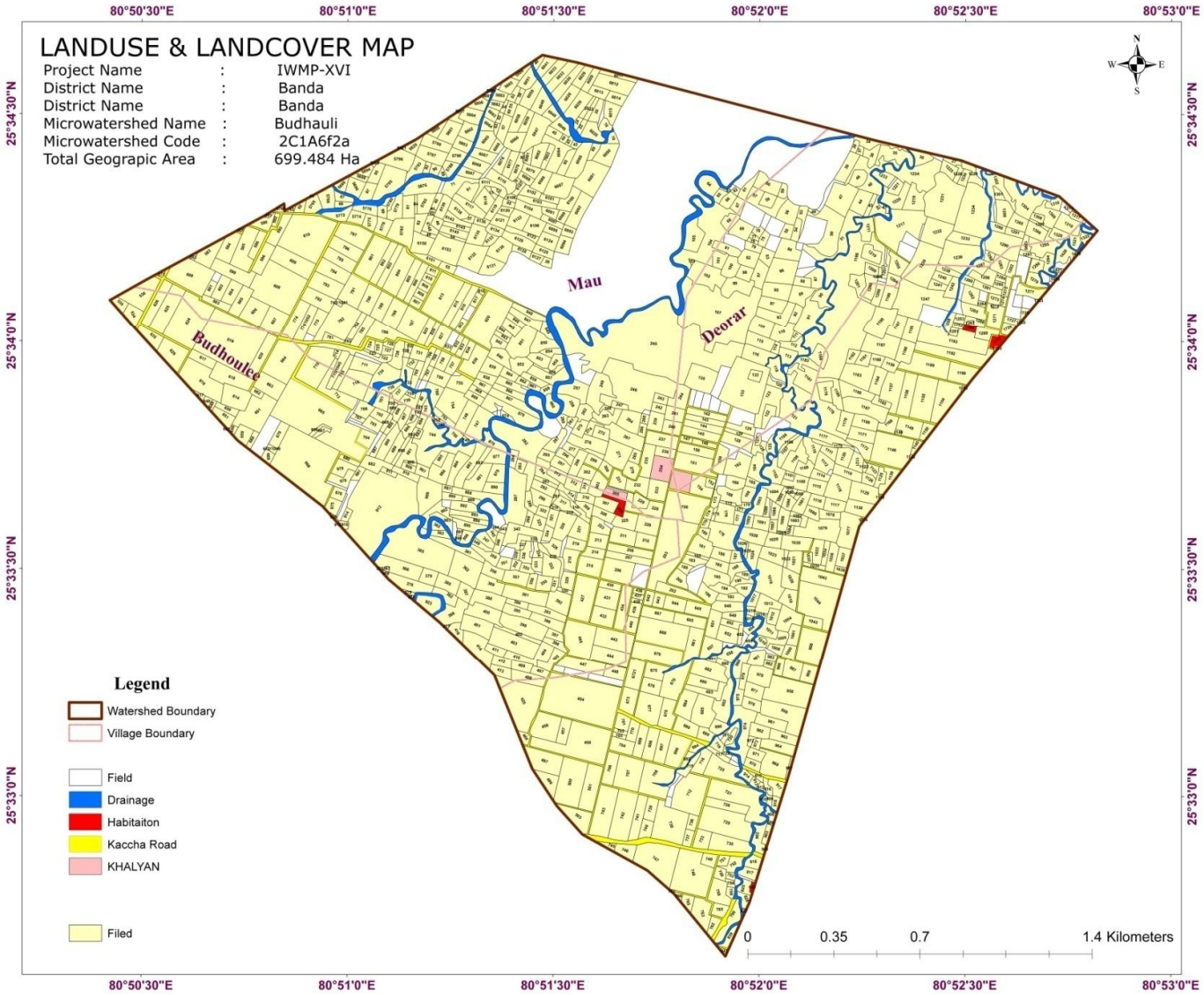

80°49'30"E
80°50'0"E
80°50'30"E
80°51'0"E
80°51'30"E
25°36'0"N
25°35'30"N
25°35'0"N
25°34'30"N
25°34'0"N
25°33'30"N
PARTICIPATORY CROP DEMONSTRATION TRIALS MAP
Project Name : IWMP-XVI
District Name : Banda
District Name : Banda
Microwatershed Name : Budhauli
Microwatershed Code : 2C1A6f4e
Total Geograpic Area : 501.34 Ha
RCB Area : 255.46
Already Treated/Under Project Area : 301.70 Ha
Net Treatable Area : 604.00 Ha
Legend
Watershed Boundary
Village Boundary
Field
BAND
Drainage
Habitation
Kaccha Road
KHALYAN
POND
CROP DEMONSTRATION
2012-13 Kharif
2012-13 Rabi
2013-14 Kharif
2013-14 Rabi
2014-15 Kharif
2014-15 Rabi
0
0.35
0.7
1.4 Kilometers

