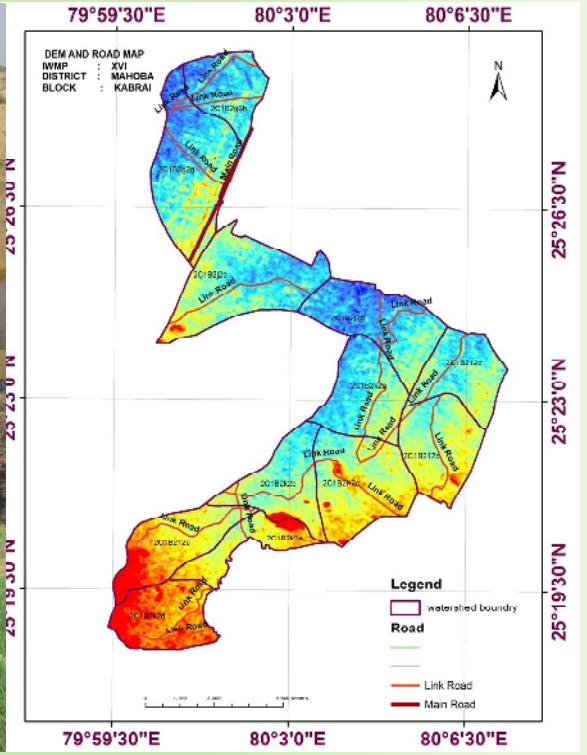
Detail Project Report
of
Integrated Watershed Management Programme-XVI
(IWMP-XVI)
Year 2011-12







Department of Agriculture, Uttar Pradesh

Project Implementing Agency

Soil Conservation Division

Mahoba, District- Mahoba

CERTIFICATE

This is to be certified that the proposed Project (IWMP-XVI) comprising twelve micro-watersheds of district Mahoba, Uttar Pradesh has been selected for its sustainable development on watershed basis under Integrated Watershed Management Programme. The land is physically available for proposed interventions and is not overlapping with any other schemes. It will be developed as per Common Guidelines for Watershed Development Project-2008, GOI, New Delhi. The significant results will be achieved through proposed interventions on soil and water conservation, ground water recharge, availability of drinking and irrigation water, agricultural production systems, livestock, fodder production, livelihoods of asset less persons, capacity building, etc. The proposed **Detail Project Report** of **IWMP-XVI, 2011-12** is submitted for its approval and implementation.

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EXECUTIVE SUMMARY

The IWMP-XVI, 2011-12 project consists of twelve micro-watersheds.in Kabarai block of Mahoba district, UP: Pehra -I (2C1B2k2a), Pehra –II (2C1B2k2b), Makarwai- I (2C1B2k2c), Ratauli (2C1B2k2d), Makarwai- II (2C1B2k2e), Kharka (2C1B2l2c-1), Rebara (2C1B2l2b), Negavan (2C1B2l2c), Bagwaha (2C1B2j2c), Nehandaura (2C1B2j2d), Chinakala (2C1B2g2h) and Bila Uttar (2C1B2g2g). Geographical area of the project is 9205.70 ha treatable area is 4375.00 ha with total outlay of Rs. 525.00 lakh under Integrated Watershed Management Programme. The Project Implementing Agency (PIA) is soil conservation Division, Department of Agriculture, Mahoba, Mahoba, U.P.

All micro-watershed are covered under agro-climatic zone of Central Plateau Hill Region representing a transitional zone of tropical sub-humid to semi-arid and comes under hot moist semi-arid ecological sub-region. The micro-watersheds of IWMP-XVI is situated at an elevation of some 126 to 262 m above mean sea level and has relief from 29 to 110 m. General topography of the watershed is mild to gentle.

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 (65%) followed by 3-5 per cent (23%).

Scheduled caste population in 18.5 percent .The watershed is water scarce. Estimate runoff range between 30-35 per cent of average annual runoff. The watershed is dominated by local breeds of cows and sheep and goats.

Activities related to natural resource management, production systems and micro-enterprises and livelihood options for asset less people for sustainable development are described in Chapter-5. The total cost of the project is Rs. 525.00 lakh.

Urd, mung, arhar, sorghum and til during *kharif* and lentil, chickpea, field pea, durum wheat, bread wheat, linseed and mustard during *rabi* are major crops in all micro watersheds of the of the project.. The productivity of these crops is significantly lower than the national and state average crop yield. The cropping intensity during *kharif* is significantly lower than the *rabi.* The pre-dominant tree species are Neem *(Azadirachta indica),* Babool (*Acacia nilotica),* Palas and Ber (*Zizyphus* spp.).

Participatory Rural Appraisal (PRA) exercise was conducted to understand the people's needs and problems. The exercise brought out pressing needs and preferences of people for water harvesting structures through pucca check dams on ephemeral streams, earthen bunding to protect soil erosion from agricultural fields along with field drainage structure, crop varieties with improved package of practices, agroforestry interventions and improved cultivation of fodder production, etc.

The Watershed Committee (WC) and SHGs have been constituted and registration of Watershed Committees under Societies Registration Act XXIII, 1860 has been initiated. Active participation and co-operation of community will be ensured by building their capacities through exposures and trainings.

The overall B C Ratio, including crops and animals, is 1.77 as compared to 2.10 in the pre project scenario.

PROJECT AT A GLANCE

1.	Name of Project	IWMP-XVI	
2.	Name of Block (s)	Kabarai	
3.	Name of district	Mahoba	
4.	Name of State	Uttar Pradesh	
5.	Name of Watershed	IWMP-XVI	
6.	Name of Micro watershed/ code with Coordinate latitude Longitude	**Longitude**	**latitude**
	Pehra -I 2C1B2k2a	80^o 3' 30.0"- 80^o 5' 0.0" E	25^o 22' 30.0"- 25^o 24' 30.0" N
	Pehra –II 2C1B2k2b	80^o 1' 30.0"- 80^o 3' 30.0" E	25^o 20' 30.0"- 25^o 22' 30.0" N
	Makarwai- I 2C1B2k2c	80^o 3' 30.0"- 80^o 5' 30.0" E	25^o 20' 30.0"- 25^o 22' 30.0" N
	Ratauli 2C1B2k2d	79^o 59' 30.0"- 80^o 1' 30.0" E	25^o 18' 30.0"- 25^o 19' 30.0" N
	Makarwai- II 2C1B2k2e	80^o 1' 0.0"- 80^o 3' 30.0" E	25^o 19' 30.0"- 25^o 21' 0.0" N
	Kharka 2C1B2l2c-1	80^o 5' 0.0"- 80^o 6' 30.0" E	25^o 21' 30.0"- 25^o 23'0.0" N
	Rewara 2C1B2l2b	80^o 5' 30.0"- 80^o 7' 0.0" E	25^o 19' 30.0"- 25^o 21' 0.0" N
	Megawn 2C1B2l2c	79^o 59' 30.0"- 80^o 2' 0.0" E	25^o 22' 30.0"- 25^o 24' 30.0" N
	Mochipur 2C1B2j2c	80^o 0' 30.0"- 80^o 3' 30.0" E	25^o 24' 0.0"- 25^o 26' 0.0" N
	Nehdaura 2C1B2j2d	80^o 3' 0.0"- 80^o 6' 0.0" E	25^o 23' 30.0"- 25^o 25' 0.0" N
	Chinakala 2C1B2g2h	80^o 1' 0.0"- 80^o 2' 30.0" E	25^o 28' 0.0"- 25^o 29' 0.0" N
	Bila Uttar 2C1B2g2g	80^o 0' 30.0"- 80^o 2' 0.0" E	25^o 25' 30.0"- 25^o 29' 0.0" N
7.	Name of Gram Panchayats No.-	10	
8.	Names of concerned villages-(No.)	15	
9.	Total Geographical area of Project (ha)	9205.70	
10.	Treatable area (ha.)	3372.20	
11.	Total Project cost (Lacs)	525.00	
12.	Cost to be met through convergence (lacs)	-	
13.	Project period	4 years	
14.	Formation of Watershed Committees		
	(1) No. of WCs	10	
	(2) No. of members	100	

15.	Formation of SHGs		
	(1) Total SHG Nos	188	
	(2) Female SHG Nos.	120	
	(3) Total No. of members	1880	
16.	Formation of UGs		
	(1) No. of UGs	110	
	(2) No. of members	220	
17.	Important Outcome indicators	Present	Expected
	(1) Rainfed area (ha.)	6221.65	6300.00
	(2) Area under irrigation (ha.)	1148.87	1395.00
	(3) Area under crops (ha.)		
	(1) Kharif	2880.67	3975.32
	(2) Rabi	5012.10	5463.19
	Total Production (tons)		
	Kharif	9617.12	15268.44
	Rabi	47237.66	59361.02
	Productivity of important crops (q/ha.)		
	Urd	3.20	3.70
	Moong	2.90	3.30
	Arhar	5.30	6.10
	Sorghum	5.90	6.80
	Til	2.00	2.30
	Wheat	15.73	18.10
	Masoor	12.40	14.30
	Gram	4.60	5.30
	Pea	5.70	6.60
	Mustard	7.20	8.30
	(1) Ground water status (m)	**11.94-15.70**	**9.17-12.80**
	(2) Milk Production (Liters)	Avg. 3.5	Avg. 5.00
	(3) Average income per family (Rs.)	25630	34728
	(4) Land holding families	3497	

	(5) Land less/ poor families	131	
18.	Employment generation		
	(1) During Project Period		2,45,000 mandays
	(2) Additional after the project		94,000 mandays on annual basis

Project at a glance
Summary of Activities Proposed (Financial)

Project- IWMP- XVI PIA- Soil Conservation Division, Mahoba, Mahoba, U.P. District- Mahoba

S.No.	Activity	Need based requirement (Financial) Rs.	Funds available from IWMP Rs.	Need of Convergence/ Proposal Rs.	Scheme from which convergence proposal	Convergence finalized			Remark
						Scheme	Fund Available	Level at which Decision taken	
1	Administration	52.50	52.50						
2	Monitoring	5.25	5.25						
3	Evaluation	5.25	5.25						
4	Entry point activities	21.00	21.00						
5	Institutional & Capacity Building	26.25	26.25						
6	DPR Preparation	5.25	5.25						
7	Watershed Development Works	294.00	294.00	-	MNREGA	MNREGA	Nil	DRDA Mahoba	-
8	Livelihood activities through SHG's	47.25	47.25						
9	Production system	52.50	52.50						
10	Consolidation & withdrawal Phase	15.75	15.75						
	Total	**525.00**	**525.00**						

CONTENTS

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 Mahoba 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	445	288400
Workable Micro Watersheds	61	23535
Micro Watersheds already treated (partially) by Deptt of Agriculture, Dist.- Mahoba Uttar Pradesh	384	264865
Micro Watersheds (MWS) available for treatment (begning IWMP in the district)	87	26253

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

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-XVI	12	4375.00	525.00	BSA (Agri), Mahoba	26.09.2011
2011-12	IWMP-XVII	9	2361.00	283.32	BSA (Agri), Mahoba	-do-
2011-12	IWMP-XVIII	9	3122.00	374.64	BSA (Agri), Mahoba	-do-
2011-12	IWMP-XIX	13	3415.00	409.80	BSA (Agri), Mahoba	-do-
2011-12	IWMP-XX	13	2068.70	248.24	BSA (Agri), Mahoba	-do-
2011-12	IWMP-XXI	10	5500.00	660.00	BSA (Agri), Mahoba	-do-
2011-12	IWMP-XXII	09	2068.70	248.24	BSA (Agri), Mahoba	-do-
2011-12	IWMP-XXIII	12	3372.20	404.66	BSA (Agri), Mahoba	-do-
Total		**87**	26282.60	3153.91		

1.1 Project Background

Integrated Watershed Management Programme-XVI comprises twelve micro-watersheds: Pehra -I (2C1B2k2a), Pehra –II (2C1B2k2b), Makarwai- I (2C1B2k2c), Ratauli (2C1B2k2d), Makarwai- II (2C1B2k2e), Kharka (2C1B2l2c-1), Rebara (2C1B2l2b), Negavan (2C1B2l2c), Bagwaha (2C1B2j2c), Nehandaura (2C1B2j2d), Chinakala (2C1B2g2h) and Bila Uttar (2C1B2g2g). Watershed project is situated in Kabarai

block of district Mahoba and spread over in 15 villages of 10 gram panchayat. The total geographical area of the IWMP-XVI is 9205.70 ha, due to same area treated earlier however treatable area limited to 4375.00 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)	Treated Area (ha)	Name of Watershed in which MWS is falling (River / Nala name)
IWMP-XVI	Pehra -I	2C1B2k2a	410.00	168.29	Ken River
	Pehra –II	2C1B2k2b	329.00	202.54	Ken River
	Makarwai- I	2C1B2k2c	417.00	320.47	Ken River
	Ratauli	2C1B2k2d	307.00	187.72	Ken River
	Makarwai- II	2C1B2k2e	180.00	152.23	Ken River
	Kharka	2C1B2l2c-1	351.00	200.96	Ken River
	Rebara	2C1B2l2b	283.00	193.37	Ken River
	Negavan	2C1B2l2c	211.00	384.54	Ken River
	Bagwaha	2C1B2j2c	622.00	247.30	Ken River
	Nehandaura	2C1B2j2d	406.00	267.89	Ken River
	Chinakala	2C1B2g2h	255.00	178.42	Ken River
	Bila Uttar	2C1B2g2g	604.00	301.70	Ken River
Total			**4375.00**	**2805.45**	

Source: Participatory rural appraisal by PIA, (Soil Conservation Division, Mahoba, District- Mahoba, 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 1.4. Weights were assigned for each criteria/ parameter during site visit of micro-watershed by PIA and overall weightage was estimated for the project. The seventeen criteria were taken with total of 205 weightage points. The criterion taken are availability of drinking water, irrigation water availability, degree of soil erosion, water holding capacity, area under rainfed agriculture, status of field bund/contour bund / graded bund, presence of hard rock below the land, options for livelihood, percentage of small and marginal farmers, degraded land, ground water status, status of technical knowledge for improved farming systems, weather conditions, poverty index, virginity of land, productivity potential of land and soil organic carbon status. The weightage for project is about 84.15 per cent (Table 1.5).

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	10.00
2	Irrigation	10.00
3	Degree of soil erosion	10.00
4	Water holding capacity	10.00
5	Area under rainfed agriculture	10.00
6	Status of field bund/contour bund / graded bund	10.00
7	Presence of hard rock below the land	10.00
8	Options for livelihood	10.00
9	% of small and marginal farmers	10.00
10	Degraded land	15.00
11	Ground water status	10.00
12	Status of Technical Knowledge for improved farming systems	7.50
13	Weather condition	10.00
14	Poverty index (% of poor population)	10.00
15	Virginity	10.00
16	Productivity potential of land	10.00
17	Organic carbon status	10.00
	Total Weightage (Out of total 205)	**172.50**
	Weightage Percentage	**84.15**

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

1.4 Details of ongoing watershed programme

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

CHAPTER - 2

GENERAL DESCRIPTION OF PROJECT AREA

2.1 Location:

The micro-watersheds of IWMP-XVI are located in Kabarai block of Mahoba district. It is about 35 km. from Mahoba on Mahoba to Kabarai road. Villages and its geographical area for each micro-watershed are depicted in Table 2.1. Total area of the project is 9205.70 ha, out of which 4375.00 ha is treatable. The geographical area of micro-watershed varied in the range of 425.94 to 1161.16 ha.

Table 2.1: Micro-watershed wise details of location, Gram Panchayat, 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	Pehra -I 2C1B2k2a	Pehra	80^o 3' 30.0"- 80^o 5' 0.0" E 25^o 22' 30.0"- 25^o 24' 30.0" N	Kabarai	741.40	Mahoba to Kabarai road
2	Pehra –II 2C1B2k2b	Pehra, Makarwai	80^o 1' 30.0"- 80^o 3' 30.0" E 25^o 20' 30.0"- 25^o 22' 30.0" N	Kabarai	681.46	-do-
3	Makarwai- I 2C1B2k2c	Pehra, Makarwai	80^o 3' 30.0"- 80^o 5' 30.0" E 25^o 20' 30.0"- 25^o 22' 30.0" N	Kabarai	945.48	-do-
4	Ratauli 2C1B2k2d	Ratauli, Negawan	79^o 59' 30.0"- 80^o 1' 30.0" E 25^o 18' 30.0"- 25^o 19' 30.0" N	Kabarai	634.26	-do-
5	Makarwai- II 2C1B2k2e	Makarwai	80^o 1' 0.0"- 80^o 3' 30.0" E 25^o 19' 30.0"- 25^o 21' 0.0" N	Kabarai	425.94	-do-
6	Kharka 2C1B2l2c-1	Pehra, Kharka	80^o 5' 0.0"- 80^o 6' 30.0" E 25^o 21' 30.0"- 25^o 23'0.0" N	Kabarai	707.64	-do-

7	Rewara 2C1B2l2b	Pehra, Rewara, Sukora, Kharka	80^o 5' 30.0"- 80^o 7' 0.0" E 25^o 19' 30.0"- 25^o 21' 0.0" N	Kabarai	610.73	-do-
8	Megawn 2C1B2l2c	Makarwai, Negawan	79^o 59' 30.0"- 80^o 2' 0.0" E 25^o 22' 30.0"- 25^o 24' 30.0" N	Kabarai	763.51	-do-
9	Mochipur 2C1B2j2c	Beela uttar, Bagwaha, Mochipura	80^o 0' 30.0"- 80^o 3' 30.0" E 25^o 24' 0.0"- 25^o 26' 0.0" N	Kabarai	1114.49	-do-
10	Nehdaura 2C1B2j2d	Nehdora, Bagwaha, Sukaura	80^o 3' 0.0"- 80^o 6' 0.0" E 25^o 23' 30.0"- 25^o 25' 0.0" N	Kabarai	863.96	-do-
11	Chinakala 2C1B2g2h	Chanikala	80^o 1' 0.0"- 80^o 2' 30.0" E 25^o 28' 0.0"- 25^o 29' 0.0" N	Kabarai	555.67	-do-
12	Bila Uttar 2C1B2g2g	Chanikala, Mahewa, Amilhai, Beela uttar	80^o 0' 30.0"- 80^o 2' 0.0" E 25^o 25' 30.0"- 25^o 29' 0.0" N	Kabarai	1161.16	-do-
	Total				**9205.70**	

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

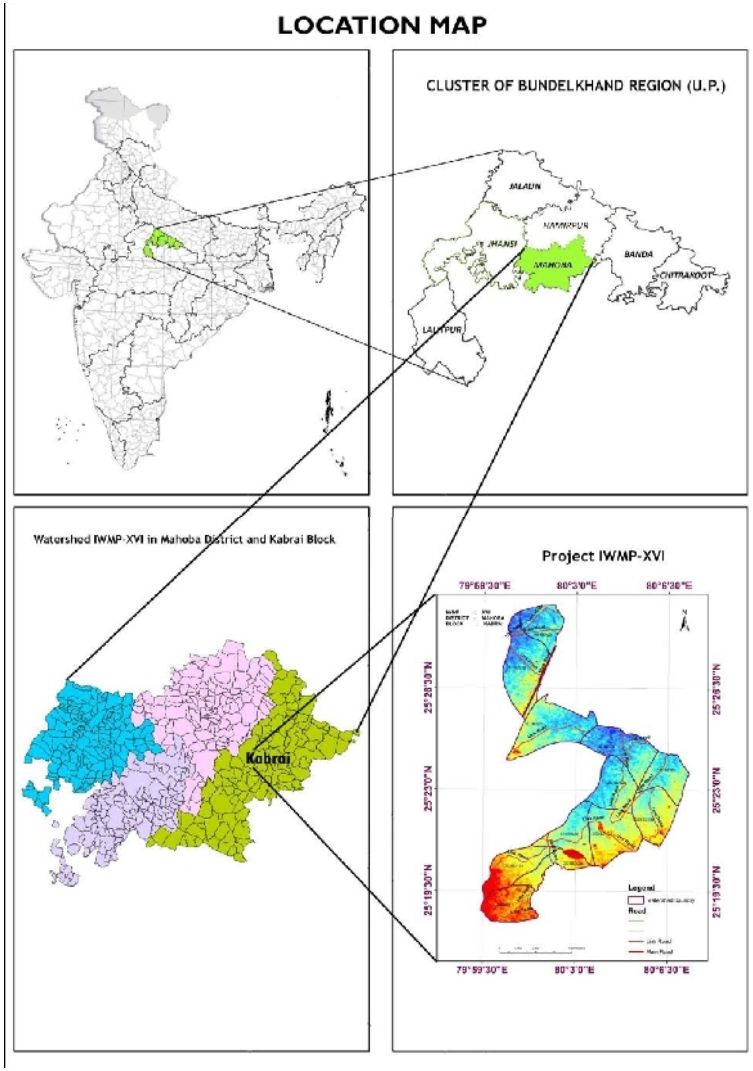


Fig 1 : Location map of the Project

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 is7180.45 ha, out of which 1148.87 (16.00%) ha land is under life saving irrigation mainly by means of open shallow dug wells. The cultivable rainfed, temporary and permanent wastelands are about 80.00, 3.00 and 1.00 per cent, respectively, of culturable land of the project.

Table 2.2: Details of land resources in IWMP-XVI of Mahoba 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	Pehra -I 2C1B2k2a	Pehra	462.63	92.53	17.35	5.78	127.22	106.98	344.08	578.29	0.00	59.31	103.80	741.40
2	Pehra –II 2C1B2k2b	Pehra, Makarwai	425.23	85.05	15.95	5.32	116.94	98.33	316.27	531.54	0.00	54.52	95.40	681.46
3	Makarwai - I 2C1B2k2c	Pehra, Makarwai	589.98	118.00	22.12	7.37	162.24	136.43	438.80	737.47	0.00	75.64	132.37	945.48
4	Ratauli 2C1B2k2d	Ratauli, Negawan	395.78	79.16	14.84	4.95	108.84	91.52	294.36	494.72	0.00	50.74	88.80	634.26
5	Makarwai - II 2C1B2k2e	Makarwai	265.79	53.16	9.97	3.32	73.09	61.46	197.68	332.23	0.00	34.08	59.63	425.94
6	Kharka 2C1B2l2c -1	Pehra, Kharka	441.57	88.31	16.56	5.52	121.43	102.11	328.42	551.96	0.00	56.61	99.07	707.64

7	Rewara 2C1B2l2b	Pehra, Rewara, Sukora, Kharka	381.10	76.22	14.29	4.76	104.80	88.13	283.44	476.37	0.00	48.86	85.50	610.73
8	Megawn 2C1B2l2c	Makarwai, Negawan	476.43	95.29	17.87	5.96	131.02	110.17	354.34	595.54	0.00	61.08	106.89	763.51
9	Mochipur 2C1B2j2c	Beela uttar, Bagwaha, Mochipura	695.44	139.09	26.08	8.69	191.25	160.82	517.23	869.30	0.00	89.16	156.03	1114.49
10	Nehdaura 2C1B2j2d	Nehdora, Bagwaha, Sukaura	539.11	107.82	20.22	6.74	148.26	124.67	400.96	673.89	0.00	69.12	120.95	863.96
11	Chinakala 2C1B2g2h	Chanikala	346.74	69.35	13.00	4.33	95.35	80.18	257.89	433.42	0.00	44.45	77.79	555.67
12	Bila Uttar 2C1B2g2g	Chanikala, Mahewa, Amilhai, Beela uttar	724.56	144.91	27.17	9.06	199.26	167.56	538.89	905.70	0.00	92.89	162.56	1161.16
	Total		**5744.36**	**1148.87**	**215.41**	**71.80**	**1579.70**	**1328.38**	**4272.37**	**7180.45**	**0.00**	**736.46**	**1288.80**	**9205.70**

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

2.3 Physiography

The micro-watersheds of IWMP-XVI is situated at an elevation of some 126 to 262 m above mean sea level and has relief from 29 to 110 m. General topography of the watershed is mild to gentle.

Name of MWS	Minimum (m)	Maximum (m)	Relief (m)
Pehra -I 2C1B2k2a	126	166	40
Pehra –II 2C1B2k2b	135	225	90
Makarwai- I 2C1B2k2c	134	201	67
Ratauli 2C1B2k2d	152	262	110
Makarwai- II 2C1B2k2e	145	219	74
Kharka 2C1B2l2c-1	145	233	88
Rewara 2C1B2l2b	134	169	35
Megawn 2C1B2l2c	140	195	55
Mochipur 2C1B2j2c	133	213	80
Nehdaura 2C1B2j2d	126	168	42
Chinakala 2C1B2g2h	131	160	29
Bila Uttar 2C1B2g2g	126	181	55

Source: Aster 30m DEM

Slope: Spatial distribution of different slope classes was prepared using Arc GIS. Slope was divided into five classes' viz. 0-0.5, 0.5-1.0, 1-3, 3-5, and more than 5 per cent. The dominant slope category in the project were 1-3 per cent (65%) followed by 3-5 per cent (23%).

2.4 Climate

The annual rainfall of the Mahoba district varies from 454 to 1009.10 mm, about 92% of which is received during South-West monsoon starting from June, July and August. The total rainy days/year vary from 35-50 in the district with an average of 38. 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. The climate of Mahoba 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 is presented in Table 2.3.

Table 2.3: Average monthly rainfall and Temperature at IWMP-XVI, Mahoba, Mahoba, U.P.
XVI

Month	Average Annual Rainfall (mm)					Average Temperature °c	
	2006	2007	2008	2009	2010	Max.	Min.
January	0	0	0	2.8	2.2	16.8	4.5
February	0	57.8	0	1.8	22.1	24.2	12.6
March	10.7	7.1	0	2.0	0	31.8	21.6
April	0	0	0	5.2	0	37.4	29.7
May	13.2	0.7	2.2	31.2	0.5	44.4	34.2
June	43.3	56.9	219.5	10.7	14.2	46.2	35.1
July	228.2	115.2	431.0	179.4	148.8	47.4	33.6
August	87.5	155.8	229.3	204.4	166.9	42.3	30.7
September	55.7	60.4	109.9	135.1	139.0	37.4	20.20
October	7.3	1.1	5.8	86.4	25.0	34.7	28.5
November	8.1	0	11.4	17.2	20.7	31.4	18.8
December	0	3.3	0	6.8	0.5	24.4	10.3
Total	**454.00**	**458.30**	**1009.1**	**683.0**	**539.9**		

Source: http://www.imd.gov.in/section/hydro/distrainfall/webrain/up

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-Project IWMP- XVI

Name of Micro Watershed	Particulars	Villages	Periodicity		Not affected
			Annual	Any other (please specify)	
Pehra -I Pehra –II Makarwai- I Ratauli Makarwai- II Kharka Rewara Megawn Mochipur Nehdaura Chinakala Bila Uttar	Flood	No. of villages: 15	NA	NA	NA
		Name(s) of villages	NA	NA	NA
	Drought	**No. of villages**- 15 **Name of Village:** Pehra, Makarwai, Ratauli, Negawan, Kharka, Rewara, Sukora, Kharka, Beela uttar, Bagwaha, Mochipura, Nehdora, Chanikala, Mahewa and Amilhai	NA	NA	NA
			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, Mahoba, District- Mahoba, 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 Pehra –I, Pehra –II, Makarwai- I, Ratauli, Makarwai- II, Kharka, Rewara, Megawn, Mochipur, Nehdaura, Chinakala and Bila Uttar micro-watershed was conducted by PIA and described in the subsequent sections.

3.1. Social-Economic Analysis

About 18 per cent of the population is scheduled caste. Population details of the IWMP-XVI are given in Table 3.1. In general 6.0 per cent population migrate from the project area due to drought and earn livelihood, however, migration was more than 50 per cent during 2007-08 due to continuous drought from 2004 to 2007 in the region. Majority of population migrate to New Delhi, Haryana and Punjab during drought year. The scenario of migration, infrastructure and common properties resources available in the project was analyzed through house hold survey and is presented in Table 3.2, 3.3 and 3.4, respectively.

Table 3.1: Demographic Features in the project area (IWMP-XVI, Mahoba)

Sr. No.	Name of Micro Watershed	Name of village	Total Population			Population of SC/ST		
			Total	Male	Female	Total	Male	Female
1	Pehra -I 2C1B2k2a	Pehra	1444	751	693	273	142	131
2	Pehra –II 2C1B2k2b	Pehra, Makarwai	1400	728	672	265	138	127
3	Makarwai- I 2C1B2k2c	Pehra, Makarwai	1889	982	907	358	186	172
4	Ratauli 2C1B2k2d	Ratauli, Negawan	1175	611	564	223	116	107
5	Makarwai- II 2C1B2k2e	Makarwai	825	429	396	156	81	75
6	Kharka 2C1B2l2c-1	Pehra, Kharka	1375	715	660	260	135	125
7	Rewara 2C1B2l2b	Pehra, Rewara, Sukora, Kharka	1214	631	583	230	120	110
8	Megawn 2C1B2l2c	Makarwai, Negawan	1450	754	696	275	143	132

9	Mochipur 2C1B2j2c	Beela uttar, Bagwaha, Mochipura	2225	1157	1068	421	219	202
10	Nehdaura 2C1B2j2d	Nehdora, Bagwaha, Sukaura	1789	930	859	339	176	163
11	Chinakala 2C1B2g2h	Chanikala	1100	572	528	208	108	100
12	Bila Uttar 2C1B2g2g	Chanikala, Mahewa, Amilhai, Beela uttar	2250	1170	1080	427	222	205
	Total		**18136**	**9430**	**8706**	**3435**	**1786**	**1649**

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

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

Sr. No.	Names MWS with code	Name of Village	Type of Farmer	No. of households	No. of BPL households	Land holding (ha)		
						Irrigated	Rainfed	Total
1	Pehra -I 2C1B2k2a	Pehra	(i) Big (above 4 ha.)	23	-	46.26	68.74	115.00
			(ii) Medium (2-4 ha.)	90	-	27.76	260.24	288.00
			(iii) Small (1-2 ha.)	95	11	18.51	123.99	142.50
			(iv) Marginal (0-1ha.)	70	59	-	32.79	32.79
			(v) Landless	11	11	-	-	-
			Total	**289**	**81**	**92.53**	**485.76**	**578.29**
2	Pehra –II 2C1B2k2b	Pehra, Makarwai	(i) Big (above 4 ha.)	20	-	42.52	69.48	112.00
			(ii) Medium (2-4 ha.)	85	-	25.51	237.99	263.50

			(iii) Small (1-2 ha.)	89	1	17.01	116.49	133.50
			(iv) Marginal (0-1ha.)	75	63	-	22.54	22.54
			(v) Landless	11	11	-	-	-
			Total	**280**	**75**	**85.05**	**446.49**	**531.54**
3	Makarwai- I 2C1B2k2c	Pehra, Makarwai	(i) Big (above 4 ha.)	30	-	59.00	91.00	150.00
			(ii) Medium (2-4 ha.)	115	-	35.40	321.10	356.50
			(iii) Small (1-2 ha.)	120	1	23.60	162.40	186.00
			(iv) Marginal (0-1ha.)	100	85	-	44.97	44.97
			(v) Landless	13	13	-	-	-
			Total	**378**	**99**	**118.00**	**619.47**	**737.47**
4	Ratauli 2C1B2k2d	Ratauli, Negawan	(i) Big (above 4 ha.)	18	-	39.58	50.42	90.00
			(ii) Medium (2-4 ha.)	70	-	23.75	211.45	235.20
			(iii) Small (1-2 ha.)	80	9	15.83	121.77	137.60
			(iv) Marginal (0-1ha.)	59	50	-	31.92	31.92
			(v) Landless	8	8	-	-	-
			Total	**235**	**67**	**79.16**	**415.56**	**494.72**
5	Makarwai- II 2C1B2k2e	Makarwai	(i) Big (above 4 ha.)	13	-	26.58	38.42	65.00
			(ii) Medium (2-4 ha.)	50	-	15.95	134.05	150.00
			(iii) Small (1-2 ha.)	55	6	10.63	77.37	88.00
			(iv) Marginal (0-1ha.)	41	34	-	29.23	29.23
			(v) Landless	6	6	-	-	-
			Total	**165**	**46**	**53.16**	**279.07**	**332.23**
6	Kharka 2C1B2l2c-1	Pehra, Kharka	(i) Big (above 4 ha.)	22	-	44.16	65.84	110.00
			(ii) Medium (2-4 ha.)	88	-	26.49	237.51	264.00
			(iii) Small (1-2 ha.)	90	1	17.66	121.84	139.50
			(iv) Marginal (0-1ha.)	63	53	-	38.46	38.46
			(v) Landless	12	12	-	-	-

			Total	**275**	**66**	**88.31**	**463.65**	**551.96**
7	Rewara 2C1B2l2b	Pehra, Rewara, Sukora, Kharka	(i) Big (above 4 ha.)	19	-	38.11	56.89	95.00
			(ii) Medium (2-4 ha.)	77	-	22.87	208.13	231.00
			(iii) Small (1-2 ha.)	80	9	15.24	112.76	128.00
			(iv) Marginal (0-1ha.)	60	51	-	22.37	22.37
			(v) Landless	7	7	-	-	-
			Total	**243**	**67**	**76.22**	**400.15**	**476.37**
8	Megawn 2C1B2l2c	Makarwai, Negawan	(i) Big (above 4 ha.)	20	-	47.64	52.36	100.00
			(ii) Medium (2-4 ha.)	90	-	28.59	250.41	279.00
			(iii) Small (1-2 ha.)	105	1	19.06	159.44	178.50
			(iv) Marginal (0-1ha.)	68	57	-	38.04	38.04
			(v) Landless	7	7	-	-	-
			Total	**290**	**65**	**95.29**	**500.25**	**595.54**
9	Mochipur 2C1B2j2c	Beela uttar, Bagwaha, Mochipura	(i) Big (above 4 ha.)	35	-	69.54	105.46	175.00
			(ii) Medium (2-4 ha.)	140	-	41.73	378.27	420.00
			(iii) Small (1-2 ha.)	145	17	27.82	204.18	232.00
			(iv) Marginal (0-1ha.)	110	93	-	42.30	42.30
			(v) Landless	15	15	-	-	-
			Total	**445**	**125**	**139.09**	**730.21**	**869.30**
10	Nehdaura 2C1B2j2d	Nehdora, Bagwaha, Sukaura	(i) Big (above 4 ha.)	28	-	53.91	86.09	140.00
			(ii) Medium (2-4 ha.)	115	-	32.35	289.65	322.00
			(iii) Small (1-2 ha.)	118	14	21.56	155.44	177.00
			(iv) Marginal (0-1ha.)	83	70	-	34.89	34.89
			(v) Landless	14	14	-	-	-
			Total	**358**	**98**	**107.82**	**566.07**	**673.89**
11	Chinakala 2C1B2g2h	Chanikala	(i) Big (above 4 ha.)	18	-	34.67	55.33	90.00
			(ii) Medium (2-4 ha.)	70	-	20.80	189.20	210.00

			(iii) Small (1-2 ha.)	72	8.	13.87	94.13	108.00
			(iv) Marginal (0-1ha.)	52	44	-	25.42	25.42
			(v) Landless	8	8	-	-	-
			Total	**220**	**60**	**69.35**	**364.07**	**433.42**
12	Bila Uttar 2C1B2g2g	Chanikala, Mahewa, Amilhai, Beela uttar	(i) Big (above 4 ha.)	36	-	72.46	121.94	194.40
			(ii) Medium (2-4 ha.)	140	-	43.47	376.53	420.00
			(iii) Small (1-2 ha.)	150	18	28.98	211.02	240.00
			(iv) Marginal (0-1ha.)	105	89	-	51.30	51.30
			(v) Landless	19	19	-	-	-
			Total	**450**	**126**	**144.91**	**760.79**	**905.70**
	Total		**Total**	3628	975	1148.87	6031.56	7180.43

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

Table 3.3: Details of migration from Project area (IWMP-XVI, Mahoba): 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	Pehra -I 2C1B2k2a	Pehra	86	130-180	Drought / Earn money	450-1000 Km	Labour	0.25-0.40
2	Pehra –II 2C1B2k2b	Pehra, Makarwai	84	130-180	-do-	450-1000 Km	Labour	0.25-0.40
3	Makarwai- I 2C1B2k2c	Pehra, Makarwai	113	130-180	-do-	450-1000 Km	Labour	0.25-0.40
4	Ratauli 2C1B2k2d	Ratauli, Negawan	70	130-180	-do-	450-1000 Km	Labour	0.25-0.40
5	Makarwai- II 2C1B2k2e	Makarwai	49	130-180	-do-	450-1000 Km	Labour	0.25-0.40

6	Kharka 2C1B2l2c-1	Pehra, Kharka	82	130-180	-do-	450-1000 Km	Labour	0.25-0.40
7	Rewara 2C1B2l2b	Pehra, Rewara, Sukora, Kharka	72	130-180	-do-	450-1000 Km	Labour	0.25-0.40
8	Megawn 2C1B2l2c	Makarwai, Negawan	87	130-180	-do-	450-1000 Km	Labour	0.25-0.40
9	Mochipur 2C1B2j2c	Beela uttar, Bagwaha, Mochipura	133	130-180	-do-	450-1000 Km	Labour	0.25-0.40
10	Nehdaura 2C1B2j2d	Nehdora, Bagwaha, Sukaura	107	130-180	-do-	450-1000 Km	Labour	0.25-0.40
11	Chinakala 2C1B2g2h	Chanikala	66	130-180	-do-	450-1000 Km	Labour	0.25-0.40
12	Bila Uttar 2C1B2g2g	Chanikala, Mahewa, Amilhai, Beela uttar	135	130-180	-do-	450-1000 Km	Labour	0.25-0.40
	Total		**1084**					

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

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

Sr. No.	Name of Project	Parameters		Status			
1	IWMP-XVI	(i)	Name of villages connected to the main road by an all-weather road	Mahoba to Kabarai			
		(ii)	Village's Name provided with electricity	All villages			
		(iii)	No. of households without access to drinking water	About 5-8 per cent house holds depends on others' source of drinking water			
		(iv)	No. of educational institutions : Primary(P)/ Secondary(S)/ Higher Secondary(HS)/ vocational institution(VI)	(P) 22	(S) 03	(HS) 01	(VI) -
		(v)	Names of villages with access to Primary Health Centre	NA			
		(vi)	Names of villages with access to Veterinary Dispensary	NA			
		(vii)	Names of villages with access to Post Office	02			
		(viii)	Names of villages with access to Banks	01			
		(ix)	Names of villages with access to Markets/ mandis	01			
		(x)	Names of villages with access to Agro-industries	NA			
		(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, Mahoba, District- Mahoba, U.P.)
Note: Micro-watershed wise information is kept in project file

Table 3.5: Details of common property resources In IWMP-XVI, Mahoba

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	253.36	-	84.26	-	253.36	-	84.26	-
		(ii) Pastures	-	-	-	-	-	-	-	-
		(iii) Orchards	-	-	-	-	-	-	-	-
		(iv) Village Woodlot	65.84	-	36.29	-	65.84	-	36.29	-
		(v) Forest	-	-	-	-	-	-	-	-
		(vi) Village Ponds/ Tanks	-	-	15.24	-	-	-	-	-
		(vii) Community Buildings	-	-	55.69	-	-	-	-	-
		(viii) Weekly Markets	--	--	-	--	--	--	-	--
		(ix) Permanent markets	--	--	--	--	--	--	--	--
		(x) Temples/ Places of worship			24.36	--	--	--	--	--
		(xi) Habitat, Chakmarg, Sector, Road etc	-	369.00	-	-	-	-	-	-
	Total		**319.2**	**369.00**	**215.84**	**-**	**319.2**	**-**	**120.55**	**-**

Source: Participatory rural appraisal by PIA, (Soil Conservation Division, Mahoba, District- Mahoba, 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, Mahoba

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	Pehra -I 2C1B2k2a	155.69	378.11	207.59	Purwa, Mar+kabar
2	Pehra –II 2C1B2k2b	170.37	347.54	163.55	Purwa, Mar+kabar
3	Makarwai- I 2C1B2k2c	170.19	491.65	283.64	Purwa, Mar+kabar
4	Ratauli 2C1B2k2d	152.22	348.84	133.19	Purwa, Mar+kabar
5	Makarwai- II 2C1B2k2e	76.67	204.45	144.82	Purwa, Mar+kabar
6	Kharka 2C1B2l2c-1	141.53	396.28	169.83	Purwa, Mar+kabar
7	Rewara 2C1B2l2b	134.36	354.22	122.15	Purwa, Mar+kabar
8	Megawn 2C1B2l2c	148.88	435.20	179.42	Purwa, Mar+kabar
9	Mochipur 2C1B2j2c	228.47	590.68	295.34	Purwa, Mar+kabar
10	Nehdaura 2C1B2j2d	177.11	457.90	228.95	Purwa, Mar+kabar
11	Chinakala 2C1B2g2h	113.91	294.51	147.25	Purwa, Mar+kabar
12	Bila Uttar 2C1B2g2g	238.04	615.41	307.71	Purwa, Mar+kabar
Total		**1907.44**	**4914.80**	**2383.45**	**9205.70**

Source: Participatory rural appraisal by PIA, (Soil Conservation Division, Mahoba, District- Mahoba, 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 104.33 to 109.25 per cent with 107.18 per cent for the project.

Table 3.7: Micro-watershed wise details of Crops, their Productivity and Production in IWMP-XVI, Mahoba
Pehra -I 2C1B2k2a

S.No	Crop	Area (ha.)		Productivity q,/ha		Production (q.)			
						Grain/Main product		Fodder/Fuel/ Other Product.	
		Irrigated	Rainfed	Irrigated	Rainfed.	Irrigated	Rainfed	Irrigated	Rainfed
A	**Kharif**								
1	Urd	0.00	74.18	0.00	3.20	0.00	237.38	0.00	474.75
2	Moong	0.00	65.18	0.00	2.90	0.00	189.02	0.00	340.24
3	Arhar	0.00	36.15	0.00	5.30	0.00	191.60	0.00	32.57
4	Sorghum	0.00	25.48	0.00	5.90	0.00	150.33	0.00	691.53
5	Til	0.00	54.91	0.00	2.00	0.00	109.82	0.00	208.66
	Total		**255.90**				**878.15**		**1747.75**
B	**Rabi**								
1	Wheat	92.53	10.34	20.00	11.45	1850.53	118.39	1943.06	117.21
2	Masoor	0.00	34.26	0.00	12.40	0.00	424.82	0.00	420.58
3	Gram	0.00	75.26	0.00	4.60	0.00	346.20	0.00	332.35
4	Pea	0.00	98.25	0.00	5.70	0.00	560.03	0.00	537.62
5	Mustard	0.00	51.37	0.00	7.20	0.00	369.86	0.00	1294.52
	Total	**92.53**	**269.48**			**1850.53**	**1819.30**	**1943.06**	**2702.28**
C	**Zaid**								
	Nil								
	Cultivable Area	**578.29**	**Cropping Intensity**		**106.85**				

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

Pehra –II 2C1B2k2b

S.No	Crop	Area (ha.)		Productivity q,/ha		Production (q.)			
						Grain/Main product		Fodder/Fuel/ Other Product.	
		Irrigated	Rainfed	Irrigated	Rainfed.	Irrigated	Rainfed	Irrigated	Rainfed
A	**Kharif**								
1	Urd	0.00	58.69	0.00	3.20	0.00	187.81	0.00	375.62
2	Moong	0.00	48.31	0.00	2.90	0.00	140.10	0.00	252.18
3	Arhar	0.00	26.97	0.00	5.30	0.00	142.94	0.00	24.30
4	Sorghum	0.00	21.34	0.00	5.90	0.00	125.91	0.00	579.17
5	Til	0.00	57.64	0.00	2.00	0.00	115.28	0.00	219.03
	Total		**212.95**				**712.03**		**1450.29**
B	**Rabi**								
1	Wheat	85.05	12.36	20.00	11.45	1700.92	141.52	1785.97	140.11
2	Masoor	0.00	47.36	0.00	12.40	0.00	587.26	0.00	581.39
3	Gram	0.00	65.26	0.00	4.60	0.00	300.20	0.00	288.19
4	Pea	0.00	110.36	0.00	5.70	0.00	629.05	0.00	603.89
5	Mustard	0.00	47.35	0.00	7.20	0.00	340.92	0.00	1193.22
	Total	**85.05**	**282.69**			**1700.92**	**1998.95**	**1785.97**	**2806.80**
C	**Zaid**								
	Nil								
	Cultivable Area	**531.54**	**Cropping Intensity**		**109.25**				

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

Makarwai- I 2C1B2k2c

S.No	Crop	Area (ha.)		Productivity q,/ha		Production (q.)			
						Grain/Main product		Fodder/Fuel/ Other Product.	
		Irrigated	Rainfed	Irrigated	Rainfed.	Irrigated	Rainfed	Irrigated	Rainfed
A	**Kharif**								
1	Urd	0.00	97.35	0.00	3.20	0.00	311.52	0.00	623.04
2	Moong	0.00	32.68	0.00	2.90	0.00	94.77	0.00	170.59
3	Arhar	0.00	45.36	0.00	5.30	0.00	240.41	0.00	40.87
4	Sorghum	0.00	59.34	0.00	5.90	0.00	350.11	0.00	1610.49
5	Til	0.00	74.36	0.00	2.00	0.00	148.72	0.00	282.57
	Total		**309.09**				**1145.53**		**2727.55**
B	**Rabi**								
1	Wheat	118.00	13.54	20.00	11.45	2359.92	155.03	2477.91	153.48
2	Masoor	0.00	46.38	0.00	12.40	0.00	575.11	0.00	569.36
3	Gram	0.00	100.26	0.00	4.60	0.00	461.20	0.00	442.75
4	Pea	0.00	164.25	0.00	5.70	0.00	936.23	0.00	898.78
5	Mustard	0.00	35.26	0.00	7.20	0.00	253.87	0.00	888.55
	Total	**118.00**	**359.69**			**2359.92**	**2381.44**	**2477.91**	**2952.92**
C	**Zaid**								
	Nil								
	Cultivable Area	**737.47**	**Cropping Intensity**		**106.69**				

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

Ratauli 2C1B2k2d

S.No	Crop	Area (ha.)		Productivity q,/ha		Production (q.)			
						Grain/Main product		Fodder/Fuel/ Other Product.	
		Irrigated	Rainfed	Irrigated	Rainfed.	Irrigated	Rainfed	Irrigated	Rainfed
A	**Kharif**								
1	Urd	0.00	54.62	0.00	3.20	0.00	174.78	0.00	349.57
2	Moong	0.00	45.32	0.00	2.90	0.00	131.43	0.00	236.57
3	Arhar	0.00	21.36	0.00	5.30	0.00	113.21	0.00	19.25
4	Sorghum	0.00	15.26	0.00	5.90	0.00	90.03	0.00	414.16
5	Til	0.00	59.38	0.00	2.00	0.00	118.76	0.00	225.64
	Total		**195.94**				**628.21**		**1245.18**
B	**Rabi**								
1	Wheat	79.16	9.34	20.00	11.45	1583.11	106.94	1662.27	105.87
2	Masoor	0.00	46.26	0.00	12.40	0.00	573.62	0.00	567.89
3	Gram	0.00	75.36	0.00	4.60	0.00	346.66	0.00	332.79
4	Pea	0.00	94.26	0.00	5.70	0.00	537.28	0.00	515.79
5	Mustard	0.00	31.26	0.00	7.20	0.00	225.07	0.00	787.75
	Total	**79.16**	**256.48**			**1583.11**	**1789.58**	**1662.27**	**2310.09**
C	**Zaid**								
	Nil								
	Cultivable Area	**494.72**	**Cropping Intensity**		**107.45**				

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

Makarwai- II 2C1B2k2e

S.No	Crop	Area (ha.)		Productivity q,/ha		Production (q.)			
						Grain/Main product		Fodder/Fuel/ Other Product.	
		Irrigated	Rainfed	Irrigated	Rainfed.	Irrigated	Rainfed	Irrigated	Rainfed
A	**Kharif**								
1	Urd	0.00	44.73	0.00	3.20	0.00	143.14	0.00	286.27
2	Moong	0.00	23.49	0.00	2.90	0.00	68.11	0.00	122.59
3	Arhar	0.00	15.26	0.00	5.30	0.00	80.88	0.00	13.75
4	Sorghum	0.00	14.34	0.00	5.90	0.00	84.61	0.00	389.19
5	Til	0.00	30.67	0.00	2.00	0.00	61.34	0.00	116.55
	Total		**128.49**				**438.07**		**928.35**
B	**Rabi**								
1	Wheat	53.16	9.14	20.00	11.45	1063.15	104.65	1116.30	103.61
2	Masoor	0.00	30.26	0.00	12.40	0.00	375.22	0.00	371.47
3	Gram	0.00	51.95	0.00	4.60	0.00	238.96	0.00	229.40
4	Pea	0.00	74.36	0.00	5.70	0.00	423.85	0.00	406.90
5	Mustard	0.00	12.35	0.00	7.20	0.00	88.92	0.00	311.22
	Total	**53.16**	**178.06**			**1063.15**	**1231.61**	**1116.30**	**1422.59**
C	**Zaid**								
	Nil								
	Cultivable Area	**332.23**	**Cropping Intensity**		**108.27**				

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

Kharka 2C1B2l2c-1

S.No	Crop	Area (ha.)		Productivity q,/ha		Production (q.)			
						Grain/Main product		Fodder/Fuel/ Other Product.	
		Irrigated	Rainfed	Irrigated	Rainfed.	Irrigated	Rainfed	Irrigated	Rainfed
A	**Kharif**								
1	Urd	0.00	51.32	0.00	3.20	0.00	164.22	0.00	328.45
2	Moong	0.00	13.28	0.00	2.90	0.00	38.51	0.00	69.32
3	Arhar	0.00	36.15	0.00	5.30	0.00	191.60	0.00	32.57
4	Sorghum	0.00	13.95	0.00	5.90	0.00	82.31	0.00	378.60
5	Til	0.00	71.35	0.00	2.00	0.00	142.70	0.00	271.13
	Total		**186.05**				**619.34**		**1080.07**
B	**Rabi**								
1	Wheat	88.31	10.39	20.00	11.45	1766.27	118.97	1854.58	117.78
2	Masoor	0.00	36.95	0.00	12.40	0.00	458.18	0.00	453.60
3	Gram	0.00	84.26	0.00	4.60	0.00	387.60	0.00	372.09
4	Pea	0.00	142.36	0.00	5.70	0.00	811.45	0.00	778.99
5	Mustard	0.00	31.26	0.00	7.20	0.00	225.07	0.00	787.75
	Total	**88.31**	**305.22**			**1766.27**	**2001.27**	**1854.58**	**2510.21**
C	**Zaid**								
	Nil								
	Cultivable Area	**551.96**	**Cropping Intensity**		**105.00**				

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

Rewara 2C1B2l2b

S.No	Crop	Area (ha.)		Productivity q,/ha		Production (q.)			
						Grain/Main product		Fodder/Fuel/ Other Product.	
		Irrigated	**Rainfed**	**Irrigated**	**Rainfed.**	**Irrigated**	**Rainfed**	**Irrigated**	**Rainfed**
A	**Kharif**								
1	Urd	0.00	45.26	0.00	3.20	0.00	144.83	0.00	289.66
2	Moong	0.00	30.65	0.00	2.90	0.00	88.89	0.00	159.99
3	Arhar	0.00	19.15	0.00	5.30	0.00	101.50	0.00	17.25
4	Sorghum	0.00	16.35	0.00	5.90	0.00	96.47	0.00	443.74
5	Til	0.00	65.38	0.00	2.00	0.00	130.76	0.00	248.44
	Total		**176.79**				**562.44**		**1159.09**
B	**Rabi**								
1	Wheat	76.22	8.34	20.00	11.45	1524.38	95.49	1600.60	94.54
2	Masoor	0.00	39.48	0.00	12.40	0.00	489.55	0.00	484.66
3	Gram	0.00	64.59	0.00	4.60	0.00	297.11	0.00	285.23
4	Pea	0.00	132.25	0.00	5.70	0.00	753.83	0.00	723.67
5	Mustard	0.00	21.36	0.00	7.20	0.00	153.79	0.00	538.27
	Total	**76.22**	**266.02**			**1524.38**	**1789.78**	**1600.60**	**2126.37**
C	**Zaid**								
	Nil								
	Cultivable Area	**476.37**	**Cropping Intensity**		**108.96**				

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

Megawn 2C1B2l2c

S.No	Crop	Area (ha.)		Productivity q,/ha		Production (q.)			
						Grain/Main product		Fodder/Fuel/ Other Product.	
		Irrigated	**Rainfed**	**Irrigated**	**Rainfed.**	**Irrigated**	**Rainfed**	**Irrigated**	**Rainfed**
A	**Kharif**								
1	Urd	0.00	74.68	0.00	3.20	0.00	238.98	0.00	477.95
2	Moong	0.00	40.26	0.00	2.90	0.00	116.75	0.00	210.16
3	Arhar	0.00	24.95	0.00	5.30	0.00	132.24	0.00	22.48
4	Sorghum	0.00	35.16	0.00	5.90	0.00	207.44	0.00	954.24
5	Til	0.00	45.26	0.00	2.00	0.00	90.52	0.00	171.99
	Total		**220.31**				**785.93**		**1836.82**
B	**Rabi**								
1	Wheat	95.29	11.35	20.00	11.45	1905.72	129.96	2001.01	128.66
2	Masoor	0.00	120.35	0.00	12.40	0.00	1492.34	0.00	1477.42
3	Gram	0.00	74.26	0.00	4.60	0.00	341.60	0.00	327.93
4	Pea	0.00	85.26	0.00	5.70	0.00	485.98	0.00	466.54
5	Mustard	0.00	36.15	0.00	7.20	0.00	260.28	0.00	910.98
	Total	**95.29**	**327.37**			**1905.72**	**2710.16**	**2001.01**	**3311.53**
C	**Zaid**								
	Nil								
	Cultivable Area	**595.54**	**Cropping Intensity**		**107.96**				

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

Mochipur 2C1B2j2c

S.No	Crop	Area (ha.)		Productivity q,/ha		Production (q.)			
						Grain/Main product		Fodder/Fuel/ Other Product.	
		Irrigated	Rainfed	Irrigated	Rainfed.	Irrigated	Rainfed	Irrigated	Rainfed
A	**Kharif**								
1	Urd	0.00	120.33	0.00	3.20	0.00	385.06	0.00	770.11
2	Moong	0.00	67.49	0.00	2.90	0.00	195.72	0.00	352.30
3	Arhar	0.00	21.35	0.00	5.30	0.00	113.16	0.00	19.24
4	Sorghum	0.00	32.16	0.00	5.90	0.00	189.74	0.00	872.82
5	Til	0.00	84.26	0.00	2.00	0.00	168.52	0.00	320.19
	Total		**325.59**				**1052.20**		**2334.66**
B	**Rabi**								
1	Wheat	139.09	13.26	20.00	11.45	2781.77	151.83	2920.86	150.31
2	Masoor	0.00	80.36	0.00	12.40	0.00	996.46	0.00	986.50
3	Gram	0.00	148.59	0.00	4.60	0.00	683.51	0.00	656.17
4	Pea	0.00	201.35	0.00	5.70	0.00	1147.70	0.00	1101.79
5	Mustard	0.00	34.65	0.00	7.20	0.00	249.48	0.00	873.18
	Total	**139.09**	**478.21**			**2781.77**	**3228.98**	**2920.86**	**3767.95**
C	**Zaid**								
	Nil								
	Cultivable Area	**869.30**	**Cropping Intensity**		**108.46**				

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

Nehdaura 2C1B2j2d

S.No	Crop	Area (ha.)		Productivity q,/ha		Production (q.)			
						Grain/Main product		Fodder/Fuel/ Other Product.	
		Irrigated	Rainfed	Irrigated	Rainfed.	Irrigated	Rainfed	Irrigated	Rainfed
A	**Kharif**								
1	Urd	0.00	120.36	0.00	3.20	0.00	385.15	0.00	770.30
2	Moong	0.00	78.95	0.00	2.90	0.00	228.96	0.00	412.12
3	Arhar	0.00	26.35	0.00	5.30	0.00	139.66	0.00	23.74
4	Sorghum	0.00	23.15	0.00	5.90	0.00	136.59	0.00	628.29
5	Til	0.00	102.36	0.00	2.00	0.00	204.72	0.00	388.97
	Total		**351.17**				**1095.07**		**2223.42**
B	**Rabi**								
1	Wheat	107.82	15.34	20.00	11.45	2156.44	175.64	2264.27	173.89
2	Masoor	0.00	175.36	0.00	12.40	0.00	2174.46	0.00	2152.72
3	Gram	0.00	145.23	0.00	4.60	0.00	668.06	0.00	641.34
4	Pea	0.00	101.26	0.00	5.70	0.00	577.18	0.00	554.09
5	Mustard	0.00	34.64	0.00	7.20	0.00	249.41	0.00	872.93
	Total	**107.82**	**471.83**			**2156.44**	**3844.76**	**2264.27**	**4394.96**
C	**Zaid**								
	Nil								
	Cultivable Area	**863.96**	**Cropping Intensity**		**107.74**				

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

Chinakala 2C1B2g2h

S.No	Crop	Area (ha.)		Productivity q,/ha		Production (q.)			
						Grain/Main product		Fodder/Fuel/ Other Product.	
		Irrigated	Rainfed	Irrigated	Rainfed.	Irrigated	Rainfed	Irrigated	Rainfed
A	**Kharif**								
1	Urd	0.00	55.26	0.00	3.20	0.00	176.83	0.00	353.66
2	Moong	0.00	31.26	0.00	2.90	0.00	90.65	0.00	163.18
3	Arhar	0.00	13.46	0.00	5.30	0.00	71.34	0.00	12.13
4	Sorghum	0.00	12.35	0.00	5.90	0.00	72.87	0.00	335.18
5	Til	0.00	25.36	0.00	2.00	0.00	50.72	0.00	96.37
	Total		**137.69**				**462.41**		**960.52**
B	**Rabi**								
1	Wheat	69.35	9.24	20.00	11.45	1386.95	105.80	1456.30	104.74
2	Masoor	0.00	97.36	0.00	12.40	0.00	1207.26	0.00	1195.19
3	Gram	0.00	84.65	0.00	4.60	0.00	389.39	0.00	373.81
4	Pea	0.00	36.25	0.00	5.70	0.00	206.63	0.00	198.36
5	Mustard	0.00	21.38	0.00	7.20	0.00	153.94	0.00	538.78
	Total	**69.35**	**248.88**			**1386.95**	**2063.01**	**1456.30**	**2410.88**
C	**Zaid**								
	Nil								
	Cultivable Area	**433.42**	**Cropping Intensity**		**105.19**				

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

Bila Uttar 2C1B2g2g

S.No	Crop	Area (ha.)		Productivity q,/ha		Production (q.)			
						Grain/Main product		Fodder/Fuel/ Other Product.	
		Irrigated	Rainfed	Irrigated	Rainfed.	Irrigated	Rainfed	Irrigated	Rainfed
A	**Kharif**								
1	Urd	0.00	94.36	0.00	3.20	0.00	301.95	0.00	603.90
2	Moong	0.00	84.36	0.00	2.90	0.00	244.64	0.00	440.36
3	Arhar	0.00	45.36	0.00	5.30	0.00	240.41	0.00	40.87
4	Sorghum	0.00	35.26	0.00	5.90	0.00	208.03	0.00	956.96
5	Til	0.00	121.36	0.00	2.00	0.00	242.72	0.00	461.17
	Total		**380.70**				**1237.76**		**2503.26**
B	**Rabi**								
1	Wheat	144.91	13.64	20.00	11.45	2898.26	156.18	3043.17	154.62
2	Masoor	0.00	193.65	0.00	12.40	0.00	2401.26	0.00	2377.25
3	Gram	0.00	98.36	0.00	4.60	0.00	452.46	0.00	447.93
4	Pea	0.00	65.29	0.00	5.70	0.00	372.15	0.00	357.27
5	Mustard	0.00	48.36	0.00	7.20	0.00	348.19	0.00	1218.67
	Total	**144.91**	**419.30**			**2898.26**	**3730.24**	**3043.17**	**4555.73**
C	**Zaid**								
	Nil								
	Cultivable Area	**905.70**	**Cropping Intensity**		**104.33**				

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

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

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

Summary	Unit	Production During Kharif	Production during Rabi	Total Production	Remarks
Food Production					
Cereals	q	3553.34	24537.83	28091.17	-
Pulses	q	4479.20	24109.85	28589.05	-
Oilseed	q	1584.58	2918.81	4503.39	-
Total	q	9617.12	51566.49	61183.60	-
					-
Fodder Production					-
Dry Fodder	q	69080.75			-
Green Fodder	q	0.00			-
Fuel Production					
Arhar+Mustard+Til Plants	q	10514.84			-
Over all Cropping Intensity		107.18			

Source: Participatory rural appraisal by PIA, (Soil Conservation Division, Mahoba, District- Mahoba, 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 Micro-watershed

S. N.	Name of micro watershed with code	Name of village	Name of Important horticultural crop						
			Orchard				Scattered Fruit Crop		
			Name	Area ha.	Productivity q/ha	Production q	No.	Productivity q/No.	Production q
1	Pehra -I 2C1B2k2a	Pehra	Nil	Nil	Nil	Nil	30	0.23	6.90
2	Pehra –II 2C1B2k2b	Pehra, Makarwai	Nil	Nil	Nil	Nil	36	0.24	8.64
3	Makarwai- I 2C1B2k2c	Pehra, Makarwai	Nil	Nil	Nil	Nil	26	0.26	6.76
4	Ratauli 2C1B2k2d	Ratauli, Negawan	Nil	Nil	Nil	Nil	34	0.19	6.46
5	Makarwai- II 2C1B2k2e	Makarwai	Nil	Nil	Nil	Nil	36	0.26	9.36
6	Kharka 2C1B2l2c-1	Pehra, Kharka	Nil	Nil	Nil	Nil	31	0.24	7.44
7	Rewara 2C1B2l2b	Pehra, Rewara, Sukora, Kharka	Nil	Nil	Nil	Nil	29	0.28	8.12
8	Megawn 2C1B2l2c	Makarwai, Negawan	Nil	Nil	Nil	Nil	28	0.30	8.40
9	Mochipur 2C1B2j2c	Beela uttar, Bagwaha, Mochipura	Nil	Nil	Nil	Nil	34	0.25	8.50
10	Nehdaura 2C1B2j2d	Nehdora, Bagwaha, Sukaura	Nil	Nil	Nil	Nil	31	0.30	9.30
11	Chinakala 2C1B2g2h	Chanikala	Nil	Nil	Nil	Nil	32	0.33	10.56
12	Bila Uttar 2C1B2g2g	Chanikala, Mahewa, Amilhai, Beela uttar	Nil	Nil	Nil	Nil	38	0.30	11.40
	Total						**355**	**0.27**	**94.94**
	(Scattered fruit plant of Papaya, Kathal, Ber, Aonla, Guava, etc)								

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

3.5 Livestock and Fisheries

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

Table 3.10: Livestock Population in IWMP-XVI, Mahoba (All Figures are in No.)

