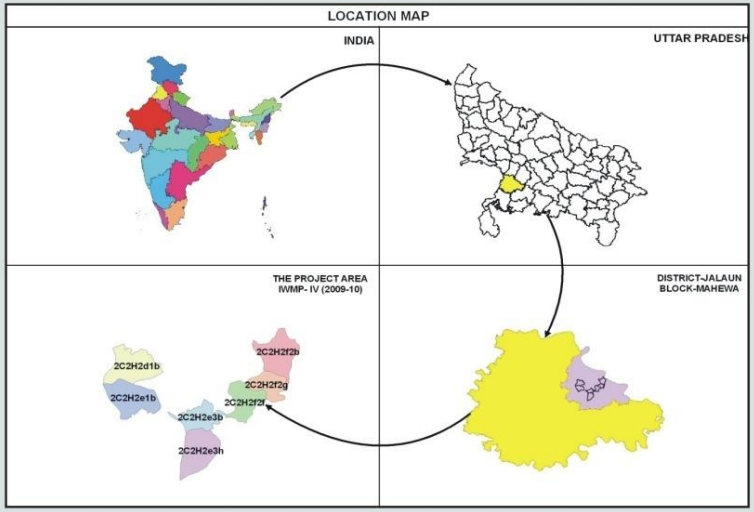
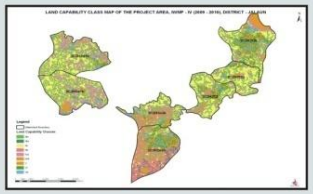
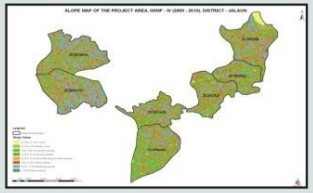
DETAILED PROJECT REPORT

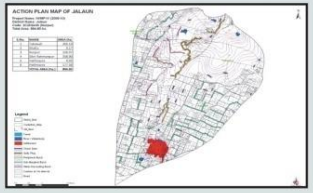
OF INTEGRATED WATERSHED MANAGEMENT PROGRAMME-IV

JALAUN- 02 (2009-10)









Submitted to :
Dept. of Land Development &
Water Resources, U.P.

Prepared by :
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L.D.W.R., JALAUN-02

CERTIFICATE

It is certified that the proposed IWMP-IV project comprising seven micro-watersheds of district Jalaun, 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 availability, livelihoods of asset-less, capacity building, etc. The proposed Detailed Project Report of IWMP-IV for financial year 2009-10 is submitted for its implementation.

Bhoomi Sanrakshan Adhikari
Department of Land Development & Water Resources,
Jalaun-II, Uttar Pradesh

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EXECUTIVE SUMMARY

IWMP-IV Project is located in Mahewa Block of Jalaun district, Uttar Pradesh. The Project comprises of 7 Micro-watersheds namely Bamhora (2C2H2d1b), Nadai (2C2H2e1b), Nurpur (2C2H2e3h), Hathnaura (2C2H2f2f), Nibhana (2C2H2f2g), Sikri Rahmanpur (2C2H2e3b), Urkhara kalan (2C2H2f2b). The total geographical area of the project is 5305.74 ha, out of which 4300 ha area has been taken for treatment under Integrated Watershed Management Programme starting year 2009-10. Total 23 villages are being covered under this project. This watershed has been identified by the state department under NWDPRA scheme by proper prioritization of different parameters for watershed selection criteria. The above watershed is located in the North-East part of the district, between 26°0' to 26°07' N latitude and 79°0' E to 79°41' E longitude. Brief details of various component of the project are given below.

The altitude of the area, on an average, ranges from 108 to118 m above the Mean Sea Level (MSL). The summer, rainy and winter temperatures range between 30-44°C, 20-24°C and 14-21°C respectively. The May and June are the hottest months and sometime temperature goes up to 48.0°C and minimum temperature falls to 2.0°C during December-January.

Agriculture practices in the area are generally **mono-cropping** due to **A*nna Pratha***. The farmers generally leave their fields fallow for free range grazing system in Kharif season, which makes cultivation difficult. These livestock, generally sheep, goat and indigenous cattle, having low productivity are let loose for grazing.

The baseline surveys have been conducted at individual household level. The details are given in chapter 3. The institution arrangement like PIA and its staff, WDT, UG, SHG and WC details have been

annexed in chapter 4. The management and action plan like livelihood, production system and treatment area action plan details have been annexed in the respective chapters. All the thematic maps pertaining to the project area have been attached along with the action plan map. Finally an attempt has been made to prepare individual project wise file for all the MWS wise.

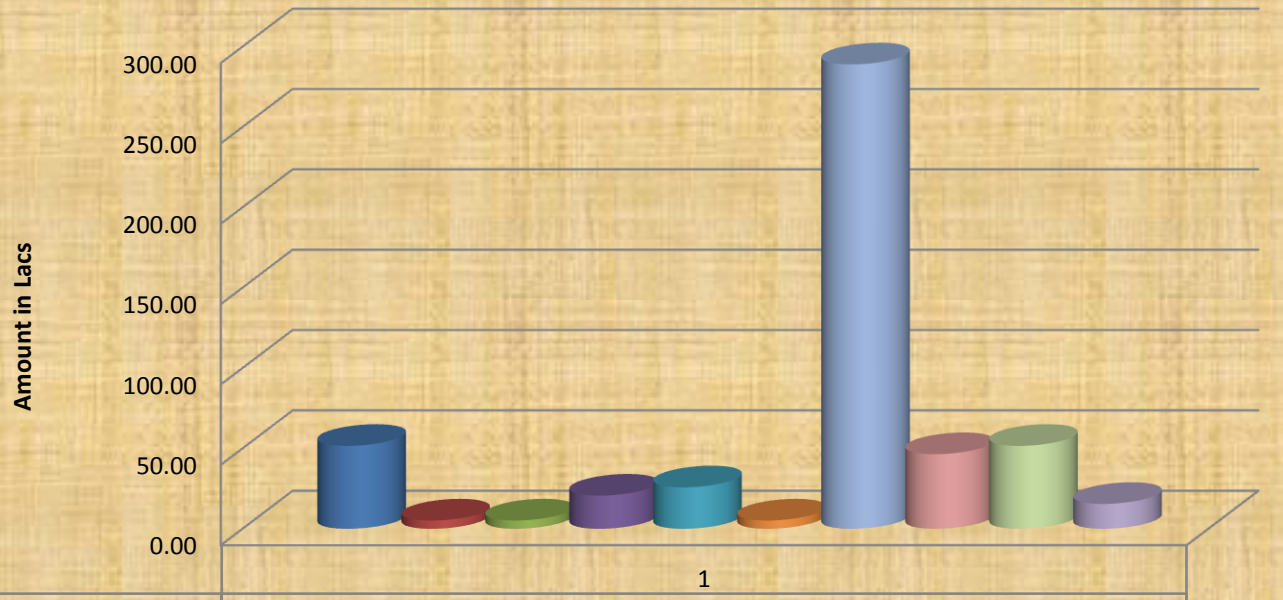
Table 1: PROJECT AT A GLANCE

1.	Name of Project	**IWMP –IV, R.B. YAMUNA RIVER WATERSHED**						
2.	Name of Block	MAHEWA						
3.	Name of District	JALAUN						
4.	Name of State	UTTAR PRADESH						
5.	No of Micro Watershed	07						
6.	Name of Village under Micro Watershed	Nurpur, Nadai, Hathnaura, Tikauli, Gora Kalan, Nibhana, Satraju, Urkhara kalan, Sikri Rahmanpur, Sikri Jaraha, DahelKhand Mustkil & Diwara, Khalla, Churkhi, Sem, Sahpur, Khairapur, Narhanmustlil & Diwara, Sarsai, Rinyaivbendepur, Bamhori Khurd, Swarooppur, Bhagora, Mahewa						
7.	Micro Watershed Code	2C2H2d1b	2C2H2e1b,	2C2H2e3h,	2C2H2f2f,	2C2H2f2g,	2C2H2e3b,	2C2H2f2b
	Treatable Area (ha)	760	740	730	450	700	410	510
8.	Total Project Area	5305.74 ha						
9	Rainfed Area	3979.29 ha						
10	Proposed Area for Treatment	4300 ha						
11	Cost per Hectare	Rs. 12000 per Hec.						
12	Project Period	YEAR 2009-10 TO 2012-13						
13	Total Cost of Project	Rs. 516.00 Lakhs						
13.	Proposed man days	232200 Nos.						

Table 2: YEAR WISE PHASING (PHYSICAL & FINANCIAL) OF I.W.M.P.-IV, JALAUN (U.P.)

S. No.	Particulars	2009-10		2010-11		2011-12		2012-13		Total	
		Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy
1	Administrative cost-10%	10.32		14.19		14.19		12.90		51.60	-
2	Monitering-1%	1.03		1.42		1.42		1.29		5.16	-
3	Evalution-1%	1.55		1.16		1.16		1.29		5.16	-
4	Entry Point Activity-4%	20.64		-		-		-		20.64	-
5	Institution & Capacity Building-5%	15.48		5.16		5.16		-		25.80	-
6	DPR-1%	5.16		-		-		-		5.16	-
7	Watershed Dev. Work-56%	43.34	645	67.91	1,010.50	67.91	1,010.5	109.8	1,634.0	288.96	4,300
8	Livelihood Activity-9%	4.64		20.90		20.90		-		46.44	-
9	Production System & Micro Enterprises-10%	5.16		23.22		23.22		-		51.60	-
10	Consolidation-3%	-		-		-		15.48		15.48	-
	Total	107.33		133.95		133.95		140.76		516	4300

Table 3: Budget for Various Components (I.W.M.P. - IV, JALAUN)



Administrative cost-10%	51.60
Monitering-1%	5.16
Evalution-1%	5.16
Entry Point Activity-4%	20.64
Institution & Capacity Building-5%	25.80
DPR-1%	5.16
Watershed Dev. Work-56%	288.96
Livelihood Activity-9%	46.44
Production System & Micro Enterprises-10%	51.60
Consolidation-3%	15.48

CHAPTER-1

INTRODUCTION & BACKGROUND

The IWMP – IV project in Mahewa Block of Jalaun district, Uttar Pradesh is located near Kalpi, about 45 km from Orai and 15 km from Mahewa Block. Seven micro-watersheds included in the project [Bamhora (2C2H2d1b), Nadai (2C2H2e1b), Nurpur (2C2H2e3h), Hathnaura (2C2H2f2f), Nibhana (2C2H2f2g), Sikri Rahmanpur (2C2H2e3b), Urkhara kalan (2C2H2f2b)] comprise of 23 villages namely Nurpur, Nadai, Hathnaura, Tikauli, Gora Kalan, Nibhana, Satraju, Urkhara kalan, Sikri Rahmanpur, Sikri Jaraha, DahelKhand Mustkil & Diwara, Khalla, Churkhi, Sem, Sahpur, Khairapur, Narhanmustlil & Diwara, Sarsai, Rinyaivbendepur, Bamhori Khurd, Swarooppur, Bhagora, Mahewa. It is located in North-East part of Jalaun district. Total area of Watershed is 5305.74 ha, out of which 3979.29 ha is rainfed, 4300 ha area have been proposed to be treated under IWMP Programme.

The watershed is proposed to be taken by Bhoomi Sanrakshan Adhikari, Department of Land Development & Water Resources, Jalaun for IWMP programme starting from 2009-10.

The Status of Integrated Watershed Management Programme as approved by Steering Committee, Govt. of India for Jalaun district, Uttar Pradesh is given in Table Nos. 1.1, 1.2 and 1.3.

Table 1.1: Status of watershed programme, District- Jalaun

Details	No.	Area (Lac ha.)
1	2	3
Total Micro watersheds in the district	508	45600
Workable Micro Watersheds	361	324578
Micro Watersheds already treated by DLWR & other agencies	156	140587
Balance Micro Watersheds (MWS) for treatment (Before start of IWMP in distt.)	58	52000

Table 1.2: Approved plan (PPRs) by Steering Committee (SC)/Gov. of India, District- Jalaun

Year	Project/ Phase IWMP……..	MWS	Area (ha)	Project Cost Rs. lakh	Name of PIA	S.C. Meeting Date
1	2	4	5	6	7	8
2009-10	IWMP- I	5	4500.00	540.00	BSA, DPAP, Orai, Jalaun	16-03-2010
2009-10	IWMP- II	6	4600.00	552.00	BSA, DPAP, Orai, Jalaun	16-03-2010
2009-10	IWMP- III	5	4200.00	504.00	BSA, LDWR, Jalaun - II	16-03-2010
2009-10	IWMP- IV	7	4300.00	516.00	BSA, LDWR, Jalaun - II	16-03-2010
2009-10	IWMP- V	7	4578.00	549.40	BSA, LDWR, Kalpi, Jalaun	16-03-2010
Total		**30**	**22178.00**	**2661.40**		

Table 1.3: Status of previous DPRs, District- Jalaun

Sl. No.	Approved Project (IWMP-I, II,....)	Status of DPR under preparation/ prepared/approved by SLNA with date	Project Area ha	Treatable Area ha	Project cost Rs. (Lakh)	Project period (Fin. Year from...to...)	PIA
1	2	3	4	5	6	7	8
1.	IWMP- I	Prepared/ under revision	4748.25	4500.00	540.00	2009-10 to 2012-13	BSA, DPAP, Orai, Jalaun
2.	IWMP- II	Prepared/ under revision	5049.50	4600.00	552.00	2009-10 to 2012-13	BSA, DPAP, Orai, Jalaun
3.	IWMP- III	Prepared/ under revision	5229.43	4200.00	504.00	2009-10 to 2012-13	BSA, LDWR, Jalaun - II
4.	IWMP- IV	Prepared/ under revision	4450.00	4300.00	516.00	2009-10 to 2012-13	BSA, LDWR, Jalaun - II
5.	IWMP- V	Prepared/ under revision	4797.75	4578.00	549.40	2009-10 to 2012-13	BSA, LDWR, Kalpi, Jalaun

Table 1.4: Details of IWMP for which this DPR is Prepared

Watershed project IWMP - IV	Micro Watersheds (MWS) detail	Micro watersheds code	Name of Watershed in which MWS is falling (River / Nala name)
IWMP - IV	Bamhora	2C2H2d1b	R.B. Yamuna River
	Nadai	2C2H2e1b	R.B. Yamuna River
	Nurpur	2C2H2e3h	R.B. Yamuna River
	Hathnaura	2C2H2f2f	R.B. Yamuna River
	Nibhana	2C2H2f2g	R.B. Yamuna River
	Sikri Rahmanpur	2C2H2e3b	R.B. Yamuna River
	Urkhara kalan	2C2H2f2b	R.B. Yamuna River

MAIN OBJECTIVES FOR WATERSHED DEVELOPMENT

(a) Conservation, development and sustainable management of natural resources including their uses.

(b) Enhancement of agricultural production and productivity in a sustainable manner.

(c) Restoration of ecological balance in the degraded and fragile rain-fed ecosystem.

(d) Reduction in regional disparity between rain-fed and irrigated areas.

(e) Creation of sustainable employment opportunities for the rural community for livelihood.

The main problem in a watershed is the soil erosion by rainfall. The runoff water transport the sediments which may block the channel head, dam, reservoir and storage structures, etc. which in turn affect the agriculture production in the area.

Table 1.5: Problem identification and prioritization for watershed

S. No.	Problem	Rank
1	Low production of field crops	5
2	Lack of drinking water	3
3	Lack of irrigation water	1
4	Lack of fodder availability and low annual productivity	8
5	Non-availability of Sufficient school	7
6	Lack inputs like quality seeds, fertilizer, pesticides etc.	4
7	Lack of market facility	9
8	Lack of medical, educational and transportation facilities	2
9	Medical and health care facilities for milking animals and low productivity	6

Strength, Weakness, Opportunity and Threat (Swot) Analysis Is a Useful Decision Support Tool and detailed below.

Table 1.6: A SWOT analysis of watershed is presented as below:

Strength (S)	**Weakness(W)**
1- Cooperative work culture is traditional activities 2- Close ethnic tier 3- Road at the top as well as outlet of the watershed 4- Hard working man power 5- Resource pool of crop genetic diversity 6- Awareness of farmers about watershed management program 7- Well established CPR maintaining and sharing system 8- good productivity of soil. 9- Social outlook of the community towards landless	1- Poor water management 2- Resource poor farmers 3- Out migration of youth 4- Low and erotic rainfall 5- Fragile geography 6- Fragmented land holding. 7- Heavy infestation of wild animals 8- Problem of fuel and fodder 9- ANNA-PRATHA
Opportunities(O)	**Threats (T)**
1- Wide range of annual and perennial crops 2- Scope of regular employment opportunity to check out migration 3- Strengthening of existing irrigation system 4- Conductive climate for rainfed crop diversification 5- Good scope for agro-forestry and dry land horticulture. 6- Potential for collective active action and magement of CPRs.	1- Prone to adverse climate like drought 2- High market risk 3- Social conflicts owing to PRI & WSM policies and local policies. 4- Weak coordination among line departments. 5- Lack of expertise of implementing agencies in different aspect of WSM.