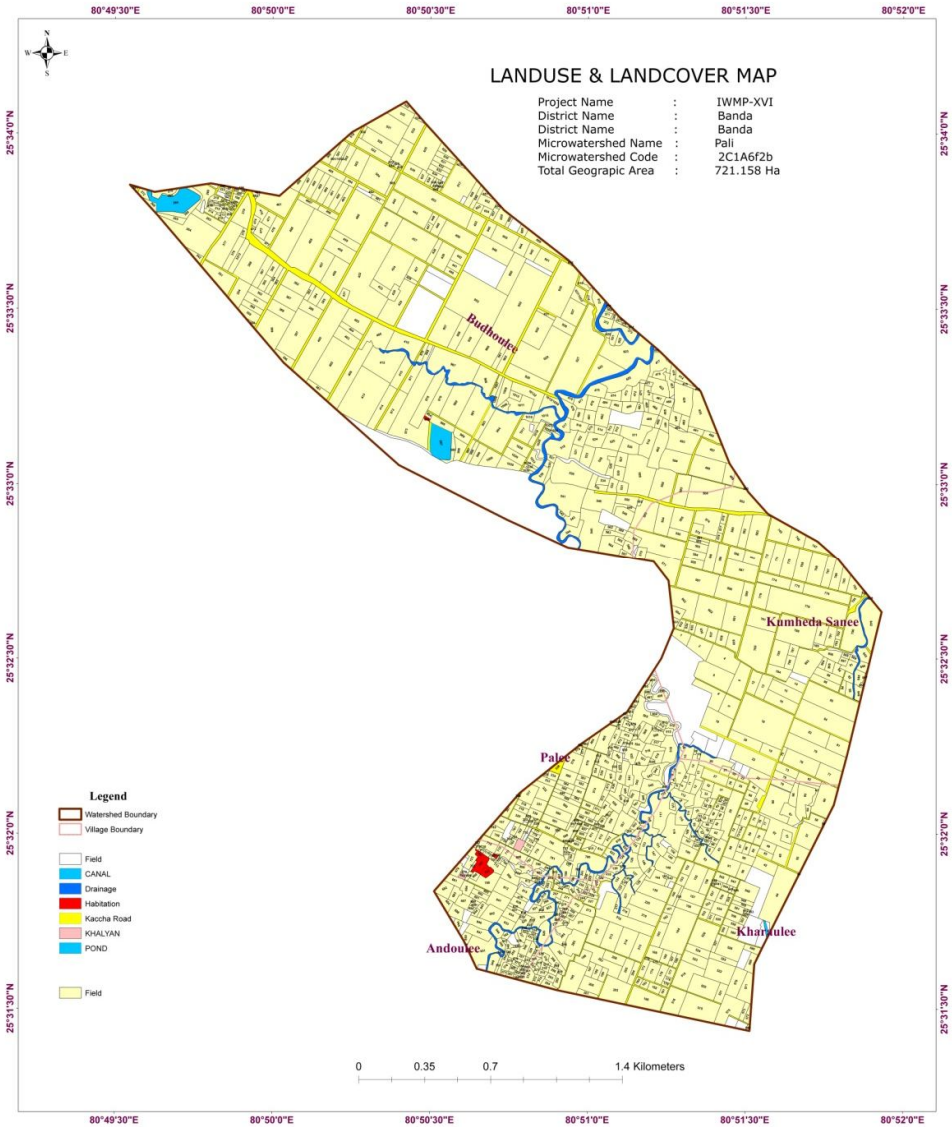

LANDUSE & LANDCOVER MAP
Project Name : IWMP-XVI
District Name : Banda
District Name : Banda
Microwatershed Name : Pachauhan
Microwatershed Code : 2C1A6a2c
Total Geograpic Area : 1012.20 Ha
80°53'30"E
80°54'0"E
80°54'30"E
80°55'0"E
80°55'30"E
80°56'0"E
25°32'30"N
25°32'0"N
25°31'30"N
25°31'0"N
25°30'30"N
25°30'0"N
Pachhahan
Ramasin
Legend
Watershed Boundary
Village Boundary
Field
BAND
Drainage
Habitation
Kaccha Road
Pakka Road
POND
0
0.35
0.7
1.4 Kilometers