Sr. No.	Name of Micro watershed with code	Name of Village	Cow		Buffalo		Ox/Bull	Goat	Sheep	Piggeries	Poultry			Other
			Desi	Crossed	Desi	Murrah					Broiler	Layers	Total	specify
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	Pehra -I 2C1B2k2a	Pehra	93	22	55	17	43	473	14	12	-	**26**	**755**	-
2	Pehra –II 2C1B2k2b	Pehra, Makarwai	91	21	54	16	40	459	13	11	-	**24**	**729**	-
3	Makarwai- I 2C1B2k2c	Pehra, Makarwai	121	30	71	23	44	619	15	13	-	**25**	**961**	-
4	Ratauli 2C1B2k2d	Ratauli, Negawan	72	22	43	15	28	385	12	12	-	**21**	**610**	-
5	Makarwai- II 2C1B2k2e	Makarwai	50	16	31	10	25	270	16	11	-	**26**	**455**	-
6	Kharka 2C1B2l2c-1	Pehra, Kharka	80	30	52	16	33	451	12	10	-	**24**	**708**	-
7	Rewara 2C1B2l2b	Pehra, Rewara, Sukora, Kharka	83	14	46	14	30	398	14	8	-	**25**	**632**	-
8	Megawn 2C1B2l2c	Makarwai, Negawan	93	23	50	22	35	475	13	10	-	**26**	**747**	-
9	Mochipur 2C1B2j2c	Beela uttar, Bagwaha, Mochipura	133	45	78	33	45	729	12	12	-	**21**	**1108**	-
10	Nehdaura	Nehdora,	114	29	69	20	40	587	14	10	-	18	**901**	-

	2C1B2j2d	Bagwaha, Sukaura												
11	Chinakala 2C1B2g2h	Chanikala	79	9	40	15	15	360	12	21	-	19	**570**	-
12	Bila Uttar 2C1B2g2g	Chanikala, Mahewa, Amilhai, Beela uttar	139	41	77	35	46	738	13	12	-	14	**1115**	-
	Total		**1148**	**302**	**666**	**236**	**424**	**5944**	**160**	**142**	**0**	**269**	**9291**	-

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

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

SN	Name of Micro watershed with code	Name of Village	Milk Production (Liter Per day)				Goatry	Poultry	
			Cows		Buffalos		Weight in Kg/goat	Broiler Weight in Kg/ Brl	Layers No. of eggs/day
			Desi	Crossed	Desi	Murrah			
1	Pehra -I 2C1B2k2a	Pehra	1.1	5.1	3.0	5.1	21.0	0.0	171
2	Pehra –II 2C1B2k2b	Pehra, Makarwai	1.0	5.0	2.6	4.9	19.0	0.0	153
3	Makarwai- I 2C1B2k2c	Pehra, Makarwai	1.3	5.5	2.9	5.1	21.0	0.0	165
4	Ratauli 2C1B2k2d	Ratauli, Negawan	1.2	5.8	2.9	5.9	19.0	0.0	157
5	Makarwai- II 2C1B2k2e	Makarwai	1.3	5.8	3.1	5.2	23.0	0.0	159
6	Kharka 2C1B2l2c-1	Pehra, Kharka	1.5	5.6	2.4	6.1	23.0	0.0	169
7	Rewara 2C1B2l2b	Pehra, Rewara, Sukora, Kharka	1.3	4.9	2.3	5.1	24.0	0.0	172
8	Megawn	Makarwai, Negawan	1.2	5.7	2.5	5.6	22.0	0.0	160

	2C1B2l2c								
9	Mochipur 2C1B2j2c	Beela uttar, Bagwaha, Mochipura	1.4	5.3	2.9	4.6	24.0	0.0	153
10	Nehdaura 2C1B2j2d	Nehdora, Bagwaha, Sukaura	1.6	5.1	2.5	6.1	22.0	0.0	160
11	Chinakala 2C1B2g2h	Chanikala	1.2	5.6	2.4	5.3	19.0	0.0	159
12	Bila Uttar 2C1B2g2g	Chanikala, Mahewa, Amilhai, Beela uttar	1.2	5.4	2.0	4.4	24.0	0.0	163
	Average		1.3	5.4	2.6	5.3	21.8	0.0	0

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

3.6 Forest and Grassland

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

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

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	Pehra -I 2C1B2k2a	Pehra	-	-	-	5.74	-	2.48	2.97
2	Pehra –II 2C1B2k2b	Pehra, Makarwai	-	-	-	5.33	-	2.61	2.18
3	Makarwai- I 2C1B2k2c	Pehra, Makarwai	-	-	-	4.79	-	2.84	2.34
4	Ratauli 2C1B2k2d	Ratauli, Negawan	-	-	-	6.49	-	2.48	2.15
5	Makarwai- II 2C1B2k2e	Makarwai	-	-	-	6.12	-	2.61	2.12
6	Kharka 2C1B2l2c-1	Pehra, Kharka	-	-	-	5.24	-	2.15	2.18
7	Rewara 2C1B2l2b	Pehra, Rewara, Sukora, Kharka	-	-	-	4.39	-	2.48	1.98

8	Megawn 2C1B2l2c	Makarwai, Negawan	-	-	-	6.35	-	2.35	1.48
9	Mochipur 2C1B2j2c	Beela uttar, Bagwaha, Mochipura	-	-	-	6.1.4	-	2.65	2.15
10	Nehdaura 2C1B2j2d	Nehdora, Bagwaha, Sukaura	-	-	-	7.09	-	2.95	1.94
11	Chinakala 2C1B2g2h	Chanikala	-	-	-	4.68	-	2.18	1.95
12	Bila Uttar 2C1B2g2g	Chanikala, Mahewa, Amilhai, Beela uttar	-	-	-	5.38	-	1.95	1.74
	Total		-	-	-	61.6	-	29.73	25.18

Source: Participatory rural appraisal by PIA, (Soil Conservation Division, Mahoba, District- Mahoba, 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	Pehra -I 2C1B2k2a	Pehra	Labour/ Batai	2	6	2	11	25,000-35,000	The landless people can increase their income by adoting one or two activities of	55,000-60,000	Income may be increased by about two times
2	Pehra –II 2C1B2k2b	Pehra, Makarwai		3	6	1	11				
3	Makarwai- I 2C1B2k2c	Pehra, Makarwai		3	8	2	13				
4	Ratauli 2C1B2k2d	Ratauli, Negawan		1	6	1	8				
5	Makarwai- II	Makarwai		1	4	1	6				

	2C1B2k2e								goatary, poultry, dairy, technical shop, general store, dona making, Rope making, etc. besides Batai/labour work		
6	Kharka 2C1B2l2c-1	Pehra, Kharka		2	8	2	12				
7	Rewara 2C1B2l2b	Pehra, Rewara, Sukora, Kharka		2	4	1	7				
8	Megawn 2C1B2l2c	Makarwai, Negawan		2	4	1	7				
9	Mochipur 2C1B2j2c	Beela uttar, Bagwaha, Mochipura		3	10	2	15				
10	Nehdaura 2C1B2j2d	Nehdora, Bagwaha, Sukaura		3	9	2	14				
11	Chinakala 2C1B2g2h	Chanikala		1	3	1	8				
12	Bila Uttar 2C1B2g2g	Chanikala, Mahewa, Amilhai, Beela uttar		4	12	3	19				
	Total			**27**	**80**	**19**	**131**	**25,000-35,000**	**-**	**55,000-60,000**	

Source: Participatory rural appraisal by PIA, (Soil Conservation Division, Mahoba, District- Mahoba, 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	Pehra -I 2C1B2k2a	Pehra	Agriculture + Livestock, Labour, Batai	51	207.00	11	269	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	Pehra –II 2C1B2k2b	Pehra, Makarwai		69	282.00	14	365				
3	Makarwai- I 2C1B2k2c	Pehra, Makarwai		43	175.00	9	227				
4	Ratauli 2C1B2k2d	Ratauli, Negawan		30	120.00	9	159				
5	Makarwai- II 2C1B2k2e	Makarwai		49	204.00	10	263				
6	Kharka 2C1B2l2c-1	Pehra, Kharka		44	182.00	10	236				
7	Rewara 2C1B2l2b	Pehra, Rewara, Sukora,		53	219.00	11	283				

		Kharka									
8	Megawn 2C1B2l2c	Makarwai, Negawan		81	331.00	18	430				
9	Mochipur 2C1B2j2c	Beela uttar, Bagwaha, Mochipura		65	263.00	16	344				
10	Nehdaura 2C1B2j2d	Nehdora, Bagwaha, Sukaura		40	164.00	8	212				
11	Chinakala 2C1B2g2h	Chanikala		81	332.00	18	431				
12	Bila Uttar 2C1B2g2g	Chanikala, Mahewa, Amilhai, Beela uttar		51	207.00	11	269				
	Total			658	2693	146	3497	**35000-45000**	**-**	**55,000-65,000**	

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

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

'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	Pehra -I 2C1B2k2a	Pehra	157	11,500-13,500	No	13,000-16,000	393	20000-25000	15	7500-9000	-	-	6	2000-4000	3	2500-4500	-	-	48	11,000-13,000	188	25,000-27,000
2	Pehra – II 2C1B2k2b	Pehra, Makarwai	155		16		388		14		-		5		2		-		43		186	
3	Makarwai- I 2C1B2k2c	Pehra, Makarwai	153		14		383		16		-		3		1		-		45		184	
4	Ratauli 2C1B2k2d	Ratauli, Negawan	108		15		270		13		-		5		2		-		46		130	
5	Makarwai- II 2C1B2k2e	Makarwai	168		18		420		14		-		4		3		-		42		202	
6	Kharka 2C1B2l2c-1	Pehra, Kharka	93		17		233		16		-		4		4		-		41		112	
7	Rewara 2C1B2l	Pehra, Rewara,	118		13		29		14		-		3		2		-		43		142	

	2b	Sukora, Kharka					**5**															
8	Megawn 2C1B2l 2c	Makarwai, Negawan	114		**12**		**285**		15		-		5		3		-		49		137	
9	Mochipur 2C1B2j 2c	Beela uttar, Bagwaha, Mochipura	151		**12**		**378**		12		-		3		4		-		47		181	
10	Nehdaura 2C1B2j 2d	Nehdora, Bagwaha, Sukaura	143		**15**		**358**		16		-		**4**		**2**		-		41		172	
11	Chinakala 2C1B2g 2h	Chanikala	186		**13**		**465**		18		-		6		6		-		42		223	
12	Bila Uttar 2C1B2g 2g	Chanikala, Mahewa, Amilhai, Beela uttar	135		**15**		**338**		18		-		5		3		-		41		162	
	Total		**1681**	**11,500-13,500**	**174**	**13,000-16,000**	**4203**	**20000-25000**	**181**	**7500 - 9000**	**-**	**-**	**53**	**2000 - 4000**	**35**	**2500 - 4500**	**-**	**-**	**528**	**11,000-13,000**	**2017**	**25,000-27,000**

Source: Participatory rural appraisal by PIA, (Soil Conservation Division, Mahoba, District- Mahoba, 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, Mahoba

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	Pehra -I 2C1B2k2a	Pehra	Avrg.14.74	Avrg.11.28	05	-
2	Pehra –II 2C1B2k2b	Pehra, Makarwai	Avrg.14.47	Avrg.12.64	07	-
3	Makarwai- I 2C1B2k2c	Pehra, Makarwai	Avrg.13.18	Avrg.09.49	08	-
4	Ratauli 2C1B2k2d	Ratauli, Negawan	Avrg.14.95	Avrg.12.44	06	-
5	Makarwai- II 2C1B2k2e	Makarwai	Avrg.15.13	Avrg.11.46	07	-
6	Kharka 2C1B2l2c-1	Pehra, Kharka	Avrg.13.94	Avrg.10.50	08	-
7	Rewara 2C1B2l2b	Pehra, Rewara, Sukora, Kharka	Avrg.14.94	Avrg.12.60	07	-
8	Megawn 2C1B2l2c	Makarwai, Negawan	Avrg.13.94	Avrg.09.14	06	-
9	Mochipur 2C1B2j2c	Beela uttar, Bagwaha, Mochipura	Avrg.15.30	Avrg.11.87	07	
10	Nehdaura 2C1B2j2d	Nehdora, Bagwaha, Sukaura	Avrg.15.70	Avrg.12.80	06	
11	Chinakala 2C1B2g2h	Chanikala	Avrg.11.94	Avrg.09.70	07	
12	Bila Uttar 2C1B2g2g	Chanikala, Mahewa, Amilhai, Beela uttar	Avrg.13.68	Avrg.10.90	08	
	Average		**11.94-15.70**	**9.17-12.80**		

Source: Participatory rural appraisal by PIA, (Soil Conservation Division, Mahoba, District- Mahoba, 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 11 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, Mahoba

Sr. No.	Name & Micro Watershed with code	Name of Village	Gross Cultivated Area (ha)				Net Cultivated Area (ha)	Gross Irrigated Area (ha)				Net Irrigated Area (ha)	Rainfed Area (ha)
			Kharif	Rabi	Zaid	Total		Kharif	Rabi	Zaid	Total		
1	Pehra -I 2C1B2k2a	Pehra	255.90	362.01	-	617.91	578.29	-	92.53	-	92.53	92.53	485.77
2	Pehra –II 2C1B2k2b	Pehra, Makarwai	212.95	367.74	-	580.69	531.54	-	85.05	-	85.05	85.05	446.49
3	Makarwai- I 2C1B2k2c	Pehra, Makarwai	309.09	477.69	-	786.78	737.47	-	118.00	-	118.00	118.00	619.48
4	Ratauli 2C1B2k2d	Ratauli, Negawan	195.94	335.64	-	531.58	494.72	-	79.16	-	79.16	79.16	415.57
5	Makarwai- II 2C1B2k2e	Makarwai	128.49	231.21	-	359.70	332.23	-	53.16	-	53.16	53.16	279.08
6	Kharka 2C1B2l2c-1	Pehra, Kharka	186.05	393.53	-	579.58	551.96	-	88.31	-	88.31	88.31	463.65
7	Rewara 2C1B2l2b	Pehra, Rewara, Sukora, Kharka	176.79	342.24	-	519.03	476.37	-	76.22	-	76.22	76.22	400.15
8	Megawn 2C1B2l2c	Makarwai, Negawan	220.31	422.66	-	642.97	595.54	-	95.29	-	95.29	95.29	500.25
9	Mochipur 2C1B2j2c	Beela uttar, Bagwaha, Mochipura	325.59	617.30	-	942.89	869.30	-	139.09	-	139.09	139.09	730.21
10	Nehdaura 2C1B2j2d	Nehdora, Bagwaha, Sukaura	351.17	579.65	-	930.82	863.96	-	107.82	-	107.82	107.82	756.14
11	Chinakala	Chanikala	137.69	318.23	-	455.92	433.42	-	69.35	-	69.35	69.35	364.07

	2C1B2g2h												
12	Bila Uttar 2C1B2g2g	Chanikala, Mahewa, Amilhai, Beela uttar	380.70	564.21	-	944.91	905.70	-	144.91	-	144.91	144.91	760.79
	Total		**2880.67**	**5012.10**		**7892.76**	**7370.52**		**1148.87**		**1148.87**	**1148.87**	**6221.65**

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

Table 3.18: Source wise Area Irrigated in IWMP-XVI, Mahoba (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	Pehra -I 2C1B2k2a	Pehra	-	-	0	2	18.51	25	50.43	3	5.09	-	18.51	-	-	92.53	-
2	Pehra –II 2C1B2k2b	Pehra, Makarwai	-	-	0	3	17.01	21	46.35	2	4.68	-	17.01	-	-	85.05	-
3	Makarwai- I 2C1B2k2c	Pehra, Makarwai	-	-	0	4	23.60	32	64.31	4	6.49	-	23.60	-	-	118.00	-
4	Ratauli 2C1B2k2d	Ratauli, Negawan	-	-	0	3	15.83	24	43.14	2	4.35	-	15.83	-	-	79.16	-
5	Makarwai- II 2C1B2k2e	Makarwai	-	-	0	2	10.63	14	28.97	1	2.92	-	10.63	-	-	53.16	-
6	Kharka 2C1B2l2c-1	Pehra, Kharka	-	-	0	4	17.66	24	48.13	2	4.86	-	17.66	-	-	88.31	-
7	Rewara 2C1B2l2b	Pehra, Rewara, Sukora, Kharka	-	-	0	3	15.24	20	41.54	2	4.19	-	15.24	-	-	76.22	-
8	Megawn	Makarwai,	-	-	0	4	19.06	26	51.93	3	5.24	-	19.06	-	-	95.29	-

	2C1B2l2c	Negawan															
9	Mochipur 2C1B2j2c	Beela uttar, Bagwaha, Mochipura	-	-	0	5	27.82	35	75.80	4	7.65	-	27.82	-	-	139.09	
10	Nehdaura 2C1B2j2d	Nehdora, Bagwaha, Sukaura	-	-	0	5	21.56	29	58.76	3	5.93	-	21.56	-	-	107.82	
11	Chinakala 2C1B2g2h	Chanikala	-	-	0	2	13.87	18	37.79	2	3.81	-	13.87	-	-	69.35	
12	Bila Uttar 2C1B2g2g	Chanikala, Mahewa, Amilhai, Beela uttar	-	-	0	6	28.98	35	78.98	5	7.97	-	28.98	-	-	144.91	
	Total		-	-	0	43	229.77	303	626.13	33	63.19	0	229.77	-	-	1148.87	

Source: Participatory rural appraisal by PIA, (Soil Conservation Division, Mahoba, District- Mahoba, 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, Mahoba, Uttar Pradesh. The PIA was given responsibility to develop the micro-watershed by Watershed Cell and 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 Mahoba. Details of PIA are presented in subsequent section.

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

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, Mahoba
(v)	Telephone	
(vi)	Fax	
(vii)	E-mail	

Table 4.2: Details of Staff at PIA, IWMP-XVI, Mahoba

Sr. No.	Designation	Name	M/F	Qualification
1	B.S.A.	J.P Singh	M	M.Sc (Agriculture)
2	J.E.	R..K Soni	M	Diploma in Civil. Engg.
3	J.E	Ajab Singh	M	Diploma in Mechanical Engg.
4	S.C.I.	Lajja Ram	M	Inter, Diploma
5	S.C.I.	S.N Kuril	M	Inter, Diploma
6	S.C.I.	Bhim Sankar	M	Inter, Diploma
7	AS.C.I.	P.K Tripathi	M	High school

8	AS.C.I.	A.K Khare	M	Diploma Agriculture
9	AS.C.I.	Sunder lal	M	Graduate (Agri)
10	AS.C.I.	H.G Dayal	M	Graduate (Agri)
11	AS.C.I.	G.D Niranjan	M	Graduate (Agri)
12	AS.C.I.	S.K Singh	M	Inter, Diploma
13	AS.C.I.	PrabhuDayal	M	Graduate (Agri)
14	AS.C.I.	D.P Ariaria	M	High school, Diploma
15	AS.C.I.	Babu Lal	M	Graduate (Agri)
16	AS.C.I.	Satrughan Singh	M	Inter, Diploma
17	AS.C.I.	Chhatrapul Singh	M	Inter, Diploma

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

Project- IWMP XVI PIA- BSA, Kabarai, Mahoba District – Mahoba

Sr. No.	Name	M/F	Qualification	AGE	Date of appointment of WDT member
1	Shri. J.P. Singh	M		54	13/10/11
2	Shri.Ajay Singh	M	Inter. Diploma Ag.	52	13/10/11
3	Shri.Bheem Shankar	M	High School Diploma	58	13/10/11
4	Shri. Sundar Lal	M	High School Diploma	55	13/10/11
5	Shri.Pramod Kumar	M	Inter Diploma Ag.	51	13/10/11
6	Shri Prabhu Dayal	M	B.Sc. Ag.	51	13/10/11
7	Shri. Dhan Prasad	M	Intermediate	51	13/10/11

Table 4.4: Details of Watershed Committee (WC)

Jal Sanrakshan Samiti- Pahra, Gram Panchayat: Pahra Name of Project:- IWMP- XVI

District- Mahoba

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

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: Makarbai, District- Mahoba **Gram Panchayat: Makarbai** **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	Makarbai	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 - Kaimaha, District- Mahoba **Gram Panchayat: Kaimaha** **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	Kaimaha	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 - Ratauli, District- Mahoba **Gram Panchayat: Ratauli** **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	S C	S T	OBC	Gen	SF	M F	L F	Land -less	U G	SH G	G P	Educa-tional qualification	Function(s) assigned
4	Ratauli	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 – Kharka **Gram Panchayat: Kharka** **Name of Project:- IWMP- XVI**
District- Mahoba

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	Kharka	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 - Rebara, District- Mahoba **Gram Panchayat: Rebara** **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	Rebara	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 – Kabrai Dehat, District- Mahoba **Gram Panchayat: Kabrai Dehat** **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	Kabrai Dehat	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 - Sukaura, District- Mahoba **Gram Panchayat: Sukaura** **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
8	Sukaura	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 - Chhanikala, District- Mahoba **Gram Panchayat: Chhanikala** **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	Chhanikala	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 - Maheba, District- Mahoba **Gram Panchayat: Maheba** **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	Maheba	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}	

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

Project- IWMP XVI **District – Mahoba**

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	Pehra -I 2C1B2k2a	Pehra	4	1	2	7	(i) Landless	14	6	20	4	2	6	**14**	**6**	**20**	These SHGs were formed during the month of February to April. Bye-laws of the SHGs were prepared and kept in the project file. Process to open the accounts in Gramin
							(ii) SF	22	10	32	6	3	9	**22**	**10**	**32**	
							(iii) MF	13	5	18	4	1	5	**13**	**5**	**18**	
							(iv) LF	-	-	-	-	-	-	**-**	**-**	**-**	
							Total	**49**	**21**	**70**	**14**	**6**	**20**	**49**	**21**	**70**	
2	Pehra –II 2C1B2k2b	Pehra, Makarwai	3	1	2	6	(i) Landless	13	5	18	2	1	3	**13**	**5**	**18**	
							(ii) SF	19	8	27	4	1	5	**19**	**8**	**27**	
							(iii) MF	11	5	15	1	1	2	**11**	**5**	**15**	
							(iv) LF	-	-	-	-	-	-	**-**	**-**	**-**	
							Total	**42**	**18**	**60**	**7**	**3**	**10**	**42**	**18**	**60**	
3	Makarwai-I 2C1B2k2c	Pehra, Makarwai	3	1	1	5	(i) Landless	11	4	15	3	1	4	**11**	**4**	**15**	
							(ii) SF	16	7	23	5	0	5	**16**	**7**	**23**	
							(iii) MF	8	4	12	2	0	1	**8**	**4**	**12**	
							(iv) LF	-	-	-	-	-	-	**-**	**-**	**-**	
							Total	**35**	**15**	**50**	**10**	**1**	**10**	**35**	**15**	**50**	
4	Ratauli 2C1B2k2d	Ratauli, Negawan	2	0	2	4	(i) Landless	8	4	12	-	-	-	**8**	**4**	**12**	
							(ii) SF	13	5	18	-	-	-	**13**	**5**	**18**	
							(iii) MF	7	3	10	-	-	-	**7**	**3**	**10**	
							(iv) LF	-	-	-	-	-	-	**-**	**-**	**-**	
								28	**12**	**40**	-	-	-	**28**	**12**	**40**	
5	Makarwai-II 2C1B2k2e	Makarwai	2	0	1	3	(i) Landless	6	3	9	-	-	-	**6**	**3**	**9**	
							(ii) SF	10	4	14	-	-	-	**10**	**4**	**14**	
							(iii) MF	5	2	7	-	-	-	**5**	**2**	**7**	

							(iv) LF	-	-	-	-	-	-	-	-	-	bank (service bank) has been iniated
							Total	**21**	**9**	**30**	-	-	-	**21**	**9**	**30**	
6	Kharka 2C1B2l2c-1	Pehra, Kharka	2	0	2	4	(i) Landless	9	4	13	-	-	-	**9**	**4**	**13**	
							(ii) SF	12	6	18	-	-	-	**12**	**6**	**18**	
							(iii) MF	6	3	9	-	-	-	**6**	**3**	**9**	
							(iv) LF	-	-	-	-	-	-	-	-	-	
							Total	**27**	**13**	**40**	-	-	-	**27**	**13**	**40**	
7	Rewara 2C1B2l2b	Pehra, Rewara, Sukora, Kharka	2	0	2	4	(i) Landless	9	4	13	-	-	-	**9**	**4**	**13**	
							(ii) SF	13	6	19	-	-	-	**13**	**6**	**19**	
							(iii) MF	6	2	8	-	-	-	**6**	**2**	**8**	
							(iv) LF	-	-	-	-	-	-	-	-	-	
							Total	**28**	**12**	**40**	-	-	-	**28**	**12**	**40**	
8	Megawn 2C1B2l2c	Makarwai, Negawan	2	0	1	3	(i) Landless	6	3	9	-	-	-	**6**	**3**	**9**	
							(ii) SF	11	5	15	-	-	-	**11**	**5**	**15**	
							(iii) MF	4	2	6	-	-	-	**4**	**2**	**6**	
							(iv) LF	-	-	-	-	-	-	-	-	-	
							Total	**21**	**9**	**30**	-	-	-	**21**	**9**	**30**	
9	Mochipur 2C1B2j2c	Beela uttar, Bagwaha, Mochipura	5	1	2	8	(i) Landless	20	9	29	4	2	6	**20**	**9**	**29**	
							(ii) SF	25	11	36	6	3	9	**25**	**11**	**36**	
							(iii) MF	11	4	15	4	1	5	**11**	**4**	**15**	
							(iv) LF	-	-	-	-	-	-	-	-	-	
							Total	**56**	**24**	**80**	**14**	**6**	**20**	**56**	**24**	**80**	
10	Nehdaura 2C1B2j2d	Nehdora, Bagwaha, Sukaura	3	0	2	5	(i) Landless	11	5	16	3	1	4	**11**	**5**	**16**	
							(ii) SF	18	7	25	3	2	5	**18**	**7**	**25**	
							(iii) MF	6	3	9	1	0	1	**6**	**3**	**9**	
							(iv) LF	-	-	-	-	-	-	-	-	-	
							Total	**35**	**15**	**50**	**7**	**3**	**10**	**35**	**15**	**50**	

11	Chinakala 2C1B2g2h	Chanikala	2	0	1	3	(i) Landless	7	2	9	-	-	-	**7**	**2**	**9**	
							(ii) SF	11	4	15	-	-	-	**11**	**4**	**15**	
							(iii) MF	5	1	6	-	-	-	**5**	**1**	**6**	
							(iv) LF	-	-	-	-	-	-	**-**	**-**	**-**	
							Total	**23**	**7**	**30**	-	-	-	**23**	**7**	**30**	
12	Bila Uttar 2C1B2g2g	Chanikala, Mahewa, Amilhai, Beela uttar	4	1	2	7	(i) Landless	14	6	20	4	2	6	**14**	**6**	**20**	
							(ii) SF	25	10	35	6	3	9	**25**	**10**	**35**	
							(iii) MF	11	4	15	4	1	5	**11**	**4**	**15**	
							(iv) LF	-	-	-	-	-	-	**-**	**-**	**-**	
							Total	**50**	**20**	**70**	**14**	**6**	**20**	**50**	**20**	**70**	
	Grand Total		34	5	20	59		**415**	**175**	**590**	**66**	**25**	**90**	**415**	**175**	**590**	

(M – Male, F – Female)

There are 32 villages in the project area and village-wise Self Help Groups (SHGs) constituted is given in Table 4.5. A total 59 SHGs were already constituted in the project villages, of them, 34, 5 and 20 are men SHGs, women SHGs and mixed SHGs, respectively. Total 188 SHGs have to be constituted to ensure the livelihood of marginalized population in the project. Formation of remaining 129 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.

Village- Goahari										
Name of Work	**Benefited area (ha)**	**Field No. / Khasara No.**	**Area of work**	**President**	**Secretary**	**Activity Proposed**	**Location of the activity**	**Water storage in cum**	**Area Proposed for irrigation (ha)**	**user Charges (per ha)**
			Length							
CD1	12.05	484, 449, 450	30	Ramshevak	Basnta	Crop production	484	-	-	-
CD2	17.41	531, 532, 508	100	Badri etc.	Ramesh	Crop production	531	-	-	-

Village- Sukoara									
Name of Work	**Benefited area (ha)**	**Field No. / Khasara No.**	**President**	**Secretary**	**Activity Proposed**	**Location of the activity**	**Water storage in cum**	**Area Proposed for irrigation (ha)**	**user Charges (per ha)**
CD1	1.81	11	Ramprakash	Dheeraj	Crop production	11	-	-	-
CD2	9.38	28, 31	Vijaysingh	Rahul	Crop production	28	-	-	-
CD3	11.46	79, 63, 99	Vindibai	Chandara	Crop production	79	-	-	-
WHB1		21, 22	Makhanlal	Prakash	Crop production	21	-	-	-
WHB2	10.02	33, 32, 36	Lallu,	Brandavan	Crop production	32	-	-	-
Village- Nadehra									
CD1	11.9	62, 63	Kalyan singh	Mardan singh	Crop production	62	-	-	-
CD2	1.67	60, 59	Chhidiya	Ramprakash	Crop production	60	-	-	-

CD3	1.22	47, 46	mansingh	jagdish	Crop production	47	-	-	-
CD4	1.81	54, 55, 56	Shree ram	Nathhu	Crop production	54	-	-	-
CD5	1.82	307, 308, 309, 287, 284	Smt. Kari	Ramprasad	Crop production	307	-	-	-
CD6	1.99	312, 257 TO 259	Ramprasad	Chhotu	Crop production	312	-	-	-
CD7	7.27	315, 316	Vaijnath singh	Kalkaiyan	Crop production	315	-	-	-
WHB1	8.35	312, 263, 265	Dhirendra kumar	Vikas	Crop production	312	-	-	-
Village- Goahari									
CD1	10.4	810, 811							
CD2	2.42	911	Vijaysingh	Lallu	Crop production	911	-	-	-
CD3	2.43	912	Vijaysingh	Lallu	Crop production	912	-	-	-
CD4	3.48	911	Lallu	Brandavan	Crop production	911	-	-	-

Village- Makarbai									
Name of Work	**Benefited area (ha)**	**Field No. / Khasara No.**	**President**	**Secretary**	**Activity Proposed**	**Location of the activity**	**Water storage in cum**	**Area Proposed for irrigation (ha)**	**user Charges (per ha)**
CD1	2.653	1703, 1695, 1691 to 1696, 1687, 1688	Veer Singh	Natthu	Crop production		-	-	-
CD2	2.763	1698, 1700, 1699, 1708 to 1713, 1717 to 1719, 1721	Veer Singh	Natthu	Crop production		-	-	-
CD3	8.162	2014, 2016, 2017, 2003 to 2009	Natthu	Rajaram	Crop production		-	-	-
CD4	8.044	1979, 2013, 1986 to 1988, 1998 to 2002, 2011, 2012	Rajaram	Ramkaran	Crop production		-	-	-
CD5	13.25	1965, 1968, 1964, 1960, 1970 to 1975	Devideen	Kunj Bihari	Crop production		-	-	-
CD6	11.865	1862, 1890, 1892	Bhoosan Lal	Devideen	Crop production		-	-	-
CD7	12.785	1857 to 1859	Babu Singh	Shiv Veer Singh	Crop production		-	-	-
Village- Pahra									
CD1	9.275	1338, 1441, 1442, 1450, 1448, 1449, 1423	Rajju Singh	Harendra	Crop production		-	-	-

Village- Chhanikala									
Name	**Benefited**	**Field No. /**	**President**	**Secretary**	**Activity**	**Location of**	**Water storage**	**Area**	**user Charges**

of Work	area (ha)	Khasara No.			Proposed	the activity	in cum	Proposed for irrigation (ha)	(per ha)
CD1	19.49	869, 890	Nandkisor	Kisorilal	Crop production	869	-	-	-
CD2	20.39	875, 893	Sanjay	Jeevan	Crop production	875	-	-	-
CD3	25.15	884, 894	Sidhgopal	Sanjay singh	Crop production	884	-	-	-
CD4	29.32	1181, 1187	Rajendra singh	Vikram singh	Crop production	1181	-	-	-
CD5	20.09	1599	Sarman	Ramshree	Crop production	1599	-	-	-
CD6	17.41	1179, 1190	Mahendra singh	Virendra singh	Crop production	1179	-	-	-
WHB1	17.94	417, 422	Persuram	Gangacharan	Crop production	417	-	-	-
WNB2	24.26	440, 814, 815	Mansingh	Suresh	Crop production	440	-	-	-
WHB3	32.22	442, 810	Amar singh	Rajaram	Crop production	442	-	-	-

Village- Raivara									
Name of Work	**Benefited area (ha)**	**Field No. / Khasara No.**	**President**	**Secretary**	**Activity Proposed**	**Location of the activity**	**Water storage in cum**	**Area Proposed for irrigation (ha)**	**user Charges (per ha)**
CD1	10.164	52, 65, 51, 35, 36, 49, 48,	Ramkrapal	Laxminarayan	Crop production	52	-	-	-
CD2	1.139	112	Naththu	Ramkumar	Crop production	112	-	-	-
CD3	2.639	275	Netram	Swamideen	Crop production	275	-	-	-
CD4	11.067	257	Babulal	Smt. Gomti	Crop production	257	-	-	-
CD5	19.73	182 ,195, 194	Ajay kmar	Abadh vihari	Crop production	182	-	-	-
CD6	1.98	73	Muriyan	Bhiyalal	Crop production	73	-	-	-
WHB1	22.748	262, 261, 121			Crop production	262	-	-	-
CDB1	0.659	13, 15, 16	Munnilal	Parmatmadeen	Crop production	13	-	-	-
CDB2	15.084	349	Raghvendra singh	Suman devi	Crop production	349	-	-	-

Village- CHHANIKALA									
Name of Work	**Benefited area (ha)**	**Field No. / Khasara No.**	**President**	**Secretary**	**Activity Proposed**	**Location of the activity**	**Water storage in cum**	**Area Proposed for irrigation (ha)**	**user Charges (per ha)**
CD1	22.91	655 to 658	Mukunda	Durga singh	Crop production	655	-	-	-
CD2	26.04	700 to 702, 712 to 715	Ramdeen	Ramrani	Crop production	700	-	-	-
CD3	12.8	695, 696, 697	Khuman singh	Mukunda	Crop production	695	-	-	-
CD4	4.44	729, 730, 731	Ramdeen	Ramsingh	Crop production	729	-	-	-
WHB1	24.55	854, 850 to 853	Aiha	Rajaram	Crop production	854	-	-	-
WHB2	16.82	774 to 777, 526, 528	Rajabhaiya	Sughar singh	Crop production	774	-	-	-

Village- PEHRA									
Name of Work	**Benefited area (ha)**	**Field No. / Khasara No.**	**President**	**Secretary**	**Activity Proposed**	**Location of the activity**	**Water storage in cum**	**Area Proposed for irrigation (ha)**	**user Charges (per ha)**
CD1	13.195	796, 899 to 905	Kuldeep singh	Lallu	Crop production	796	-	-	-
CD2	6.6	913, 907, 912	Dyasanker singh	Ramsingh	Crop production	913	-	-	-
CD3	17.025	877, 876, 896	Mandir		Crop production	877	-	-	-
CD4	12.56	2264	Ramsevak	Munnilal	Crop production	2264	-	-	-
CD5	12.58	2289	Ramprakash	Aditya	Crop production	2289	-	-	-
CD6	6.81	2347, 2346, 2363	Rajkumar	Babulal	Crop production	2347	-	-	-
CD7	13.485	2043, 2042	Battu	Syamu	Crop production	2043	-	-	-
CD8	9.5	2024, 2025	Rakesh kumar	vivek	Crop production	2024	-	-	-
CD9	8.375	1584, 1583, 1530	Smt.Ujyari	Diman	Crop production	1584	-	-	-
CD10	7.916	2584, 2585 to2598	Smt.Ujyari	Diman	Crop production	2584	-	-	-
WHB1	15.035	2286, 2287, 2288, 2265, 2266			Crop production	2286	-	-	-
WHB2	35.56	2017, 2018, 2021, 2015, 2019	Anil kumar	Aditya kumar	Crop production	2017	-	-	-
WHB3	35.81	2006, 2008, 2010, 2499 to 2502	Kalyan singh	Jayndra singh	Crop production	2006	-	-	-
WHB4	19.841	1535 to 1538, 1540, 1541, 1531	Kalyan singh	Jayndra singh	Crop production	774	-	-	-

Village- Pehra									
Name of Work	**Benefited area (ha)**	**Field No. / Khasara No.**	**President**	**Secretary**	**Activity Proposed**	**Location of the activity**	**Water storage in cum**	**Area Proposed for irrigation (ha)**	**user Charges (per ha)**
CDA1	8.91	1661, 1658, 1659, 1660	Laxmi singh	Ramsingh	Crop production	1661	-	-	-
CDA2	19.4	1535, 1539, 1543, 1534	Gariva	Durga	Crop production	1535	-	-	-
CDA3	22.58	1469, 1454, 1451	Shivgaopal	Mithlesh kumar	Crop production	1469	-	-	-
CDB1	9.56	375, 377, 363 to 371	jagdish	Chandrabhan	Crop production	375	-	-	-
CDB2	11.875	392, 391, 379 to 371	harish	Damyanti	Crop production	392	-	-	-

Village-Kharka									
Name of Work	**Benefited area (ha)**	**Field No. / Khasara No.**	**President**	**Secretary**	**Activity Proposed**	**Location of the activity**	**Water storage in cum**	**Area Proposed for irrigation (ha)**	**user Charges (per ha)**
CD1	1.65	597	jaypal singh	yougraj singh	Crop production	597	-	-	-
CD2	14.46	545, 546	Matadeen	Harikrashan	Crop production	545	-	-	-
CD3	2.64	544	Ramvishalsingh	Uttam singh	Crop production	544	-	-	-
CD4	17.52	544	Ramvishalsingh	Uttam singh	Crop production	544	-	-	-
CD5	3.3	496 to 500	Goribai	Shivnarayn	Crop production	496	-	-	-
CD6	12.48	564, 566	Smt.Premvati	Kiran kumar	Crop production	564	-	-	-
CD7	13.225	564, 567	Kiran kumar	Shivkali	Crop production	564	-	-	-

CD8	18.159	140, 139, 141	Sukhdev	Bhavanideen	Crop production	140	-	-	-
CD9	5.275	90, 91, 92	Ayodhya prasad	Dyaram	Crop production	90	-	-	-
CD10	11.733	246	Gorelal	Ramprasad	Crop production	246	-	-	-

Village-Ratoli									
Name of Work	**Benefited area (ha)**	**Field No. / Khasara No.**	**President**	**Secretary**	**Activity Proposed**	**Location of the activity**	**Water storage in cum**	**Area Proposed for irrigation (ha)**	**user Charges (per ha)**
CDA1	15.355	866, 865	Chunubadi	Ramesh	Crop production	866	-	-	-
CDA2	16.02	864, 856	Vimla devi	Rattan	Crop production	864	-	-	-
CDA3	16.018	861, 862	Suckha	Hira	Crop production	861	-	-	-
CDA4	17.338	814	Ramsingh	Moti	Crop production	814	-	-	-
CDA5	11.735	811	Raghuveer singh,	Mansingh	Crop production	811	-	-	-
CDA6	12.397	811, 812	Raghuveer singh,	Mansingh	Crop production	811	-	-	-
CDA7	13.195	874, 876, 877	Babbu singh, etc.	Raghuveer singh	Crop production	874	-	-	-
CDA8	1.319	888, 886	Shivram, etc.	Jagdev	Crop production	888	-	-	-
CDA9	3.3	719, 720, 682	Feran singh	Ramautar	Crop production	719	-	-	-
CDA10	11.89	666, 680, 667, 684	Mulchandra	Kalian singh	Crop production	666	-	-	-
CDA11	1.98	740, 740/1, 740/2, 740/3	Jashbant singh,	Balbant singh	Crop production	740	-	-	-
CDA12	1.978	662, 465	Brandavan, , etc.	Raghuveer	Crop	662	-	-	-

					production				
CDA13	8.577	653, 652	Pancham, etc.	Kamta	Crop production	653	-	-	-
CDA14	1.315	632, 626	Mangi,	Ramsingh	Crop production	632	-	-	-
CDA15	1.975	621, 638	Naththu,	Durjana	Crop production	621	-	-	-
CDA16	8.575	606, 575	Urmila	Motilal	Crop production	606	-	-	-
WHB1	51.352	743, 799, 742	Shree. Jagdish,	Rajabhaiya	Crop production	743	-	-	-
CDB1	3.958	288	Shree Raghunandan singh,	Balvan singh	Crop production	288	-	-	-
CDB2	4.62	288	Madho singh, etc.	Balvan singh	Crop production	288	-	-	-
CDB3	4.612	290, 290/1	Shree syamlal,	Madho singh	Crop production	290	-	-	-
CDB4	6.6	287/1	Bhaiyalal	Jagdish	Crop production	287/1	-	-	-
CDB5	1.32	455, 457, 456	Tijva	Balaram	Crop production	455	-	-	-
CDB6	0.98	452	Durg singh	Badam singh	Crop production	452	-	-	-
CDB7	1.33	452, 455	Durg singh	Chandrabhan	Crop production	452	-	-	-

4.3 Convergence in IWMP-XVI, Mahoba

There is no proposed plan for 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 14 EPA activities were executed in the project area which costed Rs 2100000.00.

Name of PIA	Name of Project	Year	Name of Block	Name & Code of project/ Name of village	E.P.A cost in lakh	Name of Work	Cost in lakh
Soil Conservation Division-Mahoba, Mahoba	IWMP-XVI	2011-12	Kabarai	Pehra -I 2C1B2k2a	1.97	Rapta, Bridge Construct, Well Repaired, Kharja Construct, Bridge Construct, Naali Construct	1.97
				Pehra –II 2C1B2k2b	1.58		1.58
				Makarwai- I 2C1B2k2c	2.00		2.00
				Ratauli 2C1B2k2d	1.47		1.47
				Makarwai- II 2C1B2k2e	0.86		0.86
				Kharka 2C1B2l2c-1	1.68		1.68
				Rewara 2C1B2l2b	1.36		1.36
				Megawn 2C1B2l2c	1.01		1.01
				Mochipur 2C1B2j2c	2.99		2.99
				Nehdaura 2C1B2j2d	1.95		1.95
				Chinakala 2C1B2g2h	1.22		1.22
				Bila Uttar 2C1B2g2g	2.90		2.90
Total					**21.00**		**21.00**

5.2 Works Phase

Following are the major problems of the watersheds

- Water scarcity both for drinking as well as irrigation
- Excess runoff and soil loss
- Low water holding capacity of the soil
- Low productivity of crops
- Low fertility of soil
- Low cropping intensity
- Lack of technical knowledge
- *Anna Pratha* (let loose system of cattle)
- Poor vegetative cover
- Poor/low productive breeds of miltch animals
- Lack of feed & fodder availability
- Non availability of wood/fuel
- Lack of proper market facilities
- Low income of the households
- Lack of employment opportunity.

Estimation of Runoff from the Watershed

Runoff from the watershed is estimated by Curve Number method of the Soil Conservation Service of the USDA using 15 years data (1996-2010). It is estimated that runoff potential of the project area is 355 mm, equivalent to 35-40 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, Mahoba)

Sr. No.	Name of Micro Watershed	Cause	Type of erosion*	Area affected (ha)*	Run off (mm/ year)*	Average Soil Loss (Tonnes/ ha/ year)
1	Pehra -I 2C1B2k2a	Water erosion				
		a	Sheet	370.70	355	8-12
		b	Rill	259.49		
		c	Gully	111.21		
		Total		**741.40**		
2	Pehra –II 2C1B2k2b	Water erosion				
		a	Sheet	340.73	355	8-12
		b	Rill	238.51		
		c	Gully	102.22		
		Total		**681.46**		
3	Makarwai- I 2C1B2k2c	Water erosion				
		a	Sheet	472.74	355	8-12
		b	Rill	330.92		
		c	Gully	141.82		
		Total		**945.48**		
4	Ratauli 2C1B2k2d	Water erosion				
		a	Sheet	317.13	355	8-12
		b	Rill	221.99		
		c	Gully	95.14		
		Total		**634.26**		
5	Makarwai- II 2C1B2k2e	Water erosion				
		a	Sheet	212.97	355	8-12
		b	Rill	149.08		
		c	Gully	63.89		

		Total		**425.94**		
6	Kharka 2C1B2l2c-1	Water erosion				
		a	Sheet	353.82	355	8-12
		b	Rill	247.67		
		c	Gully	106.15		
		Total		**707.64**		
7	Rewara 2C1B2l2b	Water erosion				
		a	Sheet	305.37	355	8-12
		b	Rill	213.76		
		c	Gully	91.61		
		Total		**610.73**		
8	Megawn 2C1B2l2c	Water erosion				
		a	Sheet	381.76	200-240	8-12
		b	Rill	267.23		
		c	Gully	114.53		
		Total		**763.51**		
9	Mochipur 2C1B2j2c	Water erosion				
		a	Sheet	557.25	355	8-12
		b	Rill	390.07		
		c	Gully	167.17		
		Total		**1114.49**		
10	Nehdaura 2C1B2j2d	Water erosion				
		a	Sheet	431.98	355	8-12
		b	Rill	302.39		
		c	Gully	129.59		

		Total		**863.96**		
11	Chinakala 2C1B2g2h	Water erosion				
		a	Sheet	277.84	355	8-12
		b	Rill	194.48		
		c	Gully	83.35		
		Total		**555.67**		
12	Bila Uttar 2C1B2g2g	Water erosion				
		a	Sheet	580.58	355	8-12
		b	Rill	406.41		
		c	Gully	174.17		
		Total		**1161.16**		
	Total			**9205.70**		

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

Watershed Development Activities Proposed

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

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

Sr. No.	Particular of Measures/Activities	Unit	Pehra -I 2C1B2k2a		Pehra –II 2C1B2k2b		Makarwai- I 2C1B2k2c		Ratauli 2C1B2k2d		Makarwai- II 2C1B2k2e	
		No., Length/ ha, Volume	Qanty.	Cost (Rs. In lakh)	Qanty.	Cost (Rs. In lakh)	Qanty.	Qanty.	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.	-	-	-	-	-	-	-	-	-	-
	2. Marginal Bund (with Sodding)	cum.	39839	24.825	725693	12.295	8778	4.319	6615	3.121	8224	3.691
	3.Submergence Bundhi (with Sodding)	cum.	6613	2.727	350472	5.155	19182	9.301	6057	2.877	7871	3.545
	B- <u>Water Resource Development</u>											
	1. Check Dam / Drop Spill Way	cum	-	-	136084	4.659	9384	7.261	16650	11.181	7569	4.860
	1a- Water storing capacity	cum.	-	-	3200	-	3700	-	8050	-	1750	-
	1b. Area proposed for irrigation	ha	-	-	5.3	-	6.2	-	13.4	-	2.9	-
	2. Water Harvesting Bund with surplushing structure	cum.	-	-	-	-	9048	7.142	4068	3.451	-	-
	2a-Water storing capacity	cum.	-	-	-	-	3200		500		-	-
	2b. Area proposed for irrigation by WHB	ha	-	-	-	-	5.3		0.8		-	-
	Sub Total			**27.552**		**22.109**		**28.022**		**20.630**		**12.096**

II	**Livelihood for landless People**											
	1. Goatary	No. of beneficiaries/ No. of SHGs	2/20	0.500	2/20	0.500	2/20	0.500	2/20	0.500	1/10	0.250
	2. Back Yard Poultry	-do-	2/20	0.500	2/20	0.500	2/20	0.500	2/20	0.500	1/10	0.250
	3. Poultry (Broiler)	-do-	2/20	0.500	2/20	0.500	2/20	0.500	1/10	0.250	1/10	0.250
	4. Black Smithy	-do-	2/20	0.500	1/10	0.250	2/20	0.500	1/10	0.250	1/10	0.250
	5. Rope Making (Linseed)	-do-	2/20	0.500	1/10	0.250	2/20	0.500	1/10	0.250	1/10	0.250
	6. Tailoring	-do-	2/20	0.500	1/10	0.250	2/20	0.500	1/10	0.250	1/10	0.250
	7. Vermi composting	-do-	2/20	0.500	1/10	0.250	2/20	0.500	1/10	0.250	1/10	0.250
	8. Fruit Processing	-do-	1/10	0.250	2/20	0.500	2/20	0.500	2/20	0.500	0	0.000
	9. Seed Bank	-do-	2/20	0.678	2/20	0.553	2/20	0.504	2/20	0.566	1/10	0.194
	Sub Total		17/170	4.428	14/140	3.553	18/180	4.504	13/130	3.316	8/80	1.944
III	**Agriculture Production System**											
	(1)SMC Area:											
	A- Crop Demonstrations-(Crop Wise)											
	1. Lentil	No. of farmers /Area (ha)	6/2.4	0.285	5/2.0	0.237	6/2.4	0.285	4/1.6	0.190	3/1.2	0.142
	2. Chickpea	-do-	6/2.4	0.327	5/2.0	0.272	6/2.4	0.327	4/1.6	0.218	3/1.2	0.163
	3. Field Pea	-do-	6/2.4	0.345	4/1.6	0.230	6/2.4	0.345	4/1.6	0.230	3/1.2	0.172
	4. Til	-do-	6/2.4	0.102	4/1.6	0.068	6/2.4	0.102	4/1.6	0.068	3/1.2	0.051
	5. Urd	-do-	6/2.4	0.213	4/1.6	0.142	6/2.4	0.213	4/1.6	0.142	3/1.2	0.106
	6. Moong	-do-	6/2.4	0.219	4/1.6	0.146	6/2.4	0.219	4/1.6	0.146	3/1.2	0.109
	7. Arhar	-do-	6/2.4	0.177	4/1.6	0.118	6/2.4	0.177	4/1.6	0.118	3/1.2	0.089
	8. Wheat	-do-	6/2.4	0.347	4/1.6	0.231	6/2.4	0.347	4/1.6	0.231	3/1.2	0.173

	(2) Water Resource Area:											
	B- Production of seeds											
	1. Lentil	No. of farmers /Area (ha)	5/2.0	0.237	4/1.6	0.190	6/2.4	0.285	4/1.6	0.190	2/0.8	0.095
	2. Chickpea	-do-	5/2.0	0.272	4/1.6	0.218	6/2.4	0.327	4/1.6	0.218	2/0.8	0.109
	3. Field Pea	-do-	5/2.0	0.287	4/1.6	0.230	5/2.0	0.287	4/1.6	0.230	2/0.8	0.115
	4. Til	-do-	5/2.0	0.085	4/1.6	0.068	5/2.0	0.085	4/1.6	0.068	3/1.2	0.051
	5. Urd	-do-	5/2.0	0.177	4/1.6	0.142	5/2.0	0.177	4/1.6	0.142	3/1.2	0.106
	6. Moong	-do-	5/2.0	0.182	4/1.6	0.146	5/2.0	0.182	4/1.6	0.146	3/1.2	0.109
	7. Arhar	-do-	5/2.0	0.148	4/1.6	0.118	5/2.0	0.148	4/1.6	0.118	3/1.2	0.089
	8. Wheat	-do-	5/2.0	0.289	4/1.6	0.231	5/2.0	0.289	4/1.6	0.231	3/1.2	0.173
	Agro forestry:-											
	1- Aonla	Area in ha	3	0.360	2	0.360	2	0.360	2	0.360	1	0.180
	2. Guava	Area in ha	2	0.360	2	0.360	2	0.360	1	0.180	0	0.000
	Live Stock Management											
	A. fodder production	No. of Units	39	0.234	29	0.174	36	0.216	31	0.186	18	0.108
	B. Vaccination/Medication	No. of Animals	39	0.021	29	0.017	36	0.022	31	0.022	18	0.012
	C. Artificial Insemination	No. of Animals	39	0.016	29	0.012	36	0.014	31	0.012	18	0.007
	D. Natural Service.	He Buffalo	1	0.240	1	0.240	1	0.240	1	0.240	0	0.000
	Total for Ag. Production System			**4.920**		**3.948**		**5.004**		**3.684**		**2.160**
Total				**36.900**		**29.610**		**37.530**		**27.630**		**16.201**

Micro-watershed wise details of Watershed Development Activities proposed in IWMP-XVI, Mahoba

Cont…….

Sr. No.	Particular of Measures/Activities	Unit	Kharka 2C1B2l2c-1		Rebara 2C1B2l2b		Negavan 2C1B2l2c		Bagwaha 2C1B2j2c	
		No., Length/ ha, Volume	Qanty.	Cost (Rs. In lakh)	Qanty.	Cost (Rs. In lakh)	Qanty.	Qanty.	Qanty.	Cost (Rs. In lakh)
I	**Soil & Water Conservation Measures**									
	A- Moisture Conservation Measures									
	1. Peripheral Bund (with Sodding)	cum.	567	0.234	-	-	-	-	-	-
	2. Marginal Bund (with Sodding)	cum.	21432	9.581	11486	4.736	17186	7.086	60159	5.415
	3.Submergence Bundhi (with Sodding)	cum.	16450	7.100	18046	8.544	90 59	3.735	11708	34.403
	B- Water Resource Development									
	1. Check Dam / Drop Spill Way	cum	4450	6.673	2900	4.210	3070	3.358	1508	1.981
	1a- Water storing capacity	cum.	3500	-	2400	-	900	-	350	-
	1b. Area proposed for irrigation	ha	5.8	-	4.0	-	1.5	-	0.6	-
	2. Water Harvesting Bund with surplushing structure	cum.	-	-	581	1.529	-	-	-	-
	2a-Water storing capacity	cum.	-	-	450	-	-	-	-	-
	2b. Area proposed for irrigation by WHB	ha	-	-	0.8	-	-	-	-	-
	Sub Total			**23.587**		**19.018**		**14.179**		**41.798**
II	**Livelihood for landless People**									
	1. Goatary	No. of beneficiaries/ No. of SHGs	2	0.500	2	0.500	1	0.250	3	0.750
	2. Back Yard Poultry	-do-	2	0.500	1	0.250	1	0.250	3	0.750

	3. Poultry (Broiler)	-do-	2	0.500	1	0.250	1	0.250	3	0.750
	4. Black Smithy	-do-	1	0.250	1	0.250	1	0.250	3	0.750
	5. Rope Making (Linseed)	-do-	1	0.250	1	0.250	1	0.250	3	0.750
	6. Tailoring	-do-	1	0.250	1	0.250	1	0.250	3	0.750
	7. Vermi composting	-do-	2	0.500	1	0.250	1	0.250	3	0.750
	8. Fruit Processing	-do-	2	0.500	2	0.500	1	0.250	3	0.750
	9. Seed Bank	-do-	2	0.541	2	0.556	1	0.279	3	0.718
	Sub Total		15	3.791	12	3.056	9	2.279	27	6.718
III	**Agriculture Production System**									
	(1)SMC Area:									
	A- Crop Demonstrations-(Crop Wise)									
	1. Lentil	No. of farmers /Area (ha)	5	0.237	4	0.190	3	0.142	9	0.427
	2. Chickpea	-do-	5	0.272	4	0.218	3	0.163	9	0.490
	3. Field Pea	-do-	5	0.287	4	0.230	3	0.172	9	0.517
	4. Til	-do-	5	0.085	4	0.068	3	0.051	9	0.152
	5. Urd	-do-	5	0.177	4	0.142	3	0.106	9	0.319
	6. Moong	-do-	5	0.182	4	0.146	3	0.109	9	0.328
	7. Arhar	-do-	5	0.148	4	0.118	3	0.089	9	0.266
	8. Wheat	-do-	5	0.289	4	0.231	3	0.173	9	0.520
	(2) Water Resource Area:									
	B- Production of seeds									
	1. Lentil	No. of farmers /Area (ha)	5	0.237	4	0.190	3	0.142	9	0.427
	2. Chickpea	-do-	5	0.272	4	0.218	3	0.163	9	0.490
	3. Field Pea	-do-	5	0.287	4	0.230	3	0.172	9	0.517
	4. Til	-do-	5	0.085	4	0.068	3	0.051	9	0.152
	5. Urd	-do-	5	0.177	4	0.142	3	0.106	9	0.319

	6. Moong	-do-	4	0.146	4	0.146	3	0.109	9	0.328
	7. Arhar	-do-	4	0.118	4	0.118	3	0.089	9	0.266
	8. Wheat	-do-	4	0.231	3	0.173	3	0.173	9	0.520
	Agro forestry:-									
	1- Aonla	Area in ha	2	0.360	1	0.180	1	0.180	2	0.360
	2. Guava	Area in ha	1	0.180	1	0.180	1	0.180	2	0.360
	Live Stock Management									
	A. fodder production	No. of Units	28	0.168	24	0.144	23	0.138	32	0.192
	B. Vaccination/Medication	No. of Animals	28	0.022	25	0.017	23	0.012	32	0.022
	C. Artificial Insemination	No. of Animals	28	0.011	25	0.010	23	0.009	32	0.013
	D. Natural Service.	He Buffalo	1	0.240	1	0.240	0	0.000	2	0.480
	Total for Ag. Production System			**4.212**		**3.396**		**2.532**		**7.464**
Total				**31.590**		**25.470**		**18.990**		**55.980**

Micro-watershed wise details of Watershed Development Activities proposed in IWMP-XVI, Mahoba

Cont…….