Table 1.7: Weightage of the Project

District	Name of the Project	No. of micro-watersheds proposed to be covered	Proposed project area (ha)	Proposed cost (Rs. in lakh)	Weightage								
Jalaun	IWMP-IV	7	4300	516	i	ii	iii	iv	v	vi	vii	viii	ix
					7.5	5	5	5	0	10	10	5	10
					x	xi	xii	xiii	Total				
					15	10	10	0	92.5				

CHAPTER – 2

GENERAL DESCRIPTION OF PROJECT AREA

Location:-

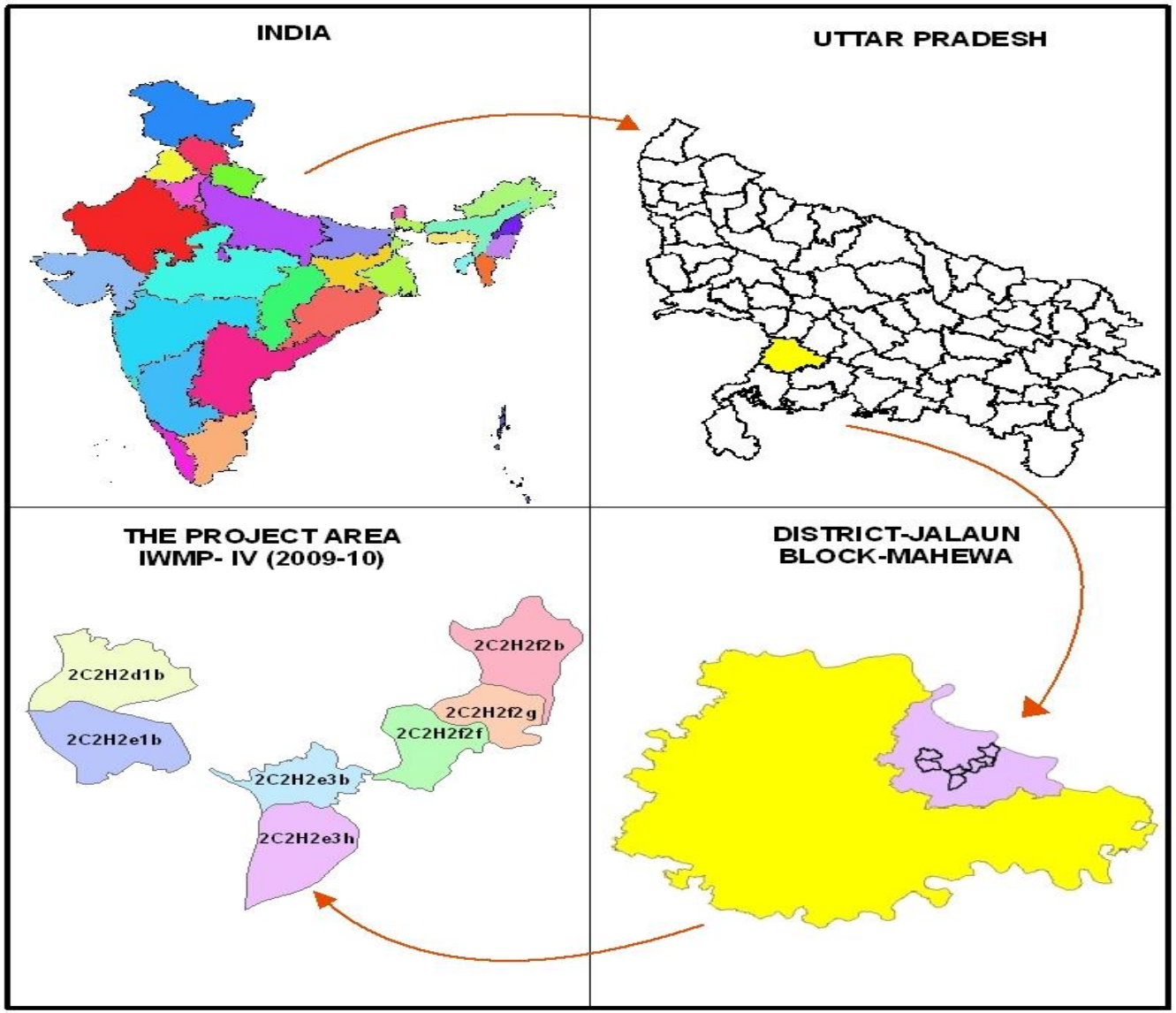
The micro-watershed IWMP- IV is situated in Mahewa Block of Jalaun district, U.P. It is located near Kalpi, about 45 km from Orai and 15 km from Mahewa Block, which form NE part of Jalaun district, U.P. The details about micro-watersheds, their geographical location (lat/long), Gram Panchayat, villages and its geographical area, etc. is given in Table 2.1

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

S. No.	Name of micro watershed with Code	Latitude / Longitude	Name of Gram Panchayat	Names of villages	Name of Block	Area of village included in MWS	Details of important /approach road with distance km
1	2	3	4	5	6	7	8
1	Bamhora/2C2Hdb	26°12'18"Nto26°1031"N 79°30'0"E to 79°32'55"E	Richhara	Bamhora, Sem, Sahpur,Khairapur, Bamhori Khurd, Sikri , Jaraha	Mahewa	760	Orai(28) Jalaun(29) Orai(25) Orai(25) Orai(24) Jalaun(24)
2	Nadai/2C2H2e1b	26°10'44"N to 26°8'56"N N 79°29'59"E to 79°32'50"E	Nadai	Nadai, Churkhi, Rinyaiv bendepur, Sarsai, Swaroop pur	Mahewa	740	Jalaun(29A) Orai(19) Orai(19) Jalaun(18) Jalaun(14)
3	Nurpur 2C2H2e3h	26°8'33"N to 26°6'13"N 79°33'44"E to79°35'43"E	Nurpur	Nurpur, Sikri Rahmanpur, Tikauli, Hathnaura	Mahewa	730	Orai(20) Orai(20 Orai(24 Orai(25
4	Hathnaura 2C2H2f2f	26°10'43"N to 26°8'49"N 79°35'53"E to 79°37'54"E	Hathnaura	Hathnaura, Mahewa Nibhana	Mahewa	450	Orai(25) Orai(32) Orai(23)

5	Nibhana 2C2H2f2g	26°11'12"N to 26°9'46"N 79°36'52"E to79°38'52"E	Nibhana	Nibhana, Bhagora, Mahewa, Urkhara kalan	Mahewa	700	Orai(23) Orai(25) Orai(32) Orai(37)
6	Sikri Rahmanpur 2C2H2e3b	26°9'51"N to 26°8'18"N 79°33'7"E to 79°35'55"E	Sikri Rahmanpur	Sikri Rahmanpur, Khalla,	Mahewa	410	Jalaun(28) Orai(22)
7	Urkhara kalan 2C2H2f2b	26°13'7"N to 26°10'17"N 79°37'10"E to 79°39'29"E	Urkhara kalan	Urkhara kalan, DahelKhand Mustkil & Diwara, Narhan Mustlil & Diwara	Mahewa	510	Orai(38) Orai(37) Orai(37) Orai(35)
					Total Area (ha)	**4300**	

LOCATION MAP



Area and Landuse: Total area of the watershed is 5305.73 ha out of which treatable area is 4300 ha. Rainfed area is 4450.40 ha out of which 3713.50 ha is agriculture land. Details of present land-use are given in Table 2.2. Micro-watershed-wise details of the land use/land cover are depicted in Table 2.3.

Table 2.2: Present land use of the watershed

S. No.	Land use	Present (ha)
1.	Agriculture	3713.50
A	Rainfed	3979.29
	i. Crops	3713.50
	ii. Agro-forestry	285.80
B	Irrigated	451.10
	i. Assured	283.70
	ii. Partial	167.40
2.	Wasteland	866.80
A	Aforestation	160.50
B	Pasture	-
C	Untreatable	-
3.	Village land	564.93
	Total	**5305.73**

Table 2.3: Land Use/Land Cover Statistics of the Project Area

S. N.	Name of micro watershed with Code	Name of concern village	Land Use					
			Agriculture	Wasteland all type	Pasture	Forest	Others	Total
1	Bamhora 2C2H2d1b	Bamhora, Sem, Sahpur, Khairapur, Bamhori Khurd, Sikri Jaraha	658.64	153.77	-	28.45	100.49	941.35
2	Nadai 2C2H2e1b	Nadai, Churkhi, Rinyaiv bendepur, Sarsai, Swaroop pur	639.36	149.37	-	27.62	97.39	913.74
3	Nurpur 2C2H2e3h	Nurpur, Sikri Rahmanpur, Tikauli, Hathnaura	628.40	146.78	-	27.17	95.75	898.08
4	Hathnaura 2C2H2f2f	Hathnaura, Nibhana	439.45	102.65	-	18.98	67.02	628.10
5	Nibhana 2C2H2f2g	Nibhana, Bhagora, Mahewa, Urkhara kalan	352.95	82.33	-	15.24	53.32	503.84
6	Sikri Rahmanpur 2C2H2e3b	Sikri Rahmanpur, Khalla	392.20	91.25	-	17.05	60.14	560.64
7	Urkhara kalan 2C2H2f2b	Urkhara kalan, DahelKhand Mustkil & Diwara, Narhan mustlil & Diwara	602.50	140.60	-	26.01	90.87	859.98
	Total		**3713.50**	**866.80**	**-**	**160.50**	**564.93**	**5305.74**

(Sousce:- As Interpretated from HRS Data)

LAND CAPABILITY CLASSIFICATION (LCC)

Land capability classification(LCC) is crucial for appropriate land use planting consisting of practiced like choice of vegetation /crops, tillage practices, use of scientific method of cultivation and desirous conservation practices, Detailed LCC Survey carried out in the watershed brought out the prevailing LCC classes as I,II,III,IV,V, VI and VII. The watershed area is also classified under different Land Capability Table 2.4.

Table 2.4: Area under Different Land Capability Class (LCC)

Land Capability Class	Area (ha)	Main Problem
II	1615	Sheet Erosion
III	1668.73	Sheet and Rill Erosion
IV	835.1	Gully Erosion
V	346.8	High Gully Erosion
VI	337.2	Sevier Gully Erosion
VII	272.74	Sevier Gully Erosion due to water logging
Others	230.17	-
Total	**5305.74**	

Physiography: The micro-watershed of the IWMP-IV is located at an elevation of 99 to 140 m above mean sea level (msl) and Relief height difference from 18 m to 33 m. Elevation range and relief are given in Table 2.5.

Table 2.5: Elevation Range, Longitude/ Latitude, Relief Height Difference of the MWS

S. No.	Watershed Code	Location		Elevation of watershed from Mean Sea level		
		Latitude (N)	Longitude (E)	Highest in Meters	Lowest in Meters	Relief Height Difference
1	2C2H2d1b	26°12'18"N to 26°10'31"N	79°30'0"E to 79°32'55"E	138	119	19
2	2C2H2e1b	26°10'44"N to 26°8'56"N	79°29'59"E to 79°32'50"E	140	122	18
3	2C2H2e3h	26°8'33"N to 26°6'13"N	79°33'44"E to 79°35'43"E	137	114	23
4	2C2H2f2f	26°10'43"N to 26°8'49"N	79°35'53"E to 79°37'54"E	140	122	18
5	2C2H2f2g	26°11'12"N to 26°9'46"N	79°36'52"E to 79°38'52"E	132	109	23
6	2C2H2e3b	26°9'51"N to 26°8'18"N	79°33'7"E to 79°35'55"E	128	108	20
7	2C2H2f2b	26°13'7"N to 26°10'17"N	79°37'10"E to 79°39'29"E	132	99	33

Slope: Slope map of the micro-watershed was prepared using SRTM digital terrain Model.Slope was divided into different class viz. 0-0.5%, 0.5-1.0%, 1-3%, 3-5% and more than 5% and data is presented in Table 2.6 below. The maximum slope area, in the micro-watershed, falls in the category were 1-3% (2549.673 ha) followed by 3-5% (1583.265 ha)

Table 2.6: Slope Range in the Project Area

S. No.	Name of MWS & code	Slope range wise area (ha)							
		0-05%	0.5-1.0%	1-3%	3-5%	>5%		Others Specify	
						5-10%	10-15%	15-35%	>35%
1	2	3	4	5	6	7	8	9	
1	Bamhora 2C2H2d1b	1.644	11.016	328.333	318.285	262.849	21.914	0.749	-
2	Nadai 2C2H2e1b	0.947	8.131	299.647	309.979	283.906	14.125	0.321	-
3	Nurpur 2C2H2e3h	9.541	33.319	469.799	272.296	116.096	0.351	-	-
4	Hathnaura 2C2H2f2f	5.668	15.205	285.984	224.439	97.821	0.549	-	-
5	Nibhana 2C2H2f2g	4.265	11.299	242.293	165.878	79.121	2.851	-	-
6	Sikri Rahmanpur 2C2H2e3b	1.695	11.803	252.547	186.84	103.052	5.775	0.891	-
7	Urkhara kalan 2C2H2f2b	44.844	19.239	324.557	280.397	176.201	11.328	12.079	1.282

Climate: The climate of the region is characterized as arid to semi-arid with average annual rainfall less than 520 mm annually with an average of 35 rainy days. Out of which 85% is received during the monsoon season from July to September. The area received very less rainfall in the winter season. Temperature ranges from as high as 49^{o}C in the May-June to as low as 4^{o}C during December-January. The trend of the rainfall is very erratic and maximum (62%) water goes as runoff.

Table 2.7: Average monthly rainfall, and Temperature of the last five years:-

Month	Year/Rainfall in mm.					
	2006	**2007**	**2008**	**2009**	**2010**	**Average**
January	0.00	0.00	-	0.00	0.30	0.06
February	0.00	3.70	-	0.00	13.80	3.50
March	-	14.00	0.00	0.40	0.00	2.88
April	0.00	0.00	0.00	-	0.00	0.00
May	0.00	0.00	0.00	-	1.70	0.34
June	14.30	77.50	176.20	0.00	5.80	54.76
July	252.00	82.90	309.50	132.20	243.40	204
August	66.40	88.20	135.20	154.20	177.00	124.20
September	36.20	57.10	106.80	105.40	216.00	104.30
October	19.30	0.00	8.70	108.50	0.00	27.30
November	0.00	-	0.00	27.50	41.50	13.80
December	0.00	-	0.00	4.80	1.00	1.16

Agro-Climate Conditions

The Agro-Climate condition of the project area of JALAUN district is briefly described in Table 2.8 below.

Table- 2.8: DETAILS OF AGRO-CLIMATE CONDITIONS

S. No.	Name of the District	Name of the Project	Name of the Agro-climatic zone covers project area	Area in ha	No. of the villages	Major soil types		Topo-graphy	Average rainfall in mm (preceding 5 years average)	Major crops	
						a)Type	b) Area in ha			a) Name	b) Area in ha
1.	JALAUN	I.W.M.P. - IV	Bundelkhand Zone - 9	4300	23	Rakar Kabar Mar Padwa	3955	Undulation	520.00	Kharib: Jowar, Til, Arhar	1775.00
										Rabi: Wheat, Gram, Mustard, Masoor	1938.50
										Total	**3713.50**

Source: PPR 2009-10

The Wind velocity of the Project area ranges from 4-17 Km/hr. The open pan evaporation varied in the range of 0.5 to 20 mm/day during the year with average of about 5 mm/day. Average relative humidity varied in the range of 25% to 98%. The details of flood and drought in the project area are showed in Table 2.9.

Table 2.9: Details of Flood and Drought in the Project Area (IWMP-IV, Jalaun)

Name of Micro Watershed	Particulars	Villages	Periodicity		Not affected
Bamhora (2C2H2d1b), Nadai (2C2H2e1b), Nurpur (2C2H2e3h), Hathnaura (2C2H2f2f), Nibhana (2C2H2f2g), Sikri Rahmanpur (2C2H2e3b), Urkhara kalan (2C2H2f2b)			**Annual**	**Any other (please specify)**	
	Flood	No. of villages	-	-	Not affected
		Name(s) of villages	-	-	
	Drought	No. of villages: 23			
		Name(s) of villages: Nurpur, Nadai, Hathnaura, Tikauli, Gora Kalan, Nibhana, Satraju, Urkhara kalan, Sikri Rahmanpur, Sikri Jaraha, DahelKhand Mustkil & Diwara, Khalla, Churkhi, Sem, Sahpur, Khairapur, Narhanmustlil & Diwara, Sarsai, Rinyaivbendepur, Bamhori Khurd, Swaroop pur, Bhagora, Mahewa		Alternate after every 2-3 years	

Watershed Characteristics

Shape and Size

The shape of watershed (IWMP -IV, JALAUN) is more or less rectangle in shape. The direction of the slope in the project area is north-west to south-east. The shape and size of the micro-watershed is given in Table 2.10.