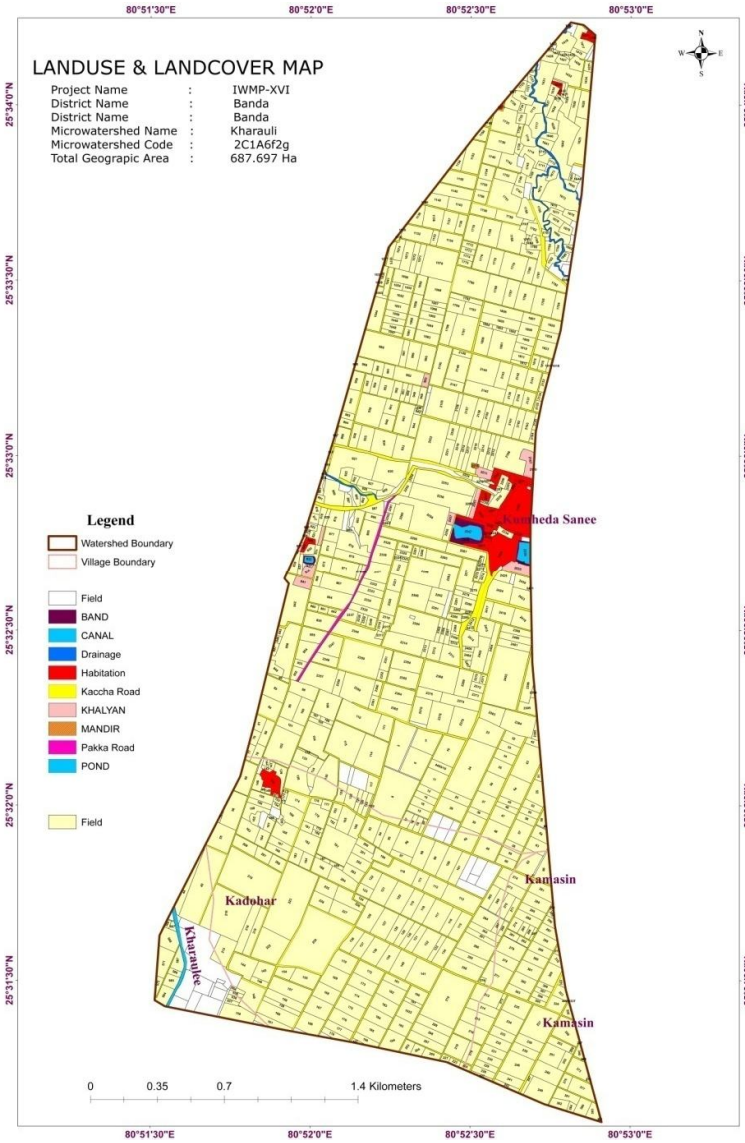

LANDUSE & LANDCOVER MAP
Project Name : IWMP-XVI
District Name : Banda
District Name : Banda
Microwatershed Name : Mau
Microwatershed Code : 2C1A6d1b
Total Geograpic Area : 732.559Ha
Marka
Mau
80°51'30"E
80°52'0"E
80°52'30"E
80°53'0"E
25°38'30"N
25°38'0"N
25°37'30"N
25°37'0"N
25°36'30"N
Legend
Watershed Boundary
Village Boundary
Field
BAND
Drainage
Habitation
Kaccha Road
Pakka Road
POND
0
0.35
0.7
1.4 Kilometers