Sr. No.	**Particular of Measures/Activities**	**Unit**	**Nehandaura 2C1B2j2d**		**Chinakala 2C1B2g2h**		**Bila Uttar 2C1B2g2g**		**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.	-	-	-	-	-	-	567	0.234
	2. Marginal Bund (with Sodding)	cum.	33070.4	3.478	17574	7.246	11460	19.709	961516	105.501
	3.Submergence Bundhi (with Sodding)	cum.	8435	16.867	6448	2.658	4300	7.014	464640	103.925
	B- Water Resource Development									
	1. Check Dam / Drop Spill Way	cum	5246	4.641	5652	4.448	11373	8.860	203885	62.133

	1a- Water storing capacity	cum.	4480	-	2400	-	4000	-	34730	-
	1b. Area proposed for irrigation	ha	7.5	-	4.0	-	6.7	-	57.9	-
	2. Water Harvesting Bund with surplushing structure	cum.	3442	2.297	3360	2.784	6450	5.005	26948	22.207
	2a-Water storing capacity	cum.	2000	-	1800	-	3200	-	11150	0.000
	2b. Area proposed for irrigation by WHB	ha	3.3	-	3.0	-	5.3	-	18.6	0.000
	Sub Total			**27.283**		**17.136**		**40.589**		294.000
II	**Livelihood for landless People**									
	1. Goatary	No. of beneficiaries/ No. of SHGs	3	0.750	2	0.500	3	0.750	25	6.250
	2. Back Yard Poultry	-do-	2	0.500	1	0.250	3	0.750	22	5.500
	3. Poultry (Broiler)	-do-	2	0.500	1	0.250	3	0.750	21	5.250
	4. Black Smithy	-do-	2	0.500	1	0.250	3	0.750	19	4.750
	5. Rope Making (Linseed)	-do-	1	0.250	1	0.250	2	0.500	17	4.250
	6. Tailoring	-do-	2	0.500	1	0.250	3	0.750	19	4.750
	7. Vermi composting	-do-	2	0.500	1	0.250	3	0.750	20	5.000
	8. Fruit Processing	-do-	2	0.500	1	0.250	3	0.750	21	5.250
	9. Seed Bank	-do-	2	0.385	2	0.504	3	0.773	24	6.250
	Sub Total		18	4.385	11	2.754	26	6.523	188	47.250
III	**Agriculture Production System**									
	(1)SMC Area:									
	A- Crop Demonstrations- (Crop Wise)									
	1. Lentil	No. of farmers /Area (ha)	6	0.285	4	0.190	9	0.427	64	3.036
	2. Chickpea	-do-	6	0.327	4	0.218	9	0.490	64	3.484
	3. Field Pea	-do-	6	0.345	4	0.230	9	0.517	63	3.618

	4. Til	-do-	6	0.102	4	0.068	9	0.152	63	1.066
	5. Urd	-do-	6	0.213	4	0.142	9	0.319	63	2.232
	6. Moong	-do-	6	0.219	4	0.146	9	0.328	63	2.295
	7. Arhar	-do-	6	0.177	4	0.118	9	0.266	63	1.859
	8. Wheat	-do-	5	0.289	4	0.231	9	0.520	62	3.585
	(2) Water Resource Area:									
	B- Production of seeds									
	1. Lentil	No. of farmers /Area (ha)	5	0.237	4	0.190	9	0.427	60	2.846
	2. Chickpea	-do-	5	0.272	4	0.218	9	0.490	60	3.266
	3. Field Pea	-do-	5	0.287	4	0.230	8	0.459	58	3.331
	4. Til	-do-	5	0.085	4	0.068	8	0.135	59	0.998
	5. Urd	-do-	5	0.177	4	0.142	8	0.283	59	2.091
	6. Moong	-do-	5	0.182	4	0.146	8	0.291	58	2.113
	7. Arhar	-do-	5	0.148	4	0.118	8	0.236	58	1.712
	8. Wheat	-do-	5	0.289	4	0.231	8	0.463	57	3.295
	Agro forestry:-									
	1- Aonla	Area in ha	2	0.360	1	0.180	2	0.360	20	3.600
	2. Guava	Area in ha	2	0.360	0	0.000	2	0.360	16	2.880
	Live Stock Management									
	A. fodder production	No. of Units	40	0.240	28	0.168	35	0.210	363	2.178
	B. Vaccination/Medication	No. of Animals	40	0.024	28	0.018	35	0.020	364	0.230
	C. Artificial Insemination	No. of Animals	40	0.016	28	0.011	35	0.014	364	0.146
	D. Natural Service.	He Buffalo	1	0.240	0	0.000	2	0.480	11	2.640
	Total for Ag. Production System			**4.872**		**3.060**		**7.248**		**52.500**
Total				**236.540**		**22.950**		**54.360**		**393.750**

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

Sr. No.	Particular of Measures/Activities	Unit	Pehra		Makarwai		Kaimaha		Ratauli	
		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.	-	-	-	-	-	-	-	-
	2. Marginal Bund (with Sodding)	cum.	219335	24.085	116701	12.815	65053	7.144	91426	10.040
	3.Submergence Bundhi (with Sodding)	cum.	105991	23.726	56394	12.624	31436	7.037	44181	9.890
	B- <u>Water Resource Development</u>									
	1. Check Dam / Drop Spill Way	cum	46509	14.185	24746	7.547	13794	4.207	19387	5.913
	1a- Water storing capacity	cum.	7922	-	4215	-	2350	-	3302	-
	1b. Area proposed for irrigation	ha	13.2	-	7.0	-	4	-	6	-
	2. Water Harvesting Bund with surplushing structure	cum.	6147	5.070	3271	2.697	1823	1.504	2562	2.113
	2a-Water storing capacity	cum.	2543	-	1353	-	754	-	1060	-
	2b. Area proposed for irrigation by WHB	ha	4.2	-	2.3	-	1	-	2	-
	Sub Total			**67.066**		**35.683**		**19.891**		**27.955**
II	**<u>Livelihood for landless People</u>**									
	1. Goatary	No. of beneficiaries/ No. of SHGs	5	1.250	3	0.750	2	0.500	2	0.500
	2. Back Yard Poultry	-do-	5	1.250	3	0.750	2	0.500	2	0.500
	3. Poultry (Broiler)	-do-	5	1.250	3	0.750	1	0.250	2	0.500
	4. Black Smithy	-do-	4	1.000	2	0.500	1	0.250	2	0.500

	5. Rope Making (Linseed)	-do-	4	1.000	2	0.500	1	0.250	2	0.500
	6. Tailoring	-do-	5	1.250	2	0.500	1	0.250	2	0.500
	7. Vermi composting	-do-	5	1.250	2	0.500	1	0.250	2	0.500
	8. Fruit Processing	-do-	5	1.250	3	0.750	2	0.500	2	0.500
	9. Seed Bank	-do-	5	1.278	3	0.735	2	0.447	2	0.493
	Sub Total		43	10.778	23	5.735	13	3.197	18	4.493
III	**Agriculture Production System**									
	(1)SMC Area:									
	A- Crop Demonstrations- (Crop Wise)									
	1. Lentil	No. of farmers /Area (ha)	15	0.711	8	0.379	5	0.237	6	0.285
	2. Chickpea	-do-	15	0.816	8	0.435	5	0.272	6	0.327
	3. Field Pea	-do-	14	0.804	8	0.459	5	0.287	6	0.345
	4. Til	-do-	14	0.237	8	0.135	5	0.085	6	0.102
	5. Urd	-do-	14	0.496	8	0.283	5	0.177	6	0.213
	6. Moong	-do-	14	0.510	8	0.291	5	0.182	6	0.219
	7. Arhar	-do-	14	0.413	8	0.236	5	0.148	6	0.177
	8. Wheat	-do-	13	0.752	8	0.463	5	0.289	6	0.347
	(2) Water Resource Area:									
	B- Production of seeds									
	1. Lentil	No. of farmers /Area (ha)	13	0.617	8	0.379	4	0.190	6	0.285
	2. Chickpea	-do-	13	0.708	8	0.435	4	0.218	6	0.327
	3. Field Pea	-do-	11	0.632	8	0.459	4	0.230	6	0.345
	4. Til	-do-	12	0.203	8	0.135	4	0.068	6	0.102
	5. Urd	-do-	12	0.425	8	0.283	4	0.142	6	0.213

	6. Moong	-do-	12	0.437	8	0.291	4	0.146	6	0.219
	7. Arhar	-do-	12	0.354	8	0.236	4	0.118	6	0.177
	8. Wheat	-do-	13	0.752	7	0.405	4	0.231	6	0.347
	Agro forestry:-									
	1- Aonla	Area in ha	5	0.900	2	0.360	1	0.180	2	0.360
	2. Guava	Area in ha	4	0.720	1	0.180	1	0.180	1	0.180
	Live Stock Management									
	A. fodder production	No. of Units	112	0.672	40	0.240	25	0.150	26	0.156
	B. Vaccination/Medication	No. of Animals	107	0.050	43	0.026	24	0.014	26	0.021
	C. Artificial Insemination	No. of Animals	117	0.047	43	0.017	24	0.010	26	0.010
	D. Natural Service.	He Buffalo	3	0.720	1	0.240	0	0.000	1	0.240
	Total for Ag. Production System			**11.976**		**6.372**		**3.552**		**4.992**
Total				**89.820**		**47.790**		**26.640**		**37.440**

Sr. No.	Particular of Measures/Activities	Unit	Kharka		Rebara		Kabrai Dehat		Sukaura	
		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.	567	0.234	-	-	-	-	-	-
	2. Marginal Bund (with Sodding)	cum.	82635	8.990	45713	5.020	86591	9.509	73844	8.109
	3.Submergence Bundhi (with Sodding)	cum.	39932	8.856	22090	4.945	41844	9.367	35684	7.988
	B- Water Resource Development									
	1. Check Dam / Drop Spill Way	cum	17522	5.295	9693	2.956	18361	5.600	15658	4.776
	1a- Water storing capacity	cum.	2985	-	1651	-	3128	-	2667	-

	1b. Area proposed for irrigation	ha	5.0	-	2.8	-	5	-	4	-
	2. Water Harvesting Bund with surplushing structure	cum.	2316	1.892	1281	1.057	2427	2.002	2070	1.707
	2a-Water storing capacity	cum.	958	-	530	-	1004	-	856	-
	2b. Area proposed for irrigation by WHB	ha	1.6	-	0.9	-	2	-	1	-
	Sub Total			**25.267**		**13.978**		**26.477**		**22.579**
II	**Livelihood for landless People**									
	1. Goatary	No. of beneficiaries/ No. of SHGs	2	0.500	1	0.250	2	0.500	2	0.500
	2. Back Yard Poultry	-do-	2	0.500	1	0.250	2	0.500	2	0.500
	3. Poultry (Broiler)	-do-	2	0.500	1	0.250	2	0.500	2	0.500
	4. Black Smithy	-do-	1	0.250	1	0.250	2	0.500	1	0.250
	5. Rope Making (Linseed)	-do-	1	0.250	0	0.000	1	0.250	1	0.250
	6. Tailoring	-do-	2	0.500	1	0.250	2	0.500	1	0.250
	7. Vermi composting	-do-	2	0.500	1	0.250	2	0.500	2	0.500
	8. Fruit Processing	-do-	2	0.500	1	0.250	2	0.500	2	0.500
	9. Seed Bank	-do-	2	0.561	2	0.496	2	0.505	2	0.379
	Sub Total		16	4.061	9	2.246	17	4.255	15	3.629
III	**Agriculture Production System**									
	(1)SMC Area:									
	A- Crop Demonstrations- (Crop Wise)									
	1. Lentil	No. of farmers /Area (ha)	5	0.237	3	0.142	5	0.237	5	0.237
	2. Chickpea	-do-	5	0.272	3	0.163	5	0.272	5	0.272
	3. Field Pea	-do-	5	0.287	3	0.172	5	0.287	5	0.287
	4. Til	-do-	5	0.085	3	0.051	5	0.085	5	0.085

	5. Urd	-do-	5	0.177	3	0.106	5	0.177	5	0.177
	6. Moong	-do-	5	0.182	3	0.109	5	0.182	5	0.182
	7. Arhar	-do-	5	0.148	3	0.089	5	0.148	5	0.148
	8. Wheat	-do-	5	0.289	3	0.173	5	0.289	5	0.289
	(2) Water Resource Area:									
	B- Production of seeds									
	1. Lentil	No. of farmers /Area (ha)	5	0.237	3	0.142	5	0.237	5	0.237
	2. Chickpea	-do-	5	0.272	3	0.163	5	0.272	5	0.272
	3. Field Pea	-do-	5	0.287	3	0.172	5	0.287	5	0.287
	4. Til	-do-	5	0.085	3	0.051	5	0.085	5	0.085
	5. Urd	-do-	5	0.177	3	0.106	5	0.177	5	0.177
	6. Moong	-do-	5	0.182	3	0.109	5	0.182	4	0.146
	7. Arhar	-do-	5	0.148	3	0.089	5	0.148	4	0.118
	8. Wheat	-do-	5	0.289	2	0.116	5	0.289	4	0.231
	Agro forestry:-									
	1- Aonla	Area in ha	2	0.360	1	0.180	3	0.540	1	0.180
	2. Guava	Area in ha	2	0.360	1	0.180	2	0.360	1	0.180
	Live Stock Management									
	A. fodder production	No. of Units	28	0.168	25	0.150	33	0.198	28	0.168
	B. Vaccination/Medication	No. of Animals	28	0.019	25	0.021	33	0.023	28	0.022
	C. Artificial Insemination	No. of Animals	28	0.011	25	0.010	33	0.013	28	0.011
	D. Natural Service.	He Buffalo	1	0.240	0	0.000	1	0.240	1	0.240
	Total for Ag. Production System			**4.512**		**2.496**		**4.728**		**4.032**
Total				**33.840**		**18.720**		**35.460**		**30.240**

Sr. No.	Particular of Measures/Activities	Unit	Chniakala		Maheba		IWMP- XVI	
		No., Length/ ha, Volume	Qanty.	Cost (Rs. In lakh)	Qanty.	Cost (Rs. In lakh)	Qanty.	Cost (Rs. In lakh)
I	**Soil & Water Conservation Measures**							
	A- Moisture Conservation Measures							
	1. Peripheral Bund (with Sodding)	cum.	-	-	-	-	567	0.234
	2. Marginal Bund (with Sodding)	cum.	148568	16.314	31648	3.475	961516	105.501
	3.Submergence Bundhi (with Sodding)	cum.	71793	16.071	15293	3.423	464640	103.925
	B- <u>Water Resource Development</u>							
	1. Check Dam / Drop Spill Way	cum	31503	9.608	6711	2.047	203885	62.133
	1a- Water storing capacity	cum.	5366	-	1143	-	34730	-
	1b. Area proposed for irrigation	ha	9	-	2	-	57.9	-
	2. Water Harvesting Bund with surplushing structure	cum.	4164	3.434	887	0.732	26948	22.207
	2a-Water storing capacity	cum.	1723	-	367	-	11150	-
	2b. Area proposed for irrigation by WHB	ha	3	-	1	-	18.6	-
	Sub Total			**45.427**		**9.677**		294.000
II	**<u>Livelihood for landless People</u>**							
	1. Goatary	No. of beneficiaries/ No. of SHGs	5	1.250	1	0.250	25	6.250
	2. Back Yard Poultry	-do-	2	0.500	1	0.250	22	5.500
	3. Poultry (Broiler)	-do-	2	0.500	1	0.250	21	5.250
	4. Black Smithy	-do-	5	1.250	0	0.000	19	4.750
	5. Rope Making (Linseed)	-do-	5	1.250	0	0.000	17	4.250
	6. Tailoring	-do-	3	0.750	0	0.000	19	4.750

	7. Vermi composting	-do-	2	0.500	1	0.250	20	5.000
	8. Fruit Processing	-do-	1	0.250	1	0.250	21	5.250
	9. Seed Bank	-do-	3	1.051	1	0.305	24	6.250
	Sub Total		28	7.301	6	1.555	188	47.250
III	**Agriculture Production System**							
	(1)SMC Area:							
	A- Crop Demonstrations- (Crop Wise)							
	1. Lentil	No. of farmers /Area (ha)	9	0.427	3	0.142	64	3.036
	2. Chickpea	-do-	9	0.490	3	0.163	64	3.484
	3. Field Pea	-do-	9	0.517	3	0.172	63	3.618
	4. Til	-do-	9	0.152	3	0.051	63	1.066
	5. Urd	-do-	9	0.319	3	0.106	63	2.232
	6. Moong	-do-	9	0.328	3	0.109	63	2.295
	7. Arhar	-do-	9	0.266	3	0.089	63	1.859
	8. Wheat	-do-	9	0.520	3	0.173	62	3.585
	(2) Water Resource Area:							
	B- Production of seeds							
	1. Lentil	No. of farmers /Area (ha)	9	0.427	2	0.095	60	2.846
	2. Chickpea	-do-	9	0.490	2	0.109	60	3.266
	3. Field Pea	-do-	9	0.517	2	0.115	58	3.331
	4. Til	-do-	9	0.152	2	0.034	59	0.998
	5. Urd	-do-	9	0.319	2	0.071	59	2.091
	6. Moong	-do-	9	0.328	2	0.073	58	2.113
	7. Arhar	-do-	9	0.266	2	0.059	58	1.712

	8. Wheat	-do-	9	0.520	2	0.116	57	3.295
	Agro forestry:-							
	1- Aonla	Area in ha	3	0.540	0	0.000	20	3.600
	2. Guava	Area in ha	3	0.540	0	0.000	16	2.880
	Live Stock Management							
	A. fodder production	No. of Units	39	0.234	7	0.042	363	2.178
	B. Vaccination/Medication	No. of Animals	40	0.025	10	0.009	364	0.230
	C. Artificial Insemination	No. of Animals	40	0.016	0	0.000	364	0.146
	D. Natural Service.	He Buffalo	3	0.720	0	0.000	11	2.640
	Total for Ag. Production System			**8.112**		**1.728**		**52.500**
Total				**60.840**		**12.960**		**393.750**

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			

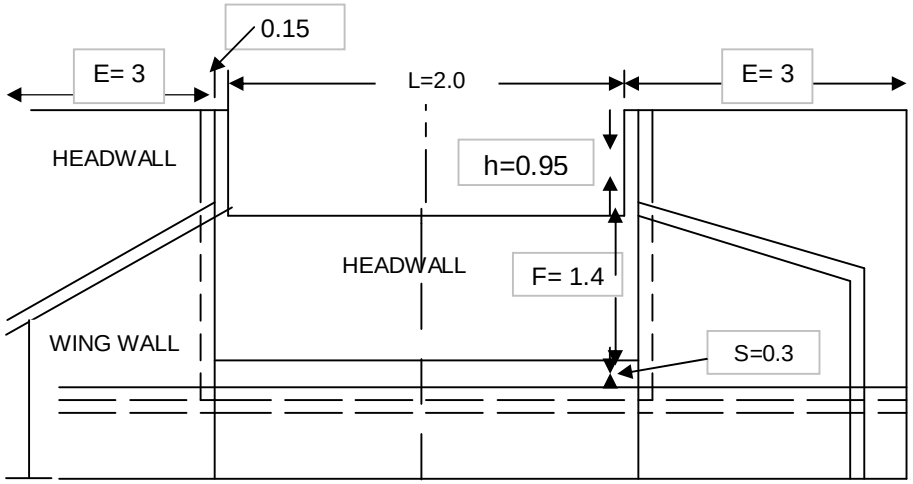
	d) Side wall both side (RHS and LHS)-Part-III	4.60		0.575	2.65	Avg. ht. of triangle portion=	0.575	
	e) Wing wall both side-Part I	4.00		0.60	2.40			
	f) Wing wall both side-Part I	4.00		0.30	1.20	Avg. ht. of triangle portion=	0.30	
				Total	**27.20**			
9	**Filling of black clay soil in the up stream (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**

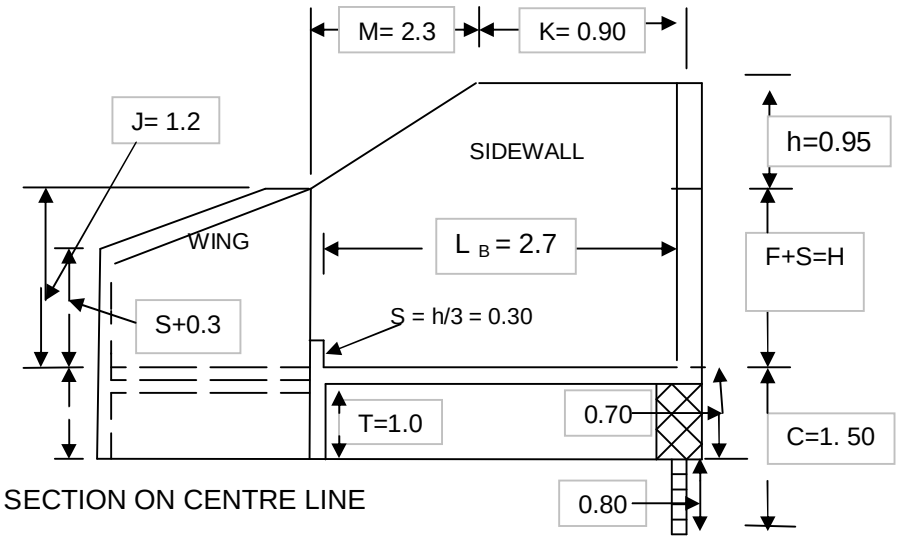
COST ABSTRACT

	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)				

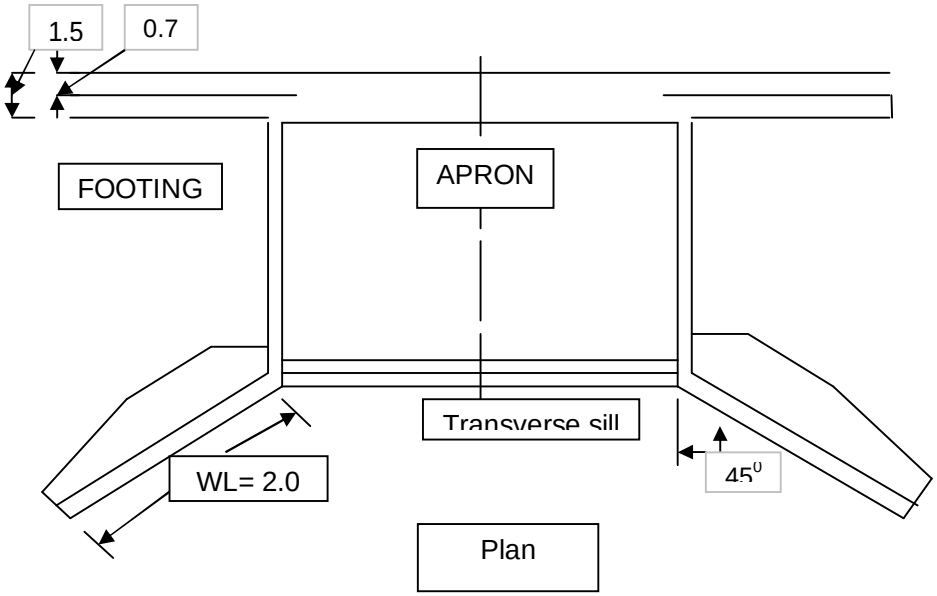
Note: The cost of materials is inclusive of all taxes and transportation to the site. It is based on the prevailing market rates. It may vary with respect to time



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			

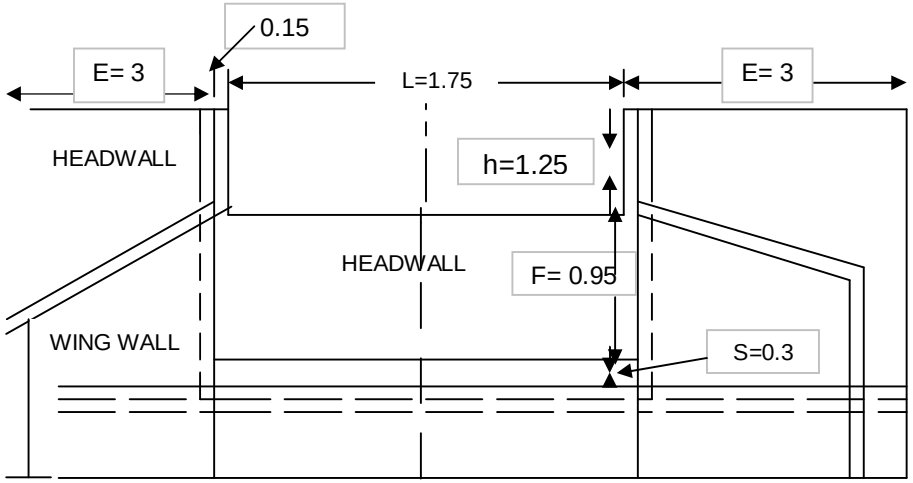
	j) Side wall on both side-Super structure (M Part)-I	4.00	1.00	0.80	3.20			
	k) Side wall on both side-Super structure (M Part)-II	4.00	0.80	0.40	1.28			
	l) Side wall on both side above Part-II mentioned in (i): (M Part)-III	4.00	0.70	0.500	1.40	Avg. ht. of triangle portion=	0.500	
	m) Foundation for 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			

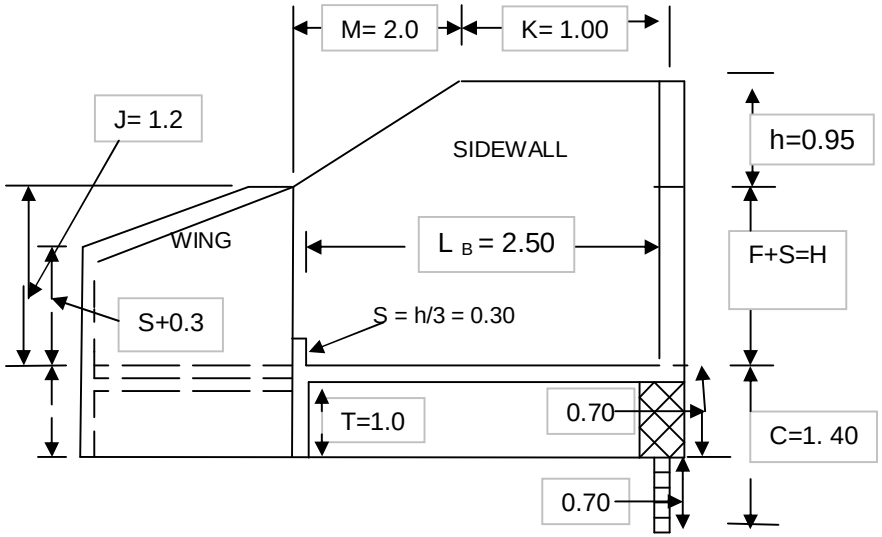
	d) Side wall both side (RHS and LHS)-Part-III	4.00		0.500	2.00	Avg. ht. of triangle portion=	0.500	
	e) Wing wall both side-Part I	4.00		0.60	2.40			
	f) Wing wall both side-Part I	4.00		0.30	1.20	Avg. ht. of triangle portion=	0.30	
				Total	**24.49**			
9	**Filling of black clay soil in the up stream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

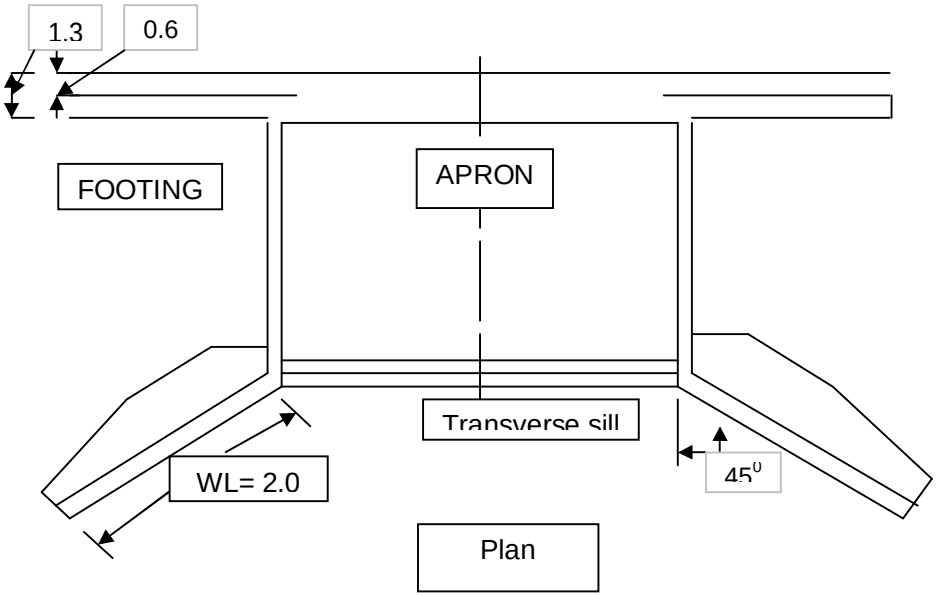
MATERIAL ABSTRACT												
						Required Quantiy						
						Quantiy,cum	Cement,bags	Sand,cum	Conc ,cum	Khanda (cum)	Boulder(cum)	MS Bar (q)
1	Cement Concrete mix (1:2:4): 12 mm conc.					0.71	4.51	0.32	0.63			
2	Cement Concrete mix (1:4:8); 20 mm conc.					2.94	10.00	1.38	2.76			
3	Stone Maspnary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

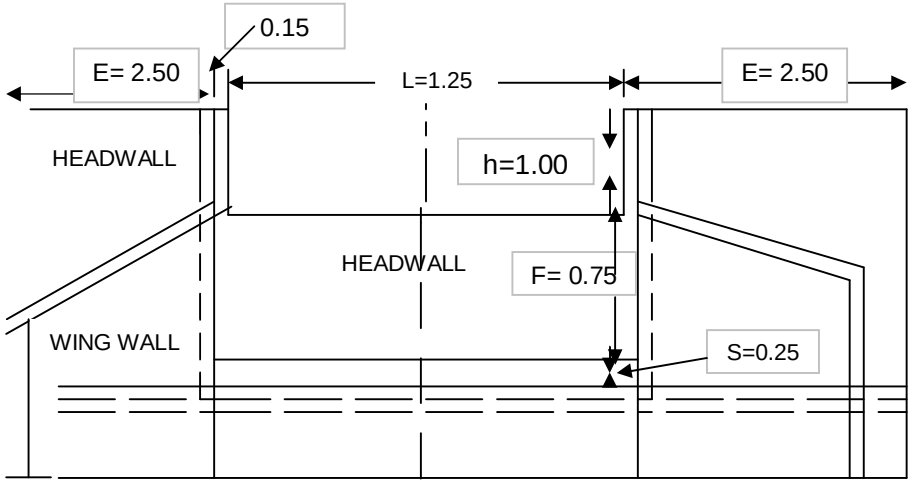
	d) Side wall both side (RHS and LHS)-Part-III	3.00		0.375	1.13	Avg. ht. of triangle portion=	0.375	
	e) Wing wall both side-Part I	3.50		0.55	1.93			
	f) Wing wall both side-Part I	4.00		0.23	0.90	Avg. ht. of triangle portion=	0.23	
				Total	**16.70**			
9	**Filling of black clay soil in the up stream (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**

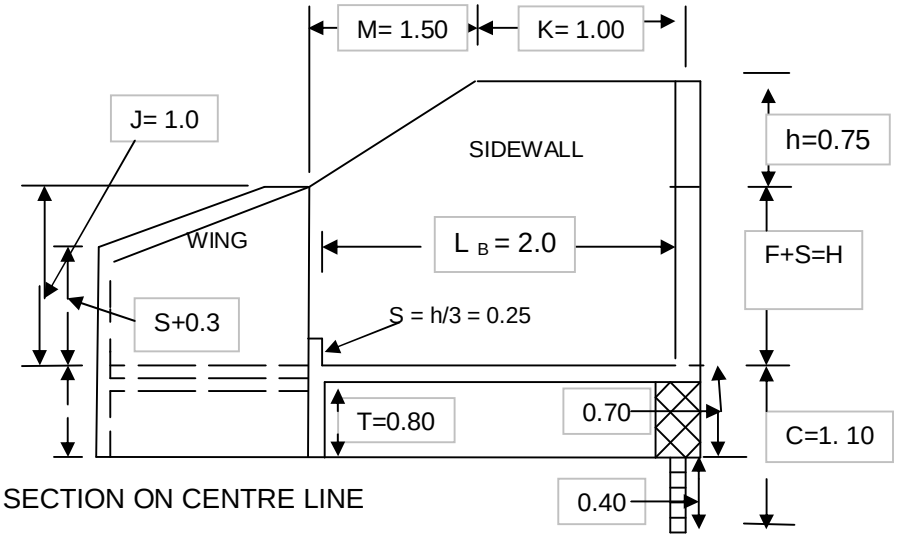
COST ABSTRACT

	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)				

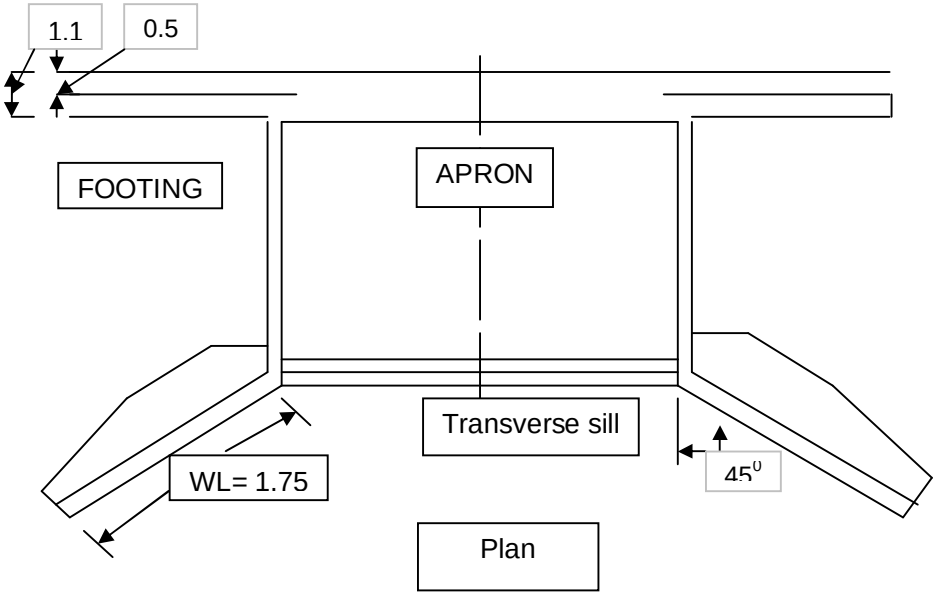
Note: The cost of materials is inclusive of all taxes and transportation to the site. It is based on the prevailing market rates. It may vary with respect to time



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	P.O. Bhojla, Unnao Bala ji Road, Bharari, Mahoba, Phne No 05102792282	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, Mahoba	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	Mision Compound, Mahoba	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, Bharari, Mahoba
3	Watershed Committee & WDT members	Management of natural resources on watershed basis and agroforestry	Awareness and strengthening of knowledge and skills	NRM, Production system and livelihood	Lectures, videos and visits to successful watershed	National Research Center for Agro-forestry, Gwalior Road, Jhansi
4	Secretaries of WC and WDT/PIA members	Book keeping and record maintenance	Maintenance of record and preparing budget	Cash book and ledger registers, preparing budget, maintenance of accounts	Lectures and practical exercise	National Research Center for Agro-forestry, Gwalior Road, Jhansi
5	PIA/WDT	Cultivation of fodder in	Awareness	Package of practices	Lectures, videos	Indian Grassland and Fodder

	members	watershed	and knowledge enhancement	of fodder cultivation	and visits to successful watershed	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. 525.00 lakh) with IWMP-XVI, district Mahoba is given in Table 7.2.

Table 7.1: Physical and financial targets and outlays and their year wise break ups of IWMP-XVI, Kabarai, Mahoba

Project - IWMP-XVI		PIA-Soil Conservation Division, Mahoba							District – Mahoba				
S. No	Physical and financial targets	Unit	First Year 2011-12		Second Year 2012-13		Third Year 2013-14		Fourth Year 2014-15		Total Project	
			Physical	Financial	Physical	Financial	Physical	Financial	Physical	Financial	Physical	Financial
1	Administration			2.63		26.25		15.75		7.88	0	52.50
2	Monitoring			0.00		2.63		1.31		1.31	0	5.25
3	Evaluation			0.00		1.05		2.36		1.84	0	5.25
4	**Entry point activities**											
	(1) Planned	No.	14	21.00	0	0.00	0	0.00	0	0.00	14	21.00
	(a) No. of Activities	No.	14	0.00	0	0.00	0	0.00	0	0.00	14	0.00
	(b) No. of beneficiaries	No.	9000	0.00	0	0.00	0	0.00	0	0.00	9000	0.00
	(2) Executed	No.	14	0.00	0	0.00	0	0.00	0	0.00	14	0.00
	(c) No. of Activities	No.	14	0.00	0	0.00	0	0.00	0	0.00	14	0.00

	(d) No. of beneficiaries	No.	9000	0.00	0	0.00	0	0.00	0	0.00	9000	0.00
5	**Institutional & Capacity Building**											
	(1) No. of Persons to be trained		190	1.31	2000	13.13	1780	11.81	0	0.00	3970	26.25
	(a) SLNA level	No.	30	0.27	180	1.62	180	1.62	0	0.00	390	3.51
	(b) District level	,,	30	0.24	210	1.68	210	1.68	0	0.00	450	3.60
	(c) PIA level (Official/WDT/Secretary)	,,	30	0.21	240	1.68	240	1.68	0	0.00	510	3.57
	(c) PIA level (FARMERS)	,,	100	0.59	1370	8.15	1150	6.83	0	0.00	2620	15.57
6	**DPR Preparation**	MWS No.	12	5.25	0	0.00	0	0.00	0	0.00	12	5.25
7	**Watershed Development Works**											
	(1) SMC	cum	0	0.00	713361	104.83	428017	62.90	285344	41.93	1426722	209.66
	(2) Water Resource Development											
	(a) Structures	No.	0	0.00	55	42.17	33	25.30	22	16.87	110	84.34
	(b) Storage capacity	cum	0	0.00	22940	0.00	13764	0.00	9176	0.00	45880	0.00
	(c) Life saving irrigation area	ha.	0	0.00	38	0.00	23	0.00	15	0.00	76	0.00
	(d) User Groups	No.	0	0.00	55	0.00	33	0.00	22	0.00	110	0.00
8	**Production system**											
	(1) Agriculture											
	(a) Crop demonstration											
	(1) No. of dem.	No.	0	0.00	227	9.53	227	9.53	51	2.12	505	21.17
	(2) Area	ha.			91		91		20		202	0.00
	(b) Seed Production											
	(1) No. of dem.	No.	0	0.00	211	8.84	211	8.84	47	1.97	469	19.65
	(2) Area	ha.	0		84		84		19		188	0.00
	(2) Horticulture/ Agri-Horticulture											
	(a) Area	ha.	0	0.00	16	2.92	16	2.92	4	0.65	36	6.48
	(b) No. of Plants	No.										

	(4) Animal husbandry											
	A. fodder production	No. of Units / Farmers	0	0.00	163	0.98	163	0.98	36	0.22	363	2.18
	B. Vaccination/Medication	No. of Animals			164	0.10	164	0.10	36	0.02	364	0.23
	C. Artificial Insemination	No. of Animals			164	0.07	164	0.07	36	0.01	364	0.15
	D. Natural Service.	He Buffalo			5	1.19	5	1.19	1	0.26	11	2.64
9	**Livelihood activities through SHG's**											
	(1) Activity Goatary											
	(a) No. of SHG's	No.	0	0.00	11	2.81	11	2.81	3	0.63	25	6.25
	(b) No. of members	No.	0	0.00	113	0.00	113	0.00	25	0.00	250	0.00
	(c) Estimated income per year	Rs.										
	(2) Activity- Back Yard Poultry											
	(a) No. of SHG's	No.	0	0.00	10	2.48	10	2.48	2	0.55	22	5.50
	(b) No. of members	No.	0	0.00	99	0.00	99	0.00	22	0.00	220	0.00
	(c) Estimated income per year	Rs.										
	(3) Activity- Poultry , Broiler											
	(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.										
	(4) Black Smithy											
	(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.										
	(5) Rope making											
	(a) No. of SHG's	No.	0	0.00	8	1.91	8	1.91	2	0.43	17	4.25
	(b) No. of members	No.	0	0.00	77	0.00	77	0.00	17	0.00	170	0.00

	(c) Estimated income per year	Rs.										
	(6) Tailoring											
	(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.										
	(8) Vermi Composting											
	(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.										
	(9) Food processing											
	(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.										
	(13) Seed Bank											
	(a) No. of SHG's	No.	0	0.00	11	2.81	11	2.81	2	0.63	24	6.25
	(b) No. of members	No.	0	0.00	108	0.00	108	0.00	24	0.00	240	0.00
	(c) Estimated income per year	Rs.										
	(14) Others (specify)											
10	**Consolidation & Withdrawal Phase activities**		0	0.00	0	0.00	0	0.00	0	15.75	0	15.75
Grand Total											623382	525.00

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

Particulars	1st Year	2nd Year	3rd Year	4th Year	Total
Administrative Cost-10%	2.63	26.25	15.75	7.88	52.50
Monitering-1%	0.00	2.63	1.31	1.31	5.25
Evalution-1%	0.00	1.05	2.36	1.84	5.25
Entry Point Activity-4%	21.00	0.00	0.00	0.00	21.00
Institution & Capacity Building-5%	1.31	13.13	11.81	0.00	26.25
DPR-1%	5.25	0.00	0.00	0.00	5.25
Watershed Dev. Work-56%	0.00	147.00	88.20	58.80	294.00
Livelihood Activity-9%	0.00	21.26	21.26	4.73	47.25
Production System & Micro enterprises-10%	0.00	23.63	23.63	5.25	52.50
Consolidation-3%	0.00	0.00	0.00	15.75	15.75
Total	**30.19**	**234.94**	**164.33**	**95.55**	**525.00**

Note: The budget available under IWMP-XVI is Rs. 525.00 lakh, however, the activities are planned for the Rs. 525.00.

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 1.77 and 2.10, respectively,

Table 7.3: Micro-watershed wise benefit cost analysis of IWMP-XVI, Mahoba, Mahoba
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	891.14	2851.65	3.20	10500	4800	13687910	15360	4277472	9410438	10560	1.46
2	Moong	561.23	1627.55	2.90	10000	5000	8137763	14500	2806125	5331638	9500	1.45
3	Arhar	331.87	1758.91	5.30	12000	5200	9146337	27560	1725724	7420613	22360	2.30
4	Sorghum	304.14	1794.43	5.90	5000	2300	4127180	13570	699522	3427658	11270	2.71
5	Til	792.29	1584.58	2.00	4800	5700	9032106	11400	4516053	4516053	5700	2.38
	Total	**2880.67**	**9617.12**				**44131296**		**14024896**	**30106400**		
1	Wheat	1285.15	20209.01	15.73	14000	1200	24250806	18870	1542182	22708625	17670	1.35
2	Barley	948.03	11755.57	12.40	7500	1300	15282244	16120	1232439	14049805	14820	2.15
3	Masoor	1068.03	4912.92	4.60	10500	3700	18177820	17020	3951700	14226120	13320	1.62
4	Gram	1305.50	7441.35	5.70	9000	2600	19347510	14820	3394300	15953210	12220	1.65
5	Field Pea	405.39	2918.81	7.20	8500	2200	6421378	15840	891858	5529520	13640	1.86
	Total	**5012.10**	**47237.66**				**83479757**		**11012479**	**72467278**		1.66
	Cropping Intensity	109.92		Over All B:C		1.66						
	Cultivable Area (ha)	7180.45										
	Total Number of Farm Families in MWS	**3628**										
	Net Return per Household	19974.4										

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	1229.77	4550.16	3.7	10500	4800	21840772	17760	5902911	15937861	12960	1.69
2	Moong	774.49	2555.82	3.3	10000	5000	12779093	16500	3872453	8906641	11500	1.65
3	Arhar	457.98	2793.68	6.1	12000	5200	14527145	31720	2381499	12145646	26520	2.64
4	Sorghum	419.71	2854.05	6.8	5000	2300	6564314	15640	965340	5598974	13340	3.13
5	Til	1093.36	2514.73	2.3	4800	5700	14333952	13110	6232153	8101799	7410	2.73
	Total	**3975.32**	**15268.44**				**70045277**	**94730**	**19354356**	**50690920**		
1	Wheat	1400.81	25354.75	18.1	14000	1200	30425701	21720	1680978	28744723	20520	1.55
2	Barley	1033.35	14776.94	14.3	7500	1300	19210027	18590	1343359	17866668	17290	2.48
3	Masoor	1164.15	6169.99	5.3	10500	3700	22828970	19610	4307353	18521617	15910	1.87
4	Gram	1423.00	9391.77	6.6	9000	2600	24418594	17160	3699787	20718807	14560	1.91
5	Field Pea	441.88	3667.56	8.3	8500	2200	8068639	18260	972125	7096514	16060	2.15
	Total	**5463.19**	**59361.02**				**104951932**	**95340**	**12003602**	**92948330**		1.92
	Cropping Intensity	131.45		Over All B:C		1.92						
	Cultivable Area (ha)	7180.45										
	Total Number of Farm Families in MWS	**3628**			21.53	942						
	Net Return per Household	25619.72										

Present Outcome (Livestock)

Particulars	**Cows**	**Buffaloes**	**Goat**	**Bullocks**
Total Animals in Micro watershed Area	1450	902	5944	424
Milking Animals	600	300	1500	
Average Milk Production Lit. / day	948	1158	480	
Average Milk Production /Animal/ day	1.58	3.86	0.32	
Sale of Milk per day (Rs) @ Rs 15/Lit	14220	17370	7200	
Average 150 day milking days & Goat 90 days in a year (Total Rs)	**2133000**	**2605500**	**648000**	
Meat Animals			3000	
Average rate of one kids Rs			2500	
Total Sale in a year Rs			**7500000**	
Working Animals (Bullocks)				424
One year work one agriculture fields 180 days @ 200/ day (One pair)				36000
Total Work value of all Draft animals				**7632000**
Total monetary worth (Rs.)	**2133000**	**2605500**	**8148000**	**7632000**
				20518500
Total Family				3628
Total Income/Family				5655.60
Total Expenditure / family				3000
B:C Ratio				1.89

Projected Outcome (Livestock)

Particulars	Cows	Buffaloes	Goat	Bullocks
Total Animals in Micro watershed Area	1700	1300	7000	500
Milking Animals	800	400	2500	
Average Milk Production Lit. / day	1760	2160	1500	
Average Milk Production /Animal/ day	2.2	5.4	0.6	
Sale of Milk per day (Rs) @ Rs 15/Lit	26400	32400	22500	
Average 150 day milking days & Goat 90 days in a year (Total Rs)	**3960000**	**4860000**	**2025000**	
Meat Animals			4000	
Average rate of one kids Rs			2800	
Total Sale in a year Rs			**11200000**	
Working Animals (Bullocks)				500
One year work one agriculture fields 200 days @ 220/ day (One pair)				44000
Total Work value of all Draft animals				**11000000**
Total monetary worth (Rs.)	**3960000**	**4860000**	**13225000**	**11000000**
				33045000
Total Family				3628
Total Income/Family				9108.32
Total Expenditure / family				4000
B:C Ratio				2.28

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

Net Income / Family	Present	Projected
Agriculture	19974.44	25619.72
Livestock	5655.60	9108.32
Total (Ag+Livestock)	**25630.04**	**34728.04**
Over All B:C of MWS		
Agriculture	1.66	1.92
Livestock	1.89	2.28
Over All B: C MWS	**1.77**	**2.10**

Note: Estimate micro-watershed wise benefit-cost ratio are kept in project files of PIA

CHAPTER - 8

CONSOLIDATION AND WITHDRAWAL STRATEGY

8. Consolidation and Withdrawal Strategy

Success of any program depends on sustainability of the various watershed interventions and sustainability can only be achieved through active participation of community. Active participation and cooperation of community can be ensured by building their capacities through exposures and trainings. From the beginning emphasis will be on capacity building and empowerment of stakeholders. The Watershed Committee, SHGs, Area Groups, Users Group and other CBOs will be established, trained, and strengthened to continue development after withdrawal of PIA. By building economic activities through CBOs community participation will be sustained. The PR&D approach along with demand driven interventions will reduce dependency on subsidies. Contributions from the community will be ensured for the entire activities to develop sense of belongingness 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 replecment, farm mechanization, resources use and operational efficiency.
- Nutritional security (Production of diverse food commodities)
- Risk minimization (Integrated farming system, water harvesting and protected cultivation, value addition and improved markenting)
- State of environment (Improvement in vegetative comver, hydrology and adoption of IPNM)
- Profitability (Loss preventing and cost reducing measures, valu addition and agro-processing.)
- Livelihood security (skill enhancement capacity building, increased employment in agriculture and allied enterprises. Reduction in drudgery of farm women and out migration)

CHAPTER - 9

EXPECTED PROJECT OUTCOME

9.1 Employment Generation and Checking Migration

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

Due to watershed management the cropping intensity will be increased by around 21.50 per cent, in turn acreage in agricultural activities will be increased by about 940 ha. Therefore, an additional employment of about 94,000 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 2,45,000 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 2.10 as compared to the 1.77 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 agencis 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- Goahari											
S. No.	**Name of Work**	**Benefited area (ha)**	**Field No. / Khasara No.**	**Area of work**		**C.S. (Area)**	**Work Measurement**	**Rate**	**Total Cost (Rs.)**	**Manday Rs. 120/Labour**	**Name of Farmers**
				Length	**Width * Height**						
1	SB1	7.47	204, 207	300	5.00+0.80/2 *1.40	4.06	1218	41.23	50218.14	418.4845	Smt. Badi bahu, Lakshmishankar etc.
2	SB2	2.99	186 to 190	120	5.00+0.80/2 *1.40	4.06	487.2	41.23	20087.26	167.3938	Nasir Ali, Ganesh prasad etc.
3	SB3	3.41	704	150	4.80+.70/2* 1.35	3.71	556.5	41.23	22944.5	191.204125	Rameshvar, Sohan etc.
4	SB4	2.27	706	100	4.80+.70/2* 1.35	3.71	371	41.23	15296.33	127.4694167	Kallu etc.
5	SB5	3.24	709, 708	130	5.00+0.80/2 *1.40	4.06	527.8	41.23	21761.19	181.3432833	Guljari etc.
6	SB6	5.69	786, 198	250	4.80+.70/2* 1.35	3.71	927.5	41.23	38240.83	318.6735417	Shyambabu, Ramlava etc.
7	SB7	5.7	788, 201, 200, 199	250	4.80+.70/2* 1.35	3.71	927.5	41.23	38240.83	318.6735417	
	Total	30.77		1300			5015.5		206789.1		
1	CD1	12.05	484, 449, 450	30	9.80+1.80/2 *2.00	11.6	348	41.23	14348.04	119.567	Ramshevak, Basnta, Ramesh etc.