Table- 2.10: SHAPE AND SIZE OF WATERSHED

S. No.	Micro watershed Code	Area (ha)	Shape	Approximate size in meter	
				Length	Width
1.	2C2H2d1b	760	RECTANGLE	3387.36	4886.77
2.	2C2H2e1b	740	RECTANGLE	3431.14	4706.19
3.	2C2H2e3h	730	ELONGATED	4393.75	3258.77
4.	2C2H2f2f	450	SQUARE	3540.59	3373.68
5.	2C2H2f2g	700	RECTANGLE	2667.76	3315.19
6.	2C2H2e3b	410	RECTANGLE	2934.53	4637.79
7.	2C2H2f2b	510	ELONGATED	5224.24	3870.29

Geomorphology:

The watershed is located in the North-East corner of the JALAUN district. The entire watershed is topographically divided into three major landforms such as Plain land, Moderate land, and Ravinous land. Accordingly, the soils of watershed can be grouped into three major categories viz.Mar, Kabar and padua. The annual soil erosion in the project area is 24 to 28 tons/year as detailed below.

Table- 2.11: DETAIL OF SOIL EROSION (I.W.M.P-IV), JALAUN

S. No.	Name of the Project	Soil Erosion (Ha)				Run-Off (mm/yr)	Average Soil Loss in tons/ha/yr	Wind Erosion
		Sheet	Rill	Gully	Total			
1	IWMP – IV	2694.3	1647.5	488.7	4830.5	312	24 to 28	N.A.

CHAPTER-3

BASELINE SURVEY

SOCIO-ECONOMIC CONDITION:-

In the proposed watershed management plan of proper blending of bio- engineering measures will be applied. Based on the results of studies conducted in this region, it is estimated that more than 50% of the watershed area will be treated and consequently the soil loss and runoff from the area is expected to be reduced by 40% and 65% respectively. The proposed land use plan will improve the land utilization index and crop diversification index significantly as compared to the existing one. It will help in maintaining ecosystem integrity on sustained basis along with improving the livelihood security of the farming community.

Economic analysis of the project is carried out by taking direct benefits and costs, considering 30 year project life at 10% discount rate. For the purpose of economic analysis, whole watershed development plan is divided into four sectors namely agriculture (rainfed and irrigated), pure horticulture, agro-horticulture and silvi pastoral (Silvi-Pastoral + sericulture). Net present value (NPV), Benefit Cost Ratio (BCR), Payback Period (PBR) and internal rate of return (IRR) criteria is employed to judge the economic efficiency of each enterprise, sector and project as a whole.

Details of the population of the micro watershed are given in Table 3.1. About 25% population is scheduled caste. Due to hard life and low seasonal income in the area a large number of people migrate to large cities where they work as daily labour / rickshaw puller.

Table 3.1: Demographic Features in the project area IWMP – IV

S. NO.	Name of Micro Watershed	Name of village	Total Population			Population of SC/ST		
			Total	Male	Female	Total	Male	Female
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
1	Bamhora 2C2H2d1b	Bamhora	1091	602	489	76	45	31
		Sem	130	82	48	130	82	48
		Sahpur	518	286	232	336	189	147
		Khairapur	624	320	304	118	62	56
		Bamhori Khurd	752	410	342	146	84	62
		Sikri Jaraha	493	249	244	0	0	0
2	Nadai 2C2H2e1b	Nadai	1082	564	518	37	20	17
		Churkhi	3788	2075	1713	796	453	343
		Rinyaiv bendepur	796	425	371	87	48	39
		Sarsai	2331	1270	1061	678	366	312
		Swarooppur	187	94	93	0	0	0
3	Nurpur 2C2H2e3h	Nurpur	2275	1275	1000	258	144	114
		Tikauli	821	463	358	26	16	10
		Hathnaura	844	449	395	420	220	200
4	Hathnaura 2C2H2f2f	Hathnaura	664	357	307	213	122	91
		Mahewa	2661	1438	1223	301	163	138
5	Nibhana 2C2H2f2g	Nibhana	1440	801	639	294	169	125
		Bhagora	1306	721	585	559	308	251
		Mahewa	2661	1438	1223	301	163	138
6	Sikri Rahmanpur 2C2H2e3b	Sikri Rahmanpur	1738	941	797	127	70	57
		Khalla	781	417	364	241	125	116
7	Urkhara kalan 2C2H2f2b	Urkhara kalan	1449	815	634	425	246	179
		DahelKhand Mustkil & Diwara	1134	600	534	61	34	27
		Narhan mustlil & Diwara	476	265	211	66	38	28
	Total of Project		30042	16357	13685	5696	3167	2529

Table 3.2: Details of Employment Generation

S. No.	Name Of District	NO. of the villages	Wage employment										Self employment				
			No. of mandays					No. of beneficiaries					No. of beneficiaries				
			SC	ST	Others	Wo-men	Total	SC	ST	Others	Wo-men	Total	SC	ST	Others	Women	Total
1-	JALAUN -IV	23	0.580	-	1.276	0.466	2.322	681	-	1223	104	2008	78	-	93	27	198

3.3: Details of seasonal migration from Project area: 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	2	3	4	5	6		7	8
1	Bamhora 2C2H2d1b	Bamhora	150	165 to 190	Lack of employment, less wages, Higher wages outside	300-500 km	Labour	0.25 to 0.50
		Sem	45	165 to 190		300-500 km	Labour	0.25 to 0.50
		Sahpur	45	165 to 190		300-500 km	Labour	0.25 to 0.50
		Khairapur	75	165 to 190		300-500 km	Labour	0.25 to 0.50
		Bamhori Khurd	115	165 to 190		300-500 km	Labour	0.25 to 0.50
		Sikri Jaraha	45	165 to 190		300-500 km	Labour	0.25 to 0.50
2	Nadai 2C2H2e1b	Nadai	215	165 to 190		300-500 km	Labour	0.25 to 0.50
		Churkhi	310	165 to 190		300-500 km	Labour	0.25 to 0.50
		Rinyaiv bendepur	91	165 to 190		300-500 km	Labour	0.25 to 0.50
		Sarsai	215	165 to 190		300-500 km	Labour	0.25 to 0.50
		Swarooppur	35	165 to 190		300-500 km	Labour	0.25 to 0.50
3	Nurpur 2C2H2e3h	Nurpur	278	165 to 190		300-500 km	Labour	0.25 to 0.50
		Tikauli	60	165 to 190		300-500 km	Labour	0.25 to 0.50

4	Hathnaura 2C2H2f2f	Hathnaura	80	165 to 190		300-500 km	Labour	0.25 to 0.50
		Mahewa	250	165 to 190		300-500 km	Labour	0.25 to 0.50
5	Nibhana 2C2H2f2g	Nibhana	140	165 to 190		300-500 km	Labour	0.25 to 0.50
		Bhagora	130	165 to 190		300-500 km	Labour	0.25 to 0.50
		Mahewa	260	165 to 190		300-500 km	Labour	0.25 to 0.50
6	Sikri Rahmanpur 2C2H2e3b	Sikri Rahmanpur	170	165 to 190		300-500 km	Labour	0.25 to 0.50
		Khalla	78	165 to 190		300-500 km	Labour	0.25 to 0.50
7	Urkhara kalan 2C2H2f2b	Urkhara kalan	140	165 to 190		300-500 km	Labour	0.25 to 0.50
		DahelKhand Mustkil & Diwara	115	165 to 190		300-500 km	Labour	0.25 to 0.50
		Narhan mustlil & Diwara	45	165 to 190		300-500 km	Labour	0.25 to 0.50
Total of Project			3087					

Table 3.4: Typical soil profile of the watershed (dominant soil)

Horizon	Dpth (cm)	Morphology
A	0-150	Yellow & Black in colour, clay content 28%, with free CaCO3, sticky when moist, hard when dry, high elasticity, fissures and cracks, occasional occurrence of free calcium carbonate granules pH 8.0-8.5
B	150-600	Whitish-Yellow in colour, high effervescence with dilute HCl, very fine mixed with free CaCO3 and granules, very hard when dry, compact & indurate hard pan, restricting development of root and downward water transmission (locally called as Point soil)
C	> 600	Red and white sand

Soil Texture:

Light brown loam to clay, generally heavy structured, average in water holding capacity and organic matter, moderately alkaline, restricted drainage, surface soil poor in lime content but the middle layer is calcareous, medium in soluble salts. Carbonates and sulphates practically absent.

Table 3.5: Details of Soil texture in IWMP-IV, Jalaun

S. 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)	Treatable Area	Others specify
1	Bamhora 2C2H2d1b	21.5	123.3	615.2	760	Rakar, Kabar, Mar, Padwa
2	Nadai 2C2H2e1b	29.2	230.4	480.4	740	Rakar, Kabar, Mar, Padwa
3	Nurpur 2C2H2e3h	21.8	110.5	597.7	730	Rakar, Kabar, Mar, Padwa
4	Hathnaura 2C2H2f2f	22	153	275	450	Rakar, Kabar, Mar, Padwa
5	Nibhana 2C2H2f2g	23.4	146.6	530	700	Rakar, Kabar, Mar, Padwa
6	Sikri Rahmanpur 2C2H2e3b	20	130	260	410	Rakar, Kabar, Mar, Padwa
7	Urkhara kalan 2C2H2f2b	22.4	135.6	352	510	Rakar, Kabar, Mar, Padwa
		160.3	1029.4	3110.3	**4300**	

Table 3.6: Soil characteristics and fertility status

Soil properties	LCC - II	LCC - IV	LCC - VII
Sand%	28.36	55.00	73.04
Silt%	24.60	18.6	20.3
Clay%	47.04	26.36	6.66
Texture	Loam/Clay loam	Sandy sand	Loamy sand
pH (1:2)	7.5	7.3	7.10
EC (dsm^{-1})	0.17	0.12	0.16
Organic carbon%	0.37	0.30	0.21
Available N (kg ha^{-1})	380	310	240
Available P (kg ha^{-1})	10	9.0	8
Available K (kg ha^{-1})	310	292.5	265

Values correspond to soil fraction <2mm

Table 3.7: Details of land holding pattern

1	2	3	4	5	6	7		
S. 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	Bamhaura 2C2H2d1b	Bamhaura, Sem, Sahpur, Khairapur, Bamhauri Khurd, Sikri Jaraha	(i) Large farmer	30	364			
			(ii) Small farmer	1173				
			(iii) Marginal farmer	676				
			(iv) Landless person	204				
			Sub-Total	2083	364			
1	2	3	4	5	6	7		
S. No.	**Names MWS with code**	**Name of Village**	**Type of Farmer**	**No. of households**	**No. of BPL households**	**Land holding (ha)**		
						Irrigated	**Rainfed**	**Total**
2	Nadai 2C2H2e1b	Nadai, Churkhi, Rinyaiv bendepur, Sarsai, Swaroop pur	(i) Large farmer	25	306			
			(ii) Small farmer	1980				
			(iii) Marginal farmer	540				
			(iv) Landless person	155				
			Sub-Total	2700	306			
1	2	3	4	5	6	7		
S. No.	**Names MWS with code**	**Name of Village**	**Type of Farmer**	**No. of households**	**No. of BPL households**	**Land holding (ha)**		
						Irrigated	**Rainfed**	**Total**
3	Nurpur 2C2H2e3h	Noorpur, Sikri Rahmanpur, Tikauli, Hathnaura	(i) Large farmer	36	322			
			(ii) Small farmer	1270				
			(iii) Marginal farmer	764				
			(iv) Landless person	215				
			Sub-Total	2285	322			

1	2	3	4	5	6	7		
S. No.	**Names MWS with code**	**Name of Village**	**Type of Farmer**	**No. of households**	**No. of BPL households**	**Land holding (ha)**		
						Irrigated	**Rainfed**	**Total**
4	Hathnaura 2C2H2f2f	Hathnaura, Mahewwa Nibhana	(i) Large farmer	24	176			
			(ii) Small farmer	418				
			(iii) Marginal farmer	683				
			(iv) Landless person	294				
			Sub-Total	1419	176			
S. No.	**Names MWS with code**	**Name of Village**	**Type of Farmer**	**No. of households**	**No. of BPL households**	**Land holding (ha)**		
						Irrigated	**Rainfed**	**Total**
5	Nibhana 2C2H2f2g	Nibhana, Bhagora, Mahewa, Urkhara kalan	(i) Large farmer	22	155			
			(ii) Small farmer	512				
			(iii) Marginal farmer	780				
			(iv) Landless person	273				
			Sub-Total	1587	155			
S. No.	**Names MWS with code**	**Name of Village**	**Type of Farmer**	**No. of households**	**No. of BPL households**	**Land holding (ha)**		
						Irrigated	**Rainfed**	**Total**
6	Sikri Rahmanpur 2C2H2e3b	Sikri Rahmanpur, Khalla,	(i) Large farmer	38	166			
			(ii) Small farmer	820				
			(iii) Marginal farmer	653				
			(iv) Landless person	252				
			Sub-Total	1763	166			
S. No.	**Names MWS with code**	**Name of Village**	**Type of Farmer**	**No. of households**	**No. of BPL households**	**Land holding (ha)**		
						Irrigated	**Rainfed**	**Total**
7	Urkhara kalan 2C2H2f2b	Urkhara kalan, DahelKhand Mustkil & Diwara, Narhan mustlil & Diwara	(i) Large farmer	34	214			
			(ii) Small farmer	1322				
			(iii) Marginal farmer	563				
			(iv) Landless person	241				
			Sub-Total	2160	214			

Major Crops and their Production

Due to mono cropping, Anna Pratha and non manageable condition of mar and kabar soil are the specific characteristics of the district. Mono cropping is the most common farming system. Mixed farming in the combination of agriculture and live stock is also quite common in all the areas. Micro-watershed wise grown crops, their productivity and production are given below:

Table 3.8: Major Crops, their Productivity and Production in IWMP- IV, Jalaun
Name of MWS: Bamhaura 2C2H2d1b

Area in ha

S. No.	Crop.	Area in (ha)		Productivity q/ha		Production (q)				Remarks
						Grain/Main product		Fodder/Fuel/other Product		
		Irrigated	Rainfed	Irrigated	Rainfed	Irrigated	Rainfed	Irrigated	Rainfed	
A	**Kharif**									
1	Jowar	0	60.24	0	8	0	481.92	0	722.88	
2	Til	0	56	0	1.47	0	82.32	0	123.48	
3	Arhar	0	80	0	7.87	0	629.6	0	944.4	
4	Urd/Mung	0	70	0	5.08	0	355.6	0	355.6	
5	vegetables (Cropwise)	0	50	0	220.4	0	11020	0	11020	
6	Fodder	0	0	0	0	0	0	0	0	
..	Other, specify	0	0	0	0	0	0	0	0	
	Total		316.24		242.82		12569.4		13166.4	
B	**Rabi**									
1	Wheat	32	142.5	25	18	800	2565	1890	3847.5	
2	Barley	0	4.35	0	10.47	0	45.54	0	68.32	
3	Masoor	0	106	0	4.8	0	508.8	0	636	
4	Gram	0	122	0	6.56	0	800.32	0	1000.4	
5	Pea	0	40.26	0	10.43	0	419.91	0	419.91	
6	Mustard	0	24	0	4.26	0	102.24	0	153.36	
7	Potato	0	0	0	0	0	0	0	0	
8	vegetables (Cropwise)	0	0	0	0	0	0	0	0	
9	Fodder	0	0	0	0	0	0	0	0	
..	Other, specify	0	0	0	0	0	0	0	0	
	Total	32	439.11	25	54.52	800	4441.82	1890	6125.49	
C	**Zaid**									
	Nil	0		0		0		0		
Cultivable Area		**658.64**		**Cropping Intensity**		**119.54**				