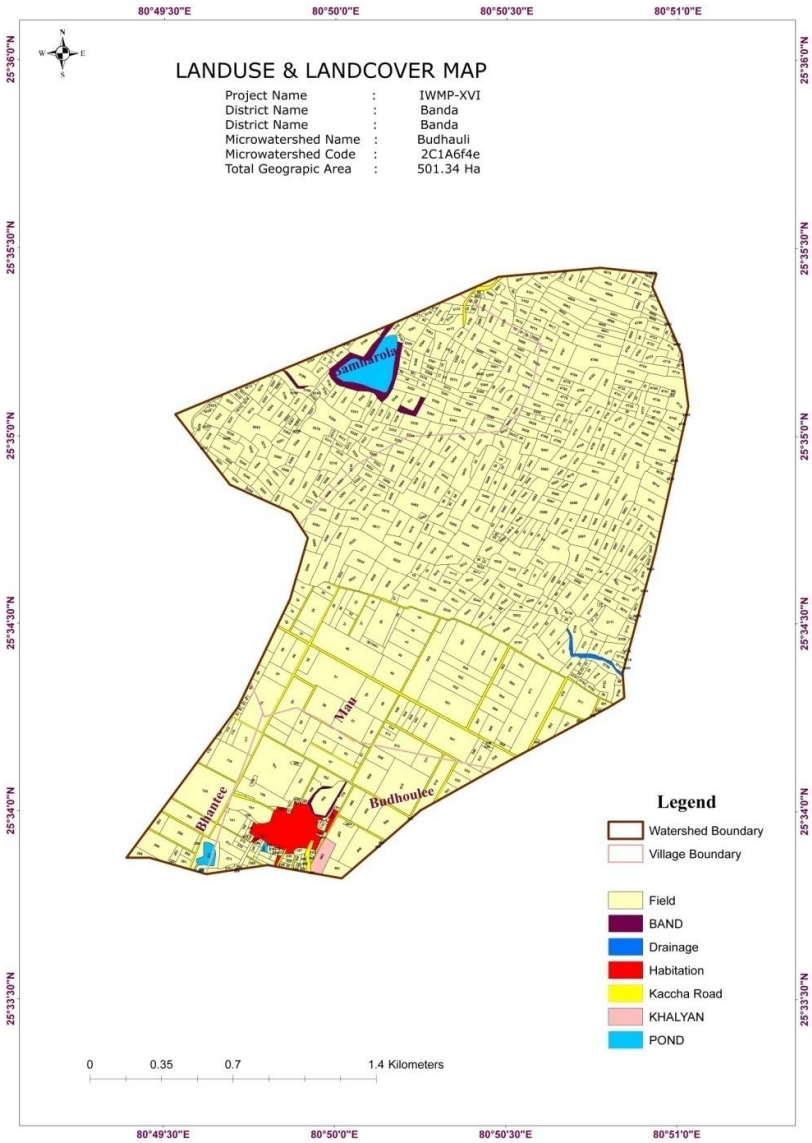

80°50'0"E
80°50'30"E
80°51'0"E
80°51'30"E
80°52'0"E
25°37'0"N
25°36'30"N
25°36'0"N
25°35'30"N
25°35'0"N
25°34'30"N
Mau
LANDUSE & LANDCOVER MAP
Project Name : IWMP-XVI
District Name : Banda
District Name : Banda
Microwatershed Name : Mau
Microwatershed Code : 2C1A6d4a
Total Geograpic Area : 935.939 Ha
Legend
Watershed Boundary
Village Boundary
Field
BAND
Drainage
Kaccha Road
Pakka Road
POND
0 0.35 0.7 1.4 Kilometers