2	CD2	17.41	531, 532, 508	100	9.80+1.80/2 *2.00	11.6	1160	41.23	47826.8	398.556666667	Badri etc.
	Total	29.46		130			1508		62174.84		
1	MB 1	3.41	78, 79, 77	150	4.80+.70/2* 1.35	3.71	556.5	41.23	22944.5	191.204125	Badri prasad, Avdhesh kumar etc.
2	MB 2	10.19	75, 99, 74, 73, 100	250	4.80+.70/2* 1.35	3.71	927.5	41.23	38240.83	318.6735417	Kaluram, Kalideen etc.
3	MB 3	3.73	105, 102 to 104	150	5.00+0.80/2 *1.40	4.06	609	41.23	25109.07	209.24225	Ramgopal etc.
4	MB 4	3.74	98, 97, 90	150	5.00+0.80/2 *1.40	4.06	609	41.23	25109.07	209.24225	Pragiya
5	MB 5	3.73	95, 94, 92	150	5.00+0.80/2 *1.40	4.06	609	41.23	25109.07	209.24225	Brajgopal, Mulchand etc.
6	MB 6	20.83	108, 119, 120, 112 to 118	500	5.30+0.80/2 *1.50	4.57	2285	41.23	94210.55	785.0879167	Devi singh, Rajju etc.
7	MB 7	4.98	127, 124, 125, 122, 123	200	5.00+0.80/2 *1.40	4.06	812	41.23	33478.76	278.9896667	Dalbrat, Maheshchandra etc.
8	MB 8	3.73	133, 134	150	5.00+0.80/2 *1.40	4.06	609	41.23	25109.07	209.24225	Gabdu, Nandu
9	MB 9	2.99	136	100	5.00+0.80/2 *1.40	4.06	406	41.23	16739.38	139.4948333	Smt.Chhavirani
10	MB 10	21.73	154 to 156, 174, 175	600	5.00+0.80/2 *1.40	4.06	2436	41.23	100436.3	836.969	Sureshchandra, Maheshchandra etc.
11	MB 11	15.4	340 to 343, 373, 374	400	5.00+0.80/2 *1.40	4.06	1624	41.23	66957.52	557.9793333	Smt.Rajni, Muluva, Jugalkishor etc.
12	MB 12	15.55	418 to 428	400	5.00+0.80/2 *1.40	4.06	1624	41.23	66957.52	557.9793333	Smt.Brajrani, Motilal etc.
13	MB	3.74	391 to 397	150	5.00+0.80/2	4.06	609	41.	25109.	209.2422	Ramprakash, Ramkhilvan

	13				*1.40			23	07	5	
14	MB 14	15.4	399, 401, 408, 409	400	5.00+0.80/2 *1.40	4.06	1624	41.23	66957.52	557.9793333	Durga prasad
15	MB 15	4.98	570, 569	200	5.00+0.80/2 *1.40	4.06	812	41.23	33478.76	278.9896667	Pradip kumar
16	MB 16	7.47	566, 563	300	5.00+0.80/2 *1.40	4.06	1218	41.23	50218.14	418.4845	Rambabu, Smt.Sahoda, Omprakash etc.
17	MB 17	11.01	547, 544, 543	200	5.30+0.80/2 *1.50	4.57	914	41.23	37684.22	314.0351667	Surendra Singh, Hanuman Singh etc.
18	MB 18	5.61	539, 540	200	5.30+0.80/2 *1.50	4.57	914	41.23	37684.22	314.0351667	Smt.Ranibai, Smt.Ramrani etc.
19	MB 19	21.72	698 to 703	600	5.00+0.80/2 *1.40	4.06	2436	41.23	100436.3	836.969	Jodhabai, Ghasita, Mangi etc.
20	MB 20	6.23	693 to 696	250	5.00+0.80/2 *1.40	4.06	1015	41.23	41848.45	348.7370833	Jay Singh, Jagdish Singh etc.
21	MB 21	3.74	713, 712, 711	150	5.00+0.80/2 *1.40	4.06	609	41.23	25109.07	209.24225	Dayasagar etc.
22	MB 22	11.21	784, 785, 791	450	5.00+0.80/2 *1.40	4.06	1827	41.23	75327.21	627.72675	Mangvali, Raish Ahmad etc.
	Total	201.12		6100			25085		1034255		
Village- Marhathi											
1	SB1	4.97	35, 37	200	5.00+0.80/2 *1.40	4.06	812	41.23	33478.76	278.9896667	Harnarayan
2	SB2	9.95	80, 81	400	5.00+0.80/2 *1.40	4.06	1624	41.23	66957.52	557.9793333	Achchhelal, Ramdas
	Total	14.92		600			2436		100436.3		

1	MB 1	5.05	2, 3	180	5.30+0.80/2 *1.50	4.57	822.6	41.23	33915.8	282.63165	Smt.Sushila Devi etc.
2	MB 2	8.04	7, 8	100	5.30+0.80/2 *1.50	4.57	457	41.23	18842.11	157.0175833	Videshi, Kallu etc.
3	MB 3	3.74	17, 18, 19	150	5.00+0.80/2 *1.40	4.06	609	41.23	25109.07	209.24225	Pushpendra kumar, Upendra kumar etc.
4	MB 4	13.84	23, 24	250	5.00+0.80/2 *1.40	4.06	1015	41.23	41848.45	348.7370833	Shiv Vishal, Ram Vishal
5	MB 5	2.8	26, 27	100	5.00+0.80/2 *1.40	4.06	406	41.23	16739.38	139.4948333	Bhairam
6	MB 6	6.96	44 to 46, 40 to 43, 45	280	5.00+0.80/2 *1.40	4.06	1136.8	41.23	46870.26	390.5855333	Santosh, Akhlesh, Ramashre
7	MB 7	2.53	48, 47	100	5.00+0.80/2 *1.40	4.06	406	41.23	16739.38	139.4948333	Smt.Prema devi
8	MB 8	8.49	49, 48	120	5.00+0.80/2 *1.40	4.06	487.2	41.23	20087.26	167.3938	Rameshvar, Darshan etc.
9	MB 9	16.59	52 to 55	400	5.00+0.80/2 *1.40	4.06	1624	41.23	66957.52	557.9793333	Smt.Kamlabai, Smt.Keshar etc.
10	MB 10	20.98	66, 67, 57 to 65	500	5.30+0.80/2 *1.50	4.57	2285	41.23	94210.55	785.0879167	Jagdish Singh, Gulabrani etc.
	Total	89.02		2180			9248.6		381319.8		
Village- Bilauttar											
1	SB1	4.55	274, 275	200	4.80+.70/2* 1.35	3.71	742	41.23	30592.66	254.9388333	Chandrapal etc.
2	SB2	11.6	196 to 198	250	5.00+0.80/2 *1.40	4.06	1015	41.23	41848.45	348.7370833	Ramvilash, Ramprakash
3	SB3	4.62	273	50	5.00+0.80/2	4.06	203	41.	8369.6	69.74741	Prayagdas, Chunvdava

					*1.40			23	9	667	
4	SB4	5.7	174, 176	250	4.80+.70/2*1.35	3.71	927.5	41.23	38240.83	318.6735417	Ramprakash, Rammanohar
5	SB5	3.41	186	150	4.80+.70/2*1.35	3.71	556.5	41.23	22944.5	191.204125	Baburam
6	SB6	4.98	185, 177, 178	200	5.00+0.80/2*1.40	4.06	812	41.23	33478.76	278.9896667	Mahendra Singh, Sura, Udayram
	Total	34.86		1100			4256		175474.9		
1	MB1	17.3	7 to 10	400	4.80+.70/2*1.35	3.71	1484	41.23	61185.32	509.8776667	
2	MB2	16.28	27 to31, 22	400	5.00+0.80/2*1.40	4.06	1624	41.23	66957.52	557.9793333	
3	MB3	2.48	20, 21	100	5.00+0.80/2*1.40	4.06	406	41.23	16739.38	139.4948333	
4	MB4	15.72	54, 57	400	5.00+0.80/2*1.40	4.06	1624	41.23	66957.52	557.9793333	
5	MB5	2.27	63, 64	100	4.80+.70/2*1.35	3.71	371	41.23	15296.33	127.4694167	
6	MB6	2.26	67, 68	100	4.80+.70/2*1.35	3.71	371	41.23	15296.33	127.4694167	
7	MB7	2.72	69, 14, 15	120	4.80+.70/2*1.35	3.71	445.2	41.23	18355.6	152.9633	
8	MB8	2.49	77, 75	100	5.00+0.80/2*1.40	4.06	406	41.23	16739.38	139.4948333	
9	MB9	6.22	71 to 73	250	5.00+0.80/2*1.40	4.06	1015	41.23	41848.45	348.7370833	
10	MB10	10.57	84	200	5.30+0.80/2*1.50	4.57	914	41.23	37684.22	314.0351667	

11	MB 11	19.49	48 to 52	400	5.30+0.80/2 *1.50	4.57	1828	41.23	75368.44	628.0703333	
12	MB 12	15.33	104, 105, 109	350	5.30+0.80/2 *1.50	4.57	1599.5	41.23	65947.39	549.5615417	
13	MB 13	6.23	119, 114, 115	250	5.00+0.80/2 *1.40	4.06	1015	41.23	41848.45	348.7370833	
14	MB 14	5.6	121, 124	200	5.30+0.80/2 *1.50	4.57	914	41.23	37684.22	314.0351667	
15	MB 15	5.61	242, 244, 243	200	5.30+0.80/2 *1.50	4.57	914	41.23	37684.22	314.0351667	
16	MB 16	3.73	136, 134	150	5.00+0.80/2 *1.40	4.06	609	41.23	25109.07	209.24225	
17	MB 17	6.23	134, 141	250	5.00+0.80/2 *1.40	4.06	1015	41.23	41848.45	348.7370833	
18	MB 18	18	281 to 286, 288, 289	480	5.00+0.80/2 *1.40	4.06	1948.8	41.23	80349.02	669.5752	
19	MB 19	15.18	296 to 298, 299 to 306	300	5.30+0.80/2 *1.50	4.57	1371	41.23	56526.33	471.05275	
20	MB 20	15.17	257, 258, 259, 250	300	5.30+0.80/2 *1.50	4.57	1371	41.23	56526.33	471.05275	
21	MB 21	4.98	358, 362, 363	200	5.00+0.80/2 *1.40	4.06	812	41.23	33478.76	278.9896667	
22	MB 22	13.54	365, 294	300	5.00+0.80/2 *1.40	4.06	1218	41.23	50218.14	418.4845	
23	MB 23	4.98	346, 349	200	5.00+0.80/2 *1.40	4.06	812	41.23	33478.76	278.9896667	
24	MB 24	9.97	317 to 325	400	5.00+0.80/2 *1.40	4.06	1624	41.23	66957.52	557.9793333	
	Total	222.35		6150			25711.5		1060085		

Village- Sukoara											
S. No.	**Name of Work**	**Benefited area (ha)**	**Field No. / Khasara No.**	**Area of work**		**C.S. (Area)**	**Work Measurement**	**Rate**	**Total Cost (Rs.)**	**Manday Rs. 120/Labour**	**Name of Farmers**
				Length	**Width * Height**						
1	SB1	5.48	29, 30	220	5.00+0.80/2*1.40	4.06	893.2	41.23	36826.6	306.889	Ramshenehi, Dayasanker etc.
2	SB2	4.48	34, 36	180	5.00+0.80/2*1.40	4.06	730.8	41.23	30130.9	251.091	Dyaram, Basanta etc.
3	SB3	4.98	32, 36	200	5.00+0.80/2*1.40	4.06	812	41.23	33478.8	278.99	Ramgopal, Shiyaram, Pavan kumar etc.
4	SB4	6.22	280, 286, 287	250	5.00+0.80/2*1.40	4.06	1015	41.23	41848.5	348.737	Chhotelal, Abhay singh etc.
5	SB5	4.97	202, 203	200	5.00+0.80/2*1.40	4.06	812	41.23	33478.8	278.99	Jugal kisor, Ramprakash etc.
6	SB6	2.28	422/8, 424	100	4.80+.70/2*1.35	3.71	371	41.23	15296.3	127.469	Shiv vijay singh
7	SB7	3.41	426, 427	150	4.80+.70/2*1.35	3.71	556.5	41.23	22944.5	191.204	Bhujbal singh etc.
8	SB8	3.42	441 TO 443	150	4.80+.70/2*1.35	3.71	556.5	41.23	22944.5	191.204	Shivnandan, Gudiya etc.
9	SB9	9.13	409, 420	400	4.80+.70/2*1.35	3.71	1484	41.23	61185.3	509.878	Dhanjay singh, Raju, Ramkisor
	Total	44.37		1850			7231		298134		
1	MB1	9.96	11	400	5.00+0.80/	4.06	1624	41.	6695	557.979	Shanker, Syamrani

					2*1.40			23	7.5		
2	MB2	3.41	27, 28	150	4.80+.70/2*1.35	3.71	556.5	41.23	22944.5	191.204	Hirabai
3	MB3	21.27	40, 41, 45 TO 47	550	5.00+0.80/2*1.40	4.06	2233	41.23	92066.6	767.222	Mukesh, Bhagbandeen
	Pucca work								50934		
4	MB4	17.08	71, 72	450	5.00+0.80/2*1.40	4.06	1827	41.23	75327.2	627.727	Kashturi devi, Hira, Guljari etc.
	Pucca work								39484		
5	MB5	3.74	104, 105	150	5.00+0.80/2*1.40	4.06	609	41.23	25109.1	209.242	Bhura singh, Beer singh, Shiyaram etc.
6	MB6	4.98	256, 257, 259, 260	200	5.00+0.80/2*1.40	4.06	812	41.23	33478.8	278.99	Kariya
7	MB7	14.43	303 TO 309, 300, 302, 294 TO 299	300	5.30+0.80/2*1.50	4.57	1371	41.23	56526.3	471.053	Jivan, Rohit, Rahul etc.
	Pucca work								40474		
8	MB8	16.6	431, 430, 429	350	5.30+0.80/2*1.50	4.57	1599.5	41.23	65947.4	549.562	Vimal singh, mohit singh, Rampal etc.
	Pucca work								45653		
9	MB9	6.41		300	5.30+0.80/2*1.50	4.57	1371				Sabitree devi, Johri, Halke etc.
				180	2.80+0.50/2*1.10	1.81	325.8				
							1045.2	41.23	43093.6	359.113	
10	MB10	8.72	447 TO 450	350	5.00+0.80/2*1.40	4.06	1421	41.23	58587.8	488.232	Govind singh, Pritam, Chandrabhan singh

11	MB11	7.47	468, 469	300	5.00+0.80/ 2*1.40	4.06	1218	41.23	50218.1	418.485	
12	MB12	3.42	473, 472	150	4.80+.70/2 *1.35	3.71	556.5	41.23	22944.5	191.204	Mulayam singh, Komal singh, Santideen etc.
13	MB13	5.72	471, 472, 469, 470, 471/1595	250	4.80+.70/2 *1.35	3.71	927.5	41.23	38240.8	318.674	Banshi singh, Ramnath, Shivram
14	MB14	6.83	475, 476, 477	300	4.80+.70/2 *1.35	3.71	1113	41.23	45889	382.408	Chunnu, Banshisingh, Ramnath etc.
15	MB15	4.55	398, 401 TO 403, 399, 404, 405, 407	200	4.80+.70/2 *1.35	3.71	742	41.23	30592.7	254.939	Kuldeep singh
16	MB16	6.82	481, 482, 483	300	4.80+.70/2 *1.35	3.71	1113	41.23	45889	382.408	Dyasanker singh
17	MB17	4.56	488 TO 490	200	4.80+.70/2 *1.35	3.71	742	41.23	30592.7	254.939	Mandir
18	MB18	16.8	569, 572, 574, 575, 576	400	5.00+0.80/ 2*1.40	4.06	1624	41.23	66957.5	557.979	Ramsevak, Munnilal
	Pucca work								46000		
19	MB19	4.98	504 TO 506	200	5.00+0.80/ 2*1.40	4.06	812	41.23	33478.8	278.99	Dhanjay singh, Raju, Ramkisor
20	MB20	2.73	485, 484	120	4.80+.70/2 *1.35	3.71	445.2	41.23	18355.6	152.963	Babu, Shivpal, Ramgopal etc.
21	MB21	3.41	521, 522, 526 TO 528	150	4.80+.70/2 *1.35	3.71	556.5	41.23	22944.5	191.204	Shokhilal, Kallu
22	MB22	3.75	533 TO 536	150	5.00+0.80/ 2*1.40	4.06	609	41.23	25109.1	209.242	Umashanker, Omprakasah, Jayprakash etc.
	Total	177.64		5920			23437.5		1193796		
1	CD1	1.81	11	30	8.70+1.50/	9.18	275.4	44.	1221	101.76	Ramprakash

					2*1.80			34	1.2		
2	CD2	9.38	28, 31	40	9.10+1.50/ 2*1.90	10.07	402.8	44.34	17860.2	148.835	Vijaysingh
									45140		
3	CD3	11.46	79, 63, 99	70	9.10+1.50/ 2*1.90	10.07	704.9	44.34	31255.3	260.461	Vindibai
									45745		
	Total	22.65		140			1383.1		152212		
1	WHB1		21, 22	100	10+1.60/2* 2.10	12.18	1218				Makhanlal
	Old work		EXTING	50	8.60+1.00/ 2*1.90	9.12	456				
	New work	15.77					762	46.08	35113	292.608	
									70887		
2	WHB2	10.02	33, 32, 36	120	10+1.60/2* 2.10	12.18	1461.6	46.08	67350.5	561.254	Lallu, Brandavan
	Total	25.79		220			2223.6		173350		
Village- Nadehra											

1	SB1	2.11	247, 246	100	4.60+0.70/ 2*1.30	3.44	344	41.23	14183.1	118.193	Ramprasad etc.
2	SB2	3.17	248, 249	150	4.60+0.70/ 2*1.30	3.44	516	41.23	21274.7	177.289	Ramdyal, Hakimsingh etc.
3	SB3	2.1	314, 261	100	4.60+0.70/ 2*1.30	3.44	344	41.23	14183.1	118.193	Rambai, Riniya etc.
	Total	7.38		350			1204		496409		
1	MB1	3.73	43, 45	150	5.00+0.80/ 2*1.40	4.06	609	41.23	251091	209.242	Jaysingh, Saligram etc.
2	MB2	3.74	49, 51, 52	150	5.00+0.80/ 2*1.40	4.06	609	41.23	251091	209.242	Kisor
3	MB3	6.22	51, 52	250	5.00+0.80/ 2*1.40	4.06	1015	41.23	418485	348.737	Rajkuliya, Rajuva etc.
4	MB4	2.49	301, 300	100	5.00+0.80/ 2*1.40	4.06	406	41.23	167394	139.495	Ghansyam, Rajuva, Saligram etc.
5	MB5	3.75	295, 290 TO 294	150	5.00+0.80/ 2*1.40	4.06	609	41.23	251091	209.242	Gangadeen
6	MB6	2.11	316, 315	100	4.60+0.70/ 2*1.30	3.44	344	41.23	14183.1	118.193	Brajlal
	Total	22.04		900			3592		148098		
1	CD1	11.9	62, 63	20	9.50+1.50/ 2*2.00	11	220	44.34	9754.8	81.29	Kalyan singh, Mardan singh etc.
									70245		
2	CD2	1.67	60, 59	20	10.0+1.60/	12.1	243.6	46.	1122	93.5424	Chhidiya, Ramprakash

					2*2.10	8		08	5.1		
3	CD3	1.22	47, 46	20	8.70+1.50/ 2*1.80	9.18	183.6	44.34	8140.82	67.8402	mansingh, jagdish
4	CD4	1.81	54, 55, 56	30	8.70+1.50/ 2*1.80	9.18	275.4	44.34	12211.2	101.76	Shree.Nathhu
5	CD5	1.82	307, 308, 309, 287, 284	30	8.70+1.50/ 2*1.80	9.18	275.4	44.34	12211.2	101.76	Smt.kari
6	CD6	1.99	312, 257 TO 259	30	9.10+1.50/ 2*1.90	10.07	302.1	44.34	13395.1	111.626	Ramprasad, Chhotu etc.
7	CD7	7.27	315, 316	120	8.70+1.50/ 2*1.80	9.18	1101.6	44.34	488449	407.041	Vaijnath singh, kalkaiyan etc.
	Total	27.68		270			2601.7		186028		
	WHB1	8.35	312, 263, 265	100	10+1.60/2* 2.10	12.18	1218	46.08	561254	467.712	Dhirendra kumar etc.
	Total	8.35		100			1218		561254		
Village- Pahra											
	MB1	18.9	498, 502, 503, 504, 505, 509 TO 512	500	4.80+.70/2 *1.35	3.71	1855	41.23	764817	637.347	Dhanjay singh, Raju, Ramkisor
	MB2	4.56	448, 455, 456, 457	200	4.80+.70/2 *1.35	3.71	742	41.23	30592.7	254.939	Babu, Shivpal, Ramgopal etc.
	MB3	13.7	444 TO 449, 451 TO 454	250	5.00+0.80/ 2*1.40	4.06	1015	41.23	418485	348.737	Shokhilal, Kallu
	MB4	4.24	434, 435	150	5.00+0.80/ 2*1.40	4.06	609	41.23	25109.1	209.242	Chintu, Kamta, Bhagvndeen etc .

	Total	41.4		1100			4221		174032		
Village- Goahari											
	MB1	3.74	899, 901	150	5.00+0.80/2*1.40	4.06	609	41.23	251091	209.242	Gyadeen, Sitaram etc.
	MB2	6.23	911, 912	250	5.00+0.80/2*1.40	4.06	1015	41.23	418485	348.737	Mansingh, Prahlad singh etc.
	Total	9.97		400			1624		669575		
	CD1	10.4	810, 811								
	CD2	2.42	911	40	8.70+1.50/2*1.80	9.18	367.2	44.34	162816	135.68	Vijaysingh
	CD3	2.43	912	40	8.70+1.50/2*1.80	9.18	367.2	44.34	162816	135.68	Vijaysingh
	CD4	3.48	911	50	9.30+1.50/2*1.95	10.53	526.5	44.34	233345	194.542	Lallu, Brandavan
	Pucca work								700000		
	Total	18.73		130			1260.9		125908		

Village- Makarbai											
S. No.	Name of Work	Benefited area (ha)	Field No. / Khasara No.	Area of work		C.S. (Area)	Work Measurement	Rate	Total Cost (Rs.)	Mandday Rs. 120/Labour	Name of Farmers
				Length	Width * Height						
	MB1	6.157	1246, 1266, 1267	250	4.60+.70/ 2*1.30	3.44	860	41.23	35457.8	295.4816667	Rameshwar, Ram Gopal etc.
	MB2	13.901	1319, to 1336	350	4.60+.70/ 2*1.30	3.44	1204	41.23	49640.9	413.6743333	Gaddu, Sukhlal, Smt. Puniya etc.
	MB3	12.863	1039 to 1312, 1314, 1315	250	4.80+.70/ 2*1.35	3.71	927.5	41.23	38240.8	318.6735417	Ravi Kumar, Chote Lal etc.
	MB4	8.951	1300 to 1307 1298, 1299	200	4.60+.70/ 2*1.30	3.44	688	41.23	28366.2	236.3853333	Subham Singh etc.
	MB5	14.641	1817, 1820 to 1827	300	4.80+.70/ 2*1.35	3.71	1113	41.23	45889	382.40825	Kallu, Kishor, Babu, Jamuna etc.
	MB6	6.471	1795, 1793, 1794, 1788, to 1792, 1299 to 107	250	4.80+.70/ 2*1.35	3.71	927.5	41.23	38240.8	318.6735417	Jairam Sing etc.
	MB7	2.719	1730, 1724 to 1729	100	5.00+.80/ 2*1.40	4.06	406	41.23	16739.4	139.4948333	Ram Singh etc.
	MB8	4.592	1774, 1724 to 1729	200	4.80+.70/ 2*1.35	3.71	742	41.23	30592.7	254.9388333	Ashok Singh, Kallu, Hariram etc.
	MB9	2.501	1774, 1775, 1776, 1751, 1771, 1752, 1755, 1760, to 1763, 1772	100	5.00+.80/ 2*1.40	4.06	406	41.23	16739.4	139.4948333	Malkhan, Munna Lal etc.
	MB10	6.212	1929 to 1935, 1937	230	5.00+.80/ 2*1.40	4.06	933.8	41.23	38500.6	320.8381167	Malkhan, Munna Lal etc.
	MB11	5.696	1927, 1922, 1921, 1925	220	5.00+.80/ 2*1.40	4.06	893.2	41.23	36826.6	306.8886333	Devi Prasad etc.
	MB12	13.93	1950, 1951, 1953, 1960, 1961, 1962	200	7.50+1.50 /2*1.70	7.65	1530	41.23	63081.9	525.6825	Chandrpal etc.

			Existing Work	180	4.50+1.00 /2*1.10	3.0 2	543.6	41. 23	224 12.6	186.77 19	Ram Singh etc.
	MB13	11.08 8	1901, 1943, 1941, 1945, 1946, 1947, 1955, 1957, 1958	20	7.50+1.50 /2*1.70	7.6 5	153	41. 23	630 8.19	52.568 25	Ashok Singh, Kallu, Hariram etc.
	MB14 Existing work	10.35 7	1894, 1893, 1895, 1886, 1888, 1899								Subham Singh etc.
	MB15 Existing work	7.73	1902, 1915								Kallu, Kishor, Babu, Jamuna etc.
	MB16 Existing work	8.089	1891, 1890, 1892								Jairam Sing etc.
	MB17	1.591	1886	50	6.00+.80/ 2*1.50	5.1	255	41. 23	105 13.7	87.613 75	Ram Singh etc.
	MB18	3.528	1840, 1835, 1834	100	6.00+.80/ 2*1.50	5.1	510	41. 23	210 27.3	175.22 75	Ashok Singh, Kallu, Hariram etc.
	MB19	3.173	1851	100	6.00+.80/ 2*1.50	5.1	510	41. 23	210 27.3	175.22 75	Malkhan, Munna Lal etc.
	MB20	0.405	1854/1	40	6.00+.80/ 2*1.50	5.1	204	41. 23	841 0.92	70.091	Subham Singh etc.
	MB21	0.405	1854/2	40	6.00+.80/ 2*1.50	5.1	204	41. 23	841 0.92	70.091	Kallu, Kishor, Babu, Jamuna etc.
	PB1	3.798	1922, 1923, 1919 to 1921	150	5.00+.80/ 2*1.40	4.0 6	609	41. 23	251 09.1	209.24 225	Baldu, Shivpal etc.
	PB2	13.49 2	1864, 1865, 1869, 1863, to 1868	200	4.80+.70/ 2*1.35	3.7 1	742	41. 23	305 92.7	254.93 88333	Ram Singh etc.
	PB3	14.69 9	1871, 1872, 1874, 1873, 1804 to 1812	250	4.80+.70/ 2*1.35	3.7 1	927.5	41. 23	382 40.8	318.67 35417	Om Prakash etc.
	PB4	10.45 6	1785, 1786 to 1788, 1784	150	5.00+.80/ 2*1.40	4.0 6	609	41. 23	251 09.1	209.24 225	Drugpal Singh, Veer Pal Singh etc.

	PB5	2.531	1740, 1732, 1738	100	5.00+.80/ 2*1.40	4.06	406	41.23	167 39.4	139.49 48333	Devi Prasad etc.
	CD1	2.653	1703, 1695, 1691 to 1696, 1687, 1688	40	9.10+1.50 /2*1.90	10.07	402.8	44.34	178 60.2	148.83 46	Veer Singh etc.
	CD2	2.763	1698, 1700, 1699, 1708 to 1713, 1717 to 1719, 1721	40	9.50+1.50 /2*2.00	11	440	44.34	195 09.6	162.58	Veer Singh etc.
	CD3	8.162	2014, 2016, 2017, 2003 to 2009	10	9.50+1.50 /2*2.00	11	110	44.34	487 7.4	40.645	Natthu etc.
	CD4	8.044	1979, 2013, 1986 to 1988, 1998 to 2002, 2011, 2012								Rajaram, Ramkaran etc.
	CD5	13.25	1965, 1968, 1964, 1960, 1970 to 1975	60	9.50+1.50 /2*2.00	11	660	44.34	292 64.4	243.87	Devideen, Kunj Bihari etc.
	CD6	11.865	1862, 1890, 1892	40	9.10+1.50 /2*1.90	10.07	402.8	44.34	178 60.2	148.83 46	Bhoosan Lal etc.
	CD7	12.785	1857 to 1859	50	9.50+1.50 /2*2.00	11	550	44.34	243 87	203.225	Babu Singh, Shiv Veer Singh etc.
Village- Pahra											
	MB1	3.318	1455, 1456	250	4.60+.70/ 2*1.30	3.44	860	41.23	354 57.8	295.48 16667	Shiv Veer Singh etc.
	MB2	4.823	1326, 1324, 1454	200	4.80+.70/ 2*1.35	3.71	742	41.23	305 92.7	254.93 88333	Shyam Lal etc.
	MB3	8.887	1442, 1443, 1444	250	4.60+.70/ 2*1.30	3.44	860	41.23	354 57.8	295.48 16667	Jitendra Singh, Moort Singh etc.
	MB4	2.463	1308	100	5.00+.80/ 2*1.40	4.06	406	41.23	167 39.4	139.49 48333	Ram Kishor, Rampal Singh etc.
	MB5	2.293	1312, 1311	100	4.80+.70/ 2*1.35	3.71	371	41.23	152 96.3	127.46 94167	Rampal Singh
	MB6	1.249	1312, 1310, 1309	50	5.00+.80/ 2*1.40	4.06	203	41.23	836 9.69	69.747 41667	Rampal Singh

	MB7	1.369	1315, 1314	60	4.80+.70/ 2*1.35	3.71	222.6	41.23	9177.8	76.48165	Smt. Sumitra etc.
	MB8	1.598	1315	70	4.80+.70/ 2*1.35	3.71	259.7	41.23	10707.4	89.22859167	Smt. Sumitra etc.
	MB9	1.368	1316	60	4.80+.70/ 2*1.35	3.71	222.6	41.23	9177.8	76.48165	Ganesha
	MB10	4.567	1286, 1287, 1291	200	4.80+.70/ 2*1.35	3.71	742	41.23	30592.7	254.9388333	Baldev, Ram Prasad
	MB11	4.565	1203, 1202	200	4.80+.70/ 2*1.35	3.71	742	41.23	30592.7	254.9388333	Smt. Malti Devi, Smt. Gudiya
	PB1	6.332	1349, 1355, 1350 to 1354, 1356	250	5.00+.80/ 2*1.40	4.06	1015	41.23	41848.5	348.7370833	Ramsnehi, Raghuvar Singh et.c
	PB2	5.026	1362, 1367, 1366, 1363	150	5.00+.80/ 2*1.40	4.06	609	41.23	25109.1	209.24225	Amar Singh, Deepak Singh
	PB3	3.807	1374, 1375	150	5.00+.80/ 2*1.40	4.06	609	41.23	25109.1	209.24225	Chote Lal Singh
	PB4	3.796	1214, 1217, 1215	150	5.00+.80/ 2*1.40	4.06	609	41.23	25109.1	209.24225	Maan Singh
	PB5	3.722	1255, 1259	150	5.00+.80/ 2*1.40	4.06	609	41.23	25109.1	209.24225	Ramcharan
	PB6	3.764	1264	150	5.00+.80/ 2*1.40	4.06	609	41.23	25109.1	209.24225	Sobha Singh
	PB7	3.305	1272 to 1280, 1266, 1268, 1276	145	4.80+.70/ 2*1.35	3.71	537.95	41.23	22179.7	184.8306542	Bhajna
	PB8	2.198	1317, 1318, 1319	100	5.00+.80/ 2*1.40	4.06	406	41.23	16739.4	139.4948333	Rakesh, Kamtoo etc.
	CD1	9.275	1338, 1441, 1442, 1450, 1448, 1449, 1423	50	9.10+1.50 /2*1.90	10.07	503.5	41.23	20759.3	172.9942083	Rajju Singh etc.

Village- Chhanikala											
S. No.	**Name of Work**	**Benefited area (ha)**	**Field No. / Khasara No.**	**Area of work**		**C.S. (Area)**	**Work Measurement**	**Rate**	**Total Cost (Rs.)**	**Manday Rs. 120/Labour**	**Name of Farmers**
				Length	**Width * Height**						
	SB1	3.41	807	150	4.80+70/2*1.35	3.71	556.5	41.23	22944.5	191.2041	Chhote, Santosh
	SB2	7.97	409, 827, 828	350	4.80+70/2*1.35	3.71	1298.5	41.23	53537.16	446.143	Sultansingh, Vishvnath etc.
	SB3	4.55	751, 750	200	4.80+70/2*1.35	3.71	742	41.23	30592.66	254.9388	Halke etc.
	SB4	4.56	839, 840	200	4.80+70/2*1.35	3.71	742	41.23	30592.66	254.9388	Sukhlal singh, Govind singh
	SB5	5.69	967	250	4.80+70/2*1.35	3.71	927.5	41.23	38240.83	318.6735	Govind singh
	SB6	3.41	962	150	4.80+70/2*1.35	3.71	556.5	41.23	22944.5	191.2041	Omprakash, Smt. Kamlesh etc.
	SB7	4.55	1078, 1079, 1081	200	4.80+70/2*1.35	3.71	742	41.23	30592.66	254.9388	jayendra singh, Pratap singh etc.
	SB8	9.12	1099, 1101	400	4.80+70/2*1.35	3.71	1484	41.23	61185.32	509.8777	Depak kumar, Pradip kumar etc.
	SB9	6.83	1185, 1186	300	4.80+70/2*1.35	3.71	1113	41.23	45888.99	382.4083	Rajendra singh, Devendra singh etc.
	SB10	6.83	1613, 1615, 1614	300	4.80+70/2*1.35	3.71	1113	41.23	45888.99	382.4083	Halke, Tijiya etc.
	Total	56.92		2500			9275		382408.3	3186.735	
	MB1	3.41	818 to 820	150	4.80+70/2*1.	3.71	556.5	41.2	22944.	191.2041	Ramcharan, Ramratan etc.

					35			3	5		
	MB2	2.28	816	100	4.80+70/2*1.35	3.71	371	41.23	15296.33	127.4694	Santosh singh etc.
	MB3	5.69	403 to 406	250	4.80+70/2*1.35	3.71	927.5	41.23	38240.83	318.6735	Santram, jagatpratap etc.
	MB4	3.41	864 to 867	150	4.80+70/2*1.35	3.71	556.5	41.23	22944.5	191.2041	Kallu, Halke etc.
	MB5	3.41	930	150	4.80+70/2*1.35	3.71	556.5	41.23	22944.5	191.2041	Santideen
	MB6	9.96	931 to 931	400	5.00+.80/2*1.4	4.06	1624	41.23	66957.52	557.9793	Bhupendra singh, Smt.Kusum etc.
	MB7	4.98	1109, 1108	200	5.00+.80/2*1.4	4.06	812	41.23	33478.76	278.9897	Usha devi, Amrata devi etc.
	MB8	4.47	1093 to 1096	300	5.00+.80/2*1.4	4.06	1218	41.23	50218.14	418.4845	Permatma, jagatnarayn etc.
	MB9	4.55	965, 966	200	4.80+70/2*1.35	3.71	742	41.23	30592.66	254.9388	Rajabhaiya, Smt. Sunita etc.
	MB10	6.83	1083, 1085	300	4.80+70/2*1.35	3.71	1113	41.23	45888.99	382.4083	Shivsanker, Abhdesh kumar etc.
	MB11	3.41	1024, 1025	150	4.80+70/2*1.35	3.71	556.5	41.23	22944.5	191.2041	Uttam singh, Bachchilal etc.
	MB12	4.55	1034, 1037	200	4.80+70/2*1.35	3.71	742	41.23	30592.66	254.9388	Smt.Leela, Ramshnehi etc.
	MB13	19.93	1041 to 1051	800	5.00+.80/2*1.4	4.06	3248	41.23	133915	1115.959	Satishchandra, Smt.Sarju etc.
	MB14	4.55	1058, 1059	200	4.80+70/2*1.35	3.71	742	41.23	30592.66	254.9388	Ramratan, achal singh etc.
	MB15	2.49	1068	100	5.00+.80/2*1.4	4.06	406	41.23	16739.38	139.4948	Smt. Lata devi, Rakesh kumar etc.
	MB16	6.83	1074, 1075	300	4.80+70/2*1.35	3.71	1113	41.23	45888.99	382.4083	Smt. Tekchandra, Kuldip singh etc.
	MB17	9.1	1098/2, 1102	400	4.80+70/2*1.35	3.71	1484	41.23	61185.32	509.8777	Rohit, Rahul, Ramkisor etc.
	MB1	4.55	1112, 1113	200	4.80+70/2*1.	3.71	742	41.2	30592.	254.9388	Maiyadeen, Boora etc.

	8				35			3	66		
	MB19	9.11	1135	400	4.80+70/2*1.35	3.71	1484	41.23	61185.32	509.8777	Jayendra singh, etc.
	MB20	4.55	1137	200	4.80+70/2*1.35	3.71	742	41.23	30592.66	254.9388	Mulchandra, Fullu
	MB21	9.96	1605, 1604, 1607, 1608	400	5.00+.80/2*1.4	4.06	1624	41.23	66957.52	557.9793	Rupsingh, Hukum singh etc.
	MB22	4.55	1646	200	4.80+70/2*1.35	3.71	742	41.23	30592.66	254.9388	Smt.Shivrani etc.
	MB23	6.83	1647 to 1649	300	4.80+70/2*1.35	3.71	1113	41.23	45888.99	382.4083	Vimlesh kumari, Kamlesh kumari etc.
	MB24	4.55	1651	200	4.80+70/2*1.35	3.71	742	41.23	30592.66	254.9388	Vijay pratap singh, Rampratap singh etc.
	MB25	5.88	1616	210	5.70+80/2*1.4	4.65	976.5	41.23	40261.1	335.5091	Narendra pratap singh, Smt. Meera devi
	MB26	4.98	1571, 1572	200	5.00+.80/2*1.4	4.06	812	41.23	33478.76	278.9897	Raghunath, Mukesh, Tekchandra etc.
	Total	154.81		6660			25746		1061508		
	CD1	19.49	869, 890	150	9.20+1.60/2*1.90	10.26	1539	44.34	68239.26	568.6605	Smt. Kushma devi, Kisorilal etc.
	CD2	20.39	875, 893	150	9.50+1.70/2*1.95	10.92	1638	44.34	72628.92	605.241	Gyadeen, Ratiram etc.
	CD3	25.15	884, 894	200	9.80+1.80/2*2.00	11.6	2320	44.34	102868.8	857.24	Sidhgopal, sanjay singh etc.
	CD4	29.32	1181, 1187	300	9.20+1.60/2*1.90	10.26	3078	44.34	136478.5	1137.321	Vikram singh, Rajendra singh etc.
	CD5	20.09	1599	150	9.50+1.70/2*1.95	10.92	1638	44.34	72628.92	605.241	Sarman, Ramshree
	CD6	17.41	1179, 1190	100	9.80+1.80/2*2.00	11.6	1160	44.34	51434.4	428.62	Jitendra singh, Dharmendra singh etc,.
	Total	131.85		1050			11373		504278.8		

	WHB1	17.94	417, 422	100	10.40+2/2*2.10	13.02	1302	46.08	59996.16	499.968	Persuram, Gangacharan etc.
	WNB2	24.26	440, 814, 815	150	10.80+2/2*2.20	14.08	2112	46.08	97320.96	811.008	mansingh, Suresh singh etc.
	WHB3	32.22	442, 810	200	11.20+2/2*2.30	15.18	3036	47.96	145606.6	1213.388	Amar singh, Rajaram, Radharani etc.
	Total	74.42		450			6450		302923.7		
Village-Maheva											
	SB1	4.55	468, 471, 477	200	4.80+20/2*1.35	3.71	742	41.23	30592.66	254.9388	Rajendra singh, Rakesh singh etc.
	SB2	4.22	474, 478, 479	200	4.60+70/2*1.30	3.44	688	41.23	28366.24	236.3853	Munna, Valveer etc.
	SB3	6.23	546 TO 548	250	5.00+80/2*1.40	4.06	1015	41.23	41848.45	348.7371	Arjun, Jyoti, Dharmendra etc.
	SB4	3.42	486 TO 489, 490	150	4.80+20/2*1.35	3.71	556.5	41.23	22944.5	191.2041	Krashan kumar, Kamta etc.
	SB5	4.23	491 TO 495	200	4.60+70/2*1.30	3.44	688	41.23	28366.24	236.3853	Ghansyam, Umasanker etc.
	SB6	2.53	563	120	4.60+70/2*1.30	3.44	412.8	41.23	17019.74	141.8312	Ramakunj, Gyanchandra
	SB7	3.8	571	180	4.60+70/2*1.30	3.44	619.2	41.23	25529.62	212.7468	Smt.Chanda devi
	SB8	4.23	626	200	4.60+70/2*1.30	3.44	688	41.23	28366.24	236.3853	Munna singh
	SB9	14.29	628	300	4.60+70/2*1.30	3.71	1113	41.23	45888.99	382.4083	Indrapal, Bhagvan singh, Ramsingh
	Total	47.5		1800			6522.5		268922.7	2241.022	
	MB1	26.19	510 TO 517	800	4.80+.70/2*1.35	3.71	2968	41.23	122370.6	1019.755	Shivnath, Shiyaram etc.

	MB2	6.23	525, 526	250	5.00+.80/2*1.40	4.06	1015	41.23	41848.45	348.7371	Shivkumar, Dhaniram, Ramkali
	MB3	6.22	531	250	5.00+.80/2*1.40	4.06	1015	41.23	41848.45	348.7371	Brajesh, Rajesh, kamlesh etc.
	MB4	10.27	521, 522	50	5.00+.80/2*1.40	4.06	203	41.23	8369.69	69.74742	Rakesh, Satish, Sonu etc.
	MB5	3.41	554 TO 556	150	4.80+.70/2*1.35	3.71	556.5	41.23	22944.5	191.2041	Maheshvari deen, Rajaram etc.
	MB6	11.38	651 TO 655	500	4.80+.70/2*1.35	3.71	1855	41.23	76481.65	637.3471	Munna, Ramadhin etc.
	MB7	13.73	673, 670 TO 672, 674	250	4.80+.70/2*1.35	3.71	927.5	41.23	38240.83	318.6735	Smt. Malti, Bhaiyalal etc.
	MB8	9.11	616 TO 620	400	4.80+.70/2*1.35	3.71	1484	41.23	61185.32	509.8777	mahendrapal singh, Atar singh etc.
	MB9	9.96	604 TO 610	400	5.00+.80/2*1.40	4.06	1624	41.23	66957.52	557.9793	Brajesh kumari, Ramkisor, Rameshvar etc.
	Total	96.5		3050			11648		480247		
Village-Kavrai											
	MB1	4.23	10, 11, 12	200	4.60+70/2*1.30	3.44	688	41.23	28366.24	236.3853	Bhilsingh, Dilip singh
	MB2	3.17	15	150	4.60+70/2*1.30	3.44	516	41.23	21274.68	177.289	Smt. Anusaiya
	MB3	3.17	20	150	4.60+70/2*1.30	3.44	516	41.23	21274.68	177.289	Devi singh
	MB4	5.28	22, 25	250	4.60+70/2*1.30	3.44	860	41.23	35457.8	295.4817	Premsanker, Motilal, Sitaram
	MB5	5.27	28, 31	250	4.60+70/2*1.30	3.44	860	41.23	35457.8	295.4817	Santram, Kalicharan etc.
	MB6	2.11	35	100	4.60+70/2*1.30	3.44	344	41.23	14183.12	118.1927	kalichanran
	MB7	2.11	37	100	4.60+70/2*1.30	3.44	344	41.23	14183.12	118.1927	Jagdish kumar

	MB8	3.42	44	150	4.80+70/2*1.35	3.71	556.5	41.23	22944.5	191.2041	Ganesh
	MB9	10.24	74, 75	450	4.80+70/2*1.35	3.71	1669.5	41.23	68833.49	573.6124	jageshvar, Shiyavalak
	Total	39		1800			6354		261975.4		

Village- Raivara											
S. No.	Name of Work	Benefited area (ha)	Field No. / Khasara No.	Area of work		C.S. (Area)	Work Measurement	Rate	Total Cost (Rs.)	Manday Rs. 120/Labour	Name of Farmers
				Length	Width * Height						
	SB1	2.433	78, 77	120	4.50+0.60/2*1.30	3.31	397.2	41.23	16376.56	136.4713	Shree.Bablu, Munna
	SB2	2.439	78, 79	120	4.50+0.60/2*1.30	3.31	397.2	41.23	16376.56	136.4713	Bablu, Lallu
	SB3	4.062	73	200	4.50+0.60/2*1.30	3.31	662	41.23	27294.26	227.4521667	Muriyan
	SB4	15.362	44, 47, 28	500	4.50+0.60/2*1.30	3.31	1655	41.23	68235.65	568.6304167	Ramfal, Jodha
	SB5	5.076	14, 18,	250	4.50+0.60/2*1.30	3.31	827.5	41.23	34117.83	284.3152083	Netram
	SB6	1.626	349	80	4.50+0.60/2*1.30	3.31	264.8	41.23	10917.7	90.98086667	Arvindra singh, Rajesh kumar
	SB7	6.09	514, 515, 516	300	4.50+0.60/2*1.30	3.31	993	41.23	40941.39	341.17825	Ramshnehi, Babu singh
	SB8	6.703	527, 530	330	4.50+0.60/2*1.30	3.31	1092.3	41.23	45035.53	375.296075	Kallu, Mulli
	SB9	6.085	545	300	4.50+0.60/2*1.30	3.31	993	41.23	40941.39	341.17825	Atval singh, Rajabhaiya singh
	SB10	3.046	547, 741	150	4.50+0.60/2*1.30	3.31	496.5	41.23	20470.7	170.589125	Ramsingh, Samar singh
	SB11	10.014	547	200	4.50+0.60/2*1.30	3.31	662	41.23	27294.26	227.4521667	Ramsingh, samar singh
	SB12	14.08	540, 541, 549	400	4.50+0.60/2*1.30	3.31	1324	41.23	54588.52	454.9043333	Dalla, Lallu, Sunita
	SB13	4.066	571	200	4.50+0.60/2*1.30	3.31	662	41.23	27294.26	227.4521667	Ku.Chandan

	SB14	5.079	626, 625	250	4.50+0.60/2*1.30	3.31	827.5	41.23	34117.83	284.3152083	Aliya, Brajraj singh
	Total	86.161		3400			11254		464002.4	3866.686833	
	MB1	3.044	133	150	4.50+0.60/2*1.30	3.31	496.5	41.23	20470.7	170.589125	Ramshnehi, Babu singh
	MB2	0.205	155, 146	10	4.50+0.60/2*1.30	3.31	33.1	41.23	1364.713	11.37260833	Karad singh, Ramsingh
	MB3	0.203	261	10	4.50+0.60/2*1.30	3.31	33.1	41.23	1364.713	11.37260833	Ajay kumar, Abhadh vihari
	MB4	3.046	561	150	4.50+0.60/2*1.30	3.31	496.5	41.23	20470.7	170.589125	Kalyan singh, Mardan singh etc.
	MB5	11.165	605 to 609	550	4.50+0.60/2*1.30	3.31	1820.5	41.23	75059.22	625.4934583	Vaijnath singh, kalkaiyan etc.
	MB6	11.173	611 to 615	550	4.50+0.60/2*1.30	3.31	1820.5	41.23	75059.22	625.4934583	Chhidiya, Ramprakash
	MB7	8.125	573, 752, 571	400	4.50+0.60/2*1.30	3.31	1324	41.23	54588.52	454.9043333	mansingh, jagdish
	MB8	5.079	486	250	4.50+0.60/2*1.30	3.31	827.5	41.23	34117.83	284.3152083	Shree.Nathhu
	MB9	5.077	600, 601	250	4.50+0.60/2*1.30	3.31	827.5	41.23	34117.83	284.3152083	Smt.kari
	MB10	5.075	628, 629	250	4.50+0.60/2*1.30	3.31	827.5	41.23	34117.83	284.3152083	Ramprasad, Chhotu etc.
	Total	52.192		2570			8506.7		350731.2	2922.760342	
	CD1	10.164	52, 65, 51, 35, 36, 49, 48,	30	9.0+1.0/2*2.0	10	300	44.34	13302	110.85	Laxminarayan, Ramkrapal etc.
	CD2	1.139	112	20	9.0+1.0/2*2.0	10	200	44.34	8868	73.9	Ramkumar, Naththu
	CD3	2.639	275	40	9.0+1.0/2*2.0	10	400	44.34	17736	147.8	Netram

	CD4	11.067	257	20	9.0+1.0/2*2.0	10	200	44.34	8868	73.9	Babulal, Smt. Gomti etc.
	CD5	19.73	182 ,195, 194	130	9.0+1.0/2*2.0	10	1300	44.34	57642	480.35	Ajay kmar, Abadh vihari etc.
	CD6	1.98	73	30	9.0+1.0/2*2.0	10	300	44.34	13302	110.85	Muriyan
	Total	46.719		270			2700		119718	997.65	
	WH B1	22.748	262, 261, 121	30	14.0+150/2*2.50	19.37	581.1	47.96	27869.56	232.2463	Ajay kumar, KrashanvihaRI
	Total	22.748		30			581.1		27869.56		
Village-Pehra											
	SBA 1	16	524, 534, 535, 537, 538	788	4.50+0.60/2*1.30	3.31	2608.28	41.23	107539.4	896.1615367	Jagdish prasad, Jagat prasad etc.
	Total	16		788			2608.28		107539.4		
	SBB 1	3.046	49	150	4.50+.60/2*1.30	3.31	496.5	41.23	20470.7	170.589125	Shree Badree prasad, Shivprasad etc.
	SBB 2	2.64	114	130	4.50+.60/2*1.30	3.31	430.3	41.23	17741.27	147.8439083	Jodha
	SBB 3	4.06	115	200	4.50+.60/2*1.30	3.31	662	41.23	27294.26	227.4521667	Babulal, Balveer etc.
	SBB 4	3.054	115	150	4.50+.60/2*1.30	3.31	496.5	41.23	20470.7	170.589125	Babulal, Balveer etc.
	SBB 5	4.055	120, 121	200	4.50+.60/2*1.30	3.31	662	41.23	27294.26	227.4521667	Atbal singh, Saikhi singh etc.
	SBB 6	4.065	115, 128	200	4.50+.60/2*1.30	3.31	662	41.23	27294.26	227.4521667	Babulal, Balveer etc.
	SBB 7	4.06	349	200	4.50+.60/2*1.30	3.31	662	41.23	27294.26	227.4521667	Raghvendra singh, Suman devi

	Total	24.98		1230			4071.3		167859.7	1398.830825	
	MBB 1	4.062	80, 84	200	4.50+.60/2*1.30	3.31	662	41.23	27294.26	227.4521667	Babulal, Bardani
	MBB 2	10.158	329, 331, 333,	500	4.50+.60/2*1.30	3.31	1655	41.23	68235.65	568.6304167	Rajabhaiya, Sughar singh etc.
	MBB 3	4.057	317, 3316	200	4.50+.60/2*1.30	3.31	662	41.23	27294.26	227.4521667	Brajlal
	Total	18.277		900			2979		122824.2		
	CDB 1	0.659	13, 15, 16	10	9.0+1.0/2*2.0	10	100	44.34	4434	36.95	Munnilal, Maruva, Parmatmadeen
	CDB 2	15.084	349	10	9.0+1.0/2*2.0	10	100	44.34	4434	36.95	Raghvendra singh, Suman devi
	Total	15.743		20			200		8868		

Village- Pehra											
S. No.	**Name of Work**	**Benefited area (ha)**	**Field No. / Khasara No.**	**Area of work**		**C.S. (Area)**	**Work Measurement**	**Rate**	**Total Cost (Rs.)**	**Manday Rs. 120/Labour**	**Name of Farmers**
				Length	**Width * Height**						
	SB1	6.33	465, 469	300	4.60+.70/2*1.30	3.44	1032	41.23	42549.36	354.578	Ramshenehi, Dayasanker etc.
	SB2	6.83	480 to 486	300	4.80+.70/2*1.35	3.71	1113	41.23	45888.99	382.4083	Dyaram, Basanta etc.
	SB3	6.83	559, 572, 573	300	4.80+.70/2*1.35	3.71	1113	41.23	45888.99	382.4083	Ramgopal, Shiyaram, Pavan kumar etc.
	SB4	4.23	662, 664	200	4.60+.70/2*1.30	3.44	688	41.23	28366.24	236.3853	Chhotelal, Abhay singh etc.
	SB5	4.55	678	200	4.80+.70/2*1.35	3.71	742	41.23	30592.66	254.9388	Jugal kisor, Ramprakash etc.
	SB6	3.41	806	150	4.80+.70/2*1.35	3.71	556.5	41.23	22944.5	191.2041	Shiv vijay singh
	SB7	3.42	882	150	4.80+.70/2*1.35	3.71	556.5	41.23	22944.5	191.2041	Bhujbal singh etc.
	SB8	4.98	87 , 82, 789, 788	200	5.00+.80/2*1.40	4.06	812	41.23	33478.76	278.9897	Shivnandan, Gudiya etc.
	Total	40.58		1800			6613		272654		
	MB1	5.69	516, 518	250	4.80+.70/2*1.35	3.71	927.5	41.23	38240.83	318.6735	Laxmi prasad etc.
	MB2	6.23	656, 657, 658, 671	250	5.00+.80/2*1.40	4.06	1015	41.23	41848.45	348.7371	Jageshvar, Radhacharan
	MB3	4.55	677	200	4.80+.70/2*1.35	3.71	742	41.23	30592.66	254.9388	Balram singh etc.
	MB4	3.74	786	150	5.00+.80/2*1.40	4.06	609	41.23	25109.07	209.2423	Rakesh kumar etc.
	MB5	9.82	796	50	5.70+.80/2*1.50	4.87	243.5	41.23	10039.51	83.66254	Brajraj singh etc.
	MB6	10.12	791	50	5.70+.80/2*1.50	4.87	243.5	41.23	10039.51	83.66254	Brajraj singh etc.
	MB7	5.98	794	200	5.70+.80/2*1.50	4.87	974	41.23	40158.02	334.6502	Smt.Vimla devi etc.

	MB8	3.41	775	150	4.80+.70/2*1.35	3.71	556.5	41.23	22944.5	191.2041	Naththu, Ghanshyam
	MB9	3.74	772, 773	150	5.00+.80/2*1.40	4.06	609	41.23	25109.07	209.2423	Chintu, Kamta, Bhagvndeen etc .
	MB10	17.71	918	300	5.70+.80/2*1.50	4.87	1461	41.23	60237.03	501.9753	Ramkhilavan etc.
	MB11	21	764, 765	400	5.70+.80/2*1.50	4.87	1948	41.23	80316.04	669.3003	Rohsanlal, Santosh kumar etc.
	MB12	4.98	691, 688, 687	200	5.00+.80/2*1.40	4.06	812	41.23	33478.76	278.9897	Bachcha, Chodhariya, Krashanprasad
	MB13	7.47	681, 684	300	5.00+.80/2*1.40	4.06	1218	41.23	50218.14	418.4845	Kallu etc.
	MB14	12.35	697	100	5.70+.80/2*1.50	4.87	487	41.23	20079.01	167.3251	Pershuram, Ravisanker,, Munnilal
	MB15	12.35	704, 705	100	5.70+.80/2*1.50	4.87	487	41.23	20079.01	167.3251	Vishvnath, , Shreepat, Jaykaran etc.
	MB16	12.31	488	50	5.70+.80/2*1.50	4.87	243.5	41.23	10039.51	83.66254	Badreeprasad etc.
	MB17	15.03	926, 754, 755	200	5.70+.80/2*1.50	4.87	974	41.23	40158.02	334.6502	Ramprasad, Shiyasaran etc.
	MB18	5.98	758	200	5.70+.80/2*1.50	4.87	974	41.23	40158.02	334.6502	Deepak singh etc.
	MB19	5.98	760, 762	200	5.70+.80/2*1.50	4.87	974	41.23	40158.02	334.6502	Ramvishal, Ramshanker, Kamta prasad etc.
	MB20	8.96	739, 729	300	5.70+.80/2*1.50	4.87	1461	41.23	60237.03	501.9753	Gyadeen, Sitaram etc.
	MB21	11.95	716, 720	400	5.70+.80/2*1.50	4.87	1948	41.23	80316.04	669.3003	Mansingh, Prahlad singh etc.
	MB22	5.98	734, 735, 736	200	5.70+.80/2*1.50	4.87	974	41.23	40158.02	334.6502	Ashok kumar, Roshasnlal etc.
	MB23	21.73	342	400	5.70+.80/2*1.50	4.87	1948	41.23	80316.04	669.3003	Smt. Usha devi, Shivsanker etc.
	MB24	8.96	192 , 194	300	5.70+.80/2*1.50	4.87	1461	41.23	60237.03	501.9753	Smt. Rani, Abhilash etc.
	MB25	7.47	150	250	5.70+.80/2*1.50	4.87	1217.5	41.23	50197.53	418.3127	Bharat, Bhairav, pyarelal etc.
	MB26	3.74	132	150	5.00+.80/2*1.40	4.06	609	41.23	25109.07	209.2423	Raju, Ramkisor
	MB27	20.23	130, 132	400	5.70+.80/2*1.50	4.87	1948	41.23	80316.04	669.3003	Dhanjay singh, Raju, Ramkisor

	MB28	8.96	119, 120	300	5.70+.80/2*1.50	4.87	1461	41.23	60237.03	501.9753	Babu, Shivpal, Ramgopal etc.
	MB29	5.98	143	200	5.70+.80/2*1.50	4.87	974	41.23	40158.02	334.6502	Shokhilal, Kallu
	MB30	24.4	101, 102	500	5.70+.80/2*1.50	4.87	2435	41.23	100395.1	836.6254	Umashanker, Omprakasah, Jayprakash etc.
	MB31	2.5	314	100	5.00+.80/2*1.40	4.06	406	41.23	16739.38	139.4948	Smt. Rani, Ramkishan etc.
	MB32	2.49	313	100	5.00+.80/2*1.40	4.06	406	41.23	16739.38	139.4948	Channa etc.
	MB33	2.49	312	100	5.00+.80/2*1.40	4.06	406	41.23	16739.38	139.4948	Channa etc.
	MB34	4.98	319, 320	200	5.00+.80/2*1.40	4.06	812	41.23	33478.76	278.9897	Suresh kumar, Rakesh kumaR,Dhirendra kumar
	MB35	20.39	319	400	5.70+.80/2*1.50	4.87	1948	41.23	80316.04	669.3003	Ramvishal, Rameshchandra
	MB36	20.09	324	400	5.70+.80/2*1.50	4.87	1948	41.23	80316.04	669.3003	Krashanveer, Ramkisor
	MB37	20.6	329, 330, 331, 332	400	5.70+.80/2*1.50	4.87	1948	41.23	80316.04	669.3003	Ramprasad, Ramvishal, Babulal etc.
	Total	370.34		8600			39809		1641325		

Village- CHHANIKALA											
S. No.	**Name of Work**	**Benefited area (ha)**	**Field No. / Khasara No.**	**Area of work**		**C.S. (Area)**	**Work Measurement**	**Rate**	**Total Cost (Rs.)**	**Manday Rs. 120/Labour**	**Name of Farmers**
				Length	**Width * Height**						
	SB1	3.42	609, 610	150	4.80+70/2*1.35	3.71	556.5	41.23	22944.5	191.2041	Dhirendra, Pratap singh, Hirendra pratap etc.
	SB2	3.74	612, 611	150	5+80/2*1.40	4.06	609	41.23	25109.07	209.2423	Shivnath, Jamuna, Halke etc.
	SB3	3.74	624, 623	150	5+80/2*1.40	4.06	609	41.23	25109.07	209.2423	Radhesyam, Asharam, Ramasanker etc.'
	SB4	2.73	622, 621	120	4.80+70/2*1.35	3.71	445.2	41.23	18355.6	152.9633	Shikumar, Ramchandra, krasanchandra etc.
	SB5	6.37	704, 708, 705, 707	280	4.80+70/2*1.35	3.71	1038.8	41.23	42829.72	356.9144	Naresh, khemchandra etc.
	SB6	7.97	703, 710, 709	320	5+80/2*1.40	4.06	1299.2	41.23	53566.02	446.3835	Ganaram, Shivram, Smt.Sandhya
	SB7	4.55	991, 992	200	4.80+70/2*1.35	3.71	742	41.23	30592.66	254.9388	Shivraj singh etc.
	SB8	4.56	974, 975	200	4.80+70/2*1.35	3.71	742	41.23	30592.66	254.9388	Aasharam, Shivnarayn, Ramcharan etc.
	SB9	2.49	971, 972	100	5.00+80/2*1.40	4.06	406	41.23	16739.38	139.4948	Ramnath, Shivram etc.
	Total	39.57		1670			6447.7		265838.7		
	MB1	6.17	617, 618	220	5.30+.80/2*1.50	4.57	1005.4	41.23	41452.64	345.4387	Shanker, Syamrani
	MB2	6.35	619, 620	230	5.20+.80/2*1	4.5	1035	41.2	42673.	355.6088	Hirabai

					.50			3	05		
	MB3	5.61	631, 632	200	5.30+.80/2*1.50	4.57	914	41.23	37684.22	314.0352	Mukesh, Bhagbandeen
	MB4	11.22	633, 635 to 638	400	5.30+.80/2*1.50	4.57	1828	41.23	75368.44	628.0703	Kashturi devi, Hira, Guljari etc.
	MB5	11.22	645 to 650	400	5.30+.80/2*1.50	4.57	1828	41.23	75368.44	628.0703	Bhura singh, Beer singh, Shiyaram etc.
	MB6	2.5	997	100	5.00+.80/2*1.40	4.06	406	41.23	16739.38	139.4948	Kariya
	MB7	6.23	1003, 1001	250	5.00+.80/2*1.40	4.06	1015	41.23	41848.45	348.7371	Jivan, Rohit, Rahul etc.
	MB8	6.23	1007, 1008, 1005	250	5.00+.80/2*1.40	4.06	1015	41.23	41848.45	348.7371	Vimal singh, mohit singh, Rampal etc.
	MB9	3.74	990, 989	150	5.00+.80/2*1.40	4.06	609	41.23	25109.07	209.2423	Mulayam singh, Komal singh, Santideen etc.
	MB10	2.5	988, 983 to 987	100	5.00+.80/2*1.40	4.06	406	41.23	16739.38	139.4948	Sabitree devi, Johri, Halke etc.
	MB11	2.5	849	100	5.00+.80/2*1.40	4.06	406	41.23	16739.38	139.4948	Banshi singh, Ramnath, Shivram
	MB12	4.99	850, 849	200	5.00+.80/2*1.40	4.06	812	41.23	33478.76	278.9897	Chunnu, Banshisingh, Ramnath etc.
	MB13	6.23	840, 841	250	5.00+.80/2*1.40	4.06	1015	41.23	41848.45	348.7371	Govind singh, Pritam, Chandrabhan singh
	MB14	7.01	751 , 752, 747 to 750	250	5.30+.80/2*1.50	4.57	1142.5	41.23	47105.28	392.544	shivnath singh, Halke, Bhaiyadeen etc.
	MB15	8.41	764, 766	300	5.30+.80/2*1.50	4.57	1371	41.23	56526.33	471.0528	Hetram
	MB16	9.96	543, 547, 548	400	5.00+.80/2*1.40	4.06	1624	41.23	66957.52	557.9793	Smt.Girjadevi, Savitree etc.
	MB17	7	535, 536, 534, 533	250	5.30+.80/2*1.50	4.57	1142.5	41.23	47105.28	392.544	Ramgulab
	Total	107.87		4050			17574.4		724592.5		

	CD1	22.91	655 to 658	200	9.10+1.50/2*1.90	10.07	2014	44.34	89300.76	744.173	Munnu, Mukunda etc.
	CD2	26.04	700 to 702, 712 to 715	250	9.10+1.50/2*1.90	10.07	2517.5	44.34	111626	930.2163	Ramdeen, Ramrani, Radhesyam etc.
	CD3	12.8	695, 696, 697	40	9.60+1.60/2*2.00	11.2	448	44.34	19864.32	165.536	Khuman singh etc.
	CD4	4.44	729, 730, 731	60	9.60+1.60/2*2.00	11.2	672	44.34	29796.48	248.304	Ramdeen, etc.
		66.19		550			5651.5		250587.5		
	WHB1	24.55	854, 850 to 853	200	9.60+1.60/2*2.00	11.2	2240	44.34	99321.6	827.68	Aiha, Rajaram etc.
	WHB2	16.82	774 to 777, 526, 528	100	9.60+1.60/2*2.00	11.2	1120	44.34	49660.8	413.84	Rajabhaiya, Sughar singh etc.
		41.37		300			3360		148982.4		

Village- PEHRA											
S. No.	Name of Work	Benefited area (ha)	Field No. / Khasara No.	Area of work		C.S. (Area)	Work Measurement	Rate	Total Cost (Rs.)	Manday Rs. 120/Labour	Name of Farmers
				Length	Width * Height						
	SB1	7.53	894, 879, 896	300	5.50+.80/2*1.30	4.09	1227	41.23	50589.21	421.5768	Ashok kumar
	SB2	7.525	865, 866 to 868	300	5.50+.80/2*1.30	4.09	1227	41.23	50589.21	421.5768	Kalicharan, Dhaniram
	SB3	1.755	2180, 2181	70	5.50+.80/2*1.30	4.09	286.3	41.23	11804.15	98.36791	Rajuva, Santu etc.
	SB4	4.765	2179, 2183, 2182	190	5.50+.80/2*1.30	4.09	777.1	41.23	32039.83	266.9986	Bachchilal, Ramnath
	SB5	10.74	2177	250	5.50+.80/2*1.30	4.09	1022.5	41.23	42157.68	351.314	Arvindra singh, Syamvihari
	SB6	12.545	2165 to 2168, 2170 to 2172	500	5.50+.80/2*1.30	4.09	2045	41.23	84315.35	702.6279	Jaysingh, Saligram etc.
	SB7	4.517	2303, 662, 666	180	5.50+.80/2*1.30	4.09	736.2	41.23	30353.53	252.9461	Kisor
	SB8	5.27	2273 to 2276, 2235	210	5.50+.80/2*1.30	4.09	858.9	41.23	35412.45	295.1037	Rajkuliya, Rajuva etc.
	SB9	12.5	2372 to2375, 2381 to 2386	500	5.50+.80/2*1.30	4.09	2045	41.23	84315.35	702.6279	Ghansyam, Rajuva, Saligram etc.
	SB10	2.505	2462, 2456	100	5.50+.80/2*1.30	4.09	409	41.23	16863.07	140.5256	Gangadeen
	SB11	3.069	2464, 2460, 2461, 2463	120	5.50+.80/2*1.30	4.09	490.8	41.23	20235.68	168.6307	Munni
	SB12	10.45	2465, 2477	120	5.50+.80/2*1.30	4.09	490.8	41.23	20235.68	168.6307	makhanlal