Name of MWS: Nadai 2C2H2e1b

S. No.	Crop.	Area in (ha)		Productivity q/ha		Production (q)				Remarks
						Grain/Main product		Fodder/Fuel/other Product		
		Irrigated	Rainfed	Irrigated	Rainfed	Irrigated	Rainfed	Irrigated	Rainfed	
A	**Kharif**									
1	Jowar	0	54.2	0	8	0	433.6	0	650.4	
2	Til	0	56	0	1.47	0	82.32	0	123.48	
3	Arhar	0	80	0	7.87	0	629.6	0	944.4	
4	Urd/Mung	0	70	0	5.08	0	355.6	0	355.6	
5	vegetables (Cropwise)	0	50	0	220.4	0	11020	0	11020	
6	Fodder	0	0	0	0	0	0	0	0	
..	Other, specify	0	0	0	0	0	0	0	0	
	Total		310.2		242.82		12521.1		13093.9	
B	**Rabi**									
1	Wheat	32	142.5	25	18	800	2565	1890	3847.5	
2	Barley	0	4.35	0	10.47	0	45.54	0	68.32	
3	Masoor	0	106	0	4.8	0	508.8	0	636	
4	Gram	0	122	0	6.56	0	800.32	0	1000.4	
5	Pea	0	40.26	0	10.43	0	419.91	0	419.91	
6	Mustard	0	24	0	4.26	0	102.24	0	153.36	
7	Potato	0	0	0	0	0	0	0	0	
8	vegetables (Cropwise)	0	0	0	0	0	0	0	0	
9	Fodder	0	0	0	0	0	0	0	0	
..	Other, specify	0	0	0	0	0	0	0	0	
	Total	32	439.11	25	54.52	800	4441.82	1890	6125.49	
C	**Zaid**									
	Nil	0		0		0		0		
	Cultivable Area	**639.36**		**Cropping Intensity**		**122.2**				

Name of MWS: Nurpur 2C2H2e3h

S. No.	Crop.	Area in (ha)		Productivity q/ha		Production (q)				Remark
						Grain/Main product		Fodder/Fuel/other Product		
		Irrigated	Rainfed	Irrigated	Rainfed	Irrigated	Rainfed	Irrigated	Rainfed	
A	**Kharif**									
1	Jowar	0	52.3	0	8.2	0	428.86	0	643.29	
2	Til	0	54	0	1.47	0	79.38	0	119.07	
3	Arhar	0	80	0	7.87	0	629.6	0	944.4	
4	Urd/Mung	0	70	0	5.08	0	354	0	354	
5	vegetables (Cropwise)	0	50	0	218.2	0	10910	0	10910	
6	Fodder	0	0	0	0	0	0	0	0	
..	Other, specify	0	0	0	0	0	0	0	0	
	Total		306.3		240.82		12401.8		12970.8	
B	**Rabi**									
1	Wheat	31	138.5	25	18	760	2493	1890	3739.5	
2	Barley	0	4.35	0	10.47	0	45.54	0	68.32	
3	Masoor	0	100	0	4.8	0	480	0	600	
4	Gram	0	122	0	6.56	0	756	0	945	
5	Pea	0	40.26	0	10.43	0	419.91	0	419.91	
6	Mustard	0	24	0	4.26	0	102.24	0	153.36	
7	Potato	0	0	0	0	0	0	0	0	
8	vegetables (Cropwise)	0	0	0	0	0	0	0	0	
9	Fodder	0	0	0	0	0	0	0	0	
..	Other, specify	0	0	0	0	0	0	0	0	
	Total	31	429.11	25	54.52	760	4296.7	1890	5926.09	
C	**Zaid**									
	Nil	0		0		0		0		
	Cultivable Area	**628.4**	**Cropping Intensity**			**121.96**				

Name of MWS: Hathnaura 2C2H2f2f

S. No.	Crop.	Area (ha)		Productivity (q/ha)		Production (q)				Remarks
						Grain/Main product		Fodder/Fuel/other Product		
		Irrigated	Rainfed	Irrigated	Rainfed	Irrigated	Rainfed	Irrigated	Rainfed	
A	**Kharif**									
1	Jowar	0	40.28	0	7.5	0	302.1	0	453.15	
2	Til	0	36	0	128	0	4608	0	6912	
3	Arhar	0	52	0	6	0	312	0	468	
4	Urd/Mung	0	48	0	4.2	0	354	0	354	
5	vegetables (Cropwise)	0	50	0	178	0	8900	0	8900	
6	Fodder	0	0	0	0	0	0	0	0	
..	Other, specify	0	0	0	0	0	0	0	0	
	Total		226.28		323.7		14476.1		17087.2	
B	**Rabi**									
1	Wheat	22	92	22	16	760	1472	1890	2208	
2	Barley	0	4.35	0	10.47	0	45.54	0	68.32	
3	Masoor	0	56	0	4.8	0	268.8	0	336	
4	Gram	0	53	0	6.56	0	756	0	945	
5	Pea	0	40.26	0	10.43	0	419.91	0	419.91	
6	Mustard	0	18	0	4.26	0	76.68	0	115.02	
7	Potato	0	0	0	0	0	0	0	0	
8	vegetables (Cropwise)	0	0	0	0	0	0	0	0	
9	Fodder	0	0	0	0	0	0	0	0	
..	Other, specify	0	0	0	0	0	0	0	0	
	Total	22	263.61	22	52.52	760	3038.94	1890	4092.25	
C	**Zaid**									
	Nil	0		0		0		0		
	Cultivable Area	**439.45**		**Cropping Intensity**		**116.48**				

Name of MWS: Nibhana 2C2H2f2g

S. No.	Crop.	Area (ha)		Productivity (q/ha)		Production (q)				Remarks
						Grain/Main product		Fodder/Fuel/other Product		
		Irrigated	Rainfed	Irrigated	Rainfed	Irrigated	Rainfed	Irrigated	Rainfed	
A	**Kharif**									
1	Jowar	0	35.2	0	7.5	0	264	0	396	
2	Til	0	36	0	128	0	4608	0	6912	
3	Arhar	0	46	0	6	0	276	0	414	
4	Urd/Mung	0	38	0	4.2	0	354	0	354	
5	vegetables (Cropwise)	0	45	0	178	0	8010	0	8010	
6	Fodder	0	0	0	0	0	0	0	0	
..	Other, specify	0	0	0	0	0	0	0	0	
	Total		200.2		323.7		13512		16086	
B	**Rabi**									
1	Wheat	18	72	22	16	760	1152	1890	1728	
2	Barley	0	4.35	0	10.47	0	45.54	0	68.32	
3	Masoor	0	42	0	4.8	0	201.6	0	252	
4	Gram	0	46	0	6.56	0	756	0	945	
5	Pea	0	32	0	10.43	0	333.76	0	333.76	
6	Mustard	0	18	0	4.26	0	76.68	0	115.02	
7	Potato	0	0	0	0	0	0	0	0	
8	vegetables (Cropwise)	0	0	0	0	0	0	0	0	
9	Fodder	0	0	0	0	0	0	0	0	
..	Other, specify	0	0	0	0	0	0	0	0	
	Total	18	214.35	22	52.52	760	2565.58	1890	3442.1	
C	**Zaid**									
	Nil	0		0		0		0		
	Cultivable Area	**352.95**		**Cropping Intensity**		**122.55**				

Name of MWS: Sikri Rahmanpur 2C2H2e3b

S. No.	Crop.	Area in (ha)		Productivity (q/ha)		Production (q)				Remarks
						Grain/Main product		Fodder/Fuel/other Product		
		Irrigated	Rainfed	Irrigated	Rainfed	Irrigated	Rainfed	Irrigated	Rainfed	
A	**Kharif**									
1	Jowar	0	38.2	0	7.5	0	286.5	0	429.75	
2	Til	0	40	0	128	0	5120	0	7680	
3	Arhar	0	46	0	6	0	276	0	414	
4	Urd/Mung	0	42.3	0	4.2	0	354	0	354	
5	vegetables (Cropwise)	0	45	0	178	0	8010	0	8010	
6	Fodder	0	0	0	0	0	0	0	0	
..	Other, specify	0	0	0	0	0	0	0	0	
	Total		211.5		323.7		14046.5		16887.8	
B	**Rabi**									
1	Wheat	22.6	86	22	16	760	1376	1890	2064	
2	Barley	0	5.5	0	10.47	0	57.59	0	86.38	
3	Masoor	0	42	0	4.8	0	201.6	0	252	
4	Gram	0	48	0	6.56	0	756	0	945	
5	Pea	0	36	0	10.43	0	375.48	0	375.48	
6	Mustard	0	18.4	0	4.26	0	78.38	0	117.58	
7	Potato	0	0	0	0	0	0	0	0	
8	vegetables (Cropwise)	0	0	0	0	0	0	0	0	
9	Fodder	0	0	0	0	0	0	0	0	
..	Other, specify	0	0	0	0	0	0	0	0	
	Total	22.6	235.9	22	52.52	760	2845.05	1890	3840.43	
C	**Zaid**									
	Nil	0		0		0		0		
	Cultivable Area	**392.2**		**Cropping Intensity**		**119.9**				

Name of MWS: Urkhara kalan 2C2H2f2b

S. No.	Crop.	Area in (ha)		Productivity (q/ha)		Production (q)				Remarks
						Grain/Main product		Fodder/Fuel/other Product		
		Irrigated	Rainfed	Irrigated	Rainfed	Irrigated	Rainfed	Irrigated	Rainfed	
A	**Kharif**									
1	Jowar	0	52	0	8	0	416	0	624	
2	Til	0	53	0	128	0	6784	0	10176	
3	Arhar	0	78	0	6	0	468	0	702	
4	Urd/Mung	0	68	0	4.2	0	354	0	354	
5	vegetables (Cropwise)	0	52	0	178	0	9256	0	9256	
6	Fodder	0	0	0	0	0	0	0	0	
..	Other, specify	0	0	0	0	0	0	0	0	
	Total		303		324.2		17278		21112	
B	**Rabi**									
1	Wheat	30	136	22	16	760	2176	1890	3264	
2	Barley	0	6.2	0	10.47	0	64.91	0	97.37	
3	Masoor	0	96	0	4.8	0	460.8	0	576	
4	Gram	0	116	0	6.56	0	756	0	945	
5	Pea	0	35.2	0	10.43	0	367.14	0	367.14	
6	Mustard	0	17.9	0	4.26	0	76.25	0	114.38	
7	Potato	0	0	0	0	0	0	0	0	
8	vegetables (Cropwise)	0	0	0	0	0	0	0	0	
9	Fodder	0	0	0	0	0	0	0	0	
..	Other, specify	0	0	0	0	0	0	0	0	
	Total	30	407.3	22	52.52	760	3901.1	1890	5363.89	
C	**Zaid**									
	Nil	0		0		0		0		
	Cultivable Area	**602.5**		**Cropping Intensity**		**122.87**				

Summary

It was found that the productivity of wheat, Gram, Jowar, Arhar and Masooris low than national and state average field. Overall cropping intensity of the project area is 120.78%.

Horticulture Status in the Micro-watershed

There is no systematic agroforestry and orchard in the project area, however scattered trees are found in the study area. The details are given below:

Table 3.9: Horticulture Status

S. N.	Name of micro watershed with code	Name of village	Name of Important horticultural crop						
			Whole Fruit Crop				Scattered Fruit Crop		
			Name	Area ha	Productivity q/ha	Production q	No.	Productivity q/no	Production q
1	2	3	4	5	6		7	8	
1	Bamhaura 2C2H2d1b	Bamhaura, Sem, Sahpur, Khairapur, Bamhauri Khurd, Sikri Jaraha	Nil	Nil	Nil	Nil	27	2.5	67
2	Nadai 2C2H2e1b	Nadai, Churkhi, Rinyaiv bendepur, Sarsai, Swaroop pur	Nil	Nil	Nil	Nil	30	2.7	80
3	Nurpur 2C2H2e3h	Noorpur, Sikri Rahmanpur, Tikauli, Hathnaura	Nil	Nil	Nil	Nil	22	2.6	57
4	Hathnaura 2C2H2f2f	Hathnaura, Nibhana	Nil	Nil	Nil	Nil	23	2.5	57
5	Nibhana 2C2H2f2g	Nibhana, Bhagaura, Mahewa, Urkhara kalan	Nil	Nil	Nil	Nil	22	2.3	50
6	Sikri Rahmanpur 2C2H2e3b	Sikri Rahmanpur, Khalla,	Nil	Nil	Nil	Nil	20	2.4	48
7	Urkhara kalan 2C2H2f2b	Urkhara kalan, DahelKhand Mustkil & Diwara, Narhan mustlil & Diwara	Nil	Nil	Nil	Nil	25	2.5	60
Total of project							169	17.5	424

Table 3.10: Forest, Vegetative Cover/Grass Land

S. No.	Name & Code of Micro watershed	Name of Village	Forest (Area ha)			Grass Land (Area ha)		Other vegetative cover (Area ha)	
			Reserve	Gram Samaj (Natural/Planted)	Total	Gram Samaj	Private	Gram Samaj	Private
1	2	3	4	5	6	7		8	9
1	Bamhaura 2C2H2d1b	Bamhaura, Sem, Sahpur, Khairapur, Bamhauri Khurd, Sikri Jaraha	28.45	-	28.45	-	-	-	-
2	Nadai 2C2H2e1b	Nadai, Churkhi, Rinyaiv bendepur, Sarsai, Swaroop pur	27.62	-	27.62	-	-	-	-
3	Nurpur 2C2H2e3h	Noorpur, Sikri Rahmanpur, Tikauli, Hathnaura	27.17	-	27.17	-	-	-	-
4	Hathnaura 2C2H2f2f	Hathnaura, Nibhana	18.98	-	18.98	-	-	-	-
5	Nibhana 2C2H2f2g	Nibhana, Bhagaura, Mahewa, Urkhara kalan	15.24	-	15.24	-	-	-	-
6	Sikri Rahmanpur 2C2H2e3b	Sikri Rahmanpur, Khalla,	17.05	-	17.05	-	-	-	-
7	Urkhara kalan 2C2H2f2b	Urkhara kalan, DahelKhand Mustkil & Diwara, Narhan mustlil & Diwara	26.01	-	26.01	-	-	-	-
	Total of project		160.50	-	160.50	-	-	-	-

Livestock Population

Table 3.11: Livestock Population in IWMP- IV, Jalaun

All Figure in No.

S. No.	Name of Micro watershed with code	Name of Village	Cow		Buffalow		Ox/ Bull	Goat	Sheep	Pigg-eries	Poultry			Other
			Desi	Crossed	Desi	Murrah					Broiler	Layers	Total	specify
1	2	3	4		5	6	7	7	8	9	10	11	12	13
1	Bamhaura 2C2H2d1b	Bamhaura	212	55	222	56	42	532	75	44				5
		Sem	200	65	236	62	32	600	-	56				7
		Sahpur	75	36	90	35	12	140	22	-				-
		Khairapur	132	36	156	44	24	200	17	12				6
		Bamhauri Khurd	134	30	152	42	19	222	-	-				8
		Sikri Jaraha	168	36	225	78	22	620	72	44				-
2	Nadai 2C2H2e1b	Nadai	235	52	148	48	25	115	-	-				-
		Churkhi	383	60	267	72	30	335	-	-				6
		Rinyaiv Bendepur	130	52	230	52	26	600	-					-
		Sarsai	110	36	267	92	28	400	-	-				-
		Swaroop pur	115	52	132	56	16	500	-	-				5
3	Nurpur 2C2H2e3h	Nurpur	228	67	320	47	17	103	-	-				-
		Tikauli	132	66	102	36	35	128	-	-				5
		Hathnaura	335	85	310	68	28	117	-	-				-
4	Hathnaura 2C2H2f2f	Hathnaura	237	64	165	56	30	132	-	-				7
5	Nibhana 2C2H2f2g	Nibhana	247	65	268	48	42	38	-	-				5
		Bhagaura	122	146	287	156	88	39	-	-				10
		Mahewa	380	45	346	40	99	43						7
		Urkhara kalan	240	37	222	38	82	67	-	-				-
6	Sikri Rahmanpur 2C2H2e3b	Sikri Rahmanpur	235	33	215	78	25	210	-	-				9
		Khalla	189	36	225	58	51	85	-	-				-
7	Urkhara kalan 2C2H2f2b	Urkhara kalan	180	38	135	30	50	135	-	-				11
		DahelKhand Mustkil & Diwara	189	87	108	56	12	90	-	-				10
		Narhan mustlil & Diwara	178	77	156	58	10	88	-	-				12
	Total		4786	1356	4984	1406	845	5539	186	156	0	0	0	113