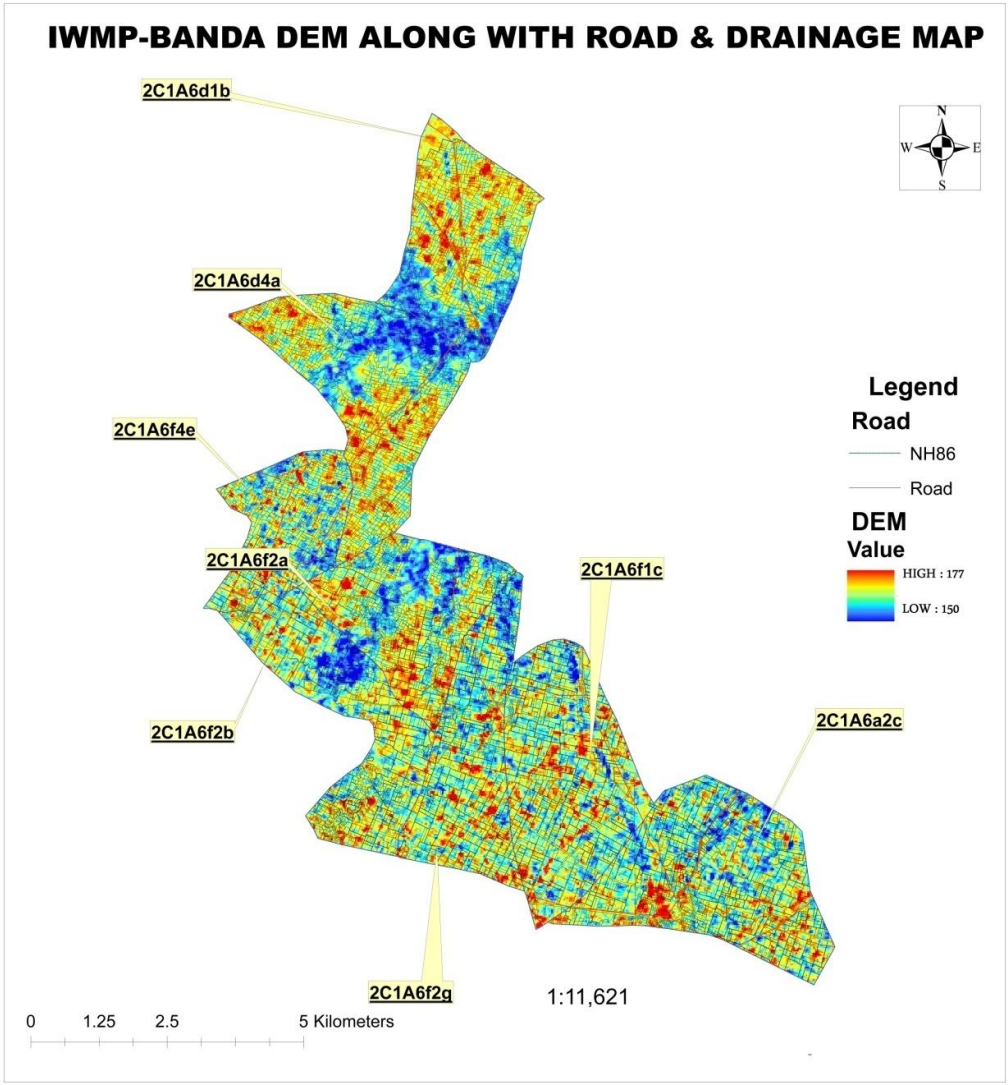

LANDUSE & LANDCOVER MAP
Project Name : IWMP-XVI
District Name : Banda
District Name : Banda
Microwatershed Name : Kamasin
Microwatershed Code : 2C1A6f1c
Total Geograpic Area : 938.575 Ha
80°52'30"E
80°53'0"E
80°53'30"E
80°54'0"E
80°54'30"E
25°33'30"N
25°33'0"N
25°32'30"N
25°32'0"N
25°31'30"N
25°31'0"N
N
S
E
W
Kumheda Sanee
Kamasin
Legend
Watershed Boundary
Village Boundary
1
Field
BAND
Habitation
Kaccha Road
KHALYAN
MANDIR
Pakka Road
POND
0
0.35
0.7
1.4 Kilometers


LANDUSE & LANDCOVER MAP
Project Name : IWMP-XVI
District Name : Banda
District Name : Banda
Microwatershed Name : Budhauli
Microwatershed Code : 2C1A6f2a
Total Geograpic Area : 699.484 Ha
80°50'30"E
80°51'0"E
80°51'30"E
80°52'0"E
80°52'30"E
80°53'0"E
25°34'30"N
25°34'0"N
25°33'30"N
25°33'0"N
N
S
E
W
Mau
Deorar
Budhoulee
Legend
Watershed Boundary
Village Boundary
Field
Drainage
Habitaiton
Kaccha Road
KHALYAN
Filed
0
0.35
0.7
1.4 Kilometers


LANDUSE & LANDCOVER MAP
Project Name : IWMP-XVI
District Name : Banda
District Name : Banda
Microwatershed Name : Pali
Microwatershed Code : 2C1A6f2b
Total Geograpic Area : 721.158 Ha
Budhoulee
Kumheda Sanee
Palee
Andoulee
Khamulee
Legend
Watershed Boundary
Village Boundary
Field
CANAL
Drainage
Habitation
Kaccha Road
KHALYAN
POND
Field