	SB13	5.015	2648, 2652, 2653, 2654	200	5.50+.80/2*1.30	4.09	818	41.23	33726.14	281.0512	Vijaysingh
	SB14	9.6	1405, 1418	150	5.50+.80/2*1.30	4.09	613.5	41.23	25294.61	210.7884	Vijaysingh
	SB15	3.513	1531, 1530	140	5.50+.80/2*1.30	4.09	572.6	41.23	23608.3	196.7358	Vijaysingh
	SB16	5.018	1554 to 1558	200	5.50+.80/2*1.30	4.09	818	41.23	33726.14	281.0512	Lallu, Brandavan
	SB17	5.016	1508, 1507	200	5.50+.80/2*1.30	4.09	818	41.23	33726.14	281.0512	Lallu, Brandavan
	SB18	7.995	2499	200	5.50+.80/2*1.30	4.09	818	41.23	33726.14	281.0512	Vindibai
	SB19	5.02	2498	200	5.50+.80/2*1.30	4.09	818	41.23	33726.14	281.0512	Dhirendra kumar etc.
	SB20	5.025	2552, 2554	200	5.50+.80/2*1.30	4.09	818	41.23	33726.14	281.0512	Brahmdatt, Smt.Premlata
	SB21	4.015	2555, 2596	160	5.50+.80/2*1.30	4.09	654.4	41.23	26980.91	224.8409	Ramkisor singh, Anil
	SB22	5.017	2621, 2606	200	5.50+.80/2*1.30	4.09	818	41.23	33726.14	281.0512	Ramdatt, Laxmiprasad
	Total	138.405		4690			19182.1		790878		
	MB1	2.834	915, 904, 907	100	5.80+.80/2*1.40	4.62	462	41.23	19048.26	158.7355	Shivnarayn
	MB2	4.251	1003, 946	150	5.80+.80/2*1.40	4.62	693	41.23	28572.39	238.1033	Shivnarayn
	MB3	1.985	1737, 1742	70	5.80+.80/2*1.40	4.62	323.4	41.23	13333.78	111.1149	Smt.Geeta
	MB4	15.8	2330, 2332, 2333, 2345, 2331	400	5.80+.80/2*1.40	4.62	1848	41.23	76193.04	634.942	Rakesh kumar, Ramprasad etc.
	MB5	7.085	2396, 2391, 2401, 2402	250	5.80+.80/2*1.40	4.62	1155	41.23	47620.65	396.8388	Ramprasad etc.
	MB6	13.038	2643, 2645	250	5.80+.80/2*1.	4.62	1155	41.	47620.	396.8388	Ramdyal, Hakimsingh

					40			23	65		etc.
	MB7	2.262	2503, 2502	80	5.80+.80/2*1.40	4.62	369.6	41.23	15238.61	126.9884	Rambai, Riniya etc.
	MB8	8.512	1435, 1425	300	5.80+.80/2*1.40	4.62	1386	41.23	57144.78	476.2065	jayan singh
	MB9	5.67	1593, 1597	200	5.80+.80/2*1.40	4.62	924	41.23	38096.52	317.471	Muluva, Deepak kumar
	MB10	2.835	1560, 1565	100	5.80+.80/2*1.40	4.62	462	41.23	19048.26	158.7355	Kalyan singh
	Total	64.272		1900			8778		361916.9		
	CD1	13.195	796, 899 to 905	200	9.0+1.0/2*2.00	10	2000	44.34	88680	739	Kuldeep singh
	CD2	6.6	913, 907, 912	100	9.0+1.0/2*2.00	10	1000	44.34	44340	369.5	Dyasanker singh
	CD3	17.025	877, 876, 896	100	9.0+1.0/2*2.00	10	1000	44.34	44340	369.5	Mandir
	CD4	12.56	2264	10	9.0+1.0/2*2.00	10	100	44.34	4434	36.95	Ramsevak, Munnilal
	CD5	12.58	2289	10	9.0+1.0/2*2.00	10	100	44.34	4434	36.95	Ramprakash
	CD6	6.81	2347, 2346, 2363	100	10.50+1.50/2*2.0	12	1200				
	old work				63*2.66		167.58				
	new work						1032.42	44.34	45777.5	381.4792	Rajkumar. Babulal
	CD7	13.485	2043, 2042	20	9.0+1.0/2*2.00	12	240	44.34	10641.6	88.68	Battu
	CD8	9.5	2024, 2025	120	9.0+1.0/2*2.00	12	1440	44.34	63849.6	532.08	Rakesh kumar

	CD9	8.375	1584, 1583, 1530	130	9.0+1.0/2*2.00	12	1560				
	old work				112 meter	2.58	-289				
	new work						1271	44.34	56356.14	469.6345	Diman, Smt.Ujyari
	CD10	7.916	2584, 2585 to2598	100	9.0+1.0/2*2.00	12	1200	44.34	53208	443.4	Diman, Smt.Ujyari
	Total	108.046		890			9383.67		416060.8		
	WHB1	15.035	2286, 2287, 2288, 2265, 2266	10	16.50+1.50/2*2.50	22.5	225	46.08	10368	86.4	Balram, Chunbadva
	WHB2	35.56	2017, 2018, 2021, 2015, 2019	140	18.0+1.50/2*2.50	24.37	3412.5				
	Old Work				105*2.92		306.6				
	New Work						3105.9	47.96	148959	1241.325	Anil kumar, Aditya kumar
	WHB3	35.81	2006, 2008, 2010, 2499 to 2502	130	18.0+1.50/2*2.50	24.37	3168.1				
	Old Work				81*2.87		232.47				
	New Work						2935.63	47.96	140792.8	1173.273	Kalyan singh, Jayndra singh
	WHB4	19.841	1535 to 1538, 1540, 1541, 1531	160	15.50+1.50/2*2.30	19.55	3128				
	Old				116*2.95		342.2				

	Work										
	New Work						2785.8	47.96	133607	1113.391	Kalyan singh, Jayndra singh
	Total	106.246		440			6256		433726.7		

Village- Pehra											
S. No.	**Name of Work**	**Benefited area (ha)**	**Field No. / Khasara No.**	**Area of work**		**C.S. (Area)**	**Work Measurement**	**Rate**	**Total Cost (Rs.)**	**Manday Rs. 120/Labour**	**Name of Farmers**
				Length	**Width * Height**						
	SBA1	3.935	1444	180	4.40+.70/2*1.40	3.57	642.6	41.23	26494.4	220.78665	Laldiman
	SBA2	9.94	1451, 1452, 1448	250	4.40+.70/2*1.40	3.57	892.5	41.23	36797.78	306.648125	Mithlesh kumar, Brajesh kumar singh etc.
	SBA3	3.94	1524, 1502	180	4.40+.70/2*1.40	3.57	642.6	41.23	26494.4	220.78665	Durjan
	SBA4	3.285	1529/2	150	4.40+.70/2*1.40	3.57	535.5	41.23	22078.67	183.988875	Ramshanker
	SBA5	8.764	1575, 1597 to 1600	400	4.40+.70/2*1.40	3.57	1428	41.23	58876.44	490.637	Puniya, Bhagvati devi, Lakhan etc.
	SBA6	5.475	1558 t *1560*	250	4.40+.70/2*1.40	3.57	892.5	41.23	36797.78	306.648125	Kamtu, Motilal, Indrapal singh etc.
	SBA7	4.388	1562, 1567	200	4.40+.70/2*1.40	3.57	714	41.23	29438.22	245.3185	**Baldev, Shukhdev etc.**
	SBA8	3.288		150	4.40+.70/2*1.40	3.57	535.5	41.23	22078.67	183.988875	
	SBA9	5.475	2016, 2017	250	4.40+.70/2*	3.57	892.5	41.	36797.	306.6481	Vindaprasad

					1.40			23	78	25	
	Total	48.49		2010			7175.7		295854.1		
	MBA1	10.7	1455	220	5.80+.80/2*1.40	4.62	1016.4	41.23	41906.17	349.2181	fool singh
	MBA2	6.23	1457, 1462, 1463, 1465, 1456	220	5.80+.80/2*1.40	4.62	1016.4	41.23	41906.17	349.2181	Asharam, Shivgaopal, Hakim singh
	MBA3	4.25	1459	150	5.80+.80/2*1.40	4.62	693	41.23	28572.39	238.10325	Shivgaopal
	MBA4	3.413	1479, 1480	120	5.80+.80/2*1.40	4.62	554.4	41.23	22857.91	190.4826	Devidyal, Mangal
	MBA5	7.085	1540, 1542, 1543	250	5.80+.80/2*1.40	4.62	1155	41.23	47620.65	396.83875	Sundar, Swamideen, Baijnath
	MBA6	5.67	1545	200	5.80+.80/2*1.40	4.62	924	41.23	38096.52	317.471	Smt. Puniya
	MBA7	7.09	1546, 1547	250	5.80+.80/2*1.40	4.62	1155	41.23	47620.65	396.83875	Mullu, Rajaram, Bhaiyadeen
	MBA8	3.395	1552, 1553	120	5.80+.80/2*1.40	4.62	554.4	41.23	22857.91	190.4826	Muluva, Summa
	MBA9	7.087	1604, 1603	250	5.80+.80/2*1.40	4.62	1155	41.23	47620.65	396.83875	jhallu, lalva
	Total	54.92		1780			8223.6		339059		
	CDA1	8.91	1661, 1658, 1659, 1660	100	11.50+2.0/2*2.0	13.5	1350	44.34	59859	498.825	Laxmi singh, Ramsingh
	CDA2	19.4	1535, 1539, 1543, 1534	100	11.50+2.0/2*2.0	13.5	1350	44.34	59859	498.825	Gariva, Durga
	CDA3	22.58	1469, 1454, 1451	120	11.50+2.0/2*2.0	13.5	1620	44.34	71830.8	598.59	Shivgaopal, Mithlesh kumar etc.
	Total	50.89		320			4320		191548.8		

	SBB1	4.265	399, 400, 401	210	4.50+.60/2*1.30	3.31	695.1	41.23	28658.97	238.824775	Mangaliya
	CDB1	9.56	375, 377, 363 to 371	138	10.50+1.50/2*2.0	12	1656				
	Old work				73*2.71		197.83				
	New Work						1458.17	44.34	64655.26	538.793815	jagdish, Chandrabhan
	CDB2	11.875	392, 391, 379 to 371	150	10.50+1.50/2*2.0	12	1800	44.34	79812	665.1	harish, Sanjay singh, Damyanti
	Total	25.7		498			3953.27		173126.2		

Village-Kharka											
S. No.	**Name of Work**	**Benefited area (ha)**	**Field No. / Khasara No.**	**Area of work**		**C.S. (Area)**	**Work Measurement**	**Rate**	**Total Cost (Rs.)**	**Manday Rs. 120/Labour**	**Name of Farmers**
				Length	**Width * Height**						
	SB1	10.15	1041, 733	500	4.50+0.60/2*1.30	3.31	1655	41.23	68235.65	568.6304	Parmatmadeen, kalicharan etc.
	SB2	3.45	765, 764	170	4.50+0.60/2*1.30	3.31	562.7	41.23	23200.12	193.3343	Balveer, Hanuman singh
	SB3	8.125	942, 943, 944	400	4.50+0.60/2*1.30	3.31	1324	41.23	54588.52	454.9043	Harikrashan, Krashan Gopal
	SB4	2.845	941	140	4.50+0.60/2*1.30	3.31	463.4	41.23	19105.98	159.2165	Matadeen, Harikrashan, Vinod kumar
	SB5	7.11	841 to 843, 852, 853	350	4.50+0.60/2*1.30	3.31	1158.5	41.23	47764.96	398.0413	Vidhya, Pragi singh, Rajan

	SB6	9.14	829, 830, 831	450	4.50+0.60/2*1.30	3.31	1489.5	41.23	61412.09	511.7674	Sitaram, Ramkumar
	SB7	3.045	275	150	4.50+0.60/2*1.30	3.31	496.5	41.23	20470.7	170.5891	Ramkrapal, Rajja
	SB8	6.09	153, 144	300	4.50+0.60/2*1.30	3.31	993	41.23	40941.39	341.1783	Gyadeen, Siyarani
	SB9	4.47	115	220	4.50+0.60/2*1.30	3.31	728.2	41.23	30023.69	250.1974	Babulal, balveer etc.
	SB10	3.045	84	150	4.50+0.60/2*1.30	3.31	496.5	41.23	20470.7	170.5891	Jodha
	SB11	6.095	494, 502	300	4.50+0.60/2*1.30	3.31	993	41.23	40941.39	341.1783	Swamideen, Santram etc.
	SB12	5.08	514	250	4.50+0.60/2*1.30	3.31	827.5	41.23	34117.83	284.3152	Samliya
	SB13	7.105	618	350	4.50+0.60/2*1.30	3.31	1158.5	41.23	47764.96	398.0413	Haribansh singh
	SB14	2.03	576, 577	100	4.50+0.60/2*1.30	3.31	331	41.23	13647.13	113.7261	Matadeen, Harikrashan
	SB15	2.44	569	120	4.50+0.60/2*1.30	3.31	397.2	41.23	16376.56	136.4713	Babu singh, Munna singh
	SB16	4.874	620, 629	240	4.50+0.60/2*1.30	3.31	794.4	41.23	32753.11	272.9426	Vinda singh, Pratap singh
	SB17	2.64	620	130	4.50+0.60/2*1.30	3.31	430.3	41.23	17741.27	147.8439	Vinda singh
	SB18	7.105	652, 641, 639	350	4.50+0.60/2*1.30	3.31	1158.5	41.23	47764.96	398.0413	Dhaniram, Sumitra devi
	Total	94.839		4670			15457.7		637321		
	PB1	3.478	602, 691	150	4.50+0.60/2*1.30	3.78	567	41.23	23377.41	194.8118	Vinda singh, Dharmendra singh etc.
	Total	3.478		150			567		23377.41		
	MB1	5.335	869	230	4.80+.60/2*1.40	3.78	869.4	41.23	35845.36	298.7114	Rajesh kumar, Vidhya etc.

	MB 2	9.275	839, 857, 858	400	4.80+.60/2*1.40	3.78	1512	41.23	62339.76	519.498	Bholaprasad, Krashanchandra etc.
	MB 3	13.47	835, 837, 834, 838	350	4.80+.60/2*1.40	3.78	1323	41.23	54547.29	454.5608	Surendra kumar, Ramvishal
	MB 4	17.378	366, 367, 860, 864, 865	500	4.80+.60/2*1.40	3.78	1890	41.23	77924.7	649.3725	kallu singh, Balban singh etc.
	MB 5	11.595	278, 279,280, 281	500	4.80+.60/2*1.40	3.78	1890	41.23	77924.7	649.3725	jagmohan, chatur singh
	MB 6	3.245	284	140	4.80+.60/2*1.40	3.78	529.2	41.23	21818.92	181.8243	
	MB 7	6.96	287	300	4.80+.60/2*1.40	3.78	1134	41.23	46754.82	389.6235	Kaliyan
	MB 8	6.955	158 to 163,	300	4.80+.60/2*1.40	3.78	1134	41.23	46754.82	389.6235	Lallu, jamuna, Rajaram etc.
	MB 9	6.965	166, 167, 171, 172, 174	300	4.80+.60/2*1.40	3.78	1134	41.23	46754.82	389.6235	Ganesha, Mulchandra etc.
	MB 10	9.27	526, 531, 533	400	4.80+.60/2*1.40	3.78	1512	41.23	62339.76	519.498	Vidhyadhar, Ramvishal
	MB 11	13.913	605 to608	600	4.80+.60/2*1.40	3.78	2268	41.23	93509.64	779.247	Vrandavan, Ghasita, Motilal
	MB 12	15.02	623, 613 to 617	650	4.80+.60/2*1.40	3.78	2457	41.23	101302.1	844.1843	Balveer singh Hanuman singh
	Total	119.381		4670			17652.6		727816.7		
	CD 1	1.65	597	25	9.0+1.0/2*2.0	10	250	44.34	11085	92.375	jaypal singh, yougraj singh
	CD 2	14.46	545, 546	50	9.0+1.0/2*2.0	10	500	44.34	22170	184.75	Matadeen, Harikrashan
	CD 3	2.64	544	40	9.0+1.0/2*2.0	10	400	44.34	17736	147.8	Ramvishalsingh, Uttam singh
	CD 4	17.52	544	40	9.0+1.0/2*2.0	10	400	44.34	17736	147.8	Ramvishalsingh, Uttam singh
	CD	3.3	496 to 500	50	9.0+1.0/2*2.0	10	500	44.34	22170	184.75	Goribai, Shivnarayn

	5										
	CD 6	12.48	564, 566	20	9.0+1.0/2*2.0	10	200	44.34	8868	73.9	Smt.Premvati, Kiran kumar etc.
	CD 7	13.225	564, 567	20	9.0+1.0/2*2.0	10	200	44.34	8868	73.9	Kiran kumar, Shivkali etc.
	CD 8	18.159	140, 139, 141	100	9.0+1.0/2*2.0	10	1000	44.34	44340	369.5	Sukhdev, Bhavanideen, Gyadeen
	CD 9	5.275	90, 91, 92	80	9.0+1.0/2*2.0	10	800	44.34	35472	295.6	Ayodhya prasad, Dyaram
	CD 10	11.733	246	20	9.0+1.0/2*2.0	10	200	44.34	8868	73.9	kaluram, Gorelal, Ramprasad
	Total	100.442		445			4450		197313		

Village-Ratoli											
S. No.	**Name of Work**	**Benefited area (ha)**	**Field No. / Khasara No.**	**Area of work**		**C.S. (Area)**	**Work Measurement**	**Rate**	**Total Cost (Rs.)**	**Manday Rs. 120/Labour**	**Name of Farmers**
				Length	**Width * Height**						
	SBA 1	5.07	697, 694, 695	250	4.50+0.60/2*1.30	3.31	827.5	41.23	34117.83	284.3152	Shree Rambalak
	SBA 2	3.66	888	180	4.50+0.60/2*1.30	3.31	595.8	41.23	24564.83	204.707	Shivram, Jagdev etc.
	SBA 3	5.079	814	250	4.50+0.60/2*1.30	3.31	827.5	41.23	34117.83	284.3152	Shree Ramsingh
	Total	13.809		680			2250.8		92800.48		
	MBA	12.76	743, 741	550	4.80+.60/2*1	3.78	2079	41.	85717.	714.3098	Sambhu singh, Krashan kumar

	1				.40			23	17		
	MBA 2	8.112	662, 664	350	4.80+.60/2*1 .40	3.78	1323	41. 23	54547. 29	454.5608	Brandavan, Kamta etc.
	Total	20.872		900			3402		14026 4.5		
	CDA 1	15.355	866, 865	120	9.0+1.0/2*2. 0	10	1200	44. 34	53208	443.4	Chunubadi
	CDA 2	16.02	864, 856	130	9.0+1.0/2*2. 0	10	1300	44. 34	57642	480.35	Vimla devi
	CDA 3	16.018	861, 862	130	9.0+1.0/2*2. 0	10	1300	44. 34	57642	480.35	Suckha
	CDA 4	17.338	814	150	9.0+1.0/2*2. 0	10	1500	44. 34	66510	554.25	Ramsingh
	CDA 5	11.735	811	20	9.0+1.0/2*2. 0	10	200	44. 34	8868	73.9	Raghuveer singh, Mansingh
	CDA 6	12.397	811, 812	30	9.0+1.0/2*2. 0	10	300	44. 34	13302	110.85	Raghuveer singh, Mansingh
	CDA 7	13.195	874, 876, 877	200	9.0+1.0/2*2. 0	10	2000	44. 34	88680	739	Babbu singh, Raghuveer singh etc.
	CDA 8	1.319	888, 886	20	9.0+1.0/2*2. 0	10	200	44. 34	8868	73.9	Shivram, Jagdev etc.
	CDA 9	3.3	719, 720, 682	50	9.0+1.0/2*2. 0	10	500	44. 34	22170	184.75	Feran singh Ramautar
	CDA 10	11.89	666, 680, 667, 684	180	9.0+1.0/2*2. 0	10	1800	44. 34	79812	665.1	Mulchandra
	CDA 11	1.98	740, 740/1, 740/2, 740/3	30	9.0+1.0/2*2. 0	10	300	44. 34	13302	110.85	Jashbant singh, Balbant singh
	CDA 12	1.978	662, 465	30	9.0+1.0/2*2. 0	10	300	44. 34	13302	110.85	Brandavan, Kamta, Raghuveer etc.
	CDA 13	8.577	653, 652	130	9.0+1.0/2*2. 0	10	1300	44. 34	57642	480.35	Pancham, Ramsingh etc.
	CDA 14	1.315	632, 626	20	9.0+1.0/2*2. 0	10	200	44. 34	8868	73.9	Mangi, Durjana

	CDA 15	1.975	621, 638	30	9.0+1.0/2*2.0	10	300	44.34	13302	110.85	Naththu, Motilal
	CDA 16	8.575	606, 575	30	9.0+1.0/2*2.0	10	300	44.34	13302	110.85	Urmila
	Total	142.967		1300			13000		576420		
	WHB 1	51.352	743, 799, 742	210	14.0+1.50/2*2.50	19.37	4067.7	47.96	195086.9	1625.724	Shree. Jagdish, Rajabhaiya
	Total	51.352		210			4067.7		195086.9		
	SBB 1	3.04	330	150	4.50+.60/2*1.30	3.31	496.5	41.23	20470.7	170.5891	Munna singh, Suresh singh
	SBB 2	4.47	327	220	4.50+.60/2*1.30	3.31	728.2	41.23	30023.69	250.1974	jaypal singh, Suresh singh
	SBB 3	8.71	329, 330	150	4.50+.60/2*1.30	3.31	496.5	41.23	20470.7	170.5891	jagrup singh, Ramkishan
	SBB 4	4.065	396, 394, 395	200	4.50+.60/2*1.30	3.31	662	41.23	27294.26	227.4522	Ratan
	SBB 5	4.06	406, 407	200	4.50+.60/2*1.30	3.31	662	41.23	27294.26	227.4522	Pancham singh, Narayn singh
	SBB 6	4.665	453, 454	230	4.50+.60/2*1.30	3.31	761.3	41.23	31388.4	261.57	Devi singh, Halke
	Total	29.01		1150			3806.5		156942		
	MBB 1	6.96	416	300	4.80+.60/2*1.40	3.78	1134	41.23	46754.82	389.6235	Balvan singh
	MBB 2	18.61	418 to 424, 425, 439, 440, 441	550	4.80+.60/2*1.40	3.78	2079	41.23	85717.17	714.3098	Jahir singh, Indrapal singh etc.
	Total	25.57		850			3213		132472		

	CDB 1	3.958	288	60	9.0+1.0/2*2.0	10	600	44.34	26604	221.7	Shree Raghunandan singh, Balvan singh
	CDB 2	4.62	288	70	9.0+1.0/2*2.0	10	700	44.34	31038	258.65	Madho singh, Balvan singh etc.
	CDB 3	4.612	290, 290/1	70	9.0+1.0/2*2.0	10	700	44.34	31038	258.65	Shree syamlal, Madho singh
	CDB 4	6.6	287/1	100	9.0+1.0/2*2.0	10	1000	44.34	44340	369.5	Bhaiyalal
	CDB 5	1.32	455, 457, 456	20	9.0+1.0/2*2.0	10	200	44.34	8868	73.9	Tijva
	CDB 6	0.98	452	15	9.0+1.0/2*2.0	10	150	44.34	6651	55.425	Durg singh
	CDB 7	1.33	452, 455	20	9.0+1.0/2*2.0	10	200	44.34	8868	73.9	Durg singh
	Total	23.42		355			3550		157407		

ANNEXURE-II

LIVELIHOOD ACTION PLAN

Annual Action Plan for Livelihood (Physical & Financial)

Project - IWMP-XVI		**PIA-Soil Conservation Division, Mahoba**							**District – Mahoba**		
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**
	Livelihood activities through SHG's											
	(1) Activity Goatary											
	(a) No. of SHG's	No.	0	0.00	11	2.81	11	2.81	3	0.63	25	6.25
	(b) No. of members	No.	0	0.00	113	0.00	113	0.00	25	0.00	250	0.00
	(c) Estimated income per year	Rs.										
	(2) Activity- Back Yard Poultry											
	(a) No. of SHG's	No.	0	0.00	10	2.48	10	2.48	2	0.55	22	5.50
	(b) No. of members	No.	0	0.00	99	0.00	99	0.00	22	0.00	220	0.00
	(c) Estimated income per year	Rs.										
	(3) Activity- Poultry , Broiler											
	(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.										
	(4) Black Smithy											
	(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.										
	(5) Rope making											
	(a) No. of SHG's	No.	0	0.00	8	1.91	8	1.91	2	0.43	17	4.25
	(b) No. of members	No.	0	0.00	77	0.00	77	0.00	17	0.00	170	0.00
	(c) Estimated income per year	Rs.										
	(6) Tailoring											

	(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.										
	(8) Vermi Composting											
	(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.										
	(9) Food processing											
	(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.										
	(13) Seed Bank											
	(a) No. of SHG's	No.	0	0.00	11	2.81	11	2.81	2	0.63	24	6.25
	(b) No. of members	No.	0	0.00	108	0.00	108	0.00	24	0.00	240	0.00
	(c) Estimated income per year	Rs.										

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)

Project - IWMP-XVI		PIA-Soil Conservation Division, Mahoba							District – Mahoba		
S. No	Physical and financial targets	Unit	First Year 2011-12		Second Year 2012-13		Third Year 2013-14		Fourth Year 2014-15		Total Project	
			Physical	Financial	Physical	Financial	Physical	Financial	Physical	Financial	Physical	Financial
	Production system											
	(1) Agriculture											
	(a) Crop demonstration											
	(1) No. of dem.	No.	0	0.00	227	9.53	227	9.53	51	2.12	505	21.17
	(2) Area	ha.			91		91		20		202	0.00
	(b) Seed Production											
	(1) No. of dem.	No.	0	0.00	211	8.84	211	8.84	47	1.97	469	19.65
	(2) Area	ha.	0		84		84		19		188	0.00
	(2) Horticulture/ Agri-Horticulture											
	(a) Area	ha.	0	0.00	16	2.92	16	2.92	4	0.65	36	6.48
	(b) No. of Plants	No.										
	(4) Animal husbandry											
	A. fodder production	No. of Units / Farmers	0	0.00	163	0.98	163	0.98	36	0.22	363	2.18
	B. Vaccination/Medication	No. of Animals	0	0.00	164	0.10	164	0.10	36	0.02	364	0.23
	C. Artificial Insemination	No. of Animals	0	0.00	164	0.07	164	0.07	36	0.01	364	0.15
	D. Natural Service.	He Buffalo	0	0.00	5	1.19	5	1.19	1	0.26	11	2.64

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

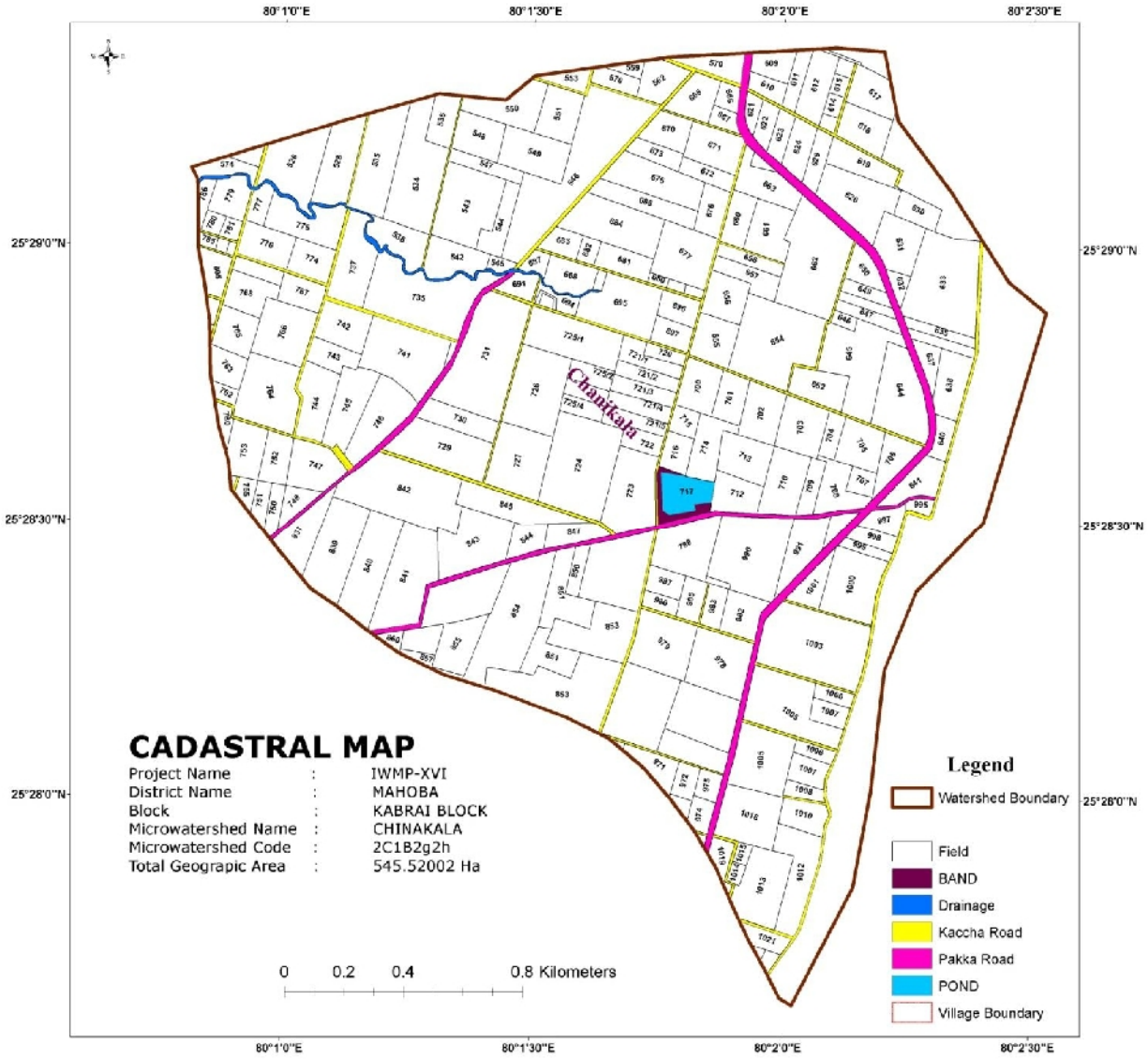
Project- IWMP-XVI															
S. No.	***No. of Farmers***	***Crop***	***Variety***	***Area (ha)***	***Total cost of demon. (Rs.)***	***Beneficiary Contribution (Rs.)***	***Share of Project fund (Rs.)***	***Prop. date of sowing***	***Exp. Crop maturity date***	***Prop. Crop cutting Date***	***Productivity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

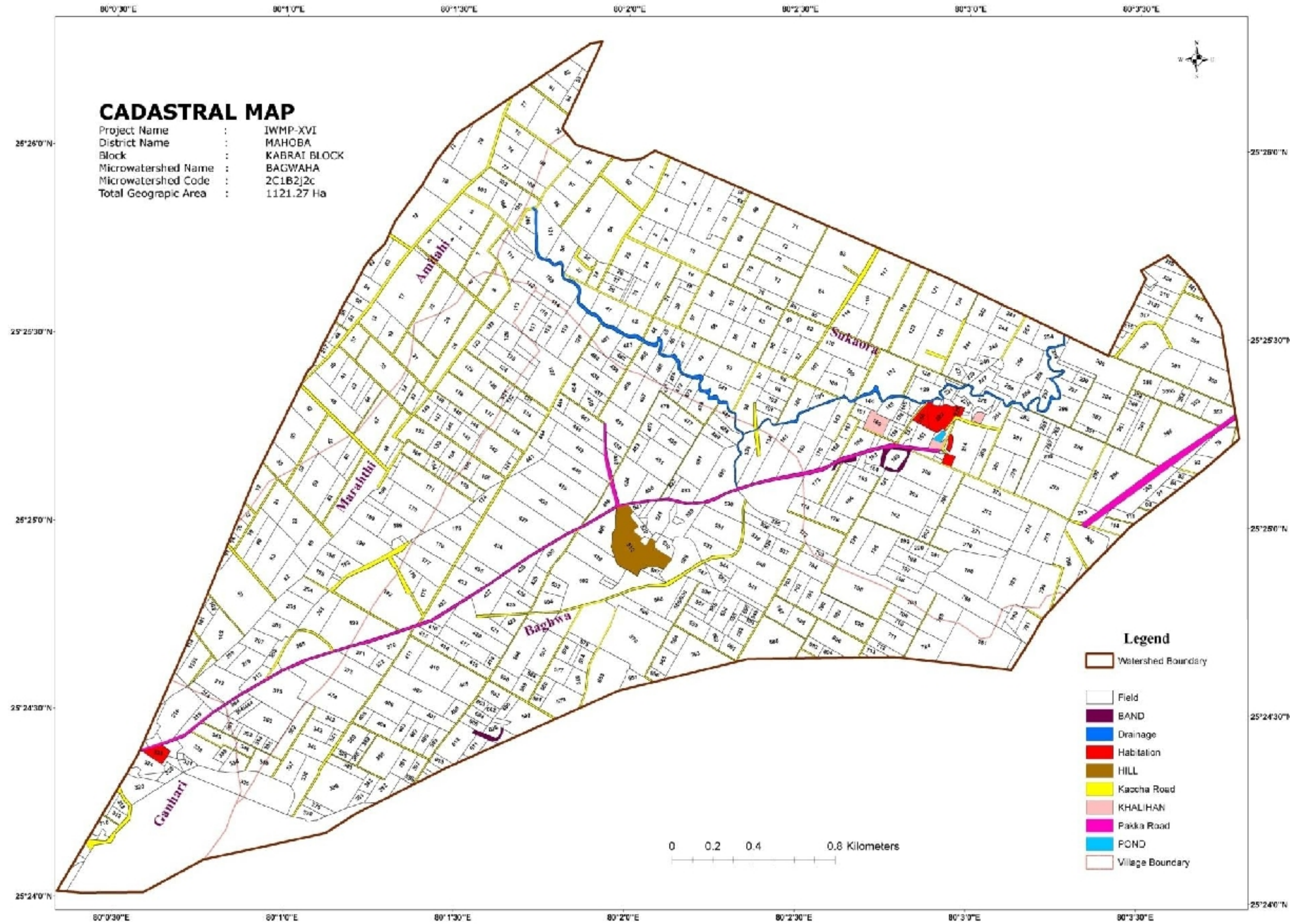
1	400	Lentil	DPL-15, K-75	80.00	3.795	0.133	3.662	15-Oct	Feb	5-Feb	4.9	6.5	520	867	433.33	
						0.493	3.301									
2	320	Chick pea	KDG-1168, KWR-108	64.00	3.484	0.122	3.362	15-30 October	Las Feb to Mid March	2-10 March	5.62	8.5	544	680	476.00	
						0.453	3.031									
3	320	Field Pea	KPMR-400, 522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

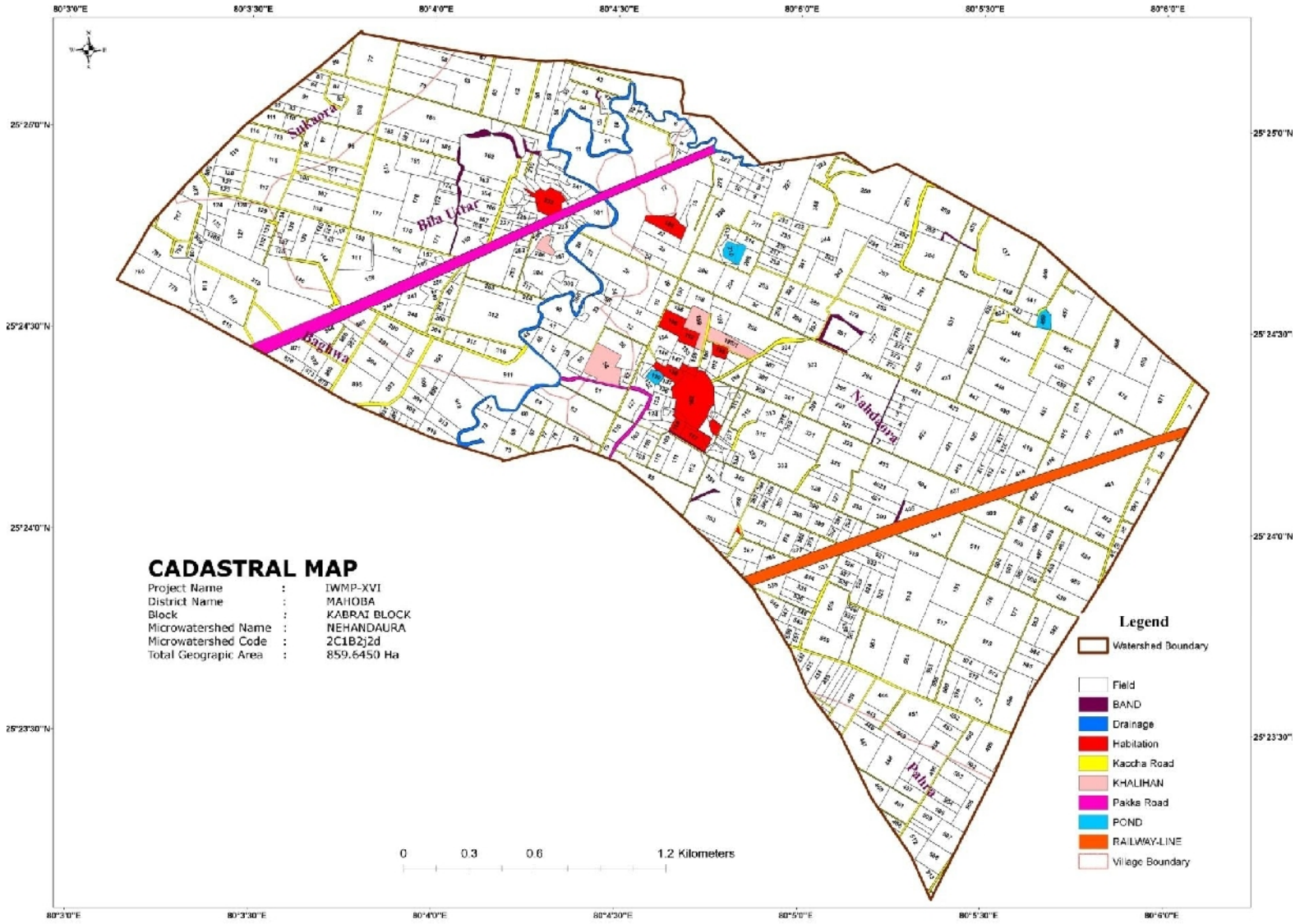
NOTE: List of beneficiaries for crop demonstration trials is kept in project file and it is located on the the map of Participatory Crop Demonstration Trials (Crop Action Plan)

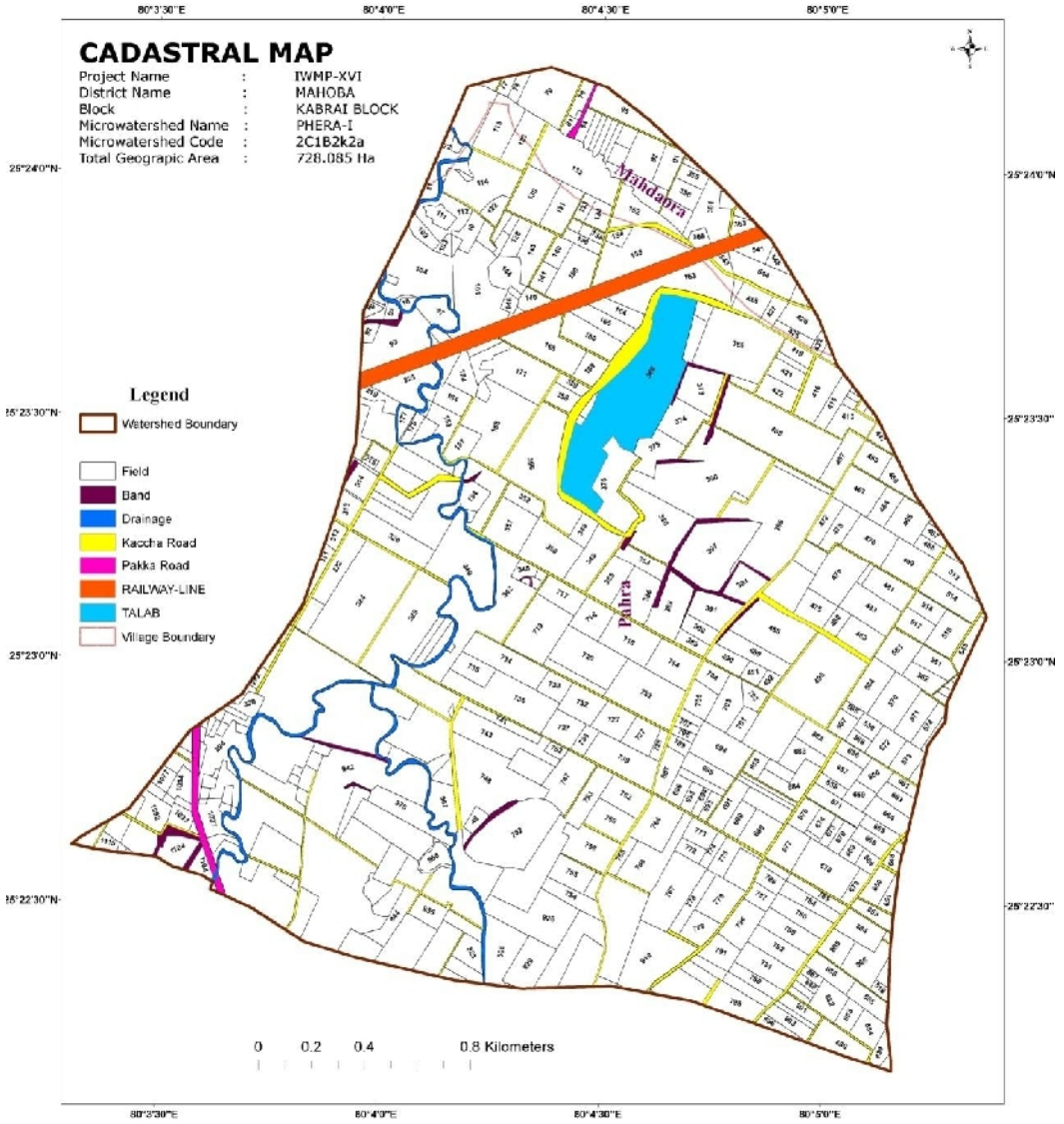
MAPS

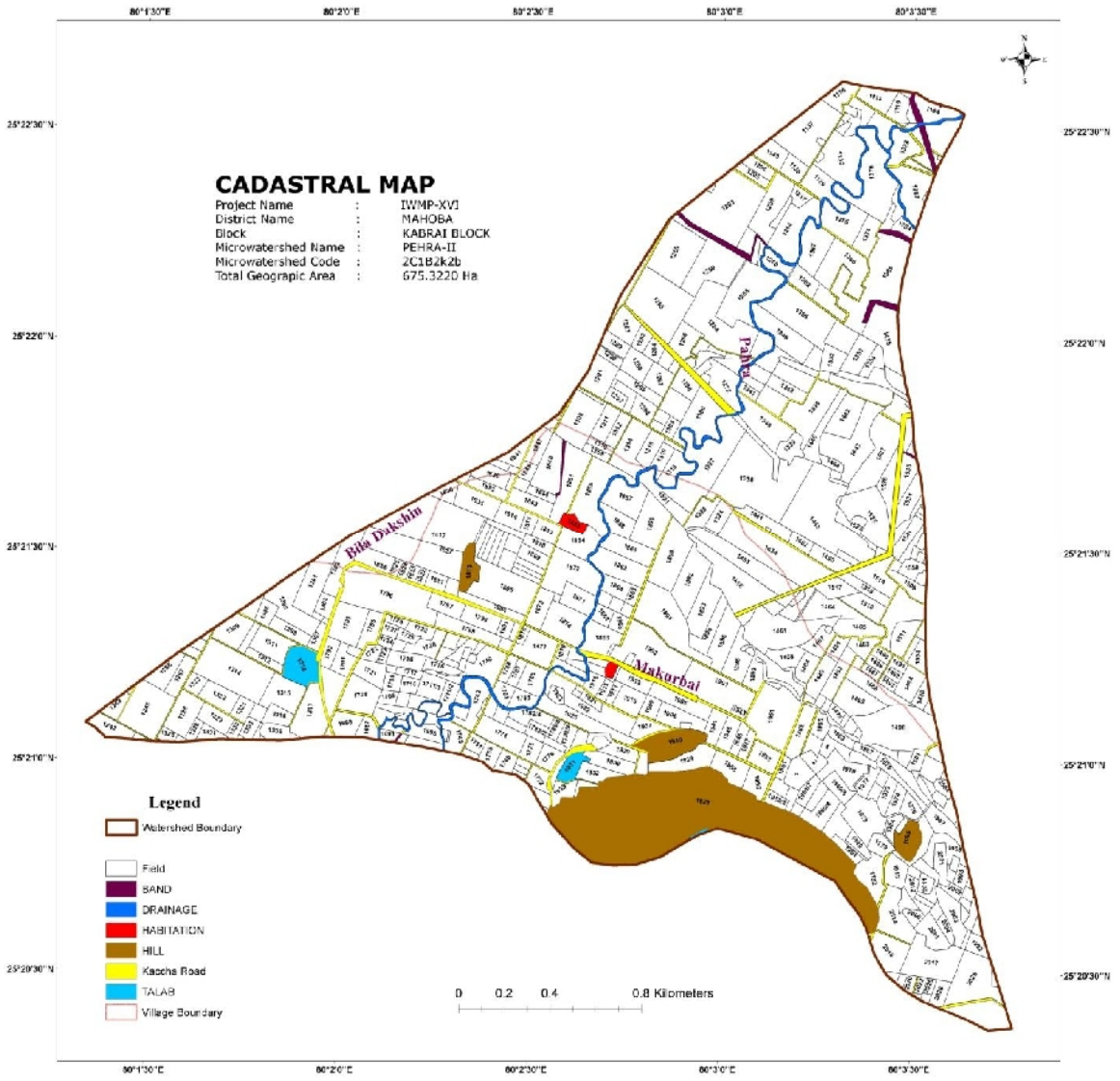

CADASTRAL MAP
Project Name : IWMP-XVI
District Name : MAHOBA
Block : KABRAI BLOCK
Microwatershed Name : BILLA UTTAR
Microwatershed Code : 2C1B2g3g
Total Geograpic Area : 1144.1899 Ha
Legend
Watershed Boundary
Field
BAND
Drainage
Kaccha Road
Pakka Road
POND
Village Boundary

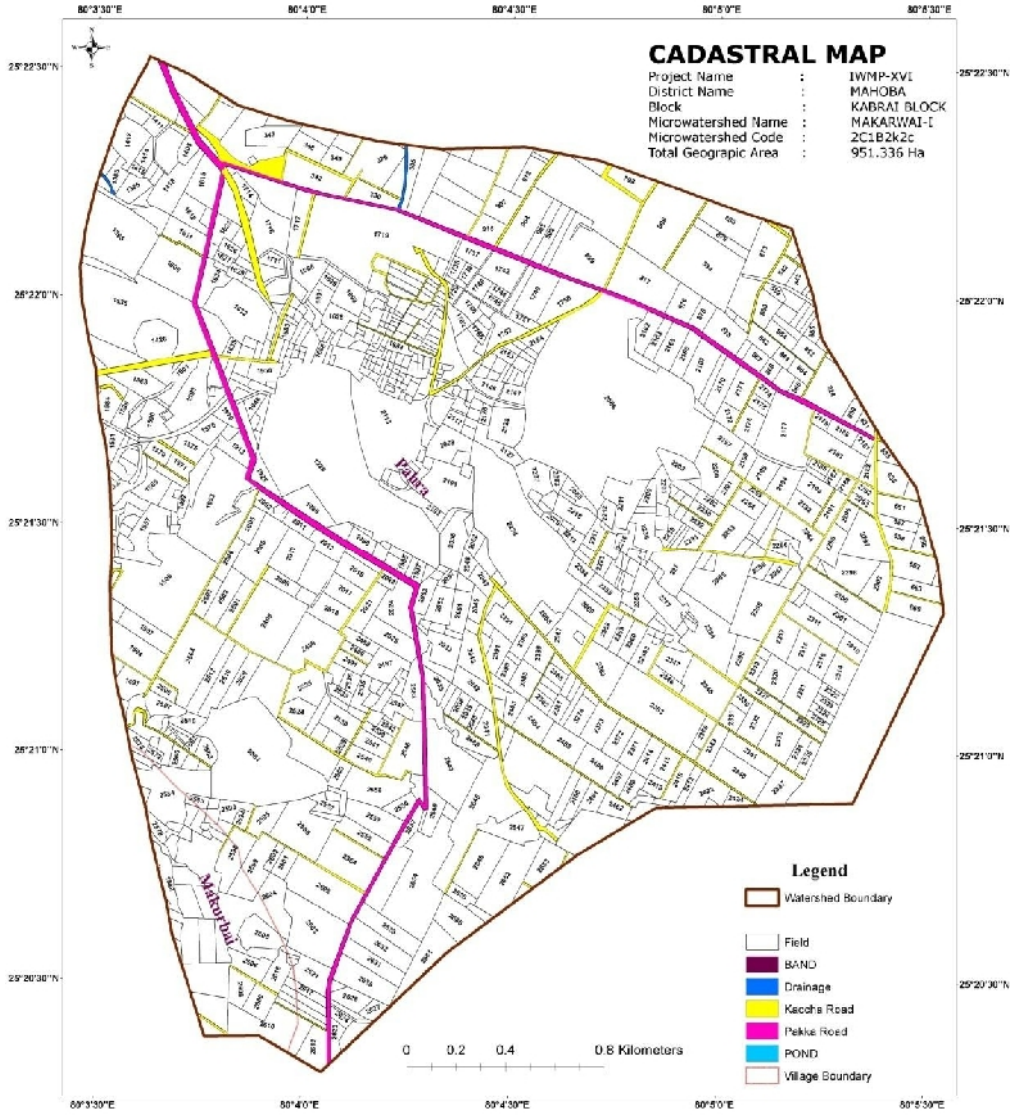

80°1'0"E
80°1'30"E
80°2'0"E
80°2'30"E
25°29'0"N
25°28'30"N
25°28'0"N
Chanikala
CADASTRAL MAP
Project Name : IWMP-XVI
District Name : MAHOBA
Block : KABRAI BLOCK
Microwatershed Name : CHINAKALA
Microwatershed Code : 2C1B2g2h
Total Geograpic Area : 545.52002 Ha
0 0.2 0.4 0.8 Kilometers
Legend
Watershed Boundary
Field
BAND
Drainage
Kaccha Road
Pakka Road
POND
Village Boundary

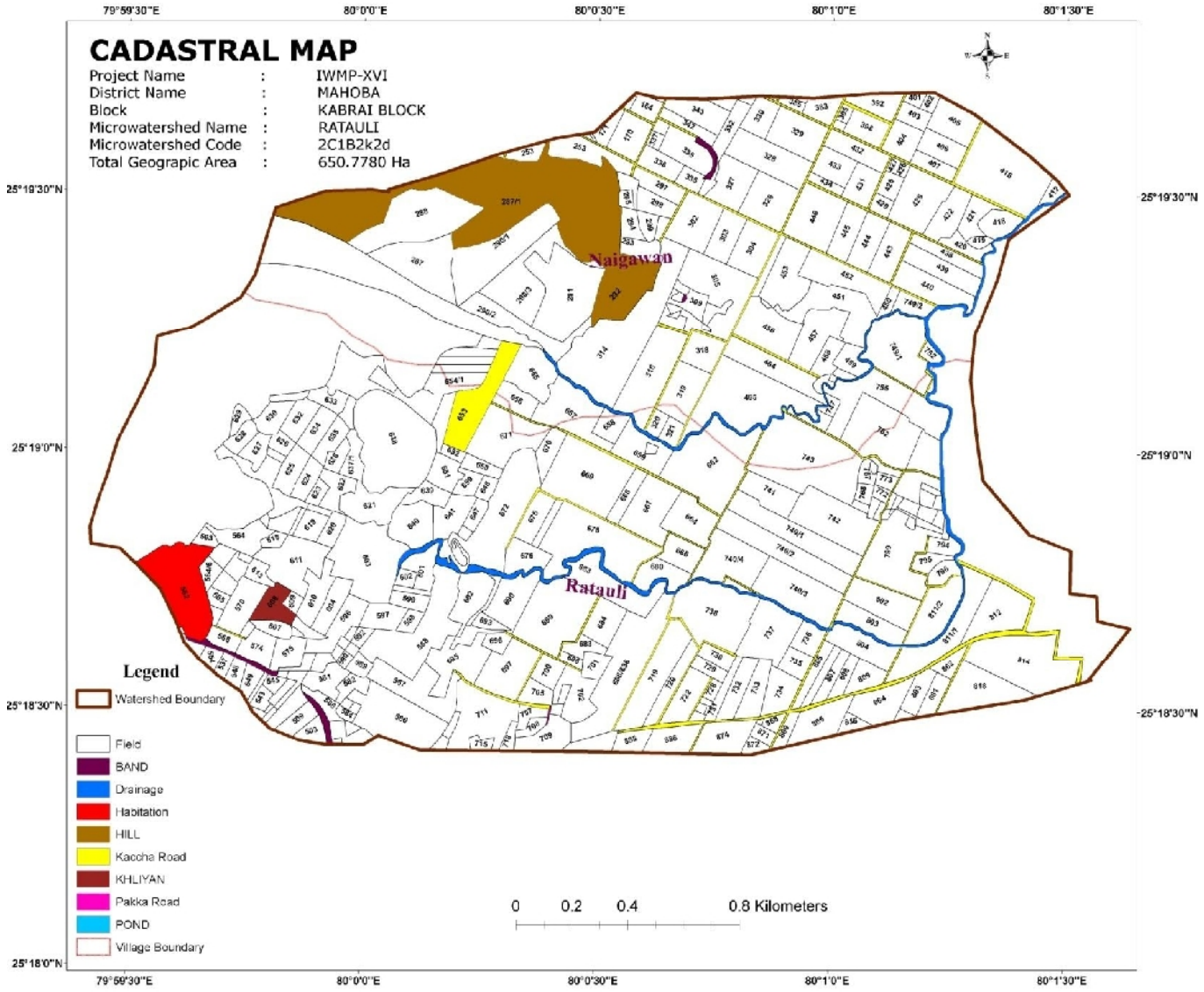

CADASTRAL MAP
Project Name : IWMP-XVI
District Name : MAHOBA
Block : KABRAI BLOCK
Microwatershed Name : BAGWAHA
Microwatershed Code : 2C1B2j2c
Total Geograpic Area : 1121.27 Ha
Sukaora
Bagbwa
Legend
Watershed Boundary
Field
BAND
Drainage
Habitation
HILL
Kaccha Road
KHALIHAN
Pakka Road
POND
Village Boundary
0 0.2 0.4 0.8 Kilometers

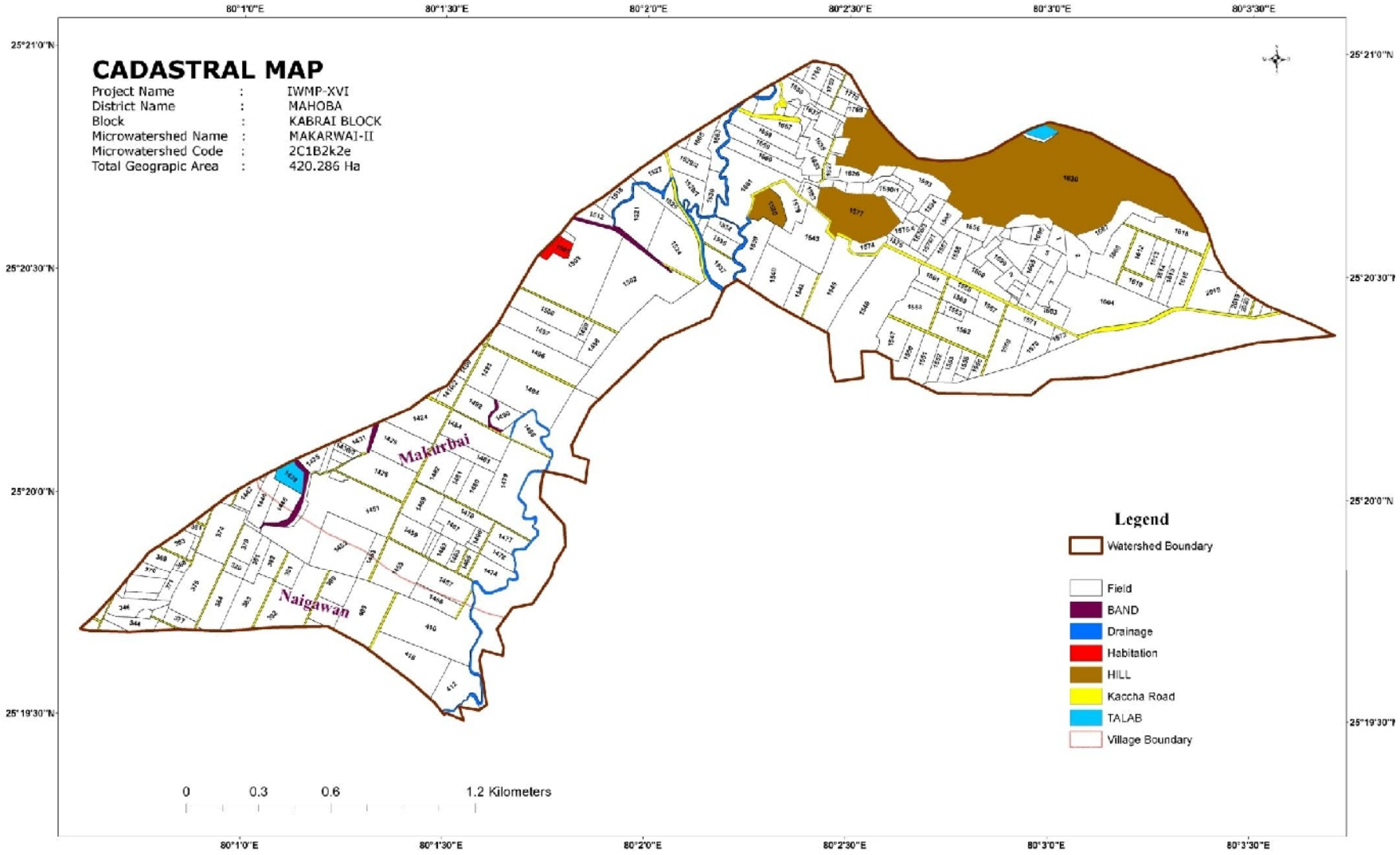

80°3'0"E
80°3'30"E
80°4'0"E
80°4'30"E
80°5'0"E
80°5'30"E
80°6'0"E
25°25'0"N
25°24'30"N
25°24'0"N
25°23'30"N
Sukaura
Biha Uthar
Baghwa
Nahndaura
Pakra
CADASTRAL MAP
Project Name : IWMP-XVI
District Name : MAHOBA
Block : KABRAI BLOCK
Microwatershed Name : NEHANDAURA
Microwatershed Code : 2C1B2j2d
Total Geograpic Area : 859.6450 Ha
Legend
Watershed Boundary
Field
BAND
Drainage
Habitation
Kaccha Road
KHALIHAN
Pakka Road
POND
RAILWAY-LINE
Village Boundary
0 0.3 0.6 1.2 Kilometers