Table 3.12: Details of Livestock Productivity

S. No.	Name of Micro watershed with code	Name of Village	Milk Production (Liter Per day)				Goatry	Poultry		Piggeries weight Kg/Pig
			Cows		Buffalos		Weight in Kg/goat	Broiler Weight in Kg/ Brl	Layers No. of eggs/day	
			Desi	Crossed	Desi	Murrah				
1	2	3	4	5	6	7		9	10	11
1	Bamhaura 2C2H2d1b	Bamhaura	1.4	2.5	2.1	5.5	25	-	-	-
		Sem	1.3	2.6	2.6	5.6	28	-	-	-
		Sahpur	1.2	2.5	2.7	5.6	21	-	-	-
		Khairapur	1.4	2.5	2.1	5.5	25	-	-	-
		Bamhauri Khurd	1.3	2.6	2.6	5.6	28	-	-	-
		Sikri Jaraha	1.5	2.6	2.4	5.1	26	-	-	-
2	Nadai 2C2H2e1b	Nadai	1.2	2.5	2.7	5.6	21	-	-	-
		Churkhi	1.4	2.7	2.9	5	23	-	-	-
		Rinyaiv bendepur	1.2	2.7	2.7	5.6	21	-	-	-
		Sarsai	1.2	2.5	2.7	5.6	21	-	-	-
		Swaroop pur	1.4	2.5	2.1	5.5	25	-	-	-
3	Nurpur 2C2H2e3h	Nurpur	1.8	" "	2.1	5.6	24	-	-	-
		Tikauli	1.6	" "	2.3	5.1	23	-	-	-
		Hathnaura	1.3	2.6	2.6	5.6	28	-	-	-
4	Hathnaura 2C2H2f2f	Hathnaura	1.4	2.6	2.5	5.8	27	-	-	-
5	Nibhana 2C2H2f2g	Nibhana	1.6	2.8	2.6	5.1	28	-	-	-
		Bhagaura	1.2	2.7	2.1	5.3	24	-	-	-
		Mahewa	1.3	2.6	2.6	5.6	28	-	-	-
		Urkhara kalan	1.2	2.5	2.7	5.6	21	-	-	-
6	Sikri Rahmanpur 2C2H2e3b	Sikri Rahmanpur	1.4	2.5	2.1	5.5	25	-	-	-
		Khalla	1.3	2.6	2.6	5.6	28	-	-	-
7	Urkhara kalan 2C2H2f2b	Urkhara kalan	1.5	2.6	2.4	5.1	26	-	-	-
		DahelKhand Mustkil & Diwara	1.2	2.5	2.7	5.6	21	-	-	-
		Narhan mustlil & Diwara	1.4	2.7	2.9	5	23	-	-	-
	Average		**1.4**	**2.4**	**2.5**	**5.5**	**24.5**			

SUMMARY OF LIVELIHOOD

S. No.	Names of the villages	Existing livelihood activities	Possible livelihood interventions under the project	Current status of migration (No. of people)	Main reasons for migration
1-		1-Dairy 2-Agriculture	1-Horticulutre 2-Vegitable Production 3- Fishries 4- Vermi Culture 5- Poultry 6- Food Processing	3080	For Better Livelihood

Table 3.13: Ground Water Status

S. 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 (Avg.)	After Monsoon (Avg.)		
1	2	3	4	5	6	7
1	Bamhaura 2C2H2d1b	Bamhaura Sem Sahpur Khairapur Bamhauri Khurd Sikri Jaraha	Avg. 19.40	Avg. 17.40	5	
2	Nadai 2C2H2e1b	Nadai Churkhi Rinyaiv bendepur Sarsai Swaroop pur	Avg. 17.60	Avg. 15.60	7	
3	Nurpur 2C2H2e3h	Nurpur Tikauli Hathnaura	Avg. 16.80	Avg. 14.80	7	
4	Hathnaura 2C2H2f2f	Hathnaura	Avg. 17.00	Avg. 15.20	5	
5	Nibhana 2C2H2f2g	Nibhana Bhagaura Mahewa Urkhara kalan	Avg. 19.25	Avg. 17.25	7	
6	Sikri Rahmanpur 2C2H2e3b	Sikri Rahmanpur Khalla	Avg. 18.25	Avg. 16.50	6	
7	Urkhara kalan 2C2H2f2b	Urkhara kalan DahelKhand Mustkil & Diwara Narhan mustlil & Diwara	Avg. 19.00	Avg. 17.00	5	

Table 3.14: Details of infrastructure in the project areas

S. No.	Name of village	Pakka Road	Electricity	Primary School	Jun. High School Km	Inter college Km.	Post Off. Km.	P.H.C. Km.	Bank Km.	Vetnary hospital Km.	Co-op Society Km.	Market Km.	Agri. Servic centre Km.
1	Noorpur	√	1 km	√	5 km	3 km	3 km	3 km	3km	3km	3km	3km	3km
2	Nadai	√	√	√	√	9 km	9 km	9 km	9 km	9 km	9 km	9 km	9 km
3	Hathnaura	√	√	√	√	9 km	9 km	9 km	9 km	9 km	9 km	9 km	9 km
4	Tikauli	√	√	√	√	9 km	9 km	9 km	9 km	9 km	9 km	9 km	9 km
5	Gora Kalan	√	√	√	5 km	5 km	5 km	5 km	5 km	5 km	5 km	5 km	5 km
6	Niwahana	√	√	√	√	5 km	5 km	5 km	5 km	5 km	5 km	5 km	5 km
7	Satraju	√	√	√	√	5 km	5 km	5 km	5 km	5 km	5 km	5 km	5 km
8	Urkara Kalan	√	√	√	√	8 km	8 km	8 km	8 km	8 km	8 km	8 km	8 km
9	Sikri Rahmanpur	√	√	√	1 km	5 km	5 km	5 km	5 km	5 km	5 km	5 km	5 km
10	Sikri Jarha	√	√	√	6 km	9 km	9 km	9 km	9 km	9 km	9 km	9 km	9 km
11	Richhara	√	√	√	2 km	4 km	4 km	4 km	4 km	4 km	4 km	4 km	4 km
12	Dehalkhand Mustkil	√	√	√	7 km	7 km	7 km	7 km	7 km	7 km	7 km	7 km	7 km
13	Khalla	√	√	√	5 km	5 km	5 km	5 km	5 km	5 km	5 km	5 km	5 km
14	Churkhi	√	√	√	√	√	√	√	√	√	√	√	√

The details of PRA exercise in the Project Area

CHAPTER - 4

INSTITUTION BUILDING & PROJECT MANAGEMENT

Project Implementing Agency: The Project Implementing Agency (PIA) for IWMP- III, Jalaun is BSA, Bhoomi Sanrakshan Unit, Land Development and Water Resources Department, District Jalaun, Uttar Pradesh. The project implementing agency was selected by State Level Noday Agency (SLNA) for Integrated Watershed Management Program (IWMP) in Jalaun district. The PIA was given responsibility to develop the micro-watershed by District Watershed Development Unit (DWDU) and State Level Nodal Agency (SLNA) considering its vast experiences in handling land and water management issues in the region. The PIA has well experienced trained and sufficient staff to handle the watershed management programme efficiently.

The PIA will put dedicated Watershed Development team and will provide necessary technical guidance to the Gram Panchayat for preparation of Development Plans for the Watershed Projects through Participatory Rural Appraisal exercise. PIA will also undertake **a)** Community Organization, **b)** Trainings for the village communities, **c)** supervise Watershed development Activities, **d)** inspect & authenticate project accounts, **e)** monitor & review the overall project implementation, **f)** set up institutional arrangements for post project operations and g) maintenance and further development of the assets created during the project period.

Table 4.1: Details of Project Implementing Agency (PIA)

S. No.	Particulars of PIA	
1	2	3
(i)	Date of selection of PIA	28-5-2010.
(ii)	Type of organization	Govt.
(iii)	Name of organization	Bhoomi Sanrakshan Unit, Land Development and Water Resources Department, Kalpi, District Jalaun
(iv)	Designation & Address	BSA, Bhoomi Sanrakshan Unit, Land Development and Water Resources Department, Kalpi, District Jalaun
(v)	Telephone	0516-8222007
(vi)	Fax	0516-8222007
(vii)	E-mail	mukesh7711@gmail.com

Table 4.2: Details of Staff at PIA

S. NO.	Designation	Name	M/F	Qualification	Field of Experience & Period	Remarks
1	2	3		4	5	6
1.	B.S.A.	Shri Dinesh Kumar Srivastav	M	Intermediate, Civil Engg. Diploma	31	
2.	Junior Engineer	Shri Kamla Pati Goutam	M	Intermediate, Ag. Engg. Diploma	28	
3.	Accountant	Shri Chandra Bhusan Singh	M	B.Com	7	
4.	Sr. Clerk	Shri Sashi Kant Dixit	M	B.A.	29	
5.	Ju. Clerk	Shri M CSrivastava	M	B.A.	29	
6.	Draftman	Shri Sangam Lal Verma	M	Intermediate, Diploma	7	
7.	Traser	Shri Mh. Yasim Sidqui	M	High School, Diploma	30	
8.	A.S.C.I.	Shri Manoj Kumar	M	M.Sc. (Ag.) B.Ed,, M.Ed.	7	
9.	A.S.C.I.	Shri Chhote Lal	M	M.Sc. (Ag.) B.Ed.	7	
10.	A.S.C.I.	Shri Harikrishna Singh	M	B.Sc. (Ag.)	-	
11.	A.S.C.I.	Shri Uma Shanker	M	B.Sc. (Ag.)	-	
12.	A.S.C.I.	Shri Nooral Haq Ansari	M	B.Sc. (Ag.)	-	
13.	A.S.C.I.	Smt Vandana Singh	F	B.Sc. (Ag.)	-	
14.	Work Incharge	Shri Vinodanand Mishra	M	High School	29	
15.	Work Incharge	Shri Harihar Prashad	M	High School	28	
16.	Work Incharge	Shri Ravindra Nath Pal	M	Intermediate	21	
17.	Work Incharge	ShriRatan Lal Patel	M	Intermediate	20	
18.	Work Incharge	Shri Vijay Narain Singh	M	Intermediate	25	
19.	Work Incharge	Shri Kamlesh Kr. Pandey	M	High School	21	
20.	Work Incharge	Shri Devendra Pd. Tiwari	M	B.A.	20	
21.	Work Incharge	Shri Shahid Husen	M	Intermediate, Diploma	20	
22.	Munshi	Shri Suman Lata Singh	M	Intermediate	15	
23.	4th Class	Shri Chagur Prashad	M	8th	28	
24.	4th Class	Shri Brij Lal Prasad	M	8th	28	
25.	4th Class	Shri Kamlesh Kr. Gatum	M	8th	28	
26.	4th Class	Shri Awadh Saran Verma	M	High School	28	
27.	4th Class	Smt. Geeta Singh	F	Intermediate	18	

Note: - Details of all the persons working in BSA Unit is to be incorporated

The Watershed Development Team (WDT): It is an integral part of the PIA. WDT will assist gram Sabha in a) constitution of Watershed Committee and its functioning, b) organize and strengthening User groups, Self Help Groups, c) conducting participatory baseline survey, d) training and Capacity Building, e) preparing detailed resource development plan including Soil & Water Conservation, f) undertake engineering surveys, g) prepare engineering drawings and cost estimate for structure to be built.

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

1	2	3	4	5	6	7	8
S. No.	Name of WDT member	M/F#	Age	Qualification / Experience	Description of professional training	Role/ Function##	Date of appointment of WDT member
1.	Omkar Prasad Swarnkar	M	62	B.Sc. (Ag.)	Soil/ Land Management	Agriculture Demonstration	3.8.11
2.	Balwant Singh	M	45	B.Sc. (Bio.)	Soil Conservation	Livelihood	3.8.11
3.	Pinki	F	45	B.A., NTT Dip.	SHG	SHG	3.8.11
4.	Dinesh Pal Singh	M	25	B.Sc. (Ag.)	Soil Conservation	Soil Conservation	1.11.11
5.	Agnivesh	M	27	B.Tech. (Ag.)	Technical Advice	Technical Advice	26.9.11

Watershed Committees:

Watershed committees are being formed in all villages. Each committee would consist of at least of 10 members. Their representation will be as under:

- Minimum of 50% members from SHGs and UGs, SCs, women and landless
- One member from Watershed Development Team, especially women member (subject matter specialist in Social Science).

Watershed Committees would nominate one of their members as Watershed Secretary to perform the following duties:

1. Convening meetings of Watershed Committee, Gram Sabha.
2. Maintaining all records and proceedings of the meetings.
3. Follow up action on all decisions taken in the meetings.
4. Ensuring people's participation.

Watershed Secretary will be imparted training in maintaining the accounts as well other activities related to Project.

Table 4.4: Details of Watershed Committee (WC)
Name of Project: - IWMP -IV, District- JALAUN

1	2	3	4		5	6	7	8	9	10	11	12	13	14	15	16	17
Sl. No.	Name of Gram Sabha/ GP	Date of Constitution/ Registration as a Society (dd/mm/ yyyy)	Name	Designation	M/F	SC	ST	SF	MF	LF	Land-less	UG	SHG	GP	Any other	Educa-tional qualifi-cation	Function(s) assigned#
1	Bamhora	17.6.10	Vineeta Singh	President	F			√								10	Overall mamagement
			Ram Kunar	Secretary	M			√								12	Overall mamagement
			Raju	Member	M				√							8	Supervision
			Ram Babu	Member	M			√								10	-do-
			Indra Pal	Member	M			√					√			8	-do-
			Tunde	Member	M			√					√			8	-do-
			Shiv Kumar	Member	M	√		√								8	-do-
			Gabbar Singh	Member	M						√					8	-do-
			Indrawati	Member	F			√								-	-do-
			Chhote Lal (WDT)	Member	M	√										MSc(Ag), BEd	-do-
2	Nadai	11.6.10	Ramakant Singh	President	M					√						10	Overall mamagement
			Arvind Singh	Secretary	M			√								10	Overall mamagement
			Badshah Singh	Member	M			√								8	Supervision
			Rajjan Singh	Member	M			√								8	-do-
			KarsanWali	Member	F			√					√			5	-do-
			Maya	Member	F			√								5	-do-
			Dileep	Member	M	√										8	-do-
			Mahesh	Member	M						√					8	-do-
			Sarita	Member	F			√								8	-do-

			Chhote Lal (WDT)	Member	M	√										MSc(Ag), BEd	-do-
3	Noorpur	13.6.10	Mahendra Pal Singh	President	M					√						LLB	Overall mamagement
			Sitaram Singh	Secretary	M				√							10	Overall mamagement
			Ram Deo Singh	Member	M				√			√				10	Supervision
			Ram Pal Singh	Member	M				√			√				8	-do-
			Nek Ram	Member	M	√		√					√			-	-do-
			Virendra Prasad	Member	M	√					√		√			8	-do-
			Shiv Prasad	Member	M	√					√		√			8	-do-
			G Shanker	Member	M	√					√					8	-do-
			Lajjawati	Member	F	√					√		√			5	-do-
			V N Singh (WDT)	Member	M											12	-do-
4	Hathnaura	19.6.10	Babi Devi	President	F					√						8	Overall mamagement
			Devendra	Secretary	M			√								10	Overall mamagement
			Vishram Singh	Member	M			√				√				8	Supervision
			Ramji Singh	Member	M			√				√				10	-do-
			Suman	Member	F				√				√			5	-do-
			Manisha	Member	F				√				√			5	-do-
			Sarjoo Prasad	Member	M	√					√					-	-do-
			Sant Ram	Member	M	√					√					5	-do-
			Sunita	Member	F			√								8	-do-
			H Prasad (WDT)	Member		√										12	-do-
5	Nibhana	17.6.10	Ranno Devi	President	F			√								8	Overall mamagement
			Sunder Lal	Secretary	M			√			√					9	Overall mamagement
			SukhDeo	Member	M			√				√				-	Supervision

			U Narain	Member	M			√				√				8	-do-
			Pooja	Member	F	√		√					√			12	-do-
			Santoshi	Member	M						√		√			12	-do-
			Jaiveer	Member	M	√		√								12	-do-
			Parsuram	Member	M	√					√					8	-do-
			Sonwati	Member	F	√		√								5	-do-
			D P Tiwari (WDT)	Member	M											Inter	-do-
6	Sikri Rahmanpur	15.6.10	Kallu Singh	President	M					√						12	Overall mamagement
			Karan Singh	Secretary	M					√						8	Overall mamagement
			Raveendra	Member	M			√				√				10	Supervision
			Shiv Pal Singh	Member	M			√				√				8	-do-
			Sudershan	Member	M			√					√			10	-do-
			Kamlesh	Member	M			√					√			8	-do-
			Prahlad	Member	M	√										-	-do-
			Surendra	Member	M	√					√					8	-do-
			CBahu	Member	F			√								8	-do-
			Chhote Lal (WDT)	Member	M											MSc (Ag)	-do-
7	Urkhara kalan	20.6.10	Ramesh Pal	President	M				√							12	Overall mamagement
			Suresh Kumar	Secretary	M	√		√								10	Overall mamagement
			S Narain	Member	M	√		√				√				8	Supervision
			Surjeet	Member	M	√		√				√				8	-do-
			Dipendra Kumar	Member	M	√		√					√			8	-do-
			Ramakant	Member	M	√		√					√			5	-do-
			R Kumar	Member	M	√		√								-	-do-
			RamJeevan	Member	M	√					√					8	-do-
			Sadhana	Member	F	√		√								8	-do-
			Chhote Lal (WDT)	Member	M											MSc (Ag)	-do-

Note: WC to be constituted for each Gram Panchayat included in the MWS

Formation of Self Help Groups:

The formation of SHGs in all watershed villages is underway. It is proposed to form at least 2 SHGs in each village. Each SHG will consist of 12/15 members. The members would be mainly from landless, SCs and women, small and marginal farmers. Few groups exclusively of unemployed youth have also been identified. These groups will be homogeneous having common goal for increasing their income by establishing micro enterprise. Under the Project, each SHGs would be given a revolving fund of Rs.20000/25000 each after 6 months from the date of formation (subject to qualifying the 1st grading and meeting the laid down norms). After having discussions with the village community The SHGs may opt any of the Income Generating Activities from the list given below.