0 0.35 0.7 1.4 Kilometers
80°49'30"E
80°50'0"E
80°50'30"E
80°51'0"E
80°51'30"E
80°52'0"E
25°34'0"N
25°33'30"N
25°33'0"N
25°32'30"N
25°32'0"N
25°31'30"N


LANDUSE & LANDCOVER MAP
Project Name : IWMP-XVI
District Name : Banda
District Name : Banda
Microwatershed Name : Kharauli
Microwatershed Code : 2C1A6f2g
Total Geograpic Area : 687.697 Ha
Legend
Watershed Boundary
Village Boundary
Field
BAND
CANAL
Drainage
Habitation
Kaccha Road
KHALYAN
MANDIR
Pakka Road
POND
Field
Kamasin
Kadohar
Kharaulee
Kamasin
0 0.35 0.7 1.4 Kilometers
80°51'30"E
80°52'0"E
80°52'30"E
80°53'0"E
25°34'0"N
25°33'30"N
25°33'0"N
25°32'30"N
25°32'0"N
25°31'30"N


80°49'30"E
80°50'0"E
80°50'30"E
80°51'0"E
25°36'0"N
25°35'30"N
25°35'0"N
25°34'30"N
25°34'0"N
25°33'30"N
LANDUSE & LANDCOVER MAP
Project Name : IWMP-XVI
District Name : Banda
District Name : Banda
Microwatershed Name : Budhauli
Microwatershed Code : 2C1A6f4e
Total Geograpic Area : 501.34 Ha
Jamharola
Mau
Budhoulee
Bhantee
Legend
Watershed Boundary
Village Boundary
Field
BAND
Drainage
Habitation
Kaccha Road
KHALYAN
POND
0
0.35
0.7
1.4 Kilometers


IWMP-BANDA DEM ALONG WITH ROAD & DRAINAGE MAP
2C1A6d1b
2C1A6d4a
2C1A6f4e
2C1A6f2a
2C1A6f1c
2C1A6f2b
2C1A6a2c
2C1A6f2g
N
W
E
S
Legend
Road
NH86
Road
DEM
Value
HIGH : 177
LOW : 150
1:11,621
0
1.25
2.5
5 Kilometers