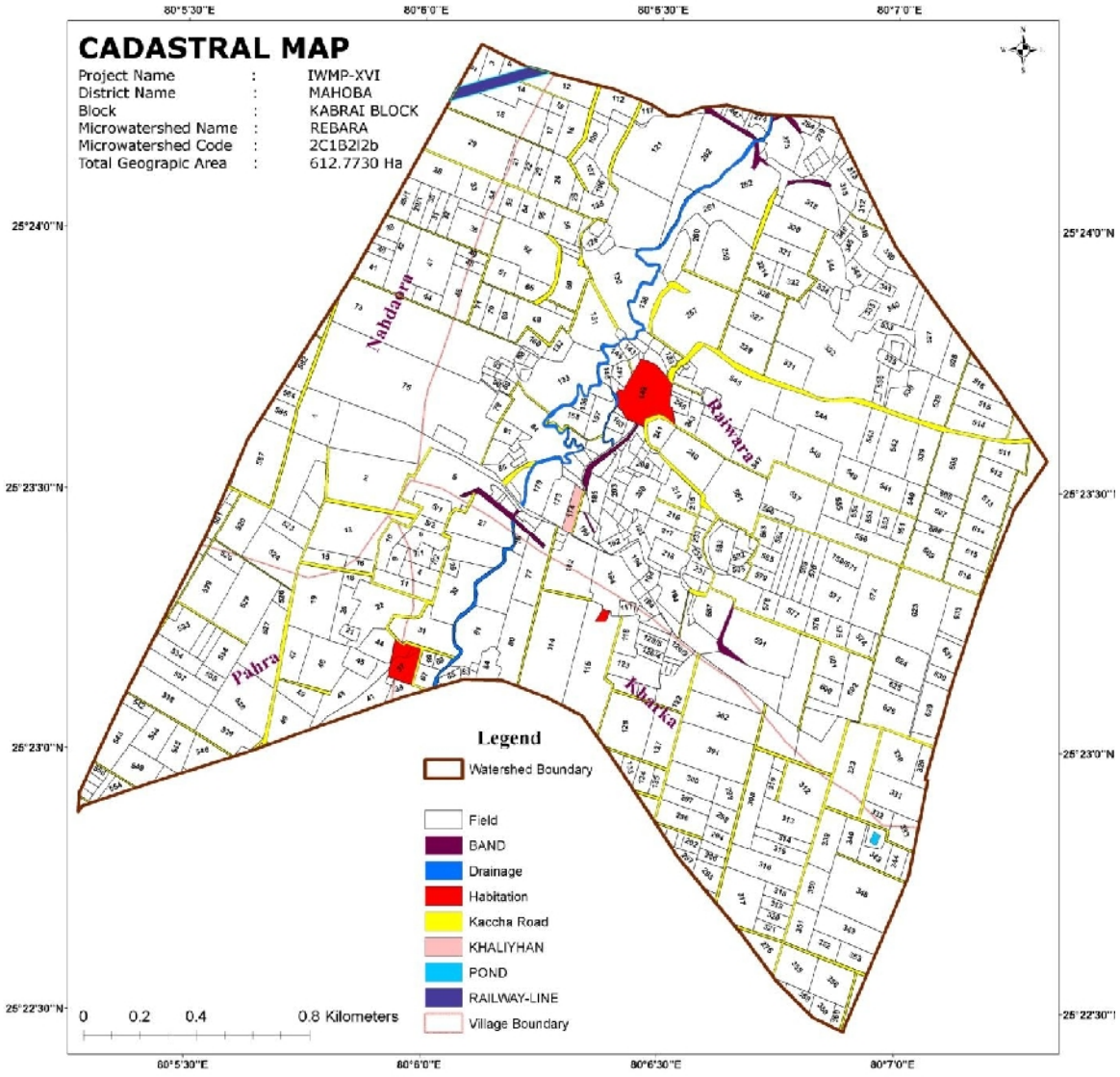

CADASTRAL MAP
Project Name : IWMP-XVI
District Name : MAHOBA
Block : KABRAI BLOCK
Microwatershed Name : PHERA-I
Microwatershed Code : 2C1B2k2a
Total Geograpic Area : 728.085 Ha
Legend
Watershed Boundary
Field
Band
Drainage
Kaccha Road
Pakka Road
RAILWAY-LINE
TALAB
Village Boundary
Mahdapra
Phera
0 0.2 0.4 0.8 Kilometers
80°3'30"E
80°4'0"E
80°4'30"E
80°5'0"E
25°24'0"N
25°23'30"N
25°23'0"N
25°22'30"N

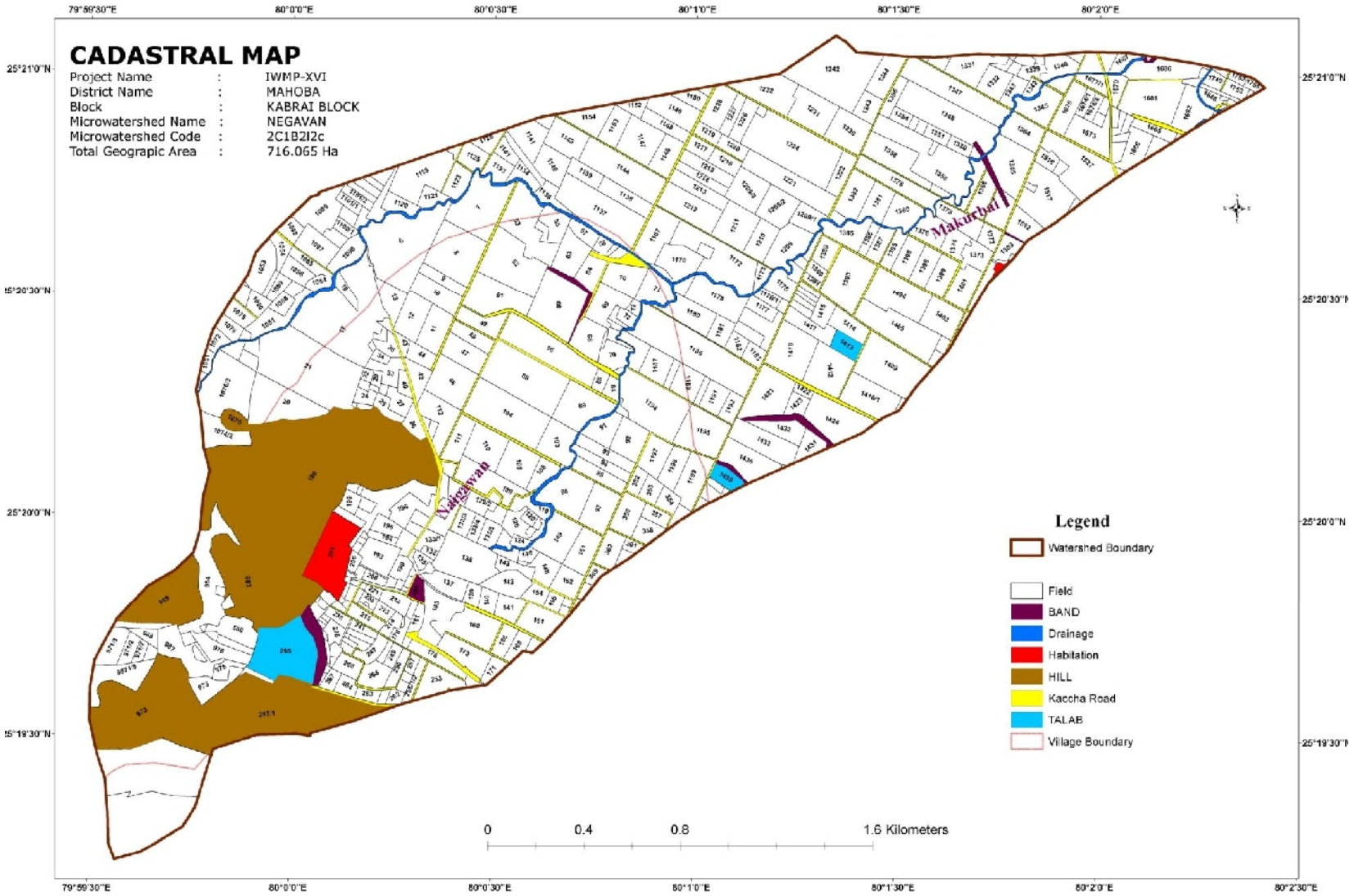

CADASTRAL MAP
Project Name : IWMP-XVI
District Name : MAHOBA
Block : KABRAI BLOCK
Microwatershed Name : PEHRA-II
Microwatershed Code : 2C1B2k2b
Total Geograpic Area : 675.3220 Ha
Pehra
Bila Dakshin
Malkorbai
Legend
Watershed Boundary
Field
BAND
DRAINAGE
HABITATION
HILL
Kaccha Road
TALAB
Village Boundary
0 0.2 0.4 0.8 Kilometers
80°1'30"E
80°2'0"E
80°2'30"E
80°3'0"E
80°3'30"E
25°22'30"N
25°22'0"N
25°21'30"N
25°21'0"N
25°20'30"N

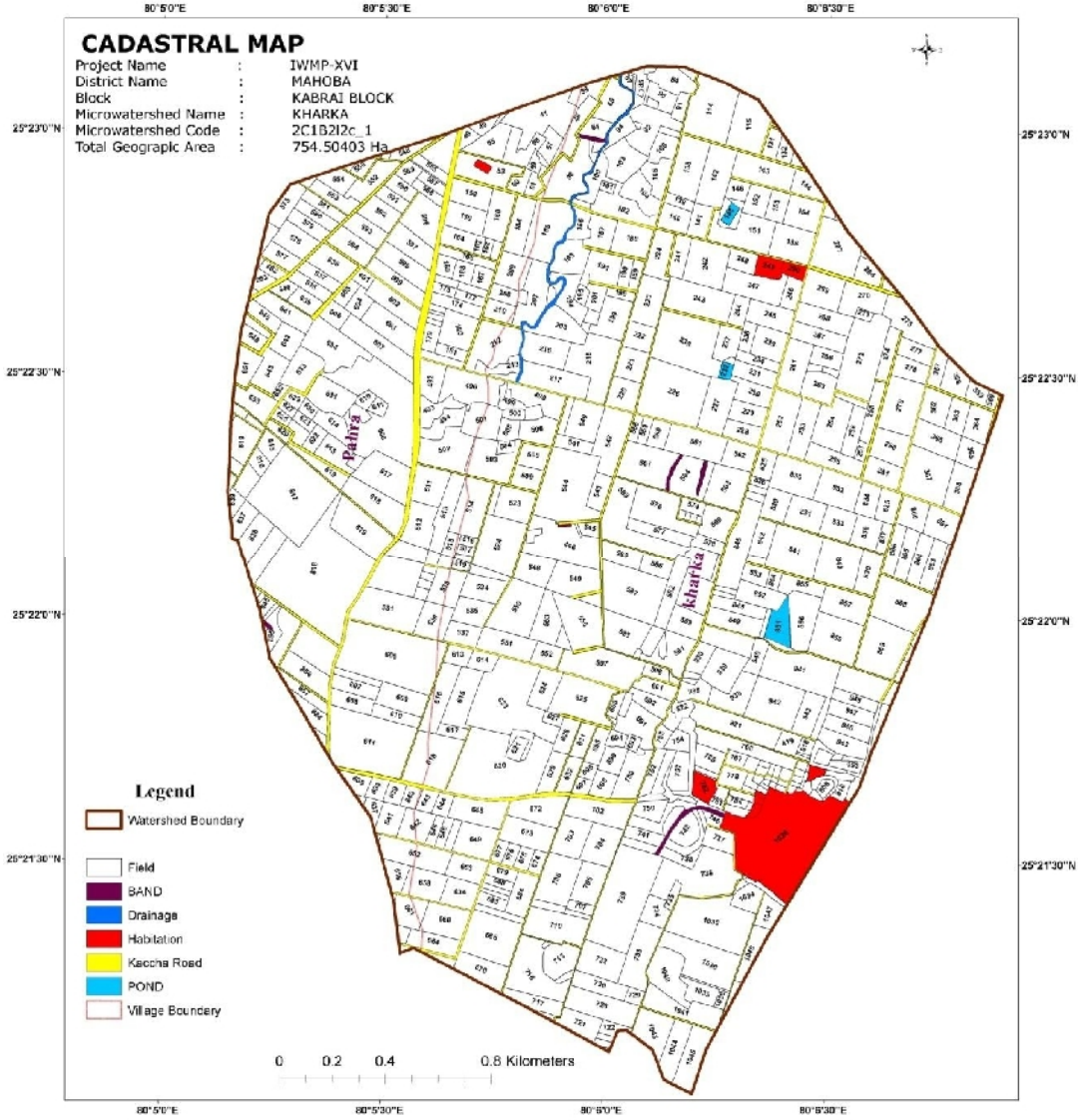

CADASTRAL MAP
Project Name : IWMP-XVI
District Name : MAHOBA
Block : KABRAI BLOCK
Microwatershed Name : MAKARWAI-I
Microwatershed Code : 2C1B2k2c
Total Geograpic Area : 951.336 Ha
80°3'30"E
80°4'0"E
80°4'30"E
80°5'0"E
80°5'30"E
25°22'30"N
25°22'0"N
25°21'30"N
25°21'0"N
25°20'30"N
Pathra
Makarbai
0 0.2 0.4 0.8 Kilometers
Legend
Watershed Boundary
Field
BAND
Drainage
Kaccha Road
Pakka Road
POND
Village Boundary

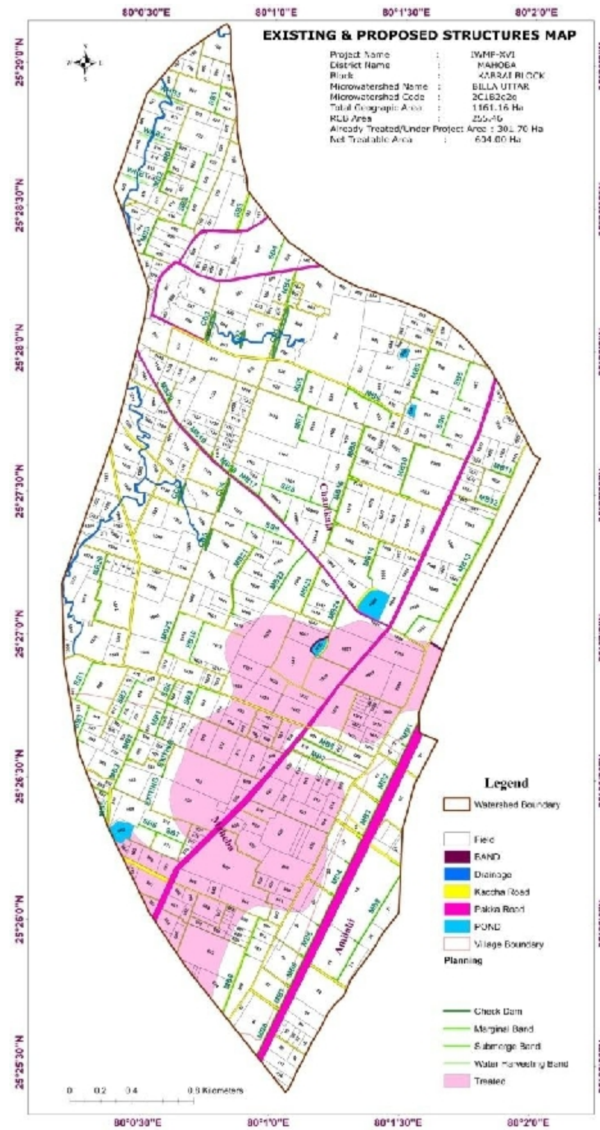

CADASTRAL MAP
Project Name : IWMP-XVI
District Name : MAHOBA
Block : KABRAI BLOCK
Microwatershed Name : RATAULI
Microwatershed Code : 2C1B2k2d
Total Geograpic Area : 650.7780 Ha
79°59'30"E
80°0'0"E
80°0'30"E
80°1'0"E
80°1'30"E
25°19'30"N
25°19'0"N
25°18'30"N
25°18'0"N
Naigawan
Rataull
Legend
Watershed Boundary
Field
BAND
Drainage
Habitation
HILL
Kaccha Road
KHLIYAN
Pakka Road
POND
Village Boundary
0 0.2 0.4 0.8 Kilometers


CADASTRAL MAP
Project Name : IWMP-XVI
District Name : MAHOBA
Block : KABRAI BLOCK
Microwatershed Name : MAKARWAI-II
Microwatershed Code : 2C1B2k2e
Total Geograpic Area : 420.286 Ha
80°1'0"E
80°1'30"E
80°2'0"E
80°2'30"E
80°3'0"E
80°3'30"E
25°21'0"N
25°20'30"N
25°20'0"N
25°19'30"N
Makurbai
Naigawan
Legend
Watershed Boundary
Field
BAND
Drainage
Habitation
HILL
Kaccha Road
TALAB
Village Boundary
0
0.3
0.6
1.2 Kilometers

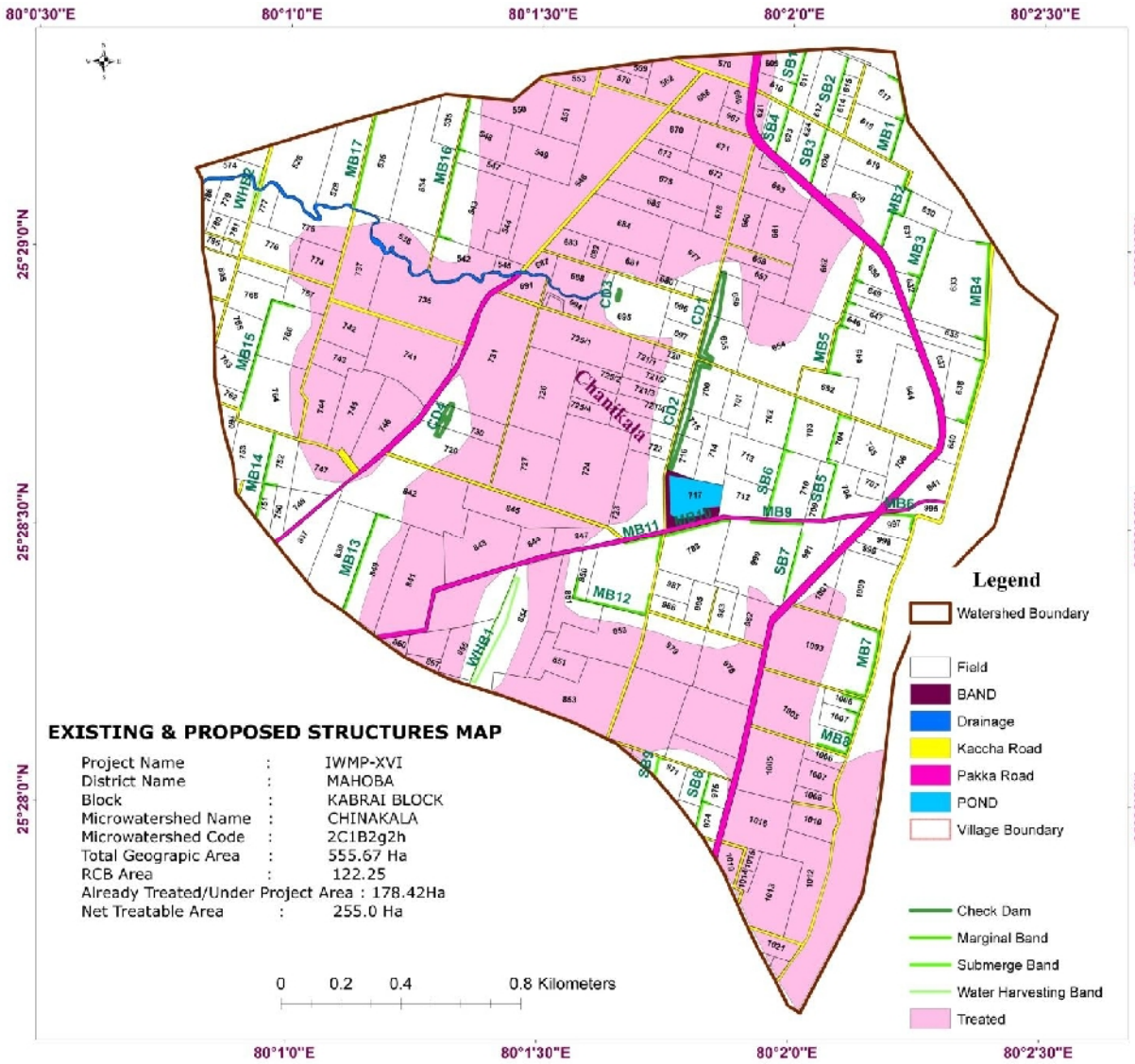

CADASTRAL MAP
Project Name : IWMP-XVI
District Name : MAHOBA
Block : KABRAI BLOCK
Microwatershed Name : REBARA
Microwatershed Code : 2C1B2I2b
Total Geograpic Area : 612.7730 Ha
80°5'30"E
80°6'0"E
80°6'30"E
80°7'0"E
25°24'0"N
25°23'30"N
25°23'0"N
25°22'30"N
Nahdaura
Rajwara
Pahra
Khurka
Legend
Watershed Boundary
Field
BAND
Drainage
Habitation
Kaccha Road
KHALIYHAN
POND
RAILWAY-LINE
Village Boundary
0 0.2 0.4 0.8 Kilometers

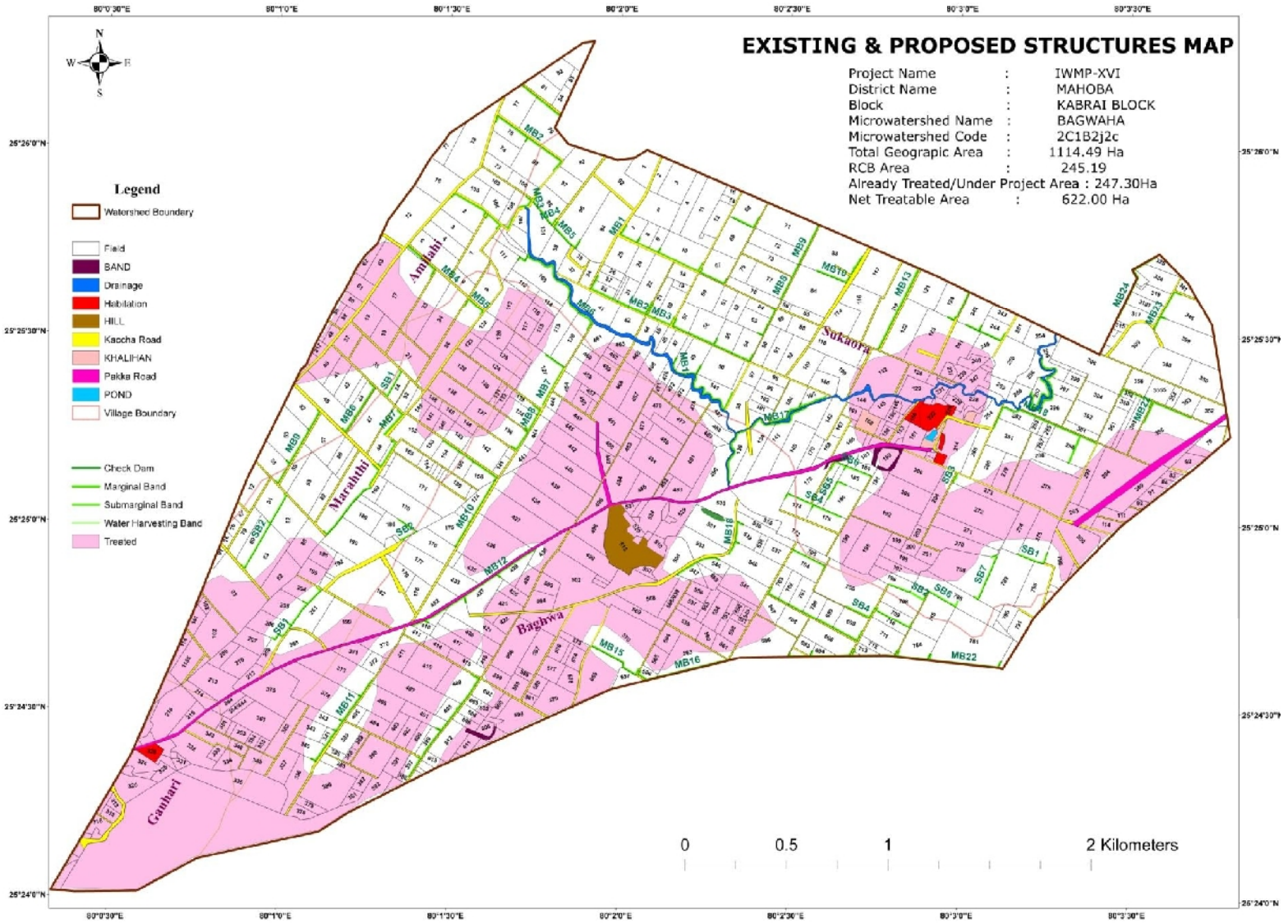

CADASTRAL MAP
Project Name : IWMP-XVI
District Name : MAHOBA
Block : KABRAI BLOCK
Microwatershed Name : NEGAVAN
Microwatershed Code : 2C1B2I2c
Total Geograpic Area : 716.065 Ha
79°59'30"E
80°0'0"E
80°0'30"E
80°1'0"E
80°1'30"E
80°2'0"E
80°2'30"E
25°21'0"N
25°20'30"N
25°20'0"N
25°19'30"N
Makurbai
Legend
Watershed Boundary
Field
BAND
Drainage
Habitation
HILL
Kaccha Road
TALAB
Village Boundary
0
0.4
0.8
1.6 Kilometers

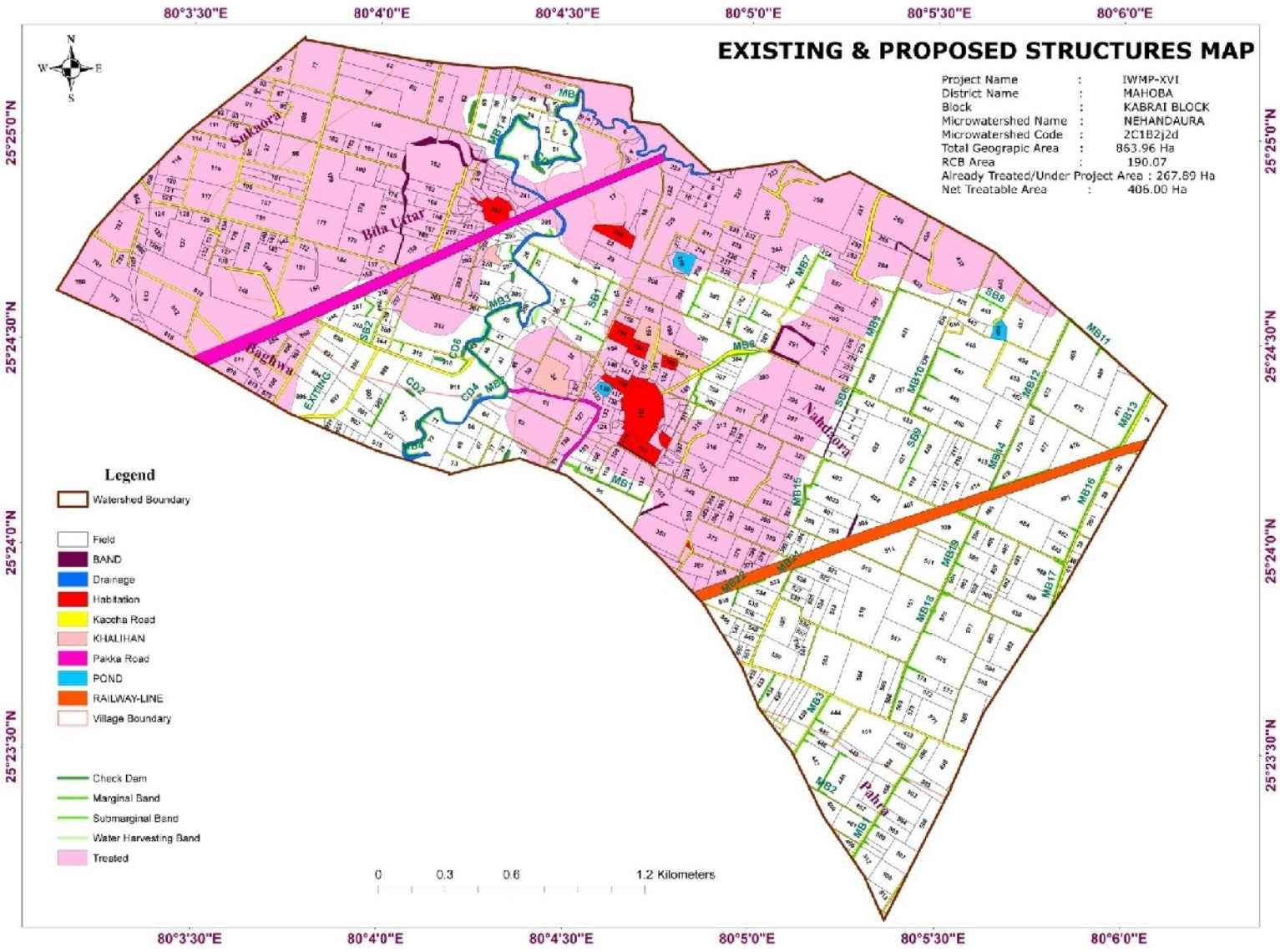

CADASTRAL MAP
Project Name : IWMP-XVI
District Name : MAHOBA
Block : KABRAI BLOCK
Microwatershed Name : KHARKA
Microwatershed Code : 2C1B2I2c_1
Total Geograpic Area : 754.50403 Ha
80°5'0"E
80°5'30"E
80°6'0"E
80°6'30"E
25°23'0"N
25°22'30"N
25°22'0"N
25°21'30"N
Pahra
Kharka
Legend
Watershed Boundary
Field
BAND
Drainage
Habitation
Kaccha Road
POND
Village Boundary
0 0.2 0.4 0.8 Kilometers

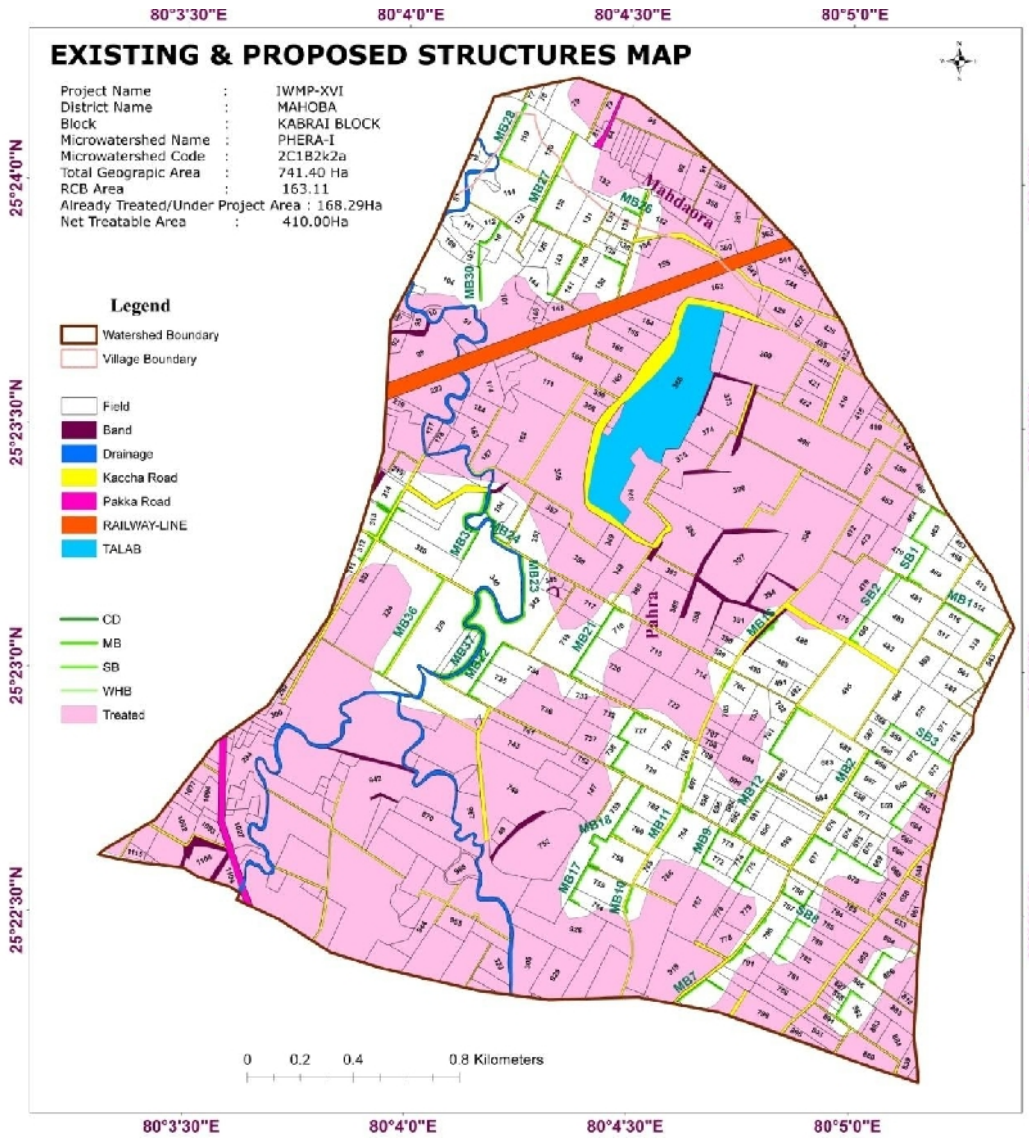


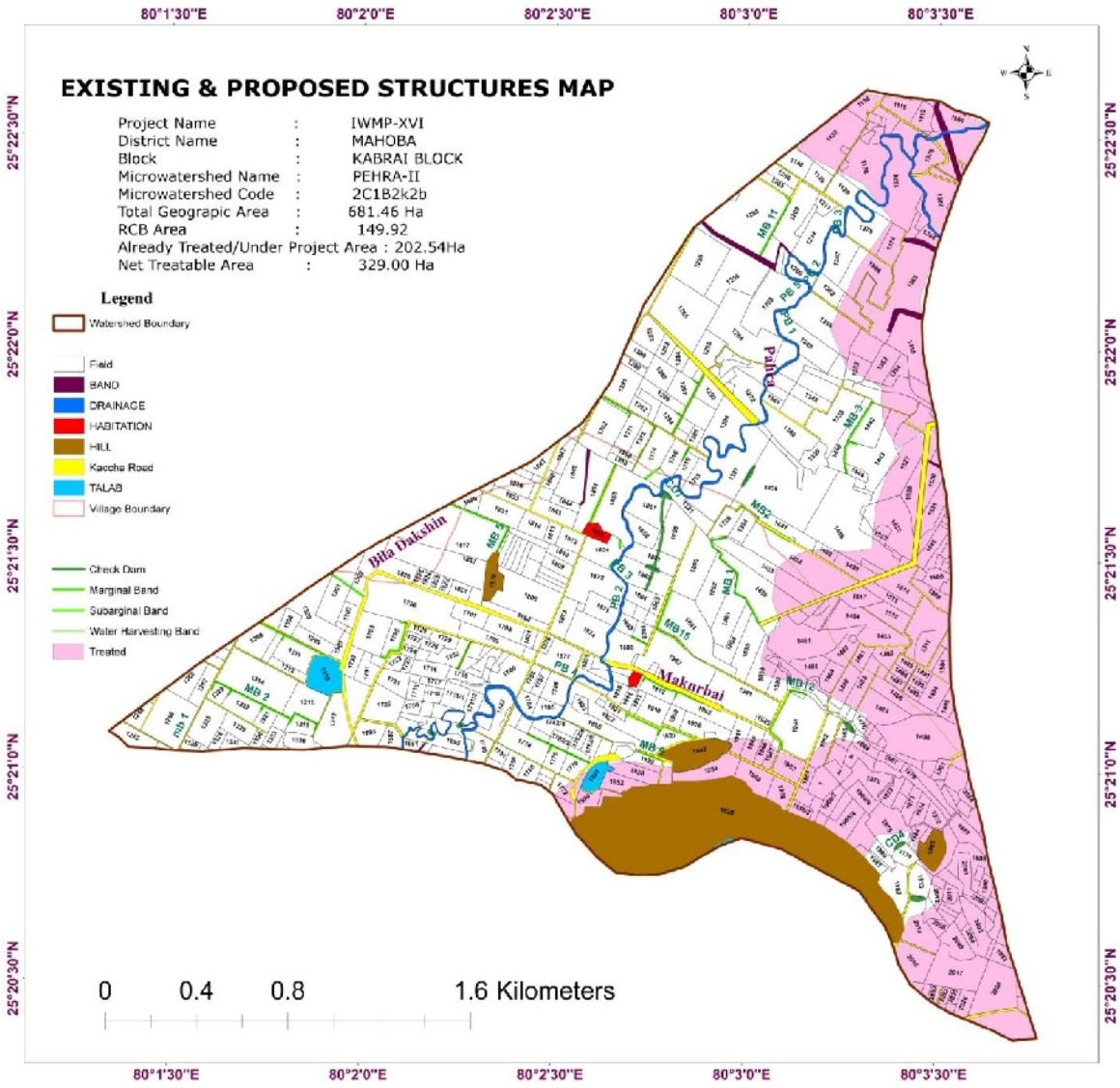
EXISTING & PROPOSED STRUCTURES MAP
Project Name : IWMP-XVI
District Name : MAHOBA
Block : KABRAI BLOCK
Microwatershed Name : BILLA UTTAR
Microwatershed Code : 2C1B2c2e
Total Geographic Area : 1161.16 Ha
Already Treated/Under Project Area : 301.70 Ha
Net Treatable Area : 604.00 Ha
80°0'30"E
80°1'0"E
80°1'30"E
80°2'0"E
25°29'0"N
25°28'30"N
25°28'0"N
25°27'30"N
25°27'0"N
25°26'30"N
25°26'0"N
25°25'30"N
Legend
Watershed Boundary
Field
BAND
Drainage
Kaccha Road
Pakka Road
POND
Village Boundary
Planning
Check Dam
Marginal Band
Submerge Band
Water Harvesting Band
Treated
0 0.2 0.4 0.8 Kilometers

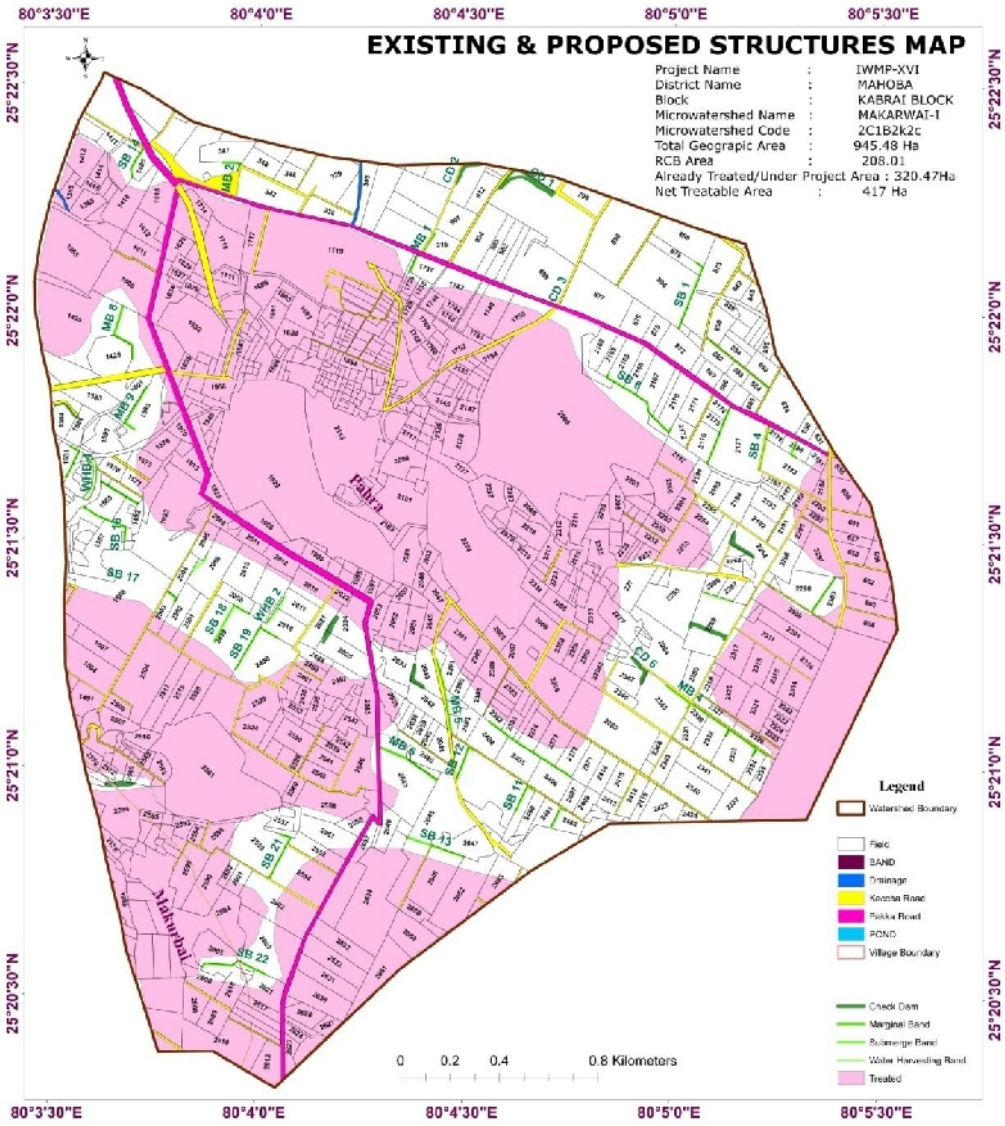

80°0'30"E
80°1'0"E
80°1'30"E
80°2'0"E
80°2'30"E
25°29'0"N
25°28'30"N
25°28'0"N
Chanikala
EXISTING & PROPOSED STRUCTURES MAP
Project Name : IWMP-XVI
District Name : MAHOBA
Block : KABRAI BLOCK
Microwatershed Name : CHINAKALA
Microwatershed Code : 2C1B2g2h
Total Geograpic Area : 555.67 Ha
RCB Area : 122.25
Already Treated/Under Project Area : 178.42Ha
Net Treatable Area : 255.0 Ha
0 0.2 0.4 0.8 Kilometers
Legend
Watershed Boundary
Field
BAND
Drainage
Kaccha Road
Pakka Road
POND
Village Boundary
Check Dam
Marginal Band
Submerge Band
Water Harvesting Band
Treated

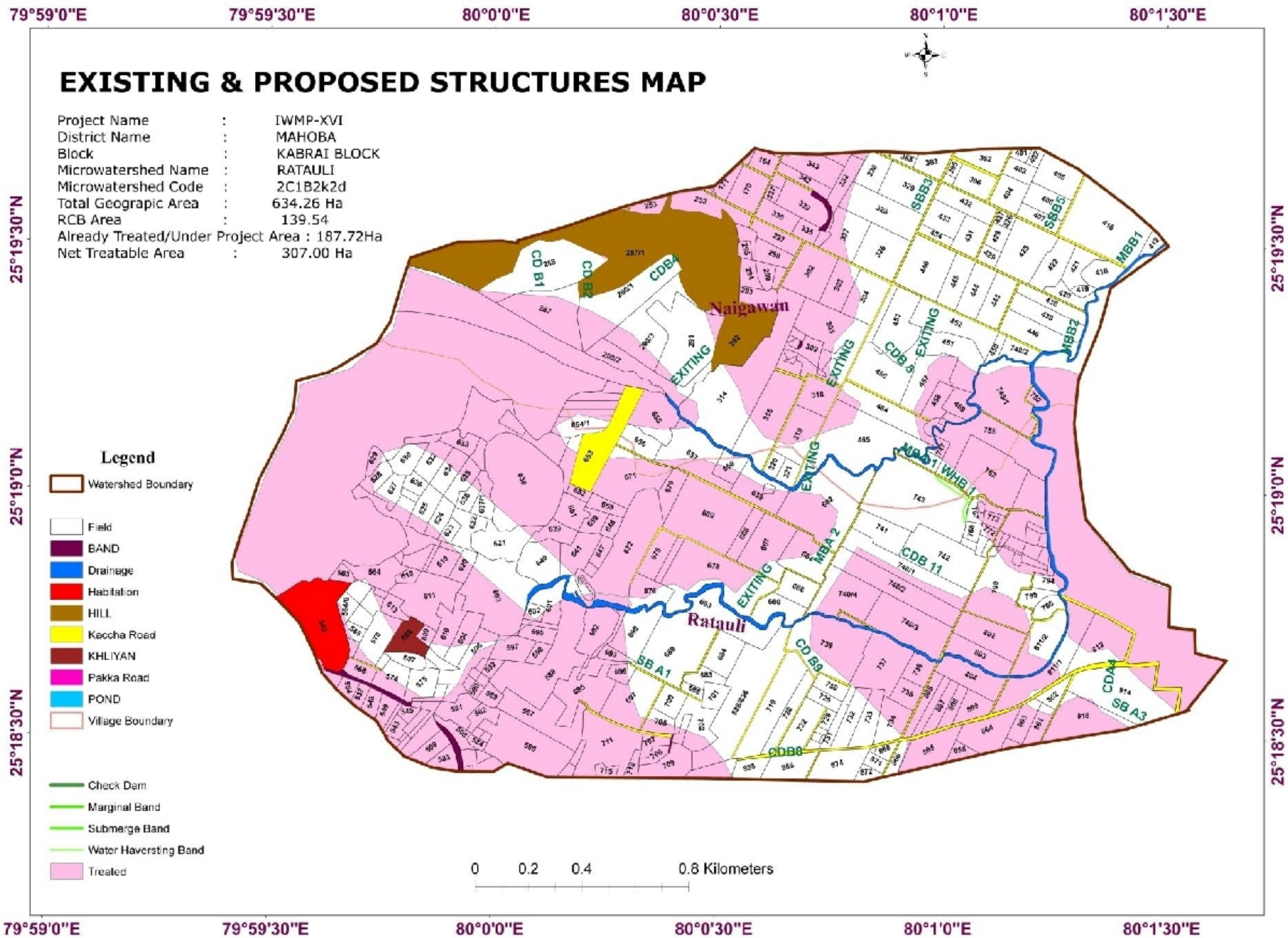

EXISTING & PROPOSED STRUCTURES MAP
Project Name : IWMP-XVI
District Name : MAHOBA
Block : KABRAI BLOCK
Microwatershed Name : BAGWAHA
Microwatershed Code : 2C1B2j2c
Total Geograpic Area : 1114.49 Ha
RCB Area : 245.19
Already Treated/Under Project Area : 247.30Ha
Net Treatable Area : 622.00 Ha
Legend
Watershed Boundary
Field
BAND
Drainage
Habitation
HILL
Kaccha Road
KHALIHAN
Pakka Road
POND
Village Boundary
Check Dam
Marginal Band
Submarginal Band
Water Harvesting Band
Treated
Amlahi
Marahthi
Sukaora
Bagwa
Ganhari
0 0.5 1 2 Kilometers

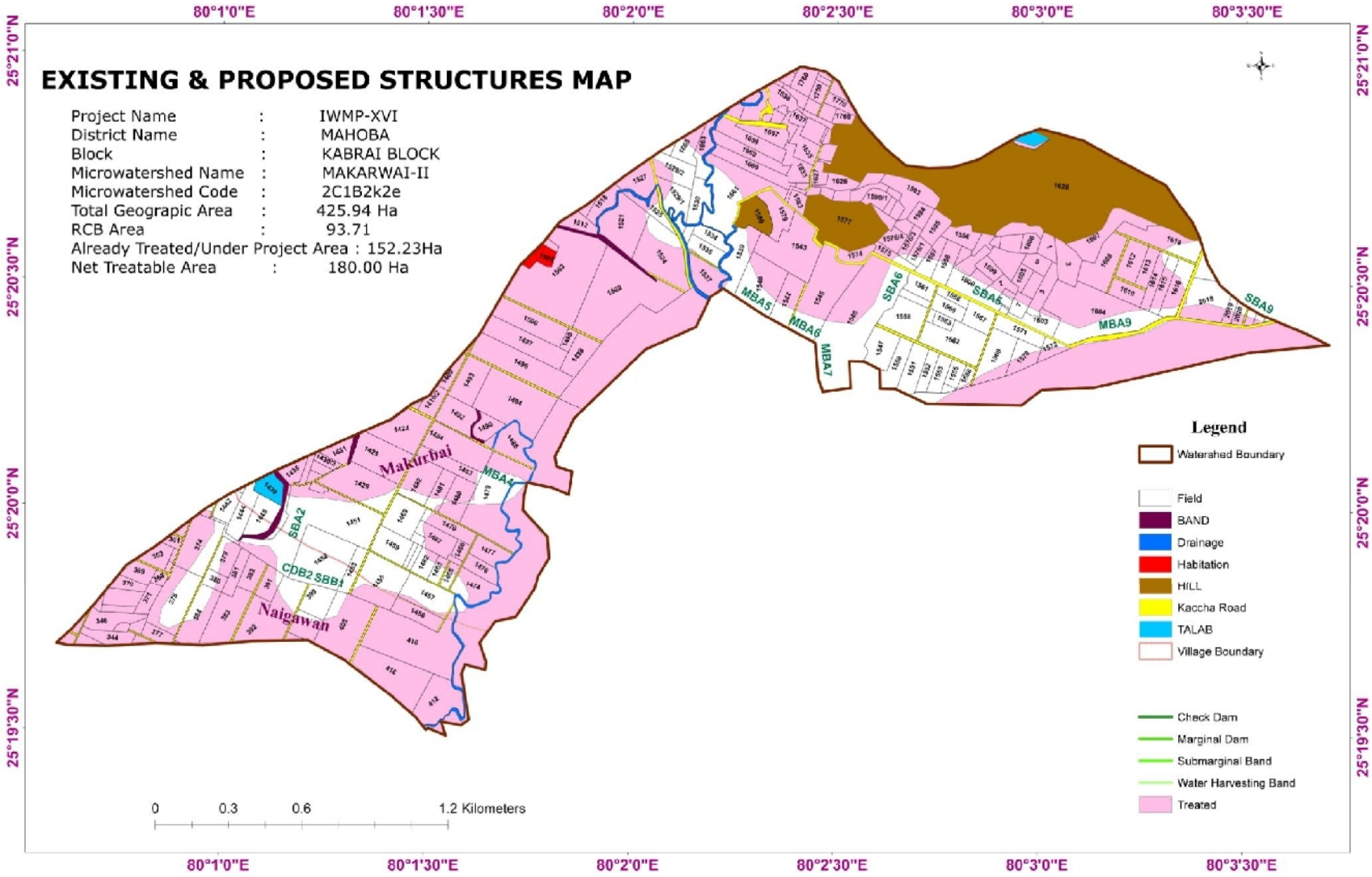

EXISTING & PROPOSED STRUCTURES MAP
Project Name : IWMP-XVI
District Name : MAHOBA
Block : KABRAI BLOCK
Microwatershed Name : NEHANDAURA
Microwatershed Code : 2C1B2j2d
Total Geograpic Area : 863.96 Ha
RCB Area : 190.07
Already Treated/Under Project Area : 267.89 Ha
Net Treatable Area : 406.00 Ha
Legend
Watershed Boundary
Field
BAND
Drainage
Habitation
Kaccha Road
KHALIHAN
Pakka Road
POND
RAILWAY-LINE
Village Boundary
Check Dam
Marginal Band
Submarginal Band
Water Harvesting Band
Treated
0 0.3 0.6 1.2 Kilometers
80°3'30"E
80°4'0"E
80°4'30"E
80°5'0"E
80°5'30"E
80°6'0"E
25°25'0"N
25°24'30"N
25°24'0"N
25°23'30"N
Sukaora
Bila Uttar
Baghwa
Nahaura
Pahra

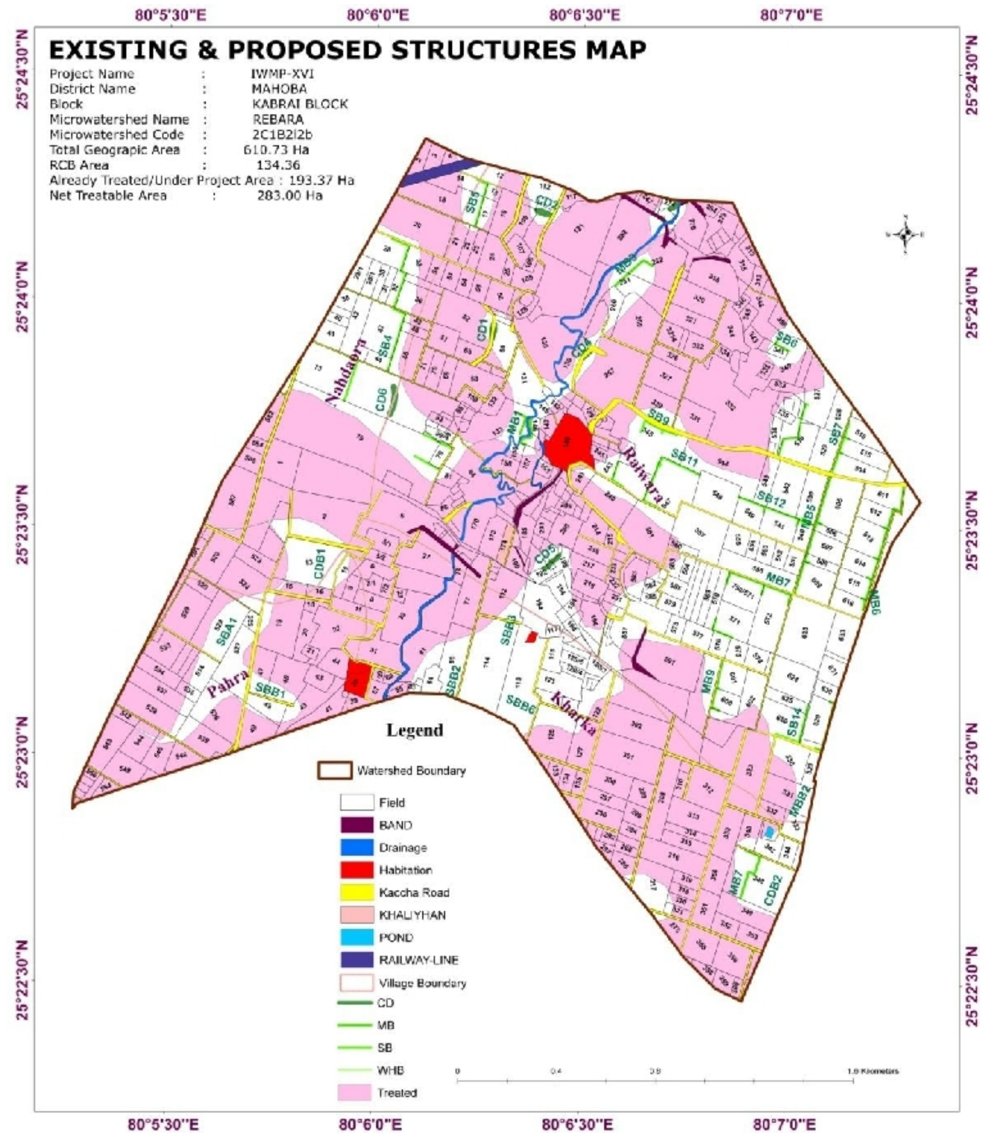

EXISTING & PROPOSED STRUCTURES MAP
Project Name : IWMP-XVI
District Name : MAHOBA
Block : KABRAI BLOCK
Microwatershed Name : PHERA-I
Microwatershed Code : 2C1B2k2a
Total Geograpic Area : 741.40 Ha
RCB Area : 163.11
Already Treated/Under Project Area : 168.29Ha
Net Treatable Area : 410.00Ha
Legend
Watershed Boundary
Village Boundary
Field
Bund
Drainage
Kaccha Road
Pakka Road
RAILWAY-LINE
TALAB
CD
MB
SB
WHB
Treated
Mahdapra
Pahra
0 0.2 0.4 0.8 Kilometers
80°3'30"E
80°4'0"E
80°4'30"E
80°5'0"E
25°24'0"N
25°23'30"N
25°23'0"N
25°22'30"N

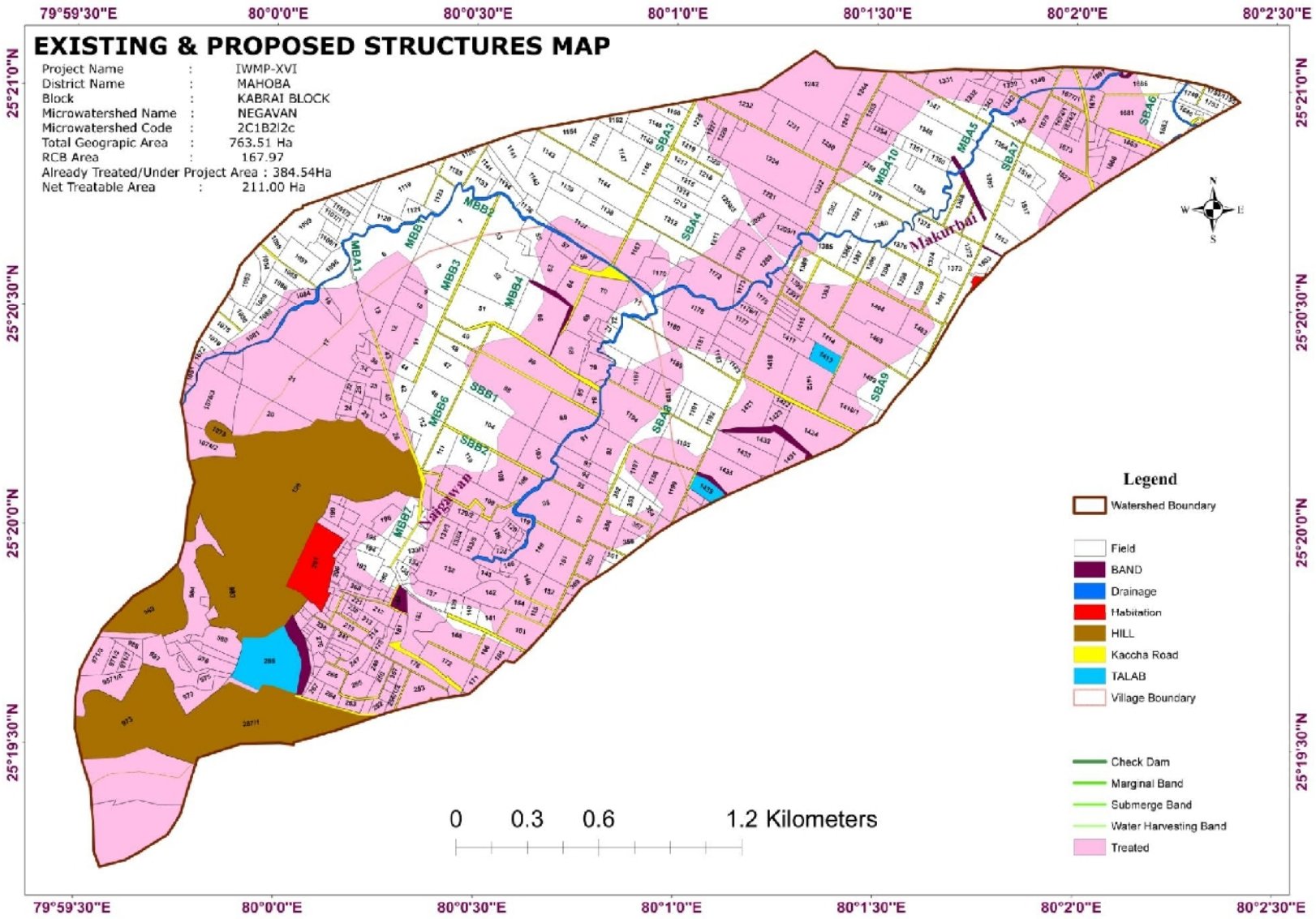

EXISTING & PROPOSED STRUCTURES MAP
Project Name : IWMP-XVI
District Name : MAHOBA
Block : KABRAI BLOCK
Microwatershed Name : PEHRA-II
Microwatershed Code : 2C1B2k2b
Total Geograpic Area : 681.46 Ha
RCB Area : 149.92
Already Treated/Under Project Area : 202.54Ha
Net Treatable Area : 329.00 Ha
Legend
Watershed Boundary
Field
BAND
DRAINAGE
HABITATION
HILL
Kaccha Road
TALAB
Village Boundary
Check Dam
Marginal Band
Subarginal Band
Water Harvesting Band
Treated
Billa Dakshin
Makarbai
Pehra
0 0.4 0.8 1.6 Kilometers
80°1'30"E
80°2'0"E
80°2'30"E
80°3'0"E
80°3'30"E
25°22'30"N
25°22'0"N
25°21'30"N
25°21'0"N
25°20'30"N