1. Bakery Products 2. Soap & Detergent making 3. Cutting and Tailoring 4. Embroidery 5. Fisheries 6. Mushroom cultivation 7. Household wiring, Motor winding 8. Plumbing 9. Carpentry 10. Bee keeping 11. Pickles, sauces, jam, jelly etc. 12. Two wheelers repairing 13. Animal husbandry 14. Backyard poultry 15. Vermi compost

However, decision for adopting Economic Activities would rest with respective SHGs. Accordingly; these SHGs would be imparted trainings in the IGAs they opt for. Preliminary survey reveals reasonable potentials for the above mentioned Economic Activities and these could prove to be beneficial to poor people residing in selected Watershed villages.

Table 4.5: Details of Self Help Groups (SHGs) in the project area

1	2	3	4				5				6			7			8
S. 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	Bamhaura 2C2H2d1b	Bamhaura, Sem, Sahpur, Khairapur, Bamhauri Khurd, Sikri Jaraha	1			1	(i) Landless										
							(ii) SF										
							(iii) MF										
							(iv) LF										
2	Nadai 2C2H2e1b	Nadai, Churkhi, Rinyaiv bendepur, Sarsai, Swaroop pur		1		1	(i) Landless										
							(ii) SF										
							(iii) MF										
							(iv) LF										
3	Noorpur 2C2H2e3h	Noorpur, Sikri Rahmanpur, Tikauli, Hathnaura	1	1		2	(i) Landless										
							(ii) SF										
							(iii) MF										
							(iv) LF										
4	Hathnaura 2C2H2f2f	Hathnaura, Nibhana		1		1	(i) Landless										
							(ii) SF										
							(iii) MF										
							(iv) LF										
5	Nibhana 2C2H2f2g	Nibhana, Bhagaura, Mahewa, Urkara kalan		2		2	(i) Landless										
							(ii) SF										
							(iii) MF										
							(iv) LF										
6	Sikri Rahmanpur 2C2H2e3b	Sikri Rahmanpur, Khalla,	2	2		4	(i) Landless										
							(ii) SF										
							(iii) MF										
							(iv) LF										
7	Urkara kalan 2C2H2f2b	Urkara kalan, DahelKhand Mustkil & Diwara, Narhan mustlil & Diwara	2	1		3	(i) Landless										
							(ii) SF										
							(iii) MF										
							(iv) LF										

(M – Male, F – Female)

Table 4.6: Details of Formation of Self Help Groups

S. No.	Name of micro watershed	Name of village	Name of group	Date of constitution	Name of Adhyaksh	Name of Sachiv	Total No. of Members				Name of Bank and Address	Account No. & Date	Up to date Saving Rs.	Group activities
							Wo-men	Sc/St	Other	Total				
1	2	3	4		5	6	7	8	9	10	11	12		13
1	Bamhaura 2C2H2d1b	Bamhaura, Sem, Sahpur, Khairapur, Bamhauri Khurd, Sikri Jaraha	Jai Maa Kali	11.8.11	Gabbar	Mnoj	10	6	4	10	Account not opened as yet	Account not opened as yet	2010	Goat Farming
2	Nadai 2C2H2e1b	Nadai, Churkhi, Rinyaiv bendepur, Sarsai, Swaroop pur	Badi Maata	5.8.11	Saraswati	Sarita	12	-	12	12			2410	Sewing
3	Noorpur 2C2H2e3h	Noorpur, Sikri Rahmanpur, Tikauli, Hathnaura	Azad	15.9.11	Guddi	Maya	12	9	3	12			1820	Goat Farming
			Ekta	15.9.11	Dharmpal	Chandrapal	11	2	9	11			1660	Dairy
4	Hathnaura 2C2H2f2f	Hathnaura, Nibhana	Dr. Ambedkar	15.10.10	Sakuntala	Seeta	11	9	2	11			5510	Goat Farming
			Jai Maa Durge	15.8.11	Munni	Ramwati	11	-	11	11			2210	Goat Farming
5	Nibhana 2C2H2f2g	Nibhana, Bhagaura, Mahewa, Urkara kalan	Jai Maa Durge	15.7.11	Kusum	Mithlesh	10	4	6	10			2510	Goat Farming
			Saraswati	15.7.11	Sukhdevi	Puja	12	2	10	12			3020	Goat Farming
6	Sikri Rahmanpur 2C2H2e3b	Sikri Rahmanpur, Khalla,	Balaji	20.6.11	Santosh	Rajveer	-	-	11	11			3010	Dairy
			Vaishno Devi	20.7.11	Siyasaran	Ramkumar	-	2	8	10			2610	Dairy
			Maa Ambe	20.7.11	Manju	Archana	11	8	3	11			2510	Goat Farming
			Ekta	20.6.11	Guddi	Susheela	10	2	8	10			3010	Dairy
7	Urkara kalan 2C2H2f2b	Urkara kalan, DahelKhand Mustkil & Diwara, Narhan mustlil & Diwara	Maa Durge	10.4.11	Somwati	Brahmkumari	10	8	2	10			4100	Goat Farming
			Ambedkar	15.4.11	Udai Singh	Surendra	10	9	1	10			4410	Dairy
			Shnker Bhole	8.9.10	Sahab Singh	Santosh	-	-	11	11			8260	Light Decoration

User groups:

The members of User groups would be those persons who would directly derive benefits from Watershed Activities. Resource use agreements are being worked out. The User groups will be responsible for the operation and maintenance of all the assets created under the Project. Formation of User groups is under process in all the villages covered under the Project. The members of User Groups would be imparted training by PIA for effectively managing the assets created.

Table 4.7: Details of User Groups

1		2	3				4				5			6			7
S. No.	Name of Micro watershed with code	Names of villages	Total no. of UGs				No. of members				No. of SC/ST in each category			No. of BPL in each category			Date of formation
			Men	Women	Both	Total	Categories	M	F	Total	M	F	Total	M	F	Total	of UGs
1	Bamhaura 2C2H2d1b	Bamhaura, Sem, Sahpur, Khairapur, Bamhauri Khurd, Sikri Jaraha	2	1	1	4	(i)Landless										17-6-2010
							(ii) SF										
							(iii) MF										
							(iv) LF			44							
2	Nadai 2C2H2e1b	Nadai, Churkhi, Rinyaiv bendepur, Sarsai, Swaroop pur	2	-	2	4	(i)Landless										11/6/2010
							(ii) SF										
							(iii) MF										
							(iv) LF			43							
3	Noorpur	Noorpur,	2	1	1	4	(i)Landless										13/6/2010

	2C2H2e3h	Sikri Rahmanpur, Tikauli, Hathnaura					(ii) SF											
							(iii) MF											
							(iv) LF			42								
4	Hathnaura 2C2H2f2f	Hathnaura, Nibhana	2	-	1	3	(i)Landless											19/6/2010
							(ii) SF											
							(iii) MF											
							(iv) LF			36								
5	Nibhana 2C2H2f2g	Nibhana, Bhagaura, Mahewa, Urkara kalan	2	-	1	3	(i)Landless											17/6/2010
							(ii) SF											
							(iii) MF											
							(iv) LF			33								
6	Sikri Rahmanpur 2C2H2e3b	Sikri Rahmanpur, Khalla	2	1	-	3	(i)Landless											15/6/2010
							(ii) SF											
							(iii) MF											
							(iv) LF			34								
7	Urkara kalan 2C2H2f2b	Urkara kalan, DahelKhand Mustkil & Diwara, Narhan mustlil & Diwara	2	1	1	4	(i)Landless											20/6/2010
							(ii) SF											
							(iii) MF											
							(iv) LF			45								
	Total		**14**	**4**	**7**	**25**												

(M – Male, F – Female)

Table 4.8: Details of Formation of User Groups (UGs)

S. No.	Name of micro watershed	Name of village	Name of group	Date of constitution	Name of Adhyaksh	Name of Sachiv/ Treasurer	Total No. of Members				Name of Bank and Address	Account No. & Date	Up to date Saving	Group Activeties	Status of User Agreement
							Women	Sc/ St	Other	Total					
1	2	3	4		5	6	7	8	9	10					
1	Bamhaura 2C2H2d1b	Bamhaura, Sem, Sahpur, Khairapur, Bamhauri Khurd, Sikri Jaraha	4	17-6-2010	Vineeta Singh	Ramkumar				44	Under Process				
2	Nadai 2C2H2e1b	Nadai, Churkhi, Rinyaiv bendepur, Sarsai, Swaroop pur	4	11-6-2010	Ramakant Singh	Arvind Singh				43					
3	Noorpur 2C2H2e3h	Noorpur, Sikri Rahmanpur, Tikauli, Hathnaura	4	13-6-2010	Mahendra pal Singh	Sitaram Singh				42					
4	Hathnaura 2C2H2f2	Hathnaura, Nibhana	3	19-6-2010	Babi Devi	devendra Prasad				36					
5	Nibhana 2C2H2f2g	Nibhana, Bhagaura, Mahewa, Urkara kal	3	17-6-2010	Ranoo Devi	Sunder lal				33					
6	Sikri Rahmanpur 2C2H2e3b	Sikri Rahmanpur, Khalla	3	15-6-2010	Kallu Singh	Karan Singh				34					
7	Urkara kalan 2C2H2f2b	Urkara kalan, DahelKhand Mustkil & Diwara, Narhan mustlil & Diwara	4	20-6-2010	Ramesh pal	Suresh kumar				45					
	Total for Project		**25**												

Table 4.9: Details of Fund flow of Watershed Committee Accounts (Amount in Rs.)

S. No.	Name of MWS with code	Name of watershed committee (WC)	Opening Balance (in lakh)	Deposit			Withdrawal			Interest accrued	Closing balance
				DRDA/ ZP cheque No./date	Amount / Date of deposit in WC Account	Total amount available in WC Account	Amount withdrawn by Cash/ Cheque	Date of with-drawal	Purpose of with-drawal		
1	2	3	4	5	6	7	8	9	10	11	12
1	Bamhaura 2C2H2d1b	Bamhaura	6.84	120529 (14-7-10) 120534 (7-12-10) 120547 (9-2-11)	6.84	6.84					
2	Nadai 2C2H2e1b	Nadai	6.66		6.66	6.66					
3	Noorpur 2C2H2e3h	Noorpur	6.57		6.57	6.57					
4	Hathnaura 2C2H2f2	Hathnaura	4.59		4.59	4.59					
5	Nibhana 2C2H2f2g	Nibhana	3.69		3.69	3.69					
6	Sikri Rahmanpur 2C2H2e3b	Sikri Rahmanpur	4.05		4.05	4.05					
7	Urkara kalan 2C2H2f2b	Urkara kalan	6.30		6.30	6.30					

Convergence in IWMP-IV, Jalaun: Several Central and State Govt. sponsored programmes are running in the district Jalaun. Some of them are listed below.

Table 4.10: List of Central/State sponsored schemes

S.No.	Name of Programme	Implementing Agency	Objectives of the Programme
1	Seed Distribution Programme (Pulse Development & ISOPAM)	U.P. Agriculture Deptt.	To increase seed replacement ratio for higher productivity
2	Pump set Distribution (Food Security Mission)	Agriculture Deptt.	To Provide irrigation facilities
3	Training Programme	Agriculture Deptt.	To increase Capacity building of the farmers
4	HDPE pipe	Agriculture Deptt.	-
5	National Horticulture Mission (NHM)	Horticulture Deptt.	To Increase fruits & vegetable production
6	Sanitation Programme	Gram Vikash	To make hygienic condition in the rural areas
7	Mid Day Meal	Gram Panchayat (DSO)	To provide education to school children without hunger
8	MGNERGA (Bunding, Farm Pond, Adarsh Jalashay, Blast well, Chakroad, etc.)	Gram Panchayat	To provide work to all village personnel under the Rojgar Guarantee Yojana
9	ATMA	U.P. Ag. Deptt.	Horizonal spread of improved technologies
10	Dept. of Animal Husbandry	U.P. Animal Husbandry	To improve the productivity of livestock

Table 4.11: Details of Convergence of IWMP with other Schemes in IWMP- IV, Jalaun (Rs. In Lakh)

S. No.	Name of Micro Watershed	Names of Departments with Schemes converging with IWMP	Fund made available to IWMP due to convergence (Rs. in lakh)	Was this fund included in Rs.12,000/ 15,000 per ha.		Name of activity/task/structure undertaken with converged funds	Reference no. of activity/ task/ structure in DPR[@]	Level at which decision for convergence was taken[$]
				Yes	No	(a) Structures (b) livelihoods (c) Any other (pl. specify)[#]		
1	2	3 4	5	6	7	8	9	10
1	Bamhora	MNREGA	1.23			Structures		
2	Nadai	MNREGA	0.80			Structures		
3	Nurpur	MNREGA	1.44			Structures		
4	Hathnaura	MNREGA	1.17			Structures		
5	Nibhana	MNREGA	1.22			Structures		
6	Sikri Rahmanpur	MNREGA	1.00			Structures		
7	Urkhara kalan	MNREGA	1.50			Structures		
	Total for project		8.36					

CHAPTER – 5

MANAGEMENT / ACTION PLAN

ENTRY POINT ACTIVITY (EPA)

EPA activities are taken up under watershed projects to newly build or repair the already existing structures with the consultation of village community at the beginning of the project; generally, certain important works which are in urgent demand of the local community are taken up. A group Discussion was conducted with watershed Development Committee regarding the EPA activity, It was conveyed to the WC that an amount of Rs. 20.64 Lakhs was allotted for EPA activity, which was 4 per cent of total allocated budget. The villagers discussed various activities which they fell is important but after a brief discussion it was conveyed to them that only those activities can be taken, which revive the common natural resources. It was also taken into priority that there should be an instrument of convergence which will result in sustainability of activities.