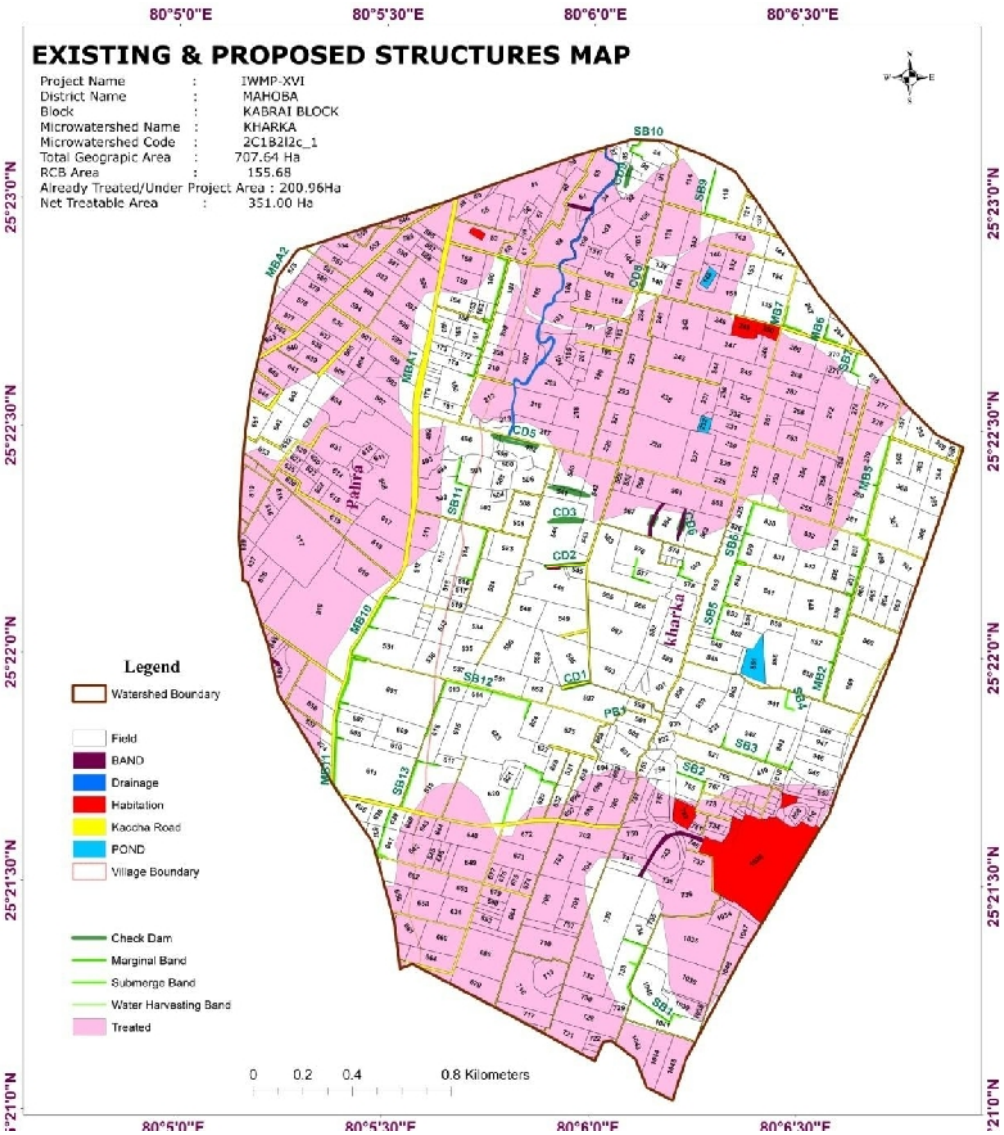

EXISTING & PROPOSED STRUCTURES MAP
Project Name : IWMP-XVI
District Name : MAHOBA
Block : KABRAI BLOCK
Microwatershed Name : MAKARWAI-I
Microwatershed Code : 2C1B2k2c
Total Geograpic Area : 945.48 Ha
RCB Area : 208.01
Already Treated/Under Project Area : 320.47Ha
Net Treatable Area : 417 Ha
80°3'30"E
80°4'0"E
80°4'30"E
80°5'0"E
80°5'30"E
25°22'30"N
25°22'0"N
25°21'30"N
25°21'0"N
25°20'30"N
Pathra
Makurbai
Legend
Watershed Boundary
Field
BAND
Drainage
Kaccha Road
Pakka Road
POND
Village Boundary
Check Dam
Marginal Band
Submerge Band
Water Harvesting Band
Treated
0 0.2 0.4 0.8 Kilometers

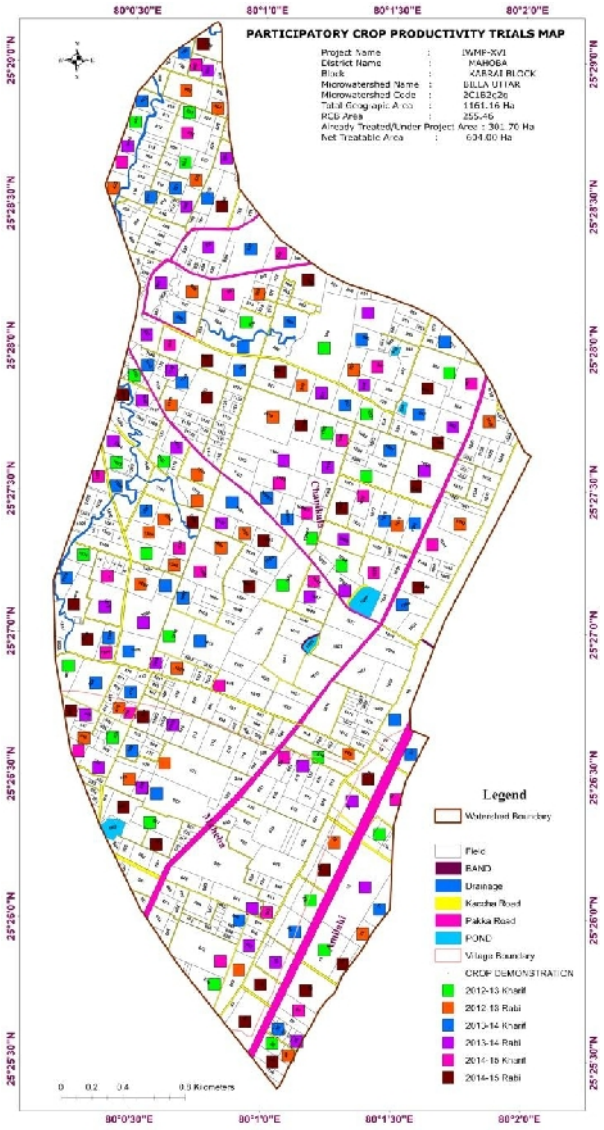

EXISTING & PROPOSED STRUCTURES MAP
Project Name : IWMP-XVI
District Name : MAHOBA
Block : KABRAI BLOCK
Microwatershed Name : RATAULI
Microwatershed Code : 2C1B2k2d
Total Geograpic Area : 634.26 Ha
RCB Area : 139.54
Already Treated/Under Project Area : 187.72Ha
Net Treatable Area : 307.00 Ha
Legend
Watershed Boundary
Field
BAND
Drainage
Habitation
HILL
Kaccha Road
KHLIYAN
Pakka Road
POND
Village Boundary
Check Dam
Marginal Band
Submerge Band
Water Haversting Band
Treated
0 0.2 0.4 0.8 Kilometers
Naigawan
Ratauli
79°59'0"E
79°59'30"E
80°0'0"E
80°0'30"E
80°1'0"E
80°1'30"E
25°19'30"N
25°19'0"N
25°18'30"N

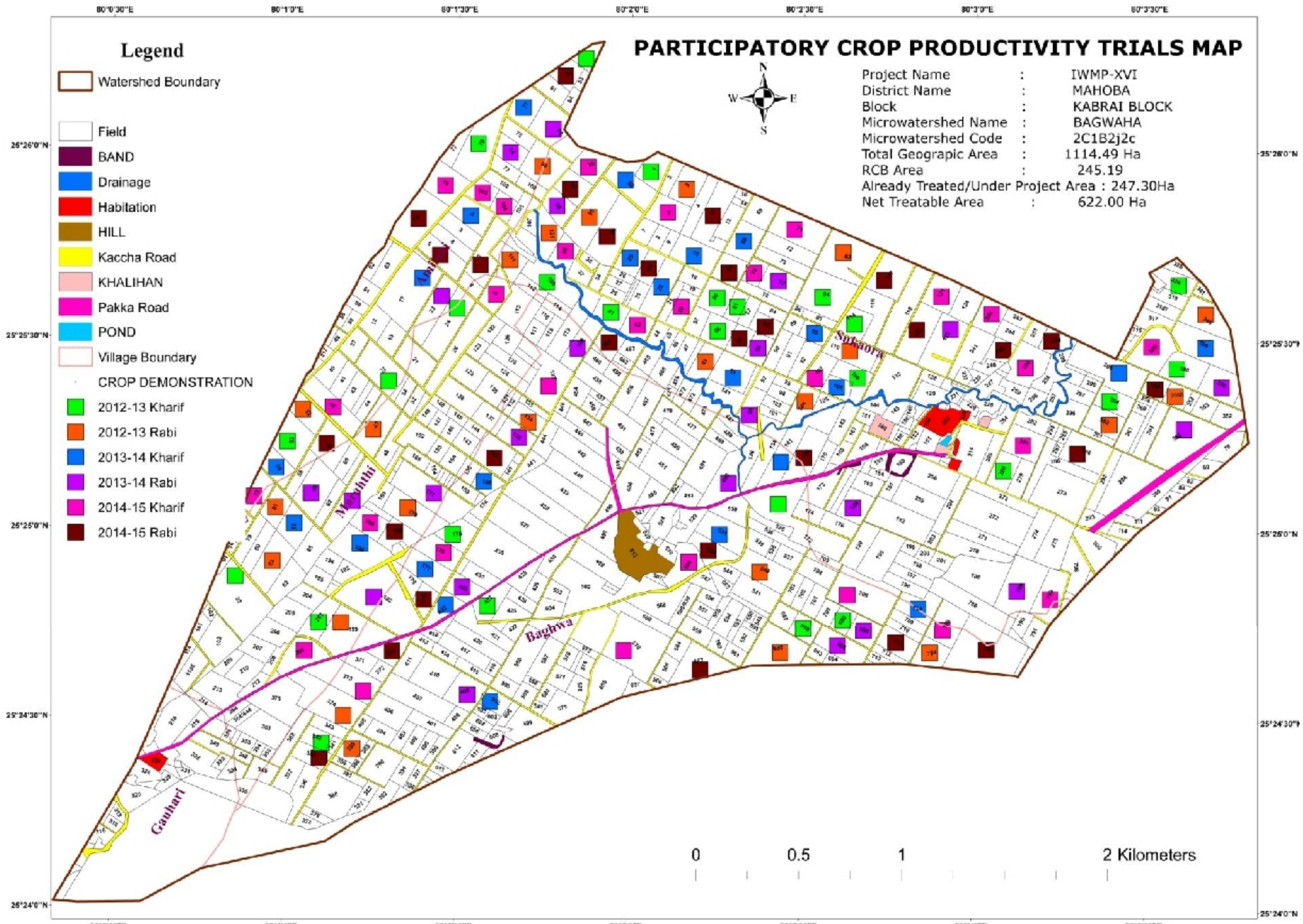

EXISTING & PROPOSED STRUCTURES MAP
Project Name : IWMP-XVI
District Name : MAHOBA
Block : KABRAI BLOCK
Microwatershed Name : MAKARWAI-II
Microwatershed Code : 2C1B2k2e
Total Geograpic Area : 425.94 Ha
RCB Area : 93.71
Already Treated/Under Project Area : 152.23Ha
Net Treatable Area : 180.00 Ha
80°1'0"E
80°1'30"E
80°2'0"E
80°2'30"E
80°3'0"E
80°3'30"E
25°21'0"N
25°20'30"N
25°20'0"N
25°19'30"N
Makurbai
Naigawan
MBA4
MBA5
MBA6
MBA7
SBA6
SBA8
MBA9
SBA9
SBA2
CDB2 SBB1
0 0.3 0.6 1.2 Kilometers
Legend
Watershed Boundary
Field
BAND
Drainage
Habitation
HILL
Kaccha Road
TALAB
Village Boundary
Check Dam
Marginal Dam
Submarginal Band
Water Harvesting Band
Treated

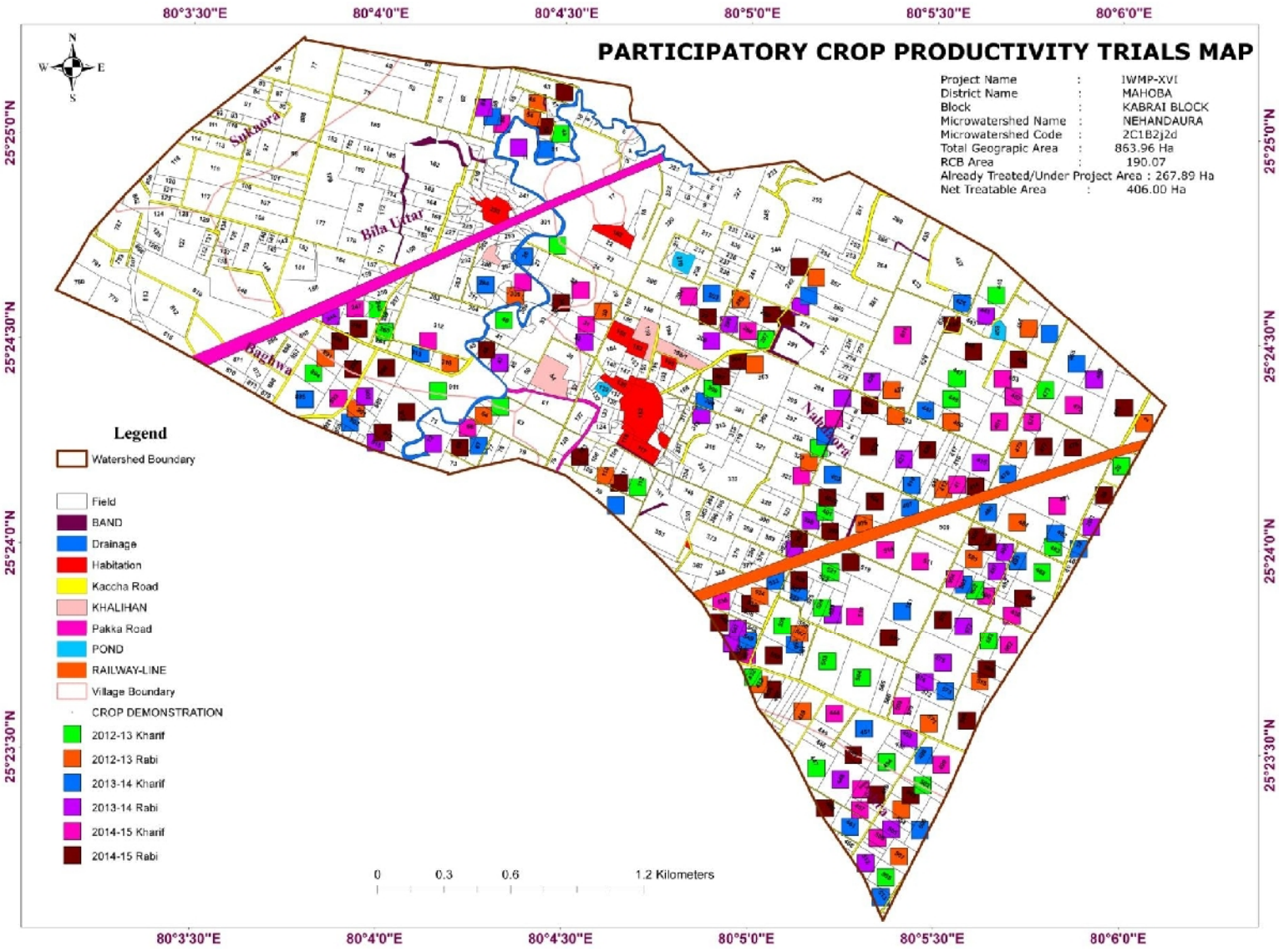

EXISTING & PROPOSED STRUCTURES MAP
Project Name : IWMP-XVI
District Name : MAHOBA
Block : KABRAI BLOCK
Microwatershed Name : REBARA
Microwatershed Code : 2C1B2l2b
Total Geograpic Area : 610.73 Ha
RCB Area : 134.36
Already Treated/Under Project Area : 193.37 Ha
Net Treatable Area : 283.00 Ha
80°5'30"E
80°6'0"E
80°6'30"E
80°7'0"E
25°24'30"N
25°24'0"N
25°23'30"N
25°23'0"N
25°22'30"N
Legend
Watershed Boundary
Field
BAND
Drainage
Habitation
Kaccha Road
KHALIYHAN
POND
RAILWAY-LINE
Village Boundary
CD
MB
SB
WHB
Treated

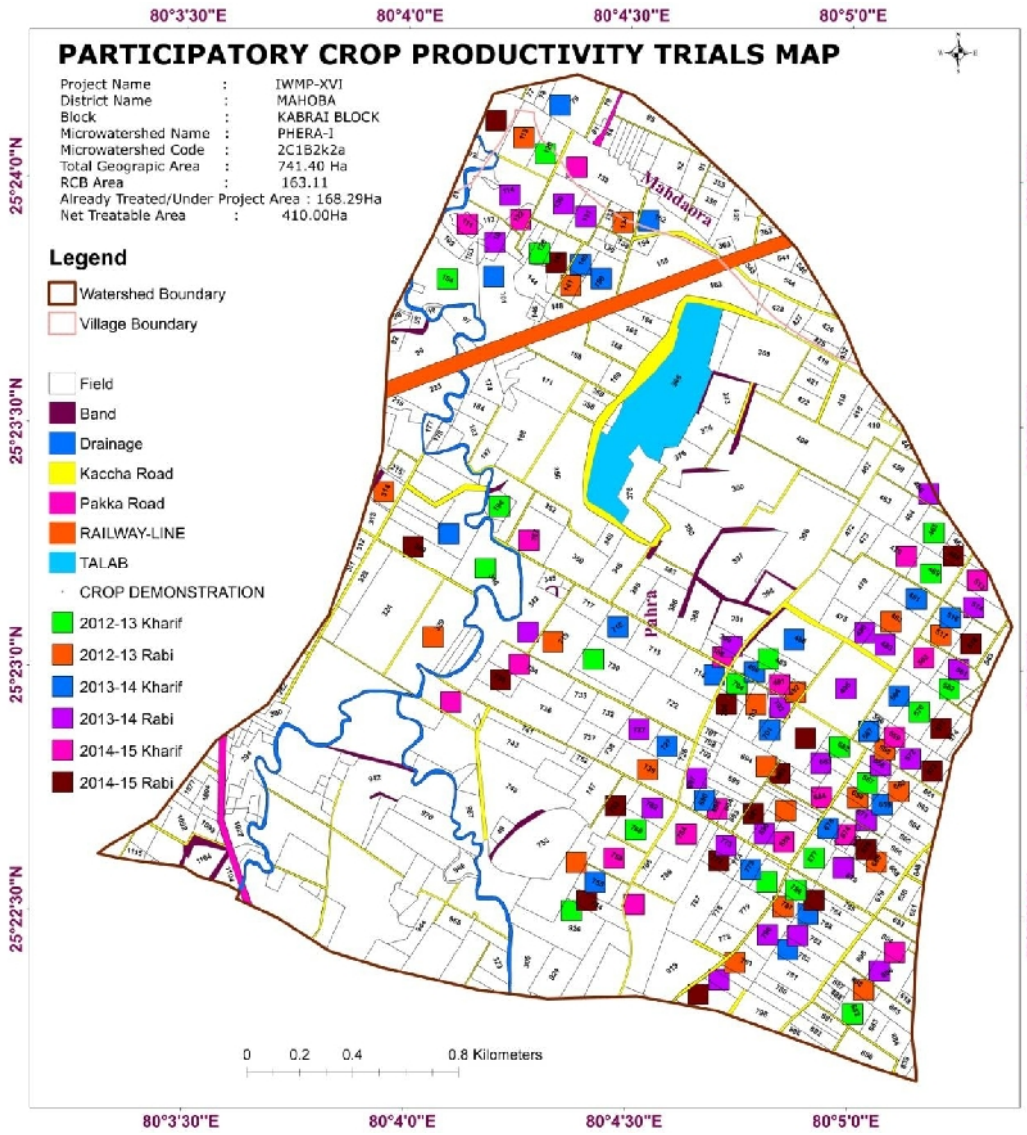

EXISTING & PROPOSED STRUCTURES MAP
Project Name : IWMP-XVI
District Name : MAHOBA
Block : KABRAI BLOCK
Microwatershed Name : NEGAVAN
Microwatershed Code : 2C1B2I2c
Total Geograpic Area : 763.51 Ha
RCB Area : 167.97
Already Treated/Under Project Area : 384.54Ha
Net Treatable Area : 211.00 Ha
79°59'30"E
80°0'0"E
80°0'30"E
80°1'0"E
80°1'30"E
80°2'0"E
80°2'30"E
25°21'0"N
25°20'30"N
25°20'0"N
25°19'30"N
Makurbai
Legend
Watershed Boundary
Field
BAND
Drainage
Habitation
HILL
Kaccha Road
TALAB
Village Boundary
Check Dam
Marginal Band
Submerge Band
Water Harvesting Band
Treated
0 0.3 0.6 1.2 Kilometers

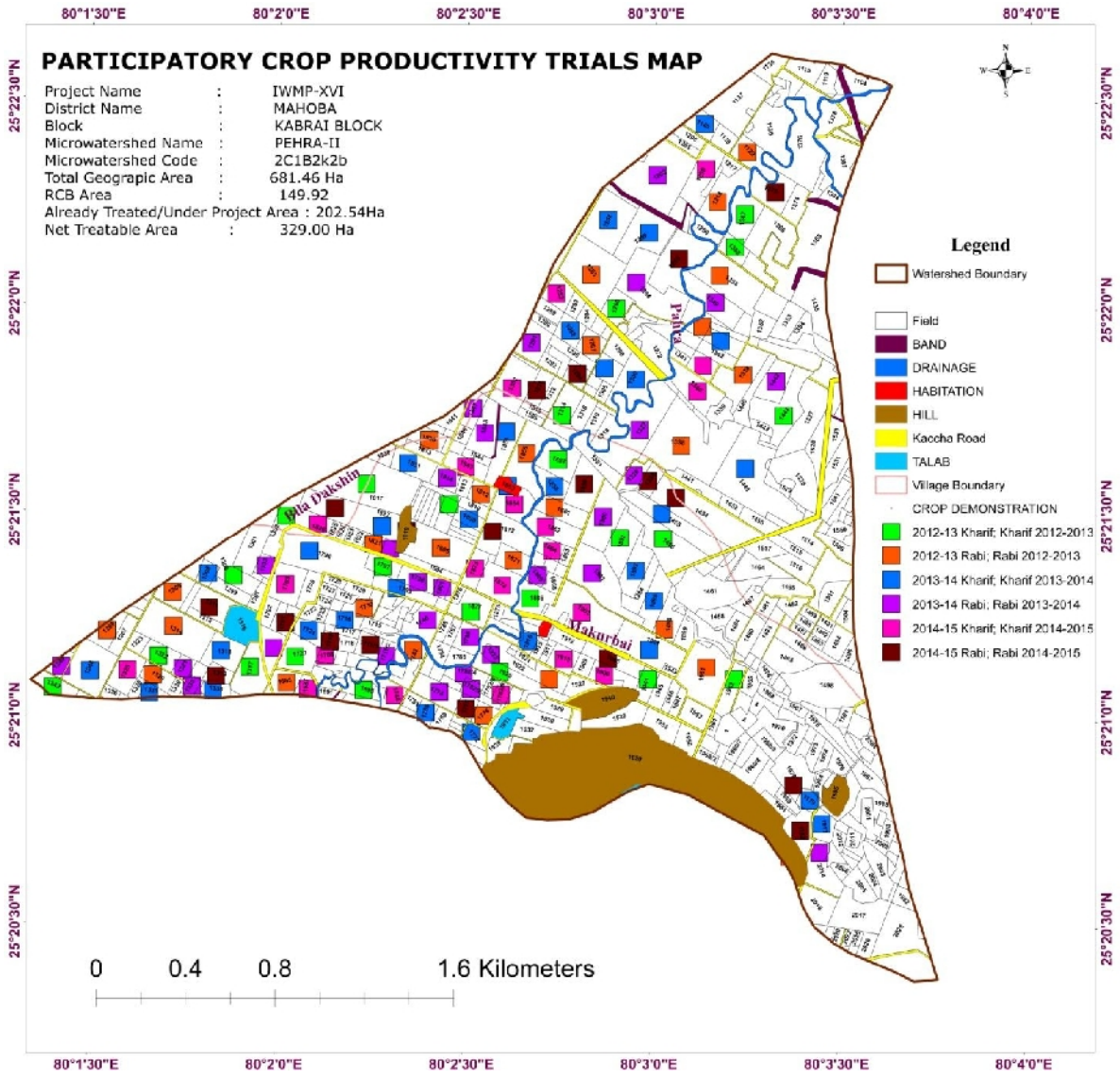

80°5'0"E
80°5'30"E
80°6'0"E
80°6'30"E
EXISTING & PROPOSED STRUCTURES MAP
Project Name : IWMP-XVI
District Name : MAHOBA
Block : KABRAI BLOCK
Microwatershed Name : KHARKA
Microwatershed Code : 2C1B2I2c_1
Total Geograpic Area : 707.64 Ha
RCB Area : 155.68
Already Treated/Under Project Area : 200.96Ha
Net Treatable Area : 351.00 Ha
25°23'0"N
25°22'30"N
25°22'0"N
25°21'30"N
25°21'0"N
Legend
Watershed Boundary
Field
BAND
Drainage
Habitation
Kaccha Road
POND
Village Boundary
Check Dam
Marginal Band
Submerge Band
Water Harvesting Band
Treated
0 0.2 0.4 0.8 Kilometers
Pahra
kharka
SB10
SB9
SB1
SB11
SB12
SB13
SB6
SB5
SB3
SB2
CD5
CD3
CD2
CD1
MB42
MB41
MB7
MB6
MB5
MB2
MB1
PB3

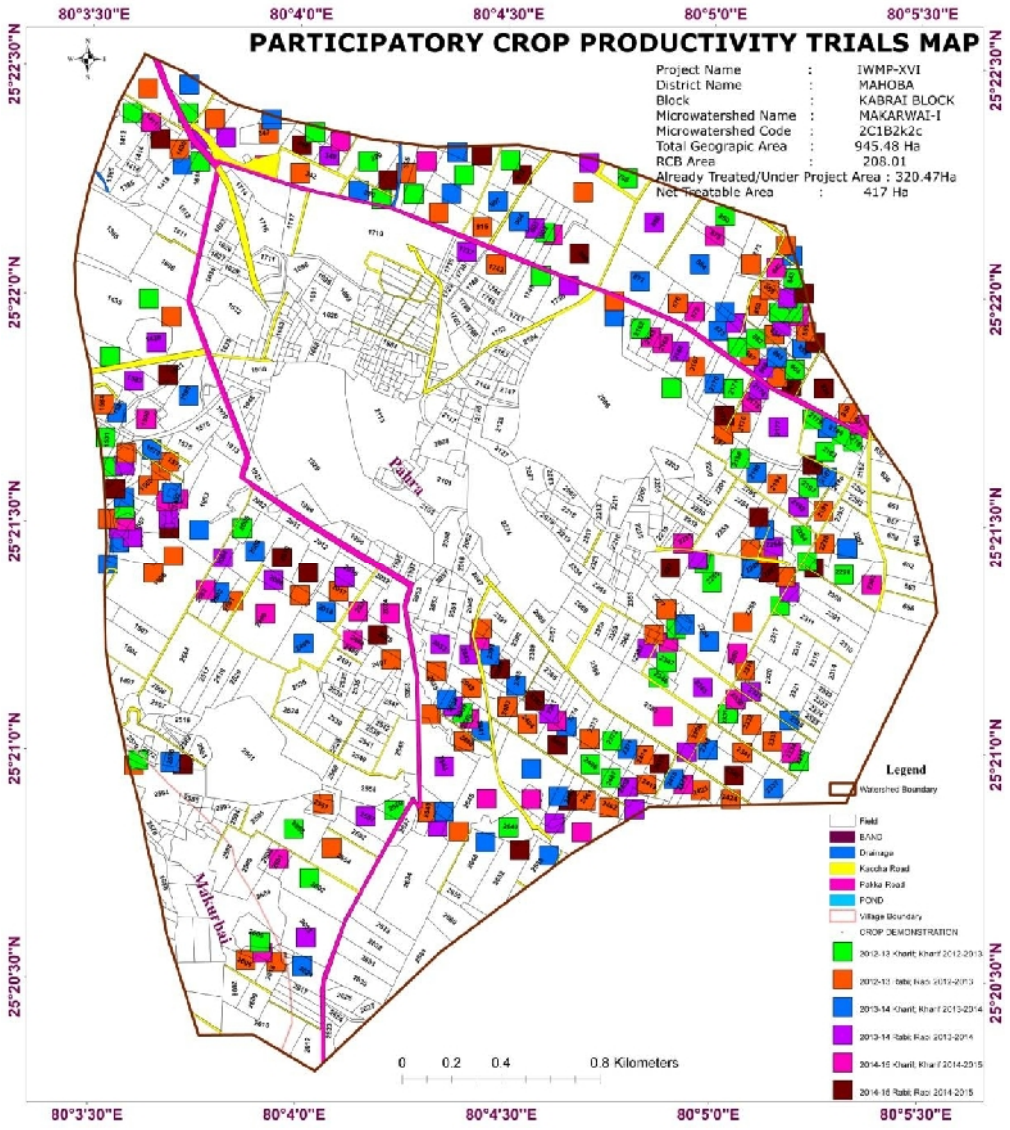

PARTICIPATORY CROP PRODUCTIVITY TRIALS MAP
Project Name : IWMP-XVI
District Name : MAHOBA
Block : KABRAI BLOCK
Microwatershed Name : BILLA UTTAR
Microwatershed Code : 2C1B2c2c
Total Geographic Area : 1161.16 Ha
RCE Area : 255.46
Already Treated/Under Project Area : 301.76 Ha
Net Treatable Area : 604.00 Ha
80°0'30"E
80°1'0"E
80°1'30"E
80°2'0"E
25°29'0"N
25°28'30"N
25°28'0"N
25°27'30"N
25°27'0"N
25°26'30"N
25°26'0"N
25°25'30"N
Legend
Watershed Boundary
Field
BAND
Drainage
Kaccha Road
Pakka Road
POND
Village Boundary
CROP DEMONSTRATION
2012-13 Kharif
2012-13 Rabi
2013-14 Kharif
2013-14 Rabi
2014-15 Kharif
2014-15 Rabi
0 0.2 0.4 0.8 Kilometers

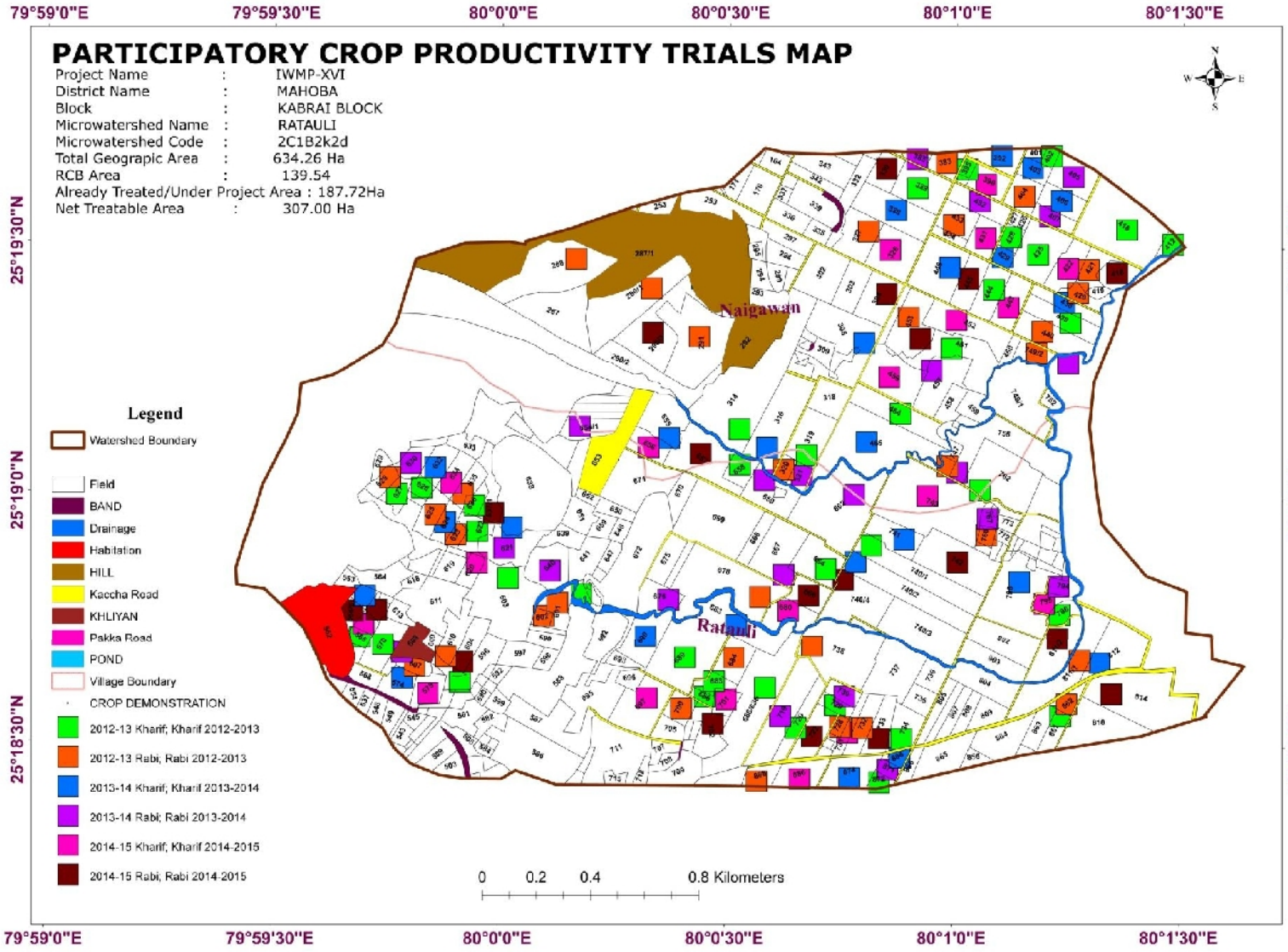

PARTICIPATORY CROP PRODUCTIVITY TRIALS MAP
Project Name : IWMP-XVI
District Name : MAHOBA
Block : KABRAI BLOCK
Microwatershed Name : BAGWAHA
Microwatershed Code : 2C1B2j2c
Total Geograpic Area : 1114.49 Ha
RCB Area : 245.19
Already Treated/Under Project Area : 247.30Ha
Net Treatable Area : 622.00 Ha
Legend
Watershed Boundary
Field
BAND
Drainage
Habitation
HILL
Kaccha Road
KHALIHAN
Pakka Road
POND
Village Boundary
CROP DEMONSTRATION
2012-13 Kharif
2012-13 Rabi
2013-14 Kharif
2013-14 Rabi
2014-15 Kharif
2014-15 Rabi
Baghwa
Gauhari
0
0.5
1
2 Kilometers

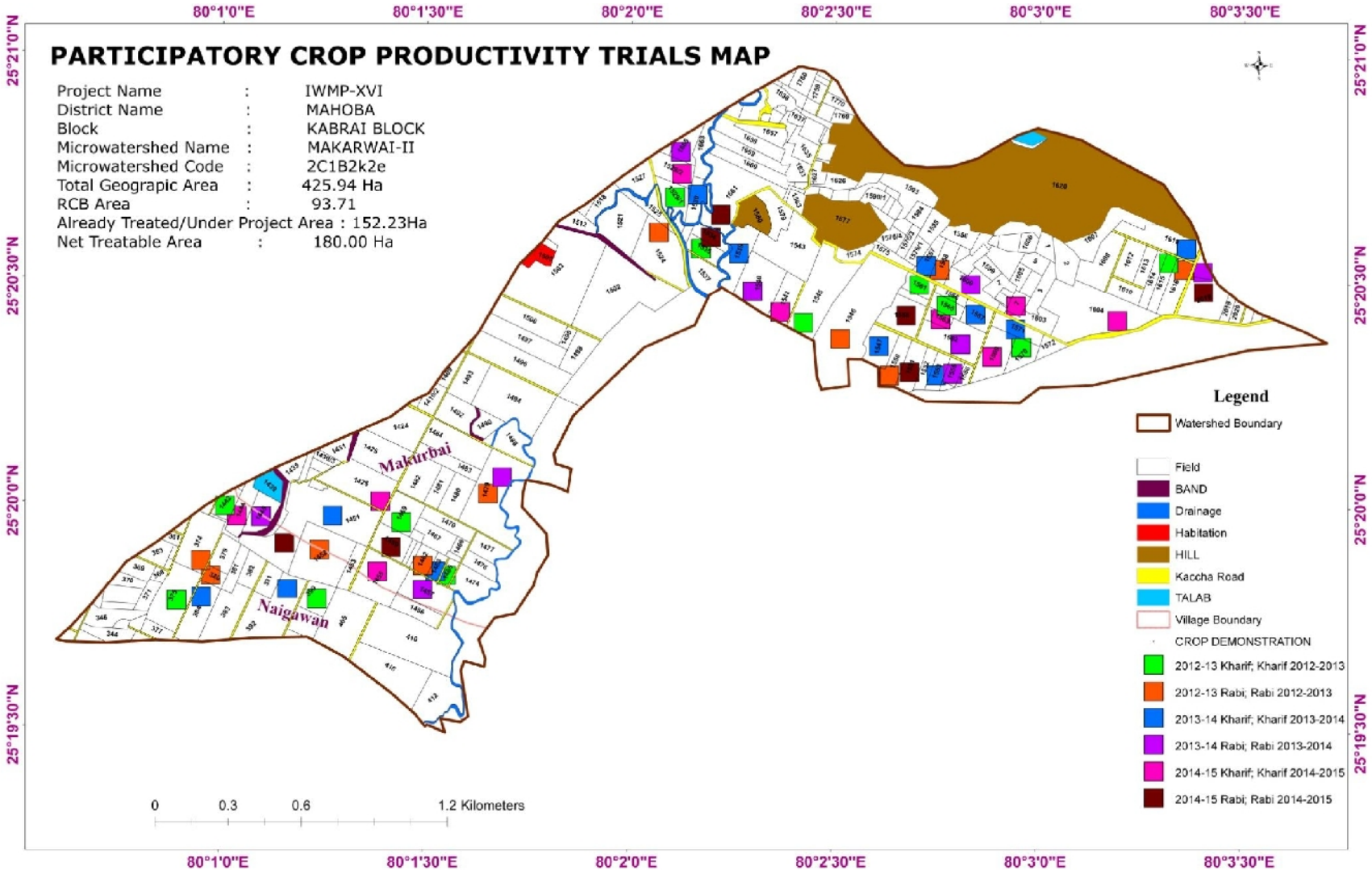

PARTICIPATORY CROP PRODUCTIVITY TRIALS MAP
Project Name : IWMP-XVI
District Name : MAHOBA
Block : KABRAI BLOCK
Microwatershed Name : NEHANDAURA
Microwatershed Code : 2C1B2j2d
Total Geograpic Area : 863.96 Ha
RCB Area : 190.07
Already Treated/Under Project Area : 267.89 Ha
Net Treatable Area : 406.00 Ha
Legend
Watershed Boundary
Field
BAND
Drainage
Habitation
Kaccha Road
KHALIHAN
Pakka Road
POND
RAILWAY-LINE
Village Boundary
CROP DEMONSTRATION
2012-13 Kharif
2012-13 Rabi
2013-14 Kharif
2013-14 Rabi
2014-15 Kharif
2014-15 Rabi
Sukaora
Bila Uttar
Baghwa
Nahaora
0 0.3 0.6 1.2 Kilometers
80°3'30"E
80°4'0"E
80°4'30"E
80°5'0"E
80°5'30"E
80°6'0"E
25°25'0"N
25°24'30"N
25°24'0"N
25°23'30"N

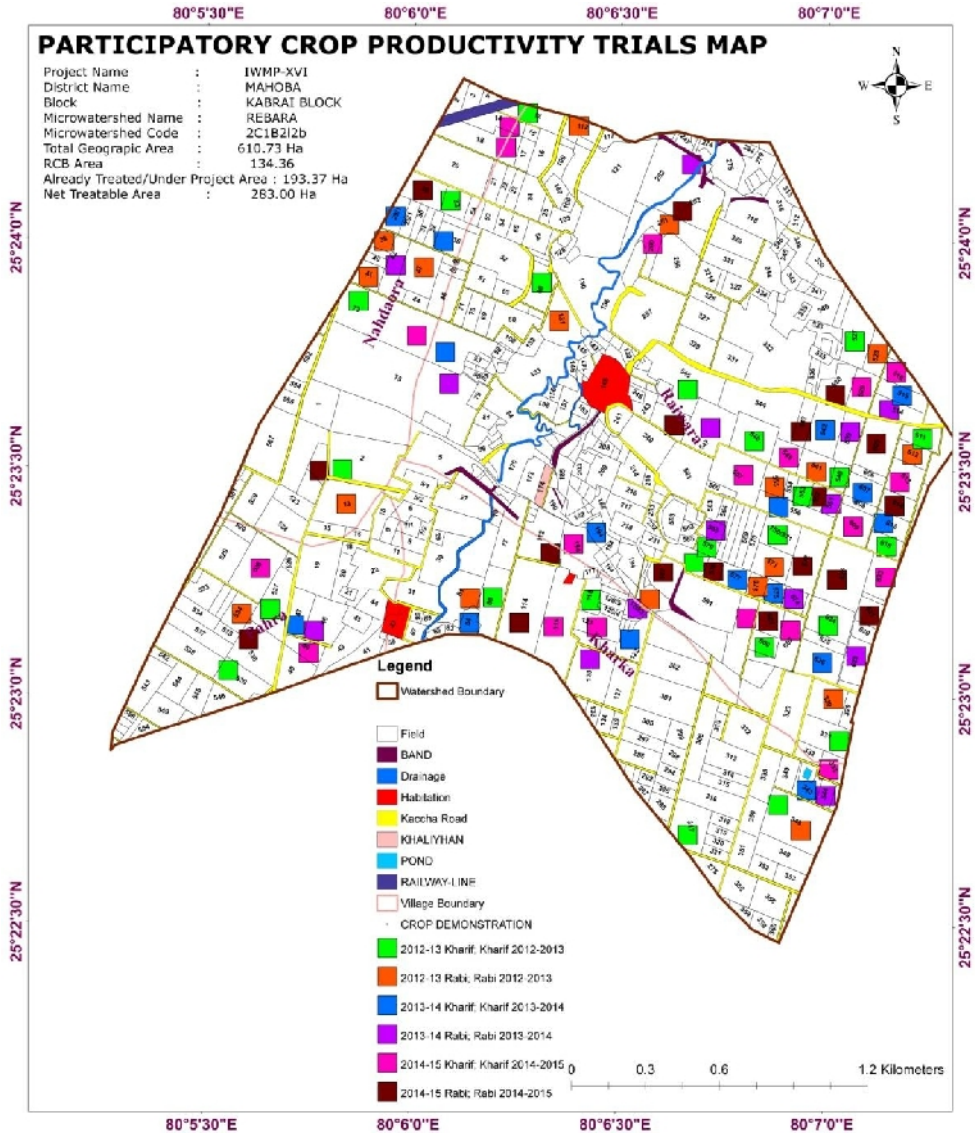

PARTICIPATORY CROP PRODUCTIVITY TRIALS MAP
Project Name : IWMP-XVI
District Name : MAHOBA
Block : KABRAI BLOCK
Microwatershed Name : PHERA-1
Microwatershed Code : 2C1B2k2a
Total Geograpic Area : 741.40 Ha
RCB Area : 163.11
Already Treated/Under Project Area : 168.29Ha
Net Treatable Area : 410.00Ha
Legend
Watershed Boundary
Village Boundary
Field
Band
Drainage
Kaccha Road
Pakka Road
RAILWAY-LINE
TALAB
CROP DEMONSTRATION
2012-13 Kharif
2012-13 Rabi
2013-14 Kharif
2013-14 Rabi
2014-15 Kharif
2014-15 Rabi
Mahdapra
Pahra
0 0.2 0.4 0.8 Kilometers
80°3'30"E
80°4'0"E
80°4'30"E
80°5'0"E
25°24'0"N
25°23'30"N
25°23'0"N
25°22'30"N

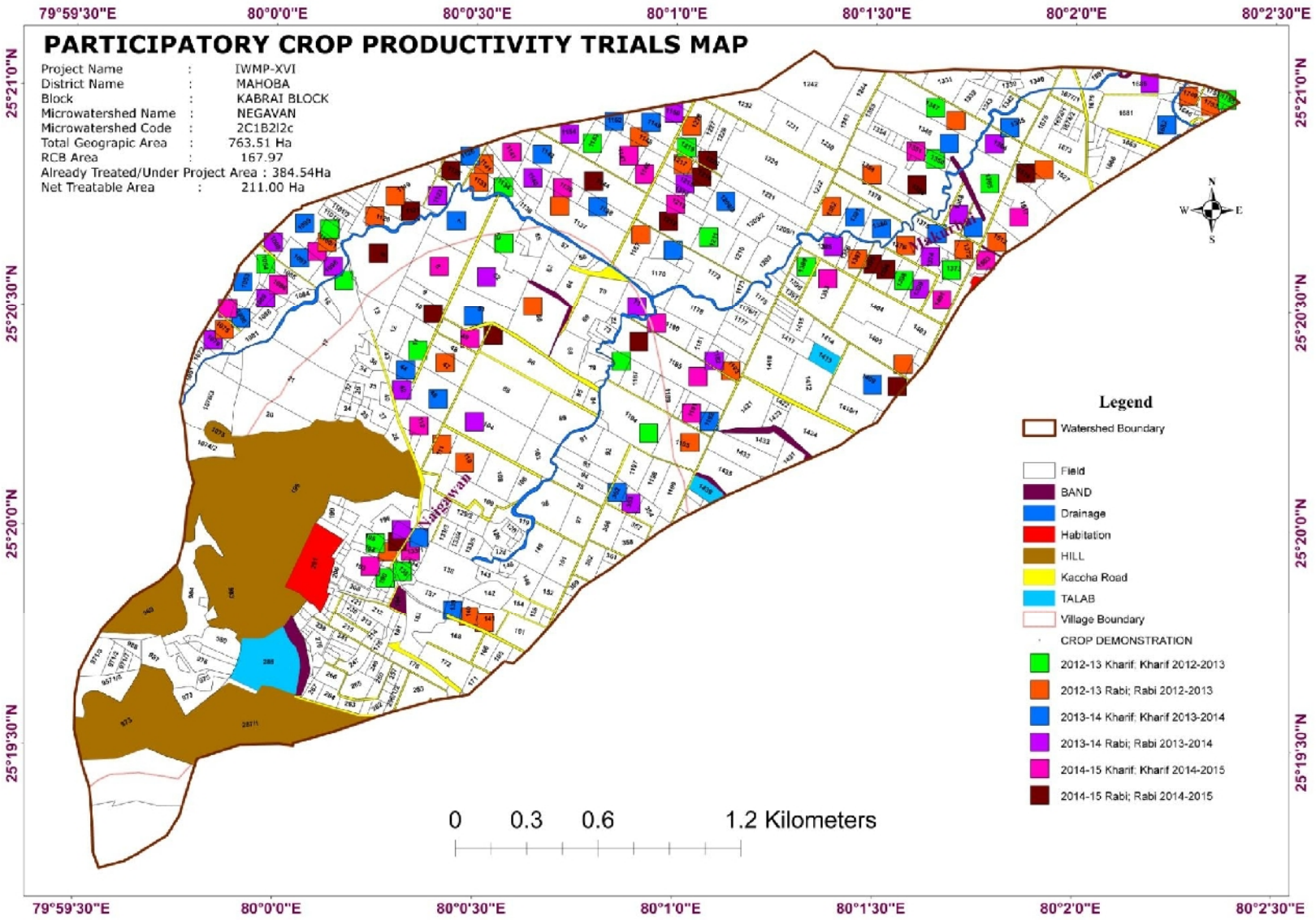

PARTICIPATORY CROP PRODUCTIVITY TRIALS MAP
Project Name : IWMP-XVI
District Name : MAHOBA
Block : KABRAI BLOCK
Microwatershed Name : PEHRA-II
Microwatershed Code : 2C1B2k2b
Total Geograpic Area : 681.46 Ha
RCB Area : 149.92
Already Treated/Under Project Area : 202.54Ha
Net Treatable Area : 329.00 Ha
Legend
Watershed Boundary
Field
BAND
DRAINAGE
HABITATION
HILL
Kaccha Road
TALAB
Village Boundary
CROP DEMONSTRATION
2012-13 Kharif; Kharif 2012-2013
2012-13 Rabi; Rabi 2012-2013
2013-14 Kharif; Kharif 2013-2014
2013-14 Rabi; Rabi 2013-2014
2014-15 Kharif; Kharif 2014-2015
2014-15 Rabi; Rabi 2014-2015
Pehra
Bija Dakshin
Makurbai
0 0.4 0.8 1.6 Kilometers
80°1'30"E
80°2'0"E
80°2'30"E
80°3'0"E
80°3'30"E
80°4'0"E
25°22'30"N
25°22'0"N
25°21'30"N
25°21'0"N
25°20'30"N

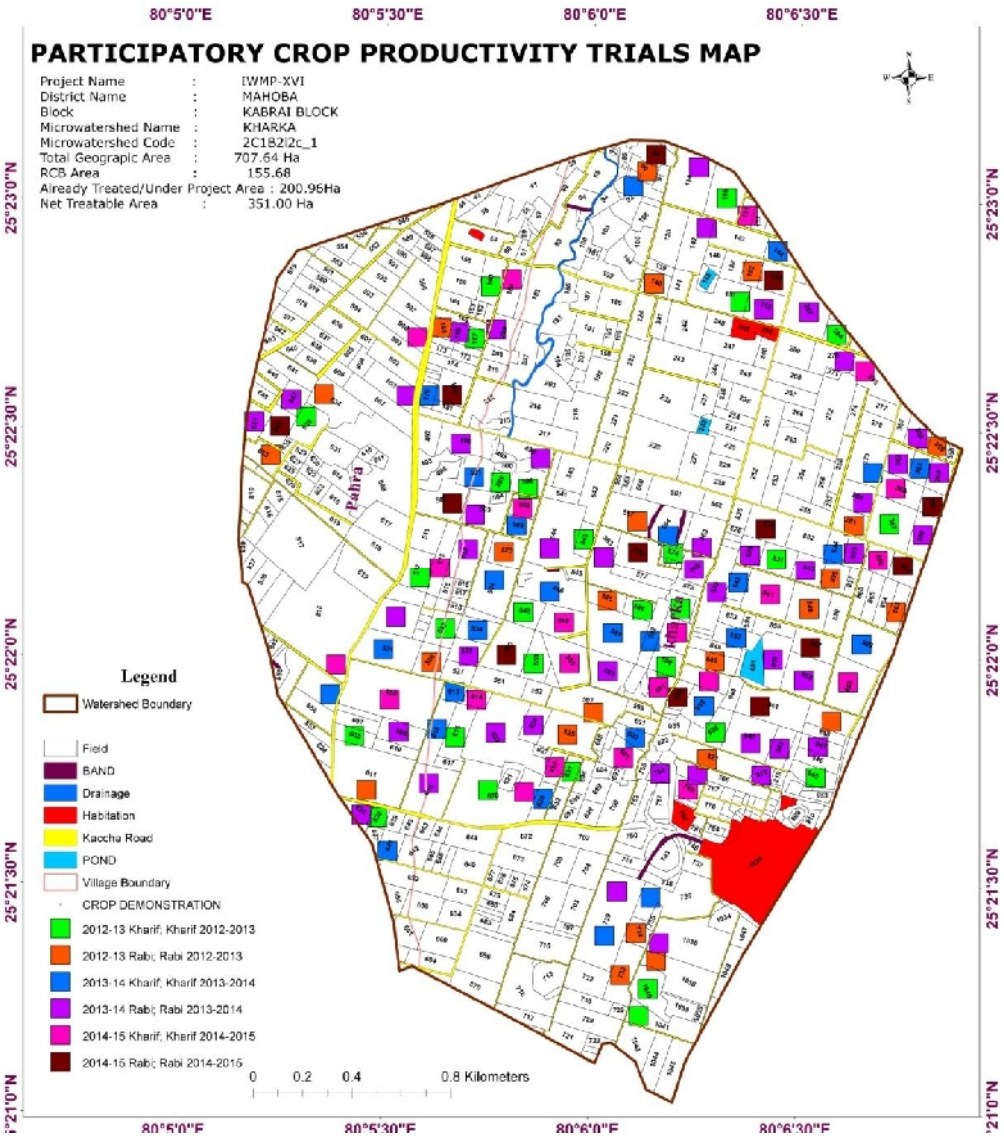

PARTICIPATORY CROP PRODUCTIVITY TRIALS MAP
Project Name : IWMP-XVI
District Name : MAHOBA
Block : KABRAI BLOCK
Microwatershed Name : MAKARWAI-I
Microwatershed Code : 2C1B2k2c
Total Geograpic Area : 945.48 Ha
RCB Area : 208.01
Already Treated/Under Project Area : 320.47Ha
Net Treatable Area : 417 Ha
80°3'30"E
80°4'0"E
80°4'30"E
80°5'0"E
80°5'30"E
25°22'30"N
25°22'0"N
25°21'30"N
25°21'0"N
25°20'30"N
Pathra
Makarbai
Legend
Watershed Boundary
Field
BAND
Drainage
Kaccha Road
Pakka Road
POND
Village Boundary
CROP DEMONSTRATION
2012-13 Kharif, Kharif 2012-2013
2012-13 Rabi, Rabi 2012-2013
2013-14 Kharif, Kharif 2013-2014
2013-14 Rabi, Rabi 2013-2014
2014-15 Kharif, Kharif 2014-2015
2014-15 Rabi, Rabi 2014-2015
0 0.2 0.4 0.8 Kilometers

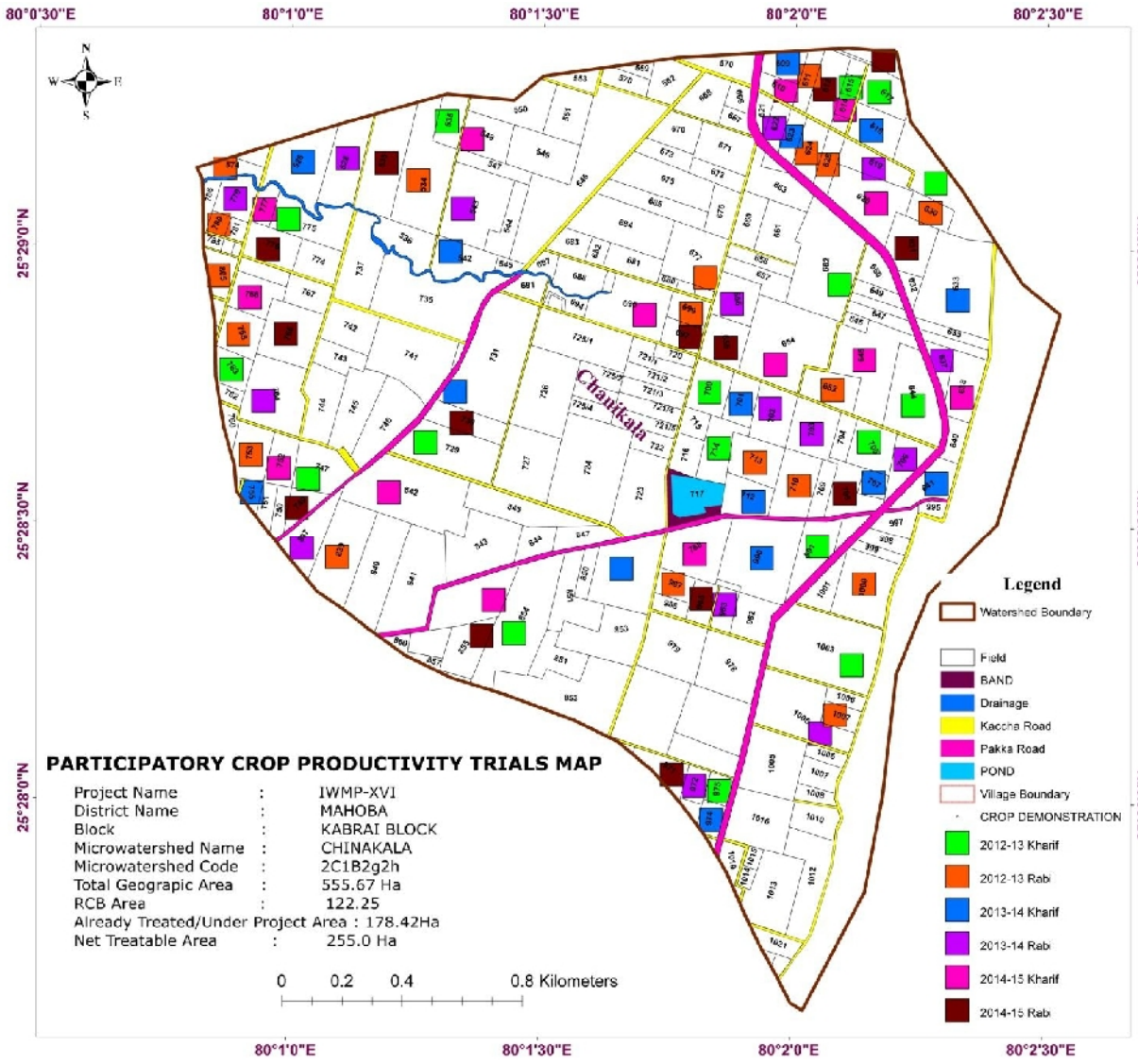

79°59'0"E
79°59'30"E
80°0'0"E
80°0'30"E
80°1'0"E
80°1'30"E
25°19'30"N
25°19'0"N
25°18'30"N
PARTICIPATORY CROP PRODUCTIVITY TRIALS MAP
Project Name : IWMP-XVI
District Name : MAHOBA
Block : KABRAI BLOCK
Microwatershed Name : RATAULI
Microwatershed Code : 2C1B2k2d
Total Geograpic Area : 634.26 Ha
RCB Area : 139.54
Already Treated/Under Project Area : 187.72Ha
Net Treatable Area : 307.00 Ha
Naigawan
Rataili
Legend
Watershed Boundary
Field
BAND
Drainage
Habitation
HILL
Kaccha Road
KHLIYAN
Pakka Road
POND
Village Boundary
CROP DEMONSTRATION
2012-13 Kharif; Kharif 2012-2013
2012-13 Rabi; Rabi 2012-2013
2013-14 Kharif; Kharif 2013-2014
2013-14 Rabi; Rabi 2013-2014
2014-15 Kharif; Kharif 2014-2015
2014-15 Rabi; Rabi 2014-2015
0 0.2 0.4 0.8 Kilometers


PARTICIPATORY CROP PRODUCTIVITY TRIALS MAP
Project Name : IWMP-XVI
District Name : MAHOBA
Block : KABRAI BLOCK
Microwatershed Name : MAKARWAI-II
Microwatershed Code : 2C1B2k2e
Total Geograpic Area : 425.94 Ha
RCB Area : 93.71
Already Treated/Under Project Area : 152.23Ha
Net Treatable Area : 180.00 Ha
80°1'0"E
80°1'30"E
80°2'0"E
80°2'30"E
80°3'0"E
80°3'30"E
25°21'0"N
25°20'30"N
25°20'0"N
25°19'30"N
Makurbai
Naigawan
Legend
Watershed Boundary
Field
BAND
Drainage
Habitation
HILL
Kaccha Road
TALAB
Village Boundary
CROP DEMONSTRATION
2012-13 Kharif; Kharif 2012-2013
2012-13 Rabi; Rabi 2012-2013
2013-14 Kharif; Kharif 2013-2014
2013-14 Rabi; Rabi 2013-2014
2014-15 Kharif; Kharif 2014-2015
2014-15 Rabi; Rabi 2014-2015
0
0.3
0.6
1.2 Kilometers

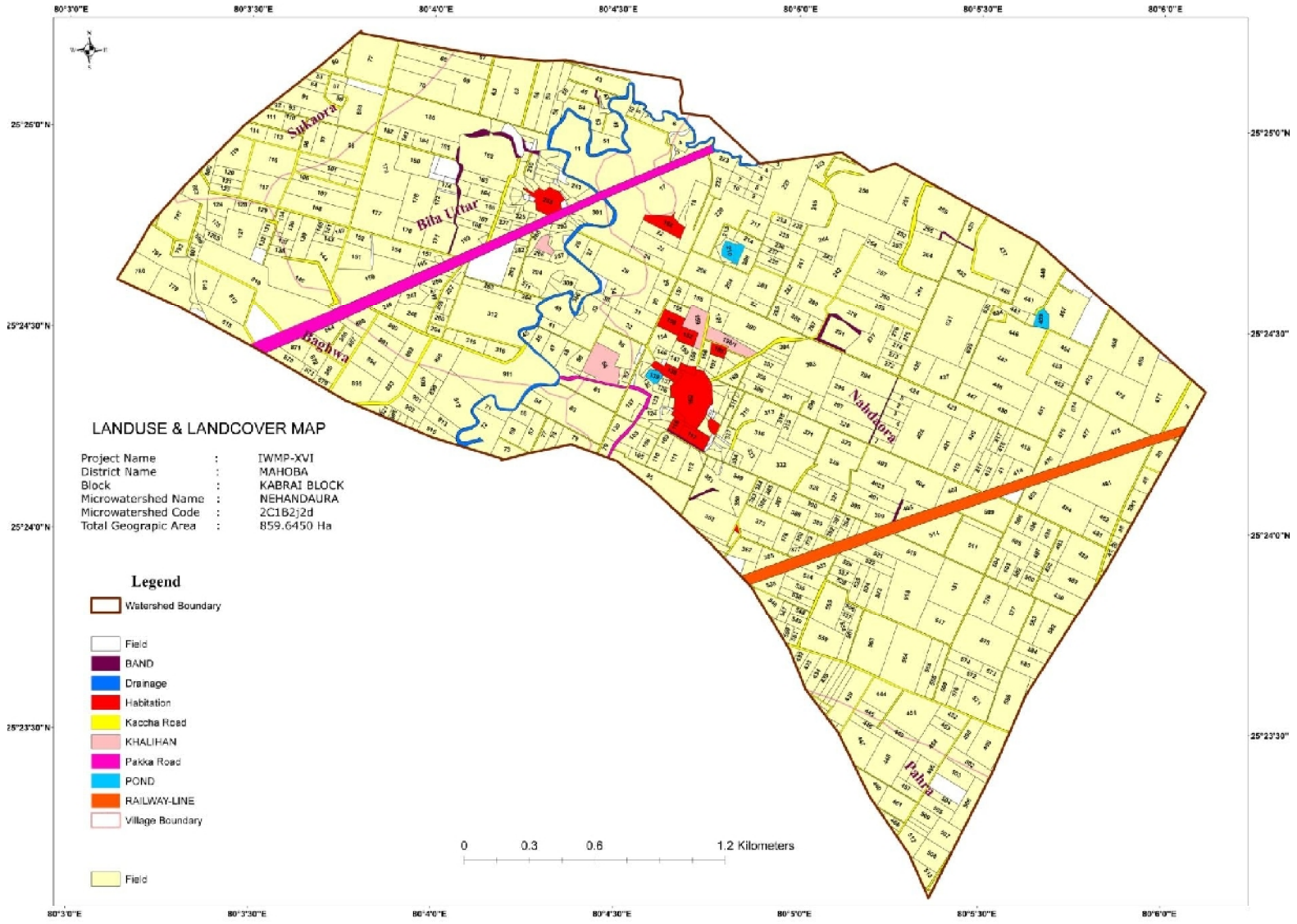

PARTICIPATORY CROP PRODUCTIVITY TRIALS MAP
Project Name : IWMP-XVI
District Name : MAHOBA
Block : KABRAI BLOCK
Microwatershed Name : REBARA
Microwatershed Code : 2C1B2I2b
Total Geograpic Area : 610.73 Ha
RCB Area : 134.36
Already Treated/Under Project Area : 193.37 Ha
Net Treatable Area : 283.00 Ha
80°5'30"E
80°6'0"E
80°6'30"E
80°7'0"E
25°24'0"N
25°23'30"N
25°23'0"N
25°22'30"N
N
W
E
S
Nahdaura
Kharka
Legend
Watershed Boundary
Field
BAND
Drainage
Habitation
Kaccha Road
KHALIYHAN
POND
RAILWAY-LINE
Village Boundary
CROP DEMONSTRATION
2012-13 Kharif: Kharif 2012-2013
2012-13 Rabi: Rabi 2012-2013
2013-14 Kharif: Kharif 2013-2014
2013-14 Rabi: Rabi 2013-2014
2014-15 Kharif: Kharif 2014-2015
2014-15 Rabi: Rabi 2014-2015
0
0.3
0.6
1.2 Kilometers

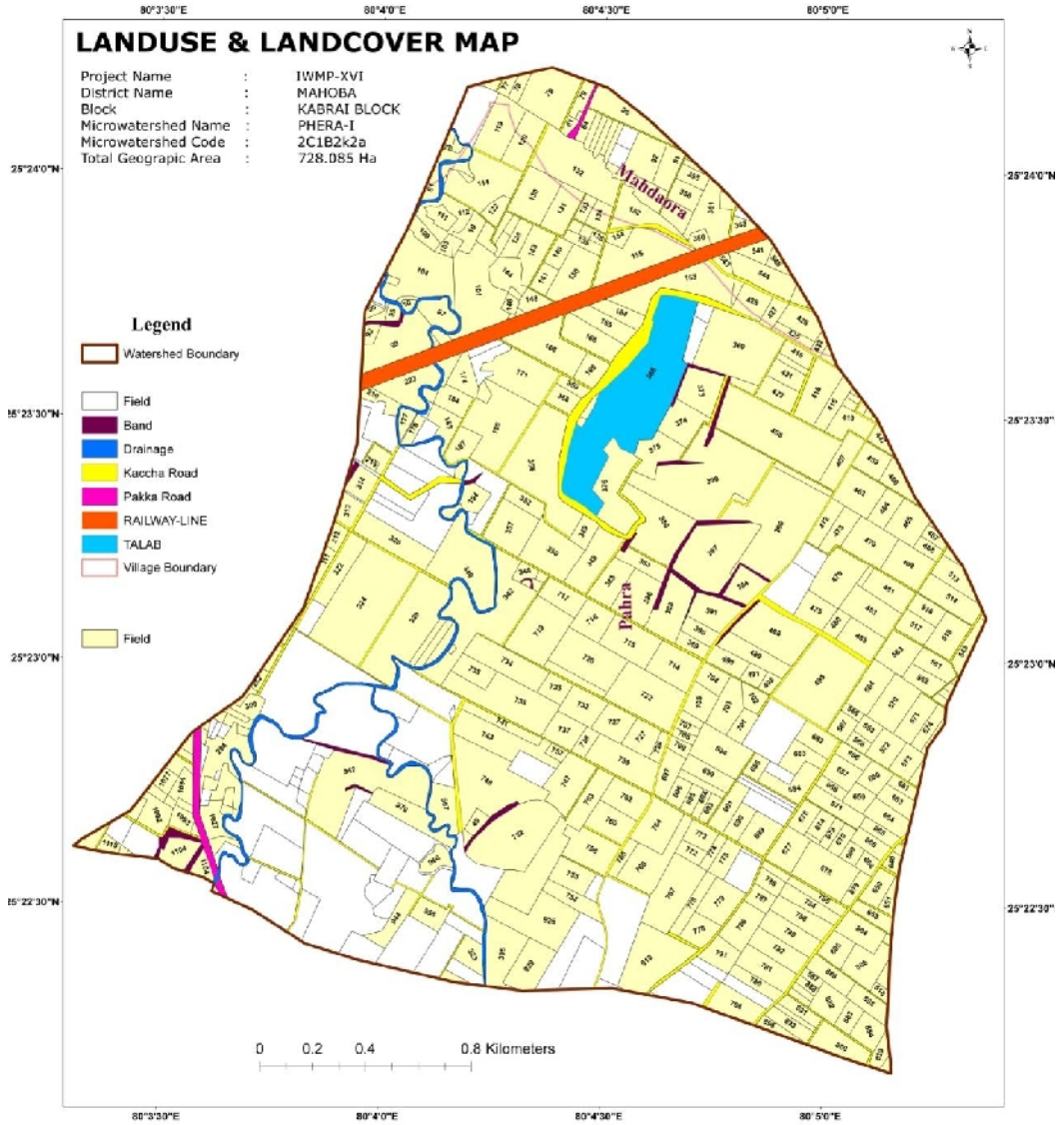

PARTICIPATORY CROP PRODUCTIVITY TRIALS MAP
Project Name : IWMP-XVI
District Name : MAHOBA
Block : KABRAI BLOCK
Microwatershed Name : NEGAVAN
Microwatershed Code : 2C1B2I2c
Total Geograpic Area : 763.51 Ha
RCB Area : 167.97
Already Treated/Under Project Area : 384.54Ha
Net Treatable Area : 211.00 Ha
79°59'30"E
80°0'0"E
80°0'30"E
80°1'0"E
80°1'30"E
80°2'0"E
80°2'30"E
25°21'0"N
25°20'30"N
25°20'0"N
25°19'30"N
Legend
Watershed Boundary
Field
BAND
Drainage
Habitation
HILL
Kaccha Road
TALAB
Village Boundary
CROP DEMONSTRATION
2012-13 Kharif; Kharif 2012-2013
2012-13 Rabi; Rabi 2012-2013
2013-14 Kharif; Kharif 2013-2014
2013-14 Rabi; Rabi 2013-2014
2014-15 Kharif; Kharif 2014-2015
2014-15 Rabi; Rabi 2014-2015
0 0.3 0.6 1.2 Kilometers
N
W
E
S

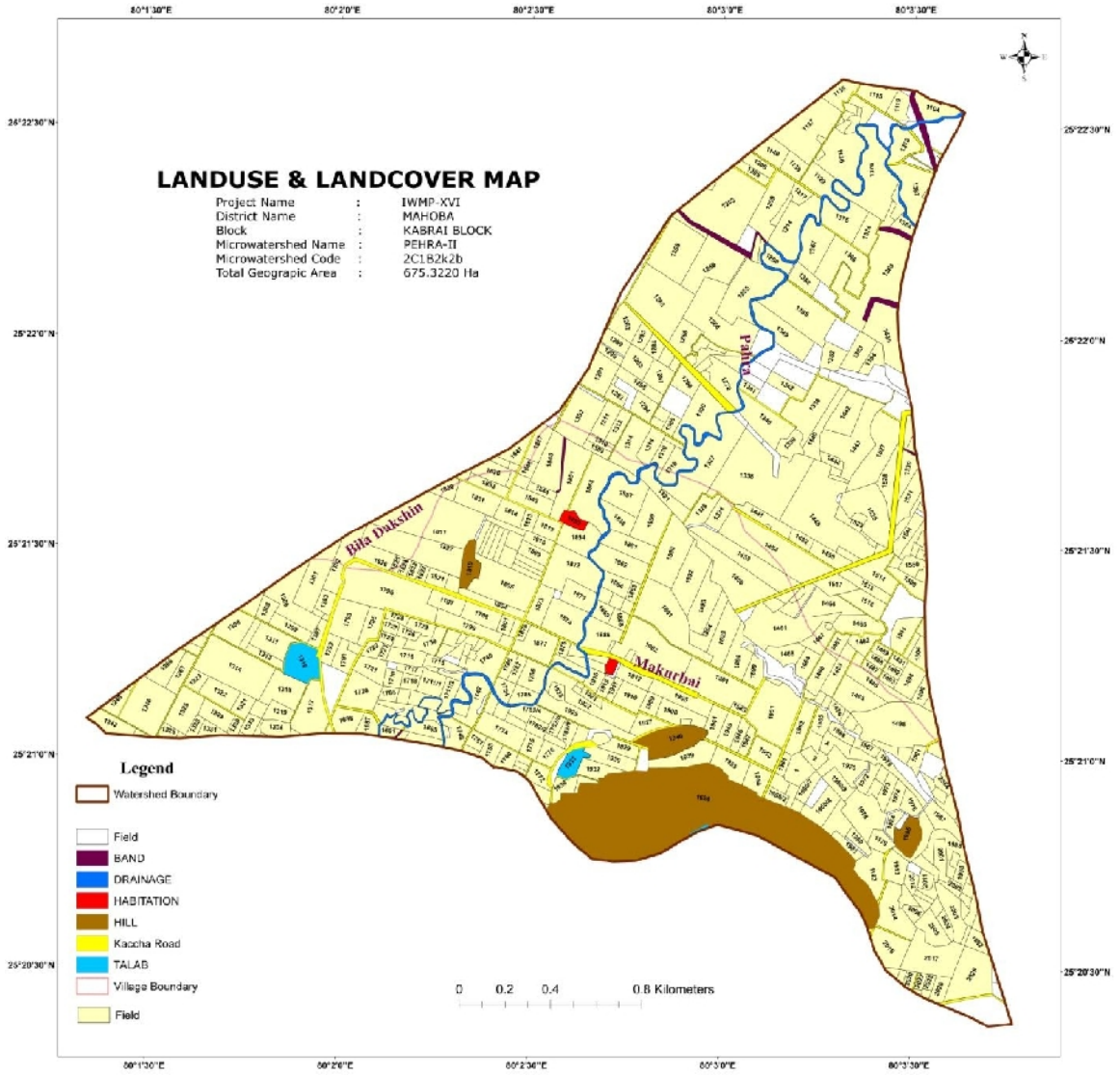

80°5'0"E
80°5'30"E
80°6'0"E
80°6'30"E
PARTICIPATORY CROP PRODUCTIVITY TRIALS MAP
Project Name : IWMP-XVI
District Name : MAHOBA
Block : KABRAI BLOCK
Microwatershed Name : KHARKA
Microwatershed Code : 2C1B2I2c_1
Total Geograpic Area : 707.64 Ha
RCB Area : 155.68
Already Treated/Under Project Area : 200.96Ha
Net Treatable Area : 351.00 Ha
25°23'0"N
25°22'30"N
25°22'0"N
25°21'30"N
25°21'0"N
Pahra
Legend
Watershed Boundary
Field
BAND
Drainage
Habitation
Kaccha Road
POND
Village Boundary
CROP DEMONSTRATION
2012-13 Kharif; Kharif 2012-2013
2012-13 Rabi; Rabi 2012-2013
2013-14 Kharif; Kharif 2013-2014
2013-14 Rabi; Rabi 2013-2014
2014-15 Kharif; Kharif 2014-2015
2014-15 Rabi; Rabi 2014-2015
0 0.2 0.4 0.8 Kilometers

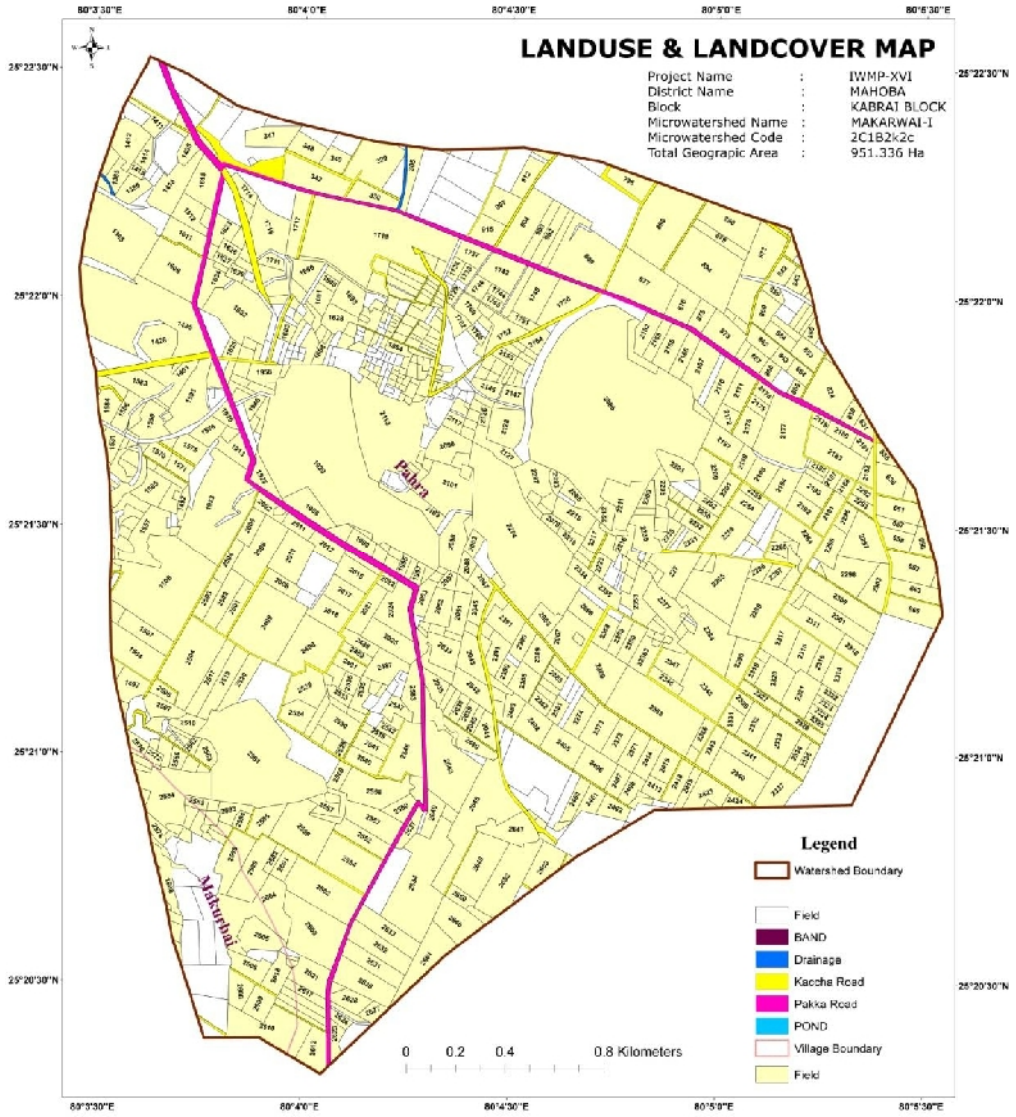

80°0'30"E
80°1'0"E
80°1'30"E
80°2'0"E
80°2'30"E
25°29'0"N
25°28'30"N
25°28'0"N
N
W
E
S
Chanikala
PARTICIPATORY CROP PRODUCTIVITY TRIALS MAP
Project Name : IWMP-XVI
District Name : MAHOBA
Block : KABRAI BLOCK
Microwatershed Name : CHINAKALA
Microwatershed Code : 2C1B2g2h
Total Geograpic Area : 555.67 Ha
RCB Area : 122.25
Already Treated/Under Project Area : 178.42Ha
Net Treatable Area : 255.0 Ha
0 0.2 0.4 0.8 Kilometers
Legend
Watershed Boundary
Field
BAND
Drainage
Kaccha Road
Pakka Road
POND
Village Boundary
CROP DEMONSTRATION
2012-13 Kharif
2012-13 Rabi
2013-14 Kharif
2013-14 Rabi
2014-15 Kharif
2014-15 Rabi

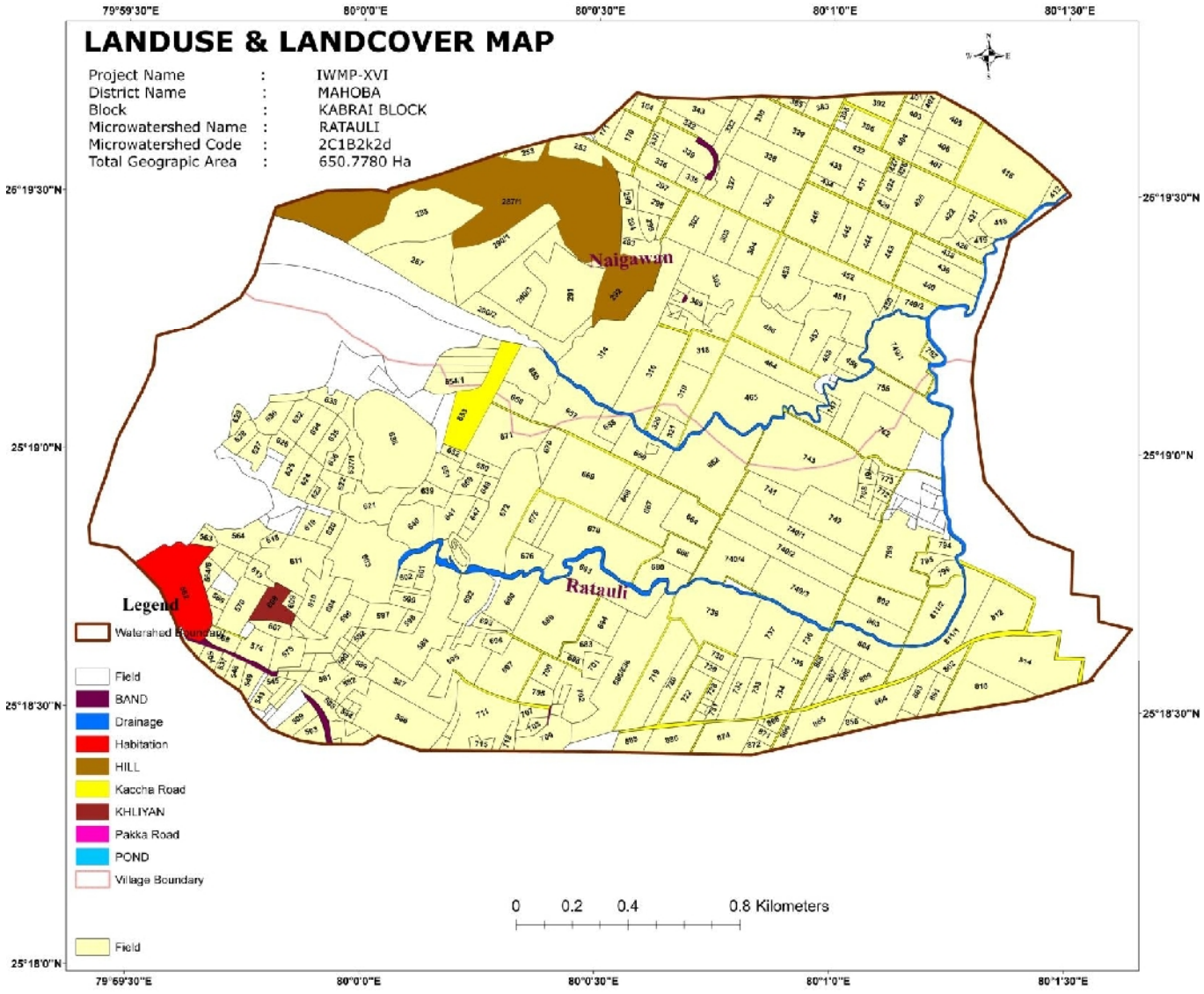

LANDUSE & LANDCOVER MAP
Project Name : IWMP-XVI
District Name : MAHOBA
Block : KABRAI BLOCK
Microwatershed Name : PILLA UTTAR
Microwatershed Code : 2C1I2Q4D
Total Geographic Area : 1144.1899 Ha
Legend
Watershed Boundary
Field
BAND
Drainage
Kaccha Road
Pakka Road
POND
Village Boundary
Field
0 0.2 0.4 0.8 Kilometers

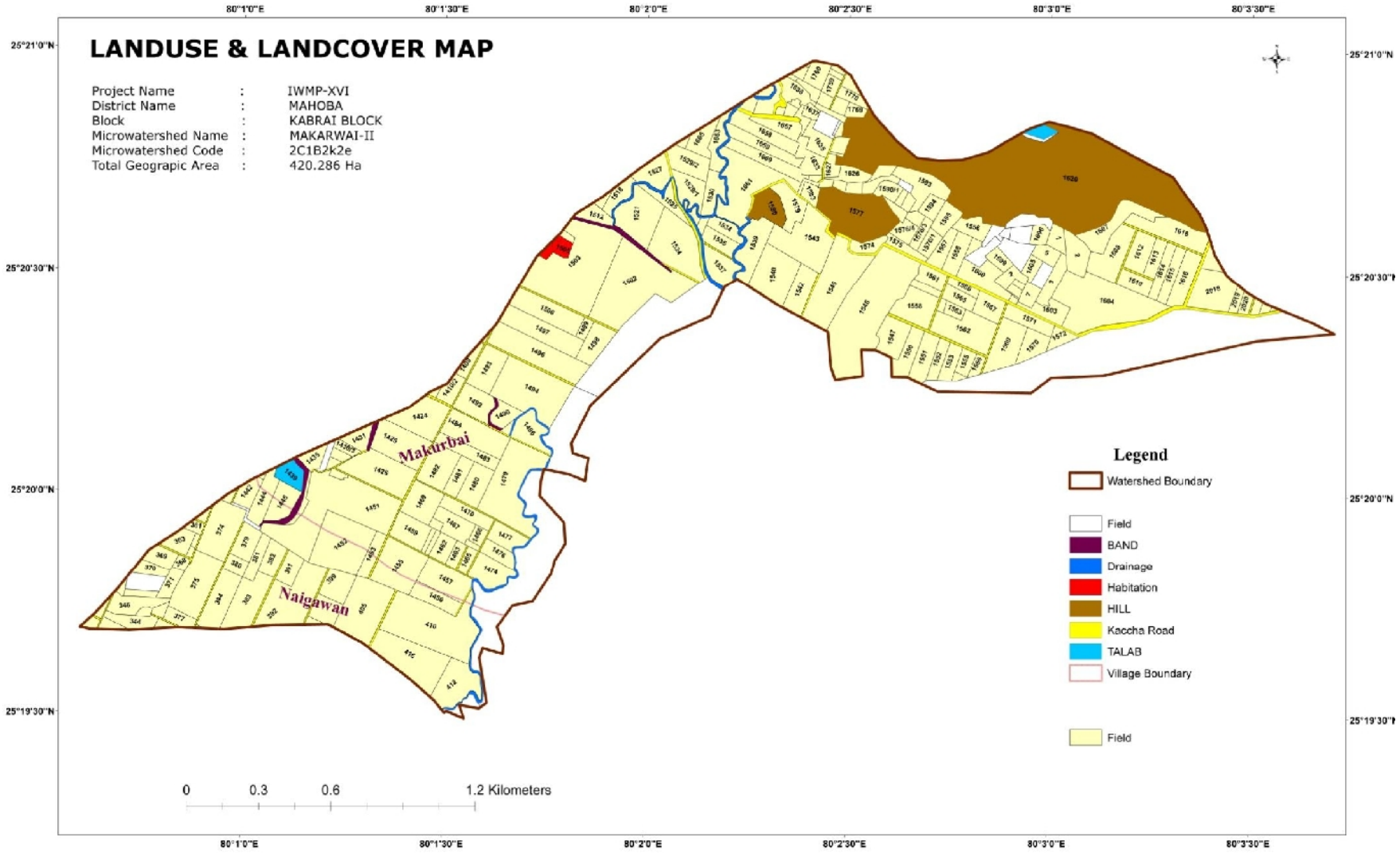

80°3'0"E
80°3'30"E
80°4'0"E
80°4'30"E
80°5'0"E
80°5'30"E
80°6'0"E
25°25'0"N
25°24'30"N
25°24'0"N
25°23'30"N
Sukaura
Bila Lichar
Baghwa
Nahdora
Pahra
LANDUSE & LANDCOVER MAP
Project Name : IWMP-XVI
District Name : MAHOBA
Block : KABRAI BLOCK
Microwatershed Name : NEHANDAURA
Microwatershed Code : 2C1B2j2d
Total Geograpic Area : 859.6450 Ha
Legend
Watershed Boundary
Field
BAND
Drainage
Habitation
Kaccha Road
KHALIHAN
Pakka Road
POND
RAILWAY-LINE
Village Boundary
Field
0 0.3 0.6 1.2 Kilometers

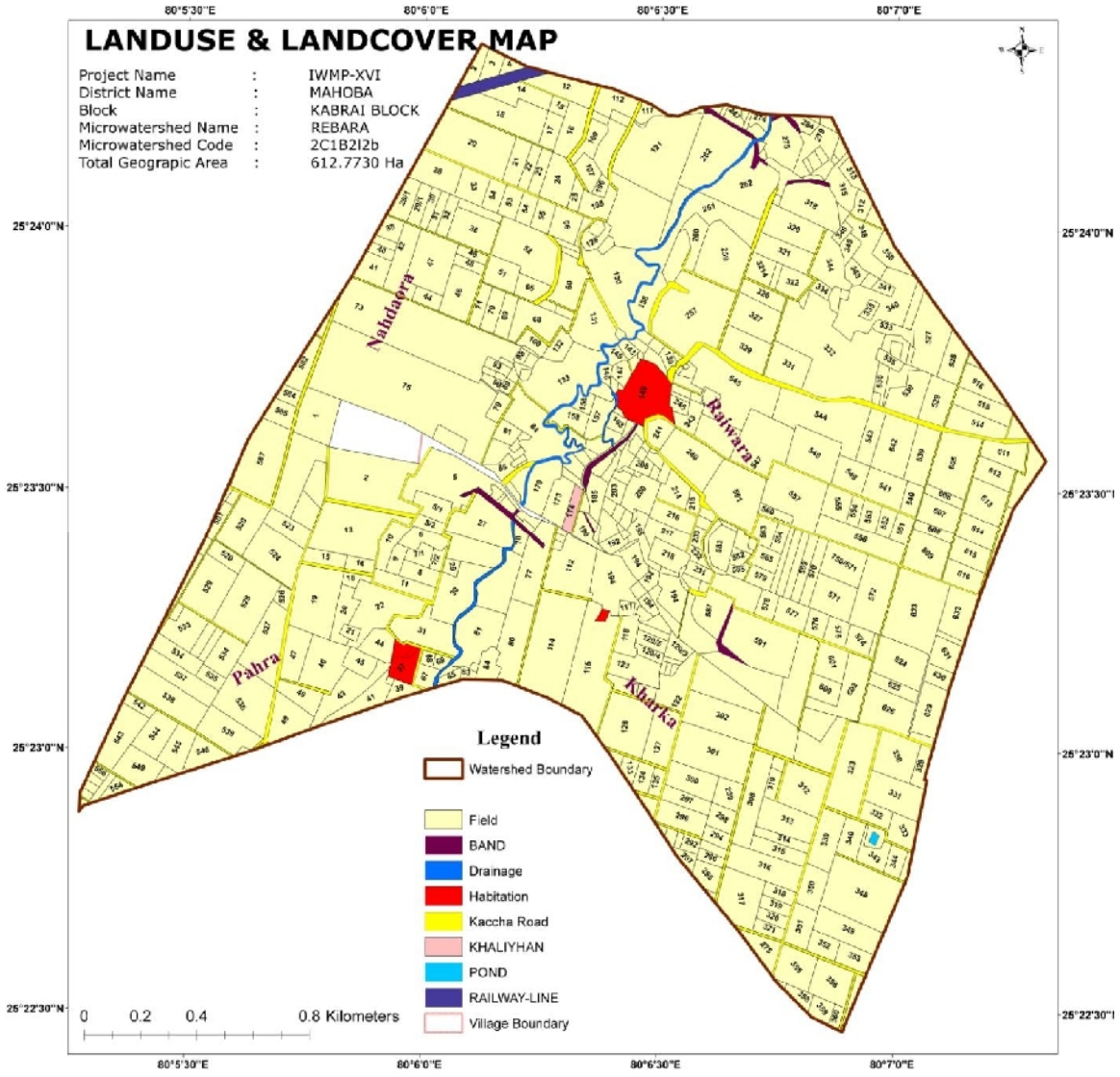

LANDUSE & LANDCOVER MAP
Project Name : IWMP-XVI
District Name : MAHOBA
Block : KABRAI BLOCK
Microwatershed Name : PHERA-I
Microwatershed Code : 2C1B2k2a
Total Geograpic Area : 728.085 Ha
Legend
Watershed Boundary
Field
Band
Drainage
Kaccha Road
Pakka Road
RAILWAY-LINE
TALAB
Village Boundary
Field
Mahdaora
Pahra
0 0.2 0.4 0.8 Kilometers
80°3'30"E
80°4'0"E
80°4'30"E
80°5'0"E
25°24'0"N
25°23'30"N
25°23'0"N
25°22'30"N

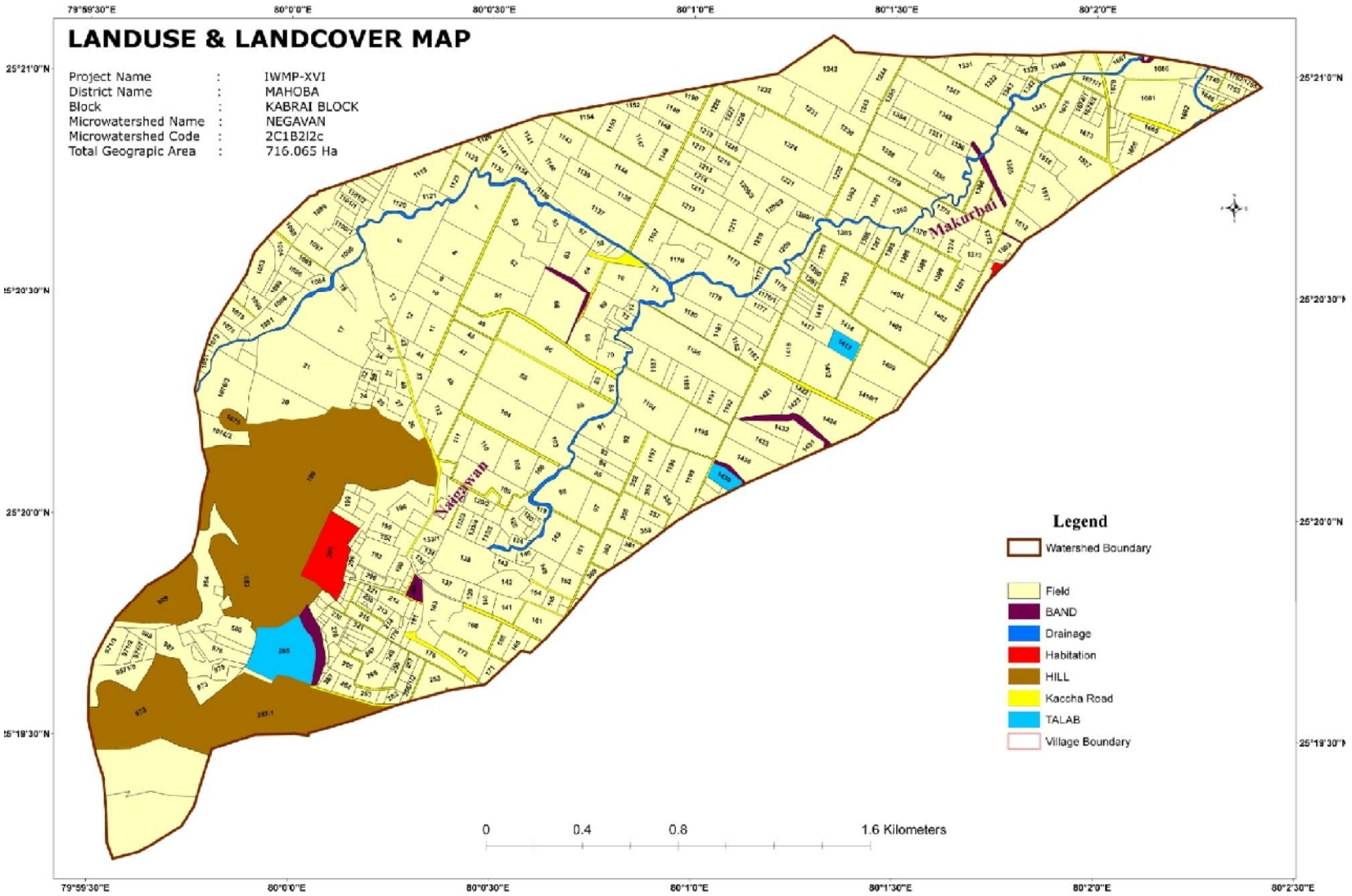

LANDUSE & LANDCOVER MAP
Project Name : IWMP-XVI
District Name : MAHOBA
Block : KABRAI BLOCK
Microwatershed Name : PEHRA-II
Microwatershed Code : 2C1B2k2b
Total Geograpic Area : 675.3220 Ha
Bika Dakshin
Pahra
Makurhai
Legend
Watershed Boundary
Field
BAND
DRAINAGE
HABITATION
HILL
Kaccha Road
TALAB
Village Boundary
Field
0 0.2 0.4 0.8 Kilometers
80°1'30"E
80°2'0"E
80°2'30"E
80°3'0"E
80°3'30"E
25°22'30"N
25°22'0"N
25°21'30"N
25°21'0"N
25°20'30"N

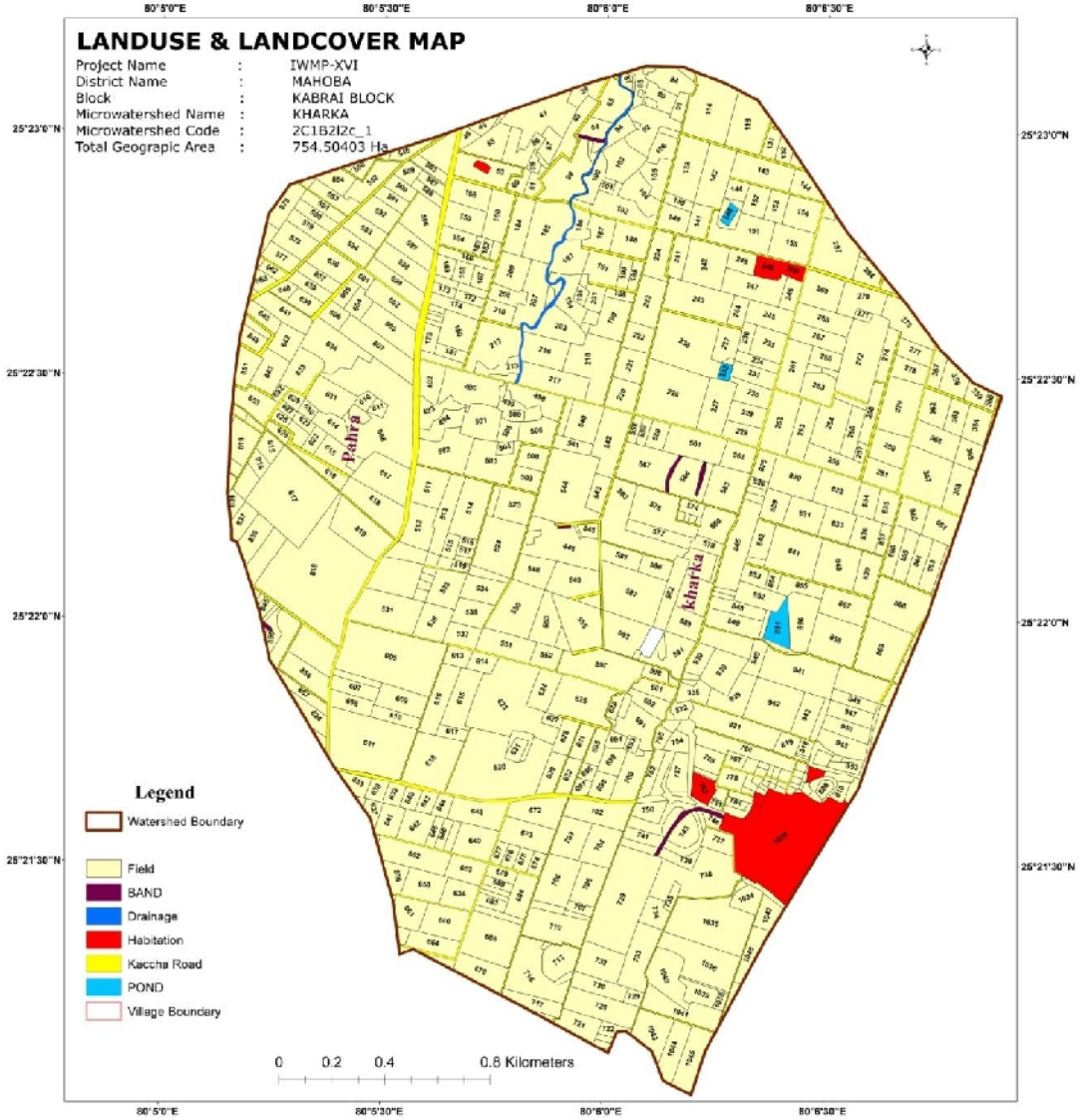

LANDUSE & LANDCOVER MAP
Project Name : IWMP-XVI
District Name : MAHOBA
Block : KABRAI BLOCK
Microwatershed Name : MAKARWAI-I
Microwatershed Code : 2C1B2k2c
Total Geograpic Area : 951.336 Ha
80°3'30"E
80°4'0"E
80°4'30"E
80°5'0"E
80°5'30"E
25°22'30"N
25°22'0"N
25°21'30"N
25°21'0"N
25°20'30"N
Pakra
Makarbai
0 0.2 0.4 0.8 Kilometers
Legend
Watershed Boundary
Field
BAND
Drainage
Kaccha Road
Pakka Road
POND
Village Boundary
Field

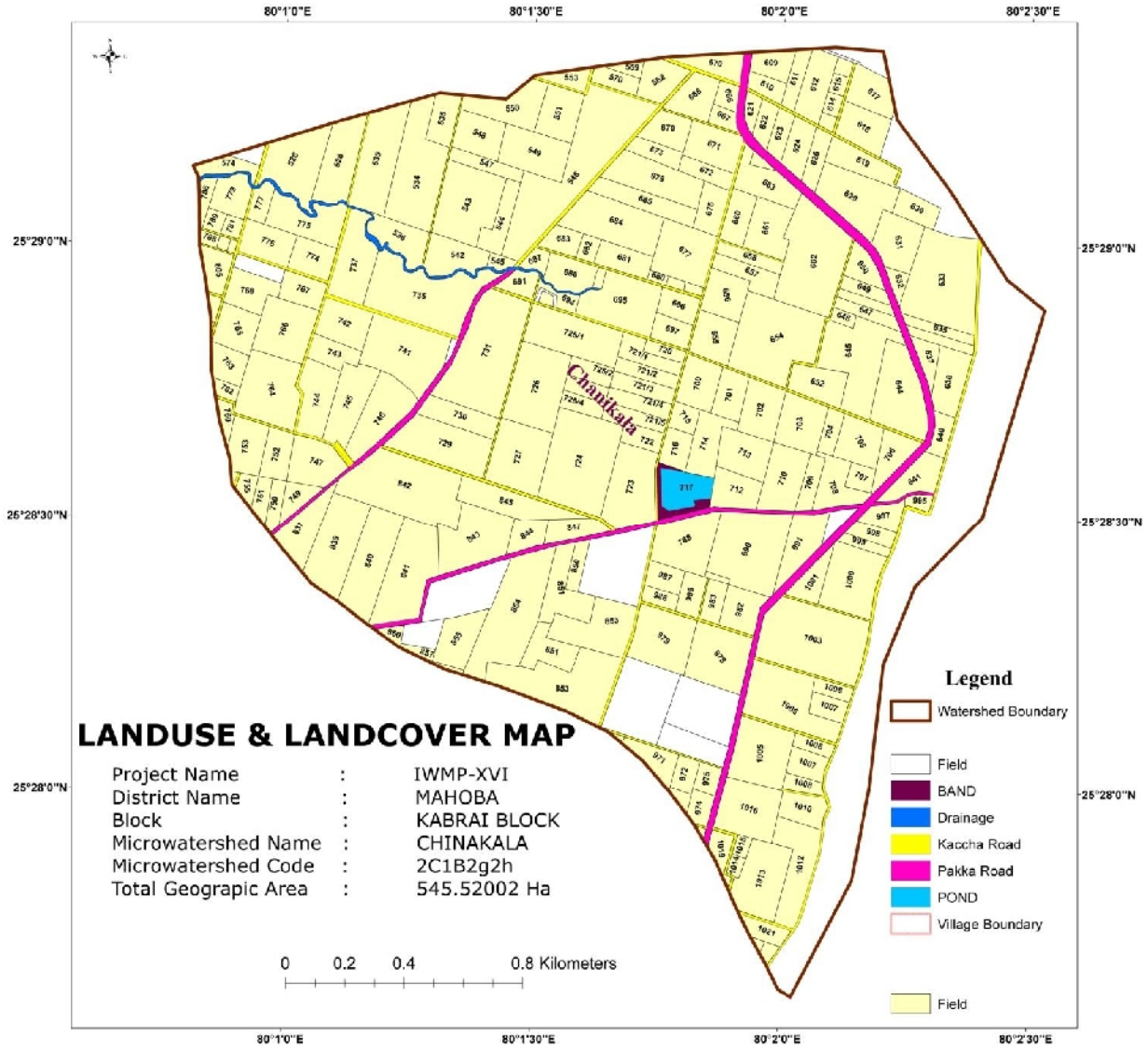

LANDUSE & LANDCOVER MAP
Project Name : IWMP-XVI
District Name : MAHOBA
Block : KABRAI BLOCK
Microwatershed Name : RATAULI
Microwatershed Code : 2C1B2k2d
Total Geograpic Area : 650.7780 Ha
Naigawan
Ratauli
Legend
Watershed Boundary
Field
BAND
Drainage
Habitation
HILL
Kaccha Road
KHLIYAN
Pakka Road
POND
Village Boundary
0 0.2 0.4 0.8 Kilometers
Field
79°59'30"E
80°0'0"E
80°0'30"E
80°1'0"E
80°1'30"E
25°19'30"N
25°19'0"N
25°18'30"N
25°18'0"N

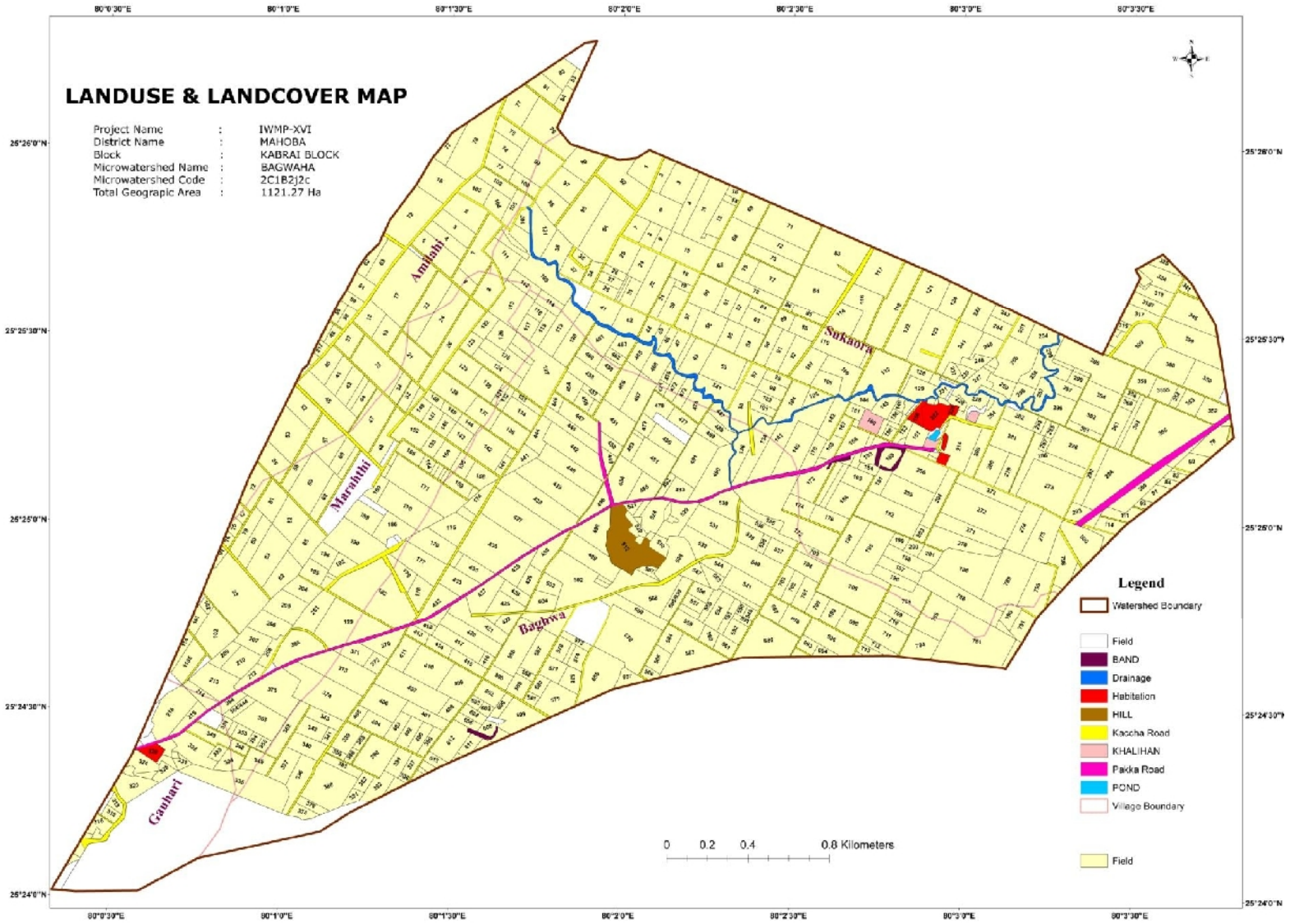

LANDUSE & LANDCOVER MAP
Project Name : IWMP-XVI
District Name : MAHOBA
Block : KABRAI BLOCK
Microwatershed Name : MAKARWAI-II
Microwatershed Code : 2C1B2k2e
Total Geograpic Area : 420.286 Ha
80°1'0"E
80°1'30"E
80°2'0"E
80°2'30"E
80°3'0"E
80°3'30"E
25°21'0"N
25°20'30"N
25°20'0"N
25°19'30"N
Makurbai
Naigawan
Legend
Watershed Boundary
Field
BAND
Drainage
Habitation
HILL
Kaccha Road
TALAB
Village Boundary
Field
0
0.3
0.6
1.2 Kilometers

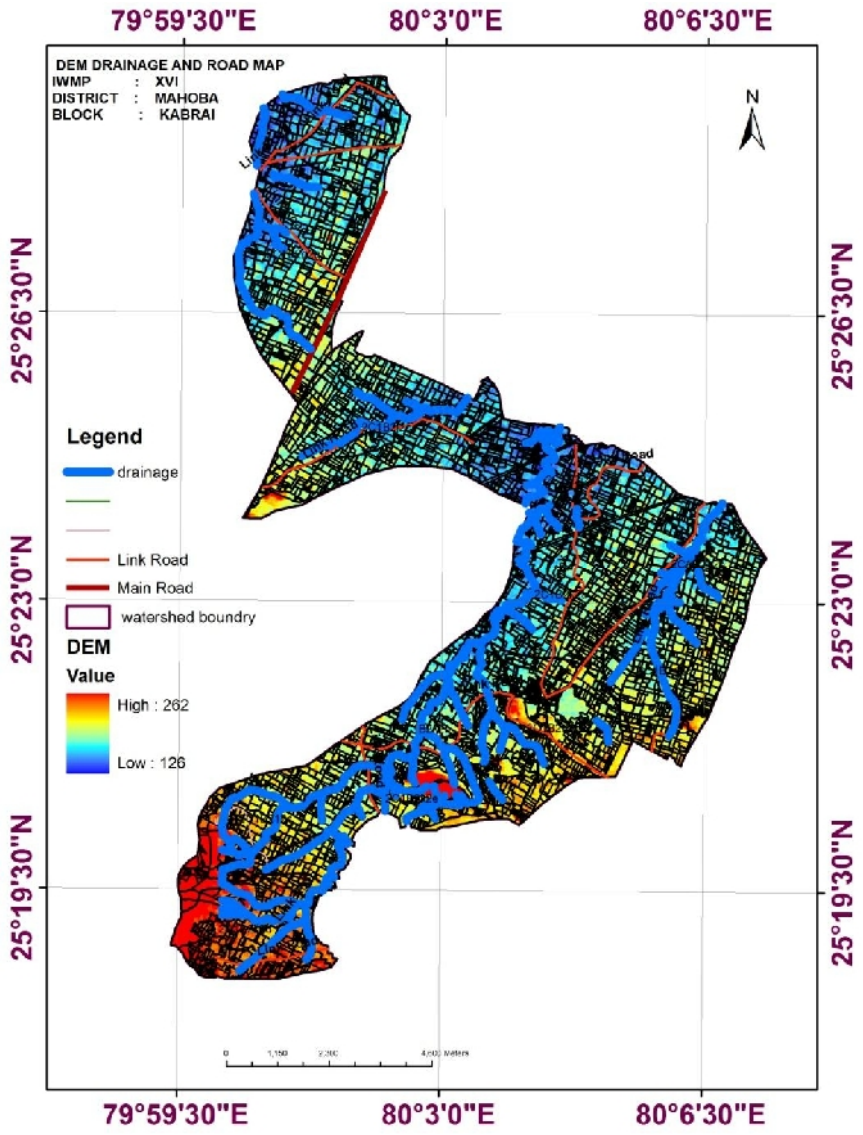

LANDUSE & LANDCOVER MAP
Project Name : IWMP-XVI
District Name : MAHOBA
Block : KABRAI BLOCK
Microwatershed Name : REBARA
Microwatershed Code : 2C1B2I2b
Total Geograpic Area : 612.7730 Ha
80°5'30"E
80°6'0"E
80°6'30"E
80°7'0"E
25°24'0"N
25°23'30"N
25°23'0"N
25°22'30"N
Nahdaora
Railwara
Pahra
Kharka
Legend
Watershed Boundary
Field
BAND
Drainage
Habitation
Kaccha Road
KHALIYHAN
POND
RAILWAY-LINE
Village Boundary
0 0.2 0.4 0.8 Kilometers


LANDUSE & LANDCOVER MAP
Project Name : IWMP-XVI
District Name : MAHOBA
Block : KABRAI BLOCK
Microwatershed Name : NEGAVAN
Microwatershed Code : 2C1B2I2c
Total Geograpic Area : 716.065 Ha
79°59'30"E
80°0'0"E
80°0'30"E
80°1'0"E
80°1'30"E
80°2'0"E
80°2'30"E
25°21'0"N
25°20'30"N
25°20'0"N
25°19'30"N
Makurbai
Naigawan
Legend
Watershed Boundary
Field
BAND
Drainage
Habitation
HILL
Kaccha Road
TALAB
Village Boundary
0
0.4
0.8
1.6 Kilometers


LANDUSE & LANDCOVER MAP
Project Name : IWMP-XVI
District Name : MAHOBA
Block : KABRAI BLOCK
Microwatershed Name : KHARKA
Microwatershed Code : 2C1B2I2c_1
Total Geograpic Area : 754.50403 Ha
80°5'0"E
80°5'30"E
80°6'0"E
80°6'30"E
25°23'0"N
25°22'30"N
25°22'0"N
25°21'30"N
Pahra
Kharka
Legend
Watershed Boundary
Field
BAND
Drainage
Habitation
Kaccha Road
POND
Village Boundary
0 0.2 0.4 0.8 Kilometers


80°1'0"E
80°1'30"E
80°2'0"E
80°2'30"E
25°29'0"N
25°28'30"N
25°28'0"N
Chanikala
LANDUSE & LANDCOVER MAP
Project Name : IWMP-XVI
District Name : MAHOBA
Block : KABRAI BLOCK
Microwatershed Name : CHINAKALA
Microwatershed Code : 2C1B2g2h
Total Geograpic Area : 545.52002 Ha
0 0.2 0.4 0.8 Kilometers
Legend
Watershed Boundary
Field
BAND
Drainage
Kaccha Road
Pakka Road
POND
Village Boundary
Field


LANDUSE & LANDCOVER MAP
Project Name : IWMP-XVI
District Name : MAHOBA
Block : KABRAI BLOCK
Microwatershed Name : BAGWAHA
Microwatershed Code : 2C1B2j2c
Total Geograpic Area : 1121.27 Ha
Amlabhi
Sukaora
Marahbhi
Bagbwa
Gauhari
Legend
Watershed Boundary
Field
BAND
Drainage
Habitation
HILL
Kaccha Road
KHALIHAN
Pakka Road
POND
Village Boundary
Field
0 0.2 0.4 0.8 Kilometers
80°0'30"E
80°1'0"E
80°1'30"E
80°2'0"E
80°2'30"E
80°3'0"E
80°3'30"E
25°26'0"N
25°25'30"N
25°25'0"N
25°24'30"N
25°24'0"N


DEM DRAINAGE AND ROAD MAP
IWMP : XVI
DISTRICT : MAHOBA
BLOCK : KABRAI
N
Legend
drainage
Link Road
Main Road
watershed boundry
DEM
Value
High : 262
Low : 126
79°59'30"E
80°3'0"E
80°6'30"E
25°26'30"N
25°23'0"N
25°19'30"N