In total 18 EPA activities were executed in the project area with an budget of Rs. 20.64 Lakhs. Details of Entry Point Activities done in the project are given below:

Table 5.1: Entry point activities (EPA), IWMP-IV, DISTRICT- JALAUN

प्रारूप–4 बुन्देल खण्ड पेकेज के अन्तर्गत आई डब्लू0 एम0 पी0 चतुर्थ योजनान्तर्गत एन्ट्रीप्वाइन्ट एक्टिविटी से संमबधित कार्यों की भौतिक प्रगति कार्यालय भूमि संरक्षण अधिकारी आई0 डब्लू0 एम0 पी0 जालौन–द्वितीय, दिसम्बर **2011**

क्र0 स0	ग्राम पचांयत का नाम	ग्राम /मजरे का नाम	कार्य का नाम	कार्य स्थल का पूरा विवरण	कार्य की माप/ इकाई	स्वीकृत लागत	व्यय की गयी धनराशि			सृजित मानव दिवस	अपूर्ण/ पूर्ण कार्य होने की तिथि
							श्रम	सामग्री	योग		
1	2	3	६	5	6	7	8	9	10	11	12
1	बम्हौरा	बम्हौरा	कूप मरम्मत	श्री सत्यनारायण के मकान के पास	1	3.648	0.1414	0.6447	0.7861	117	पूर्ण
			पकका जल निकास	कुआ से पुलिया तक	48 मी0						
			चकरोड / खडंजा पक्की नाली	री देवप्रयाग के मकान से मन्दिर तक एवं श्री माधवसिंह हेडपम्प से श्री मानसिंह एवं श्री देवप्रयाग के मकान से नीचे की तरफ	197.80 मी0 41 मी0		0.2904	1.2911	1.5815	282	पूण्र
				राम आसरे के दरवाजे से हेडपमप एवं शेर सिंह के मकान तक	122 मी0		0.155	0.547	0.702	155	पूर्ण
2	नादई	चुर्खी	कूप मरम्मत	सत्यनारायण के मकान के पास	1	3.552	0.0948	0.3713	0.4661	78	पूर्ण्र
		चूर्खी	चकरोड / खडंजा	मोहले गुप्ता के घर से आर0सी0सी0 तक	314 मी0		0.294	1.8261	2.201	294	पूर्ण
		नादई	चकरोड /खडंजा	भारत सिंह के मकान से उत्तर दिशा एवं समरथ सिंह के मकान से पूरव	107.30 मी0 26.20 मी0		0.158	0.8056	0.9636	158	पूर्ण
			किसान विकास मंच	प्रा0वि0 छोटी नादई	1		–	–	–	–	अपूर्ण
3	नूरपुर	नूरपुर	चकरोड/ खडंजा पक्की नाली चकरोड/ खडंजा	श्री सम्भूसिंह के दरवाजे से लालसिंह के दरवाजा से होते हुए आर0सी0सी0 तक हनुमान मंन्दिर से हाता	103 मी0 67.40 मी0 77 मी0	3.504	0.2895	1.3866	2.2761	279	पूर्ण

				तक							
			किसान विकास मंच	रामलीला मैदान	1	–	–	–	–	–	अपूर्ण
4	निवहना		चकरोड/ खडंजा	श्री दौलत सिंह के मकान से श्री रामशंकमर के घेरा तक श्री सम्भू के मकान से वलखण्डी के मकान तक विशम्बर के दरवाजे तक	54.20 मी0 107.30 मी	1.968	0.497	1.271	1.768		पूर्ण
			कूप मरम्मत	बाबूराम कोरी के दरवाजे पर	1						पूर्ण
			पक्की नाली चकरोड वाल	श्री दौलत सिंह के मंदिर के पास विशम्बर सिंह के दरवाजे से	9.30 मी0 9.10 मी0 101.40 मी0		0.2895	1.3866	2.2761	297	पूर्ण
5	सिकरी रहमानपुर	खलला	चकरोड/ खडंजा	श्री भूरे लाल के मकान से छुन्दी के मकान तक	79 मी0	2.16	0.106	0.786	0.892	106	पूर्ण
		सिकरी रहमानपुर	पक्की जल निकास	गॉव के बाहर की तरफ	60 मी0		–	–	–	–	पूर्ण
			किसान विकास मंच	प्रा0 वि0के पास	1		–	–	–	–	पूर्ण
6	उरकरा कला	दहेल खण्ड	पक्का नाला	श्री रघुवीर सिंह के मकान से मुलायम के बाडा तक	90मी0	3.36	0.8	1.888	2.688	728	पूर्ण
		उरकरा कला	किसान विकास मंच	पंचायत भवन के पास	1		–	–	–	–	अपूर्ण
7	गोरा कला	गोरा कला	चकरोड/ खडंजा	हैण्ड पम्प से तिराहे तक	101 मी0	2.448	0.138	0.5054	0.6435	138	पूर्ण
			पक्की नाली	हैण्ड पम्प से तिराहे तक	90 मी0		–	–	–	–	अपूर्ण
योग					–	20.640	–	–	–	–	–

Details of Livelihood Activities in the project area

During discussions with the village communities by our Livelihood experts, several activities were discussed with them. The main objectives of these discussions were:

- Assure one livelihood option to poor families
- Assured livelihood for at least 300 days in a year
- At least one daily job per family SCs/BPL/ very poor families.

Form SHGs would be imparted skill training on identified Economic Activities and it is proposed to impart them trainings. It is proposed to lend revolving fund of Rs. 25000/- to each SHG/individuals formed in the watershed villages. Since the members from SHGs/landless are very poor, they do not have resources to start micro enterprises. It is envisaged that they should be assisted and given loan of this amount in the shape of Revolving Fund Assistance (RFA) so that they do not get trapped by money lenders. Funds thus given on loan are recoverable from SHGs/individuals in easy installments. It is also proposed to impart skill training to at least 10 unemployed youth from each village and give them trainings of their choice so that they establish some small enterprises. It is further proposed to give them interest free loan of Rs. 12000/- each as Revolving Fund Assistance (RFA) to meet their urgent needs of funds for establishing micro enterprises. Such funds recovered could either be back to SHGs/ individuals so some other SHGs/ individuals depending upon assessment of their respective needs. It is proposed to form 2 SHGs in each village and identify at least 10 youths in each village for imparting training and giving Revolving Fund.

Activities that is likely to be taken up by SHGs/ individuals

Table 5.2:- LIVELIHOOD ACTION PLAN

Amount in Lacs

S. No.	MWS Code	Proposed Amount	Livelihood Activities 9% of the Total project Cost					
			2009-10	2010-11	2011-12	2012-13	2013-14	TOTAL
1	2C2H2d1b	8.21	0.00	0.91	2.28	2.28	2.74	8.21
2	2C2H2e1b	7.99	0.00	0.89	2.22	2.22	2.66	7.99
3	2C2H2e3h	7.88	0.00	0.88	2.19	2.19	2.63	7.88
4	2C2H2f2f	4.86	0.00	0.54	1.35	1.35	1.62	4.86
5	2C2H2f2g	7.56	0.00	0.84	2.10	2.10	2.52	7.56
6	2C2H2e3b	4.43	0.00	0.49	1.23	1.23	1.48	4.43
7	2C2H2f2b	5.51	0.00	0.61	1.53	1.53	1.84	5.51
	Total	46.44	0.00	5.16	12.90	12.90	15.48	46.44

Amount in Lacs

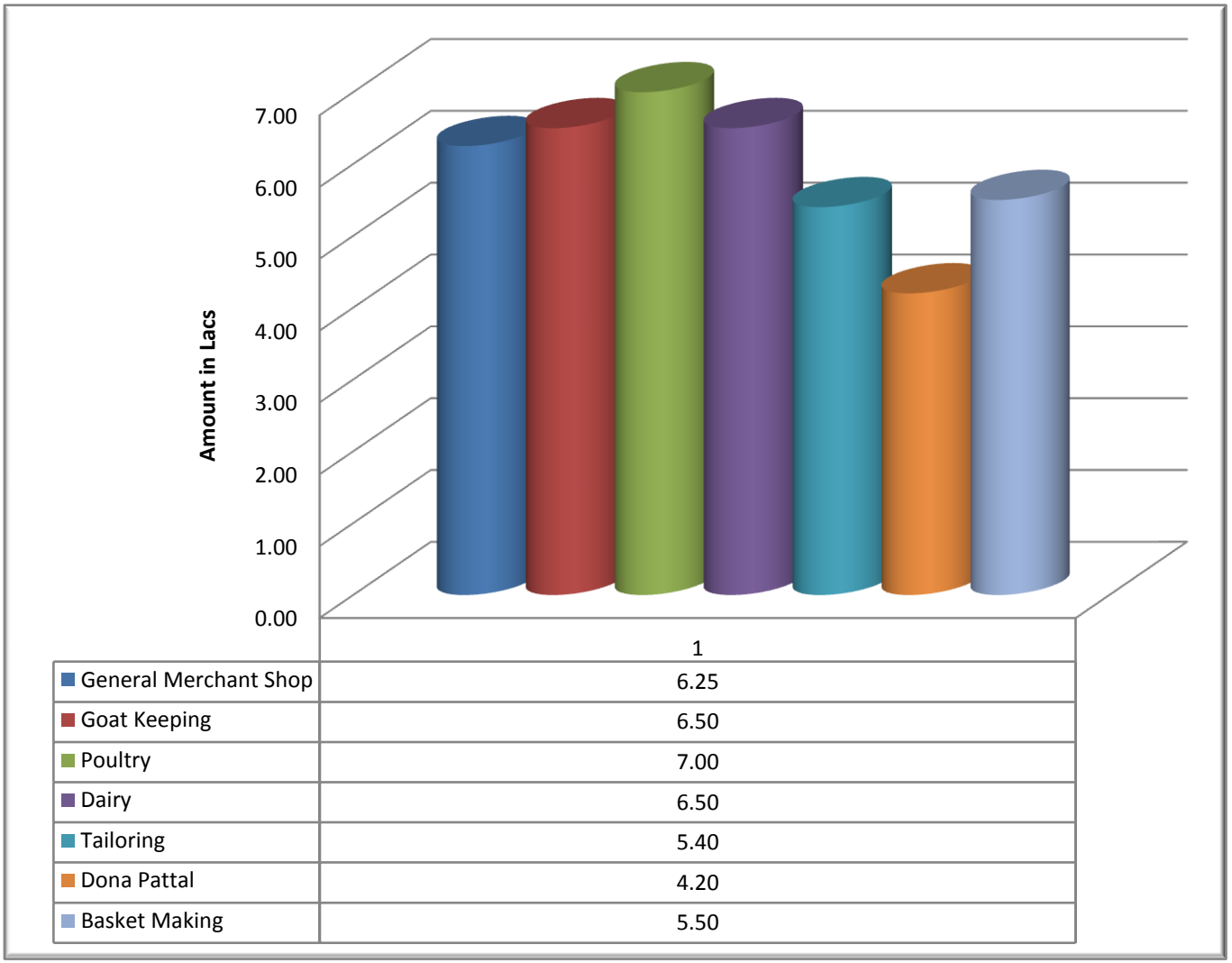
S. No.	GRAM PANCHAYAT	Proposed Amount	Livelihood Activities 9% of the Total project Cost					
			2009-10	2010-11	2011-12	2012-13	2013-14	TOTAL
1	Bamhaura	8.21	0.00	0.91	2.28	2.28	2.74	8.21
2	Nadai	7.99	0.00	0.89	2.22	2.22	2.66	7.99
3	Noorpur	7.88	0.00	0.88	2.19	2.19	2.63	7.88
4	Hathnaura	4.86	0.00	0.54	1.35	1.35	1.62	4.86
5	Nibhana	7.56	0.00	0.84	2.10	2.10	2.52	7.56
6	Sikri Rahmanpur	4.43	0.00	0.49	1.23	1.23	1.48	4.43
7	Urkara kalan	5.51	0.00	0.61	1.53	1.53	1.84	5.51
	Total	46.44	0.00	5.16	12.90	12.90	15.48	46.44

Table 5.3: Details of Livelihood activities in the project area, IWMP-IV, DISTRICT-J ALAUN

DETAILS OF LIVELIHOOD ACTIVITIES AT GLANCE UNDER IWMP-IV, DISTRICT-JALAUN																					
S. No.	Gram Panchayat	General Merchant Shop						Goat Keeping						Poultry					
		2009-10	2010-11	2011-12	2012-13	2013-14	Total	2009-10	2010-11	2011-12	2012-13	2013-14	Total	2009-10	2010-11	2011-12	2012-13	2013-14	Total
1	Bamhaura		1	1	1	2	5			1	1	1	3		1	1		1	3
2	Nadai				1	1	2		1	1	1	1	4			1	1	1	3
3	Noorpur		1	1	1	2	5		1	1	1	1	4		2	1		1	4
4	Hathnaura			1		1	2		1			2	3		1	1	1	2	5
5	Nibhana		1	1	1	2	5		1	1	1	1	4		1	1		1	3
6	Sikri Rahmanpur		1	1	1	1	4			1	1	1	3		2	1	1	1	5
7	Urkara kalan			1	1		2		1	1	1	2	5		1	1	1	2	5
	Total	0	4	6	6	9	25	0	5	6	6	9	26	0	8	7	4	9	28

S. No.	Gram Panchayat	Dairy						Tailoring						Dona Pattal						Basket Making					
		2009-10	2010-11	2011-12	2012-13	2013-14	Total	2009-10	2010-11	2011-12	2012-13	2013-14	Total	2009-10	2010-11	2011-12	2012-13	2013-14	Total	2009-10	2010-11	2011-12	2012-13	2013-14	Total
1	Bamhaura		1	1	1	1	4		1	1	1	1	4			1	1	1	3		1	1	1	1	4
2	Nadai			1	1	1	3		1		1	1	3		1	1		1	3		1	1		1	3
3	Noorpur		1	1		1	3		1	1		2	4		1	1	1	2	5		1	1	1		3
4	Hathnaura		1	1	1	2	5		1	1	1	1	4		1		1	1	3			1	1	1	3
5	Nibhana		1	1	1	1	4			1	1	2	4		2	1	1	2	6		1		1		2
6	Sikri Rahmanpur		1		1	1	3		1	1	1	1	4		2	1	1	1	5		1	1		1	3
7	Urkara kalan		1	1	1	1	4		1	1	1	1	4			1		2	3		1	1	1	1	4
	Total	0	6	6	6	8	26	0	6	6	6	9	27	0	7	6	5	10	28	0	6	6	5	5	22

Livelihood Expenditure on Different Activities



General Merchant Shop	6.25
Goat Keeping	6.50
Poultry	7.00
Dairy	6.50
Tailoring	5.40
Dona Pattal	4.20
Basket Making	5.50

ACTIVITIES RELATED TO SHGs: Activities relating to income generation have been identified after several discussions with village communities. However final discussion in this regard will be taken after SHGs matures for 1st grading. Some of the activities identified are as under:

- Cutting & Tailoring
- Household wiring, motor winding
- Carpentry
- Bee keeping
- Pickles, sauces, jam, jelly, etc.
- Two wheelers repairing
- Animal husbandry/ Dairy
- Goat Rearing.
- General store shops, etc.
- Bakery products
- Embroidery
- Vermi compost
- Backyard poultry
- Mushroom cultivation

There appears to be great potential for these activities and these activities are likely to generate income of Rs.2000/- to Rs.2500/- per member/per month. However no activities would be forced upon any SHGs and they would be free to decide the activity they would like to opt for their additional income. Based on their choice, Project report for the specified activity would be prepared and revolving fund of Rs.20000/ Rs.25000/- per SHG would be given for running their respective micro enterprise. If need arises for more funds for their Income Generation Activities at later stage, they would be assisted in getting loan from banks. SHGs thus formed would be provided all possible assistance to uplift for their Socio-Economic upliftment.

The following table gives expected income likely to be generated by SHGs:

FARM PRODUCTION SYSTEM (10%)

Type	Seed Demonstration Details	
Rabi Season	Wheat	Sorghum
	1. Variety K 8027 , NW-1012, 1076, HDR-77, Raj -107 2. Sowing Time: 15 November to 25 December 3- Seed rate – 100 -125 Kg/ hectare 4- Requirement of fertilizers / ha N- 125 Kg , P- 70 -75 Kg, K-70-75 Kg 5. FYM: 60 Ou. 6. Flowering Period: 80 to 85 days. 7. Crop Duration: 120-145 days. 8. Harvesting time : April to May 9. Yield: Irrigated: 50-60 Q/ha Un-irrigated: 30-35 Q/ha **Note-** Hence demonstration cost of wheat /ha is Rs 13000.00 and the Total cost increases @ 10 % for next year	1. Variety: CSH-16, 9, 14, CSB-13, 15 2. Requirement of Seed /ha - 15 kg 3. Sowing Time - 15 th July to 15 th August 4. Requirement of fertilizers/ha N- 60.0 Kg , P- 40.00Kg, K- 40.00 Kg 5. Fertilizers requirement / ha N- 80.0 Kg , P- 50Kg, K- 40 Kg FYM: 50q 6. Flowering Period: 80-85 days. 7. Crop Duration: 120 to 130 days. 8. Harvesting time : 25 September to 5 October 9. Yield: Grain: 18-20 q/ha Dry Fodder: 200-250q/ha **Note-** Hence demonstration cost of SORGHUM /ha is Rs 6500.00 and the Total cost increases @ 10 % for next year.
Kharif Season	Arahar	Maize
	1. Variety -Long Durtion: Malviya -13 NA -1, NA-2 Short Duration: UPAS-120, ICPL-151, 8801 2- Seed rate /ha – 20 Kg 3. Sowing Time: June-July 4- Fertilizers requirement / ha N- 20.0 Kg , P- 50Kg, K- 40 Kg 4. FYM: 50 Q 5. Flowering Period: Long Duration:160 to 175 days. Short Duration: 110-120 days 6. Crop Duration: Long Duration: 270-280 days. Short Duration: 130-140 days 7. Harvesting time : Long Duration: March To April, Short Duration: November to December 8. Yield : Long Duration: 18-20 Q/ha Short Duration: 20-25 Q/ha **Note-** Hence demonstration cost of Arahar /ha is Rs 10000.00 and the Total cost increases @ 10 % for next year.	1. Variety: Hybrid: Ganga-2, 11,Shaktiman, Dakkan-7, Prakash, Sartaj 2. Sankul: Tarun, Naveen, Kanchan, Sweta, Prabhat, Gaurav 3. Requirement of Seed /ha - 15 kg I 3. Sowing Time - 15 th July to 15 th August 4. Requirement of fertilizers / ha N- 60.0 Kg , P- 40.00Kg, K- 40.00 Kg 5. Fertilizers requirement / ha N- 80.0 Kg , P- 50Kg, K- 40 Kg FYM: 50 Q 6. Flowering Period: 80-85 days. 7. Crop Duration: 120 to 130 days. 8. Harvesting time : 25 September to 5 October 9. Yield: Grain: 18-20 Q/ha Dry Fodder: 200-250 Q/ha **Note-** Hence demonstration cost of SORGHUM /ha is Rs 6500.00 and the Total cost cost increases @ 10 % for next year.
	Seed	Distribution of high yield verity seed of Arhar, Wheat and maize, etc.
	Animal Husbandry	Organize of health camp animals, and feed for animals.
	Agriculture Toolkit	Distribution of agriculture toolkit to the individual.

YEARWISE FINANCIAL BREAK UP OF PRODUCTION & MICRO ENTERPRISES, IWMP-IV, DISTRICT- JALAUN

Amount in Lacs

S. No.	MWS Code	Project Area	Proposed Amount	Production System & Microenterprises 10% of the Total Project Cost						WDF
				2009-10	2010-11	2011-12	2012-13	2013-14	TOTAL	
1	2C2H2d1b	760	9.12	0.00	0.91	2.28	2.28	3.65	9.12	0.91
2	2C2H2e1b	740	8.88	0.00	0.89	2.22	2.22	3.55	8.88	0.89
3	2C2H2e3h	730	8.76	0.00	0.88	2.19	2.19	3.50	8.76	0.88
4	2C2H2f2f	450	5.40	0.00	0.54	1.35	1.35	2.16	5.40	0.54
5	2C2H2f2g	700	8.40	0.00	0.84	2.10	2.10	3.36	8.40	0.84
6	2C2H2e3b	410	4.92	0.00	0.49	1.23	1.23	1.97	4.92	0.49
7	2C2H2f2b	510	6.12	0.00	0.61	1.53	1.53	2.45	6.12	0.61
	Total	**4300**	51.60	0.00	5.16	12.90	12.90	20.64	51.60	5.16

GRAM PANCHAYAT WISE FINANCIAL BREAK UP OF PRODUCTION & MICRO ENTERPRISES, IWMP-IV, DISTRICT-JALAUN

Amount in Lacs

S. No.	Gram Panchayat	Project Area	Proposed Amount	Production System & Microenterprises 10% of the Total Project Cost						WDF
				2009-10	2010-11	2011-12	2012-13	2013-14	TOTAL	
1	Bamhaura	760	9.12	0.00	0.91	2.28	2.28	3.65	9.12	0.91
2	Nadai	740	8.88	0.00	0.89	2.22	2.22	3.55	8.88	0.89
3	Nurpur	730	8.76	0.00	0.88	2.19	2.19	3.50	8.76	0.88
4	Hathnaura	450	5.40	0.00	0.54	1.35	1.35	2.16	5.40	0.54
5	Nibhana	700	8.40	0.00	0.84	2.10	2.10	3.36	8.40	0.84
6	Sikri Rahmanpur	410	4.92	0.00	0.49	1.23	1.23	1.97	4.92	0.49
7	Urkara kalan	510	6.12	0.00	0.61	1.53	1.53	2.45	6.12	0.61
	Total	**4300**	51.60	0.00	5.16	12.90	12.90	20.64	51.60	5.16

The activity has already been shown in the respective map.

The above action plan has been prepared according to the need and resources available in the project area. Individual activity fund distribution has been made the details would be given beneficiary wise in the project file. Demonstration of crop, animal husbandry camp distribution of sheed and plantation of fruit trees are the essential requirement of the project area. Therefore the above plan has been constituted according to the aforesaid activity and the funds were allocated as per the norms.

MAJOR PROBLEMS OF THE WATERSHEDS

- Moisture stress-Drought conditions
- Erosion hazard
- Excess runoff .
- Land degradation
- Low fertility of soil
- Ground water depletion/Low ground water table, poor quality of groundwater
- Low cropping intensity
- Lack of technical knowledge
- Lack of irrigation facilities
- Low productivity of crops
- Low availability of drinking water for human as well as animals
- Overgrazing
- Poor vegetative cover
- Poor/low productive breeds of miltch animals
- Lower milk production
- Lack of feed & fodder availability
- Non availability of wood/fuel
- Lack of proper market facilities
- Lack of educational, transportation, medical & health care facilities
- Low wages
- Small land holdings
- Low income of the households
- Lack of employment opportunity.
- Migration from the project area.

An annual action plan for the entire activity of the project according to availability of budget has been proposed for the annual schedule from 2009 to 2013.The details given below.

Gram Panchayat wise Breakup of Watershed Development Work, Livelihood and Production System & Micro Enterprise

S. No.	Name of MWS and Code	Name of Gram Panchayat /WC	Name of Villages	Area	Watershed Development Work	Livelihood Activities	Production System & Micro Enterprises	Total	Remarks
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
1	2C2H2d1b	Bamhora	Bamhaura, Sem, Sahpur, Khairapur, Bamhauri Khurd, Sikri Jaraha	760	51.07	8.21	9.12	68.40	
2	2C2H2e1b	Nadai	Nadai, Churkhi, Rinyaiv bendepur, Sarsai, Swaroop pur	740	49.73	7.99	8.88	66.60	
3	2C2H2e3h	Nurpur	Noorpur, Sikri Rahmanpur, Tikauli, Hathnaura	730	49.06	7.88	8.76	65.70	
4	2C2H2f2f	Hathnaura	Hathnaura, Nibhana	450	30.24	4.86	5.40	40.50	
5	2C2H2f2g	Nibhana	Nibhana, Bhagaura, Mahewa, Urkara kal	700	47.04	7.56	8.40	63.00	
6	2C2H2e3b	Sikri Rahmanpur	Sikri Rahmanpur, Khalla	410	27.55	4.43	4.92	36.90	
7	2C2H2f2b	Urkhara kalan	Urkara kalan, DahelKhand Mustkil & Diwara, Narhan mustlil & Diwara	510	34.27	5.51	6.12	45.90	
		Total		**4300**	**288.96**	**46.44**	**51.60**	**387.00**	

Financial Break up of Watershed Development Works								Fin. : in Lacs
For Project sanctioned 2010-11								
	Activity	**Target as AAP**					**Actual Achievment**	
		2010-11	**2011-12**	**2012-13**	**2013-14**	**Total**	**2010-11**	**2011-12**	**Justification**
Land Development	Afforestation	1.93	3.47	3.32	4.17	12.89			
	Horticulture	0.79	1.42	1.36	1.70	5.26			
	Agriculture								
	Pasture								
SMC	Sttaggered trenching								
	Contour Bunding	13.56	24.32	23.33	29.20	90.42			
	Bench terracing								
	Others FB/MB/PFB	10.34	18.55	17.78	22.27	68.95			
Veg. & Engg. Structures	Earthen Checks	5.35	9.60	9.22	11.54	35.72			
	Brushwood Checks								
	Gully Plugs	1.89	3.39	3.25	4.07	12.60			
	Loose Boulders	0.46	0.83	0.80	1.00	3.09			
	Gabion Structures								
	Others								
WHS	Farm Ponds	0.71	1.28	1.22	1.53	4.74			
	Checkdams/Tanks	4.24	7.59	7.30	9.13	28.26			
	Nallah Bunds	0.99	1.78	1.71	2.14	6.62			
	Percolation Tanks	0.86	1.55	1.49	1.87	5.78			
	Ground Water Recharge Structures	0.86	1.55	1.49	1.87	5.78			
	Others WHB/SB	1.33	2.38	2.30	2.87	8.87			
	Sub Total	**43.31**	**77.71**	**74.57**	**93.36**	**288.98**			
Livelihood	on-Farm activities	1.39	5.57	4.18	2.79	13.93			
	off-Farm activities	3.25	13.00	9.75	6.50	32.51			
	Sub Total	**4.64**	**18.57**	**13.93**	**9.29**	**46.44**			
Production System	Production System	4.32	17.30	18.54	11.43	51.60			
	Total	**52.29**	**113.59**	**107.05**	**114.07**	**387.00**			

Financial Break up of Watershed Development Works									Fin. : in Lacs
MWS Code- 2C2H2d1b							**Gram Panchayat-Bamhora**		
	Activity	**Target as AAP**					**Actual Achievment**		
		2010-11	**2011-12**	**2012-13**	**2013-14**	**Total**	**2010-11**	**2011-12**	**Justification**
Land Development	Afforestation	0.34	0.61	0.59	0.74	2.28			
	Horticulture	0.14	0.25	0.24	0.30	0.93			
	Agriculture								
	Pasture								
SMC	Sttaggered trenching								
	Contour Bunding	2.40	4.30	4.12	5.16	15.98			
	Bench terracing								
	Others FB/MB/PFB	1.83	3.28	3.14	3.94	12.19			
Veg. & Engg. Structures	Earthen Checks	0.95	1.70	1.63	2.04	6.31			
	Brushwood Checks								
	Gully Plugs	0.33	0.60	0.57	0.72	2.23			
	Loose Boulders	0.08	0.15	0.14	0.18	0.55			
	Gabion Structures								
	Others								
WHS	Farm Ponds	0.13	0.23	0.22	0.27	0.84			
	Checkdams/Tanks	0.75	1.34	1.29	1.61	4.99			
	Nallah Bunds	0.17	0.32	0.30	0.38	1.17			
	Percolation Tanks	0.15	0.27	0.26	0.33	1.02			
	Ground Water Recharge Structures	0.15	0.27	0.26	0.33	1.02			
	Others WHB/SB	0.23	0.42	0.41	0.51	1.57			
	Sub Total	**7.65**	**13.74**	**13.17**	**16.51**	**51.08**			
Livelihood	on-Farm activities	0.25	0.98	0.74	0.49	2.46			
	off-Farm activities	0.57	2.30	1.72	1.15	5.75			
	Sub Total	**0.82**	**3.28**	**2.46**	**1.64**	**8.21**			
	Pdn. System	0.76	3.06	3.28	2.02	9.12			
	Total	**9.24**	**20.08**	**18.92**	**20.16**	**68.40**			

Financial Break up of Watershed Development Works									Fin. : in Lacs
MWS Code- 2C2H2e1b					Gram Panchayat-Nadai				
	Activity	**Target as AAP**					**Actual Achievment**		
		2010-11	**2011-12**	**2012-13**	**2013-14**	**Total**	**2010-11**	**2011-12**	**Justification**
Land Development	Afforestation	0.33	0.60	0.57	0.72	2.22			
	Horticulture	0.14	0.24	0.23	0.29	0.91			
	Agriculture								
	Pasture								
SMC	Sttaggered trenching								
	Contour Bunding	2.33	4.19	4.01	5.03	15.56			
	Bench terracing								
	Others FB/MB/PFB	1.78	3.19	3.06	3.83	11.87			
Veg. & Engg. Structures	Earthen Checks	0.92	1.65	1.59	1.99	6.15			
	Brushwood Checks								
	Gully Plugs	0.33	0.58	0.56	0.70	2.17			
	Loose Boulders	0.08	0.14	0.14	0.17	0.53			
	Gabion Structures								
	Others								
WHS	Farm Ponds	0.12	0.22	0.21	0.26	0.82			
	Checkdams/Tanks	0.73	1.31	1.26	1.57	4.86			
	Nallah Bunds	0.17	0.31	0.29	0.37	1.14			
	Percolation Tanks	0.15	0.27	0.26	0.32	0.99			
	Ground Water Recharge Structures	0.15	0.27	0.26	0.32	0.99			
	Others WHB/SB	0.23	0.41	0.40	0.49	1.53			
	Sub Total	**7.46**	**13.38**	**12.84**	**16.06**	**49.74**			
Livelihood	on-Farm activities	0.24	0.96	0.72	0.48	2.40			
	off-Farm activities	0.56	2.24	1.68	1.12	5.59			
	Sub Total	**0.8**	**3.2**	**2.4**	**1.6**	**7.99**			
	Pdn. System	0.74	2.98	3.19	1.97	8.88			
	Total	**9.00**	**19.55**	**18.42**	**19.63**	**66.60**			

Financial Break up of Watershed Development Works									Fin. : in Lacs
MWS Code- 2C2H2e3h					Gram Panchayat-Nurpur				
	Activity	**Target as AAP**					**Actual Achievment**		
		2010-11	**2011-12**	**2012-13**	**2013-14**	**Total**	**2010-11**	**2011-12**	**Justification**
Land Development	Afforestation	0.33	0.59	0.56	0.71	2.19			
	Horticulture	0.13	0.24	0.23	0.29	0.89			
	Agriculture								
	Pasture								
SMC	Sttaggered trenching								
	Contour Bunding	2.30	4.13	3.96	4.96	15.35			
	Bench terracing								
	Others FB/MB/PFB	1.76	3.15	3.02	3.78	11.70			
Veg. & Engg. Structures	Earthen Checks	0.91	1.63	1.57	1.96	6.06			
	Brushwood Checks								
	Gully Plugs	0.32	0.57	0.55	0.69	2.14			
	Loose Boulders	0.08	0.14	0.14	0.17	0.52			
	Gabion Structures								
	Others								
WHS	Farm Ponds	0.12	0.22	0.21	0.26	0.80			
	Checkdams/Tanks	0.72	1.29	1.24	1.55	4.80			
	Nallah Bunds	0.17	0.30	0.29	0.36	1.12			
	Percolation Tanks	0.15	0.26	0.25	0.32	0.98			
	Ground Water Recharge Structures	0.15	0.26	0.25	0.32	0.98			
	Others WHB/SB	0.23	0.40	0.39	0.49	1.51			
	Sub Total	**7.37**	**13.18**	**12.66**	**15.86**	**49.04**			
Livelihood	on-Farm activities	0.24	0.95	0.71	0.47	2.37			
	off-Farm activities	0.55	2.21	1.66	1.10	5.52			
	Sub Total	**0.79**	**3.16**	**2.37**	**1.57**	**7.89**			
	Pdn. System	0.73	2.94	3.15	1.94	8.76			
	Total	**8.88**	**19.28**	**18.17**	**19.37**	**65.70**			

Financial Break up of Watershed Development Works									Fin. : in Lacs
MWS Code- 2C2H2f2f					Gram Panchayat-Hathnaura				
	Activity	**Target as AAP**					**Actual Achievment**		
		2010-11	**2011-12**	**2012-13**	**2013-14**	**Total**	**2010-11**	**2011-12**	**Justification**
Land Development	Afforestation	0.20	0.36	0.35	0.44	1.35			
	Horticulture	0.08	0.15	0.14	0.18	0.55			
	Agriculture								
	Pasture								
SMC	Sttaggered trenching								
	Contour Bunding	1.42	2.55	2.44	3.06	9.46			
	Bench terracing								
	Others FB/MB/PFB	1.08	1.94	1.86	2.33	7.22			
Veg. & Engg. Structures	Earthen Checks	0.56	1.01	0.97	1.21	3.74			
	Brushwood Checks								
	Gully Plugs	0.20	0.35	0.34	0.43	1.32			
	Loose Boulders	0.05	0.09	0.08	0.10	0.32			
	Gabion Structures								
	Others								
WHS	Farm Ponds	0.07	0.13	0.13	0.16	0.50			
	Checkdams/Tanks	0.44	0.79	0.76	0.96	2.96			
	Nallah Bunds	0.10	0.19	0.18	0.22	0.69			
	Percolation Tanks	0.09	0.16	0.16	0.20	0.60			
	Ground Water Recharge Structures	0.09	0.16	0.16	0.20	0.60			
	Others WHB/SB	0.14	0.25	0.24	0.30	0.93			
	Sub Total	**4.52**	**8.13**	**7.81**	**9.79**	**30.24**			
Livelihood	on-Farm activities	0.15	0.58	0.44	0.29	1.46			
	off-Farm activities	0.34	1.36	1.02	0.68	3.40			
	Sub Total	**0.49**	**1.94**	**1.46**	**0.97**	**4.86**			
	Pdn. System	0.45	1.81	1.94	1.20	5.40			
	Total	**5.47**	**11.89**	**11.20**	**11.94**	**40.50**			

Financial Break up of Watershed Development Works									Fin. : in Lacs
MWS Code- 2C2H2f2g					Gram Panchayat-Nibhana				
	Activity	**Target as AAP**					**Actual Achievment**		
		2010-11	**2011-12**	**2012-13**	**2013-14**	**Total**	**2010-11**	**2011-12**	**Justification**
Land Development	Afforestation	0.31	0.56	0.54	0.68	2.10			
	Horticulture	0.13	0.23	0.22	0.28	0.86			
	Agriculture								
	Pasture								
SMC	Sttaggered trenching								
	Contour Bunding	2.21	3.96	3.80	4.75	14.72			
	Bench terracing								
	Others FB/MB/PFB	1.68	3.02	2.89	3.63	11.22			
Veg. & Engg. Structures	Earthen Checks	0.87	1.56	1.50	1.88	5.81			
	Brushwood Checks								
	Gully Plugs	0.31	0.55	0.53	0.66	2.05			
	Loose Boulders	0.08	0.13	0.13	0.16	0.50			
	Gabion Structures								
	Others								
WHS	Farm Ponds	0.12	0.21	0.20	0.25	0.77			
	Checkdams/Tanks	0.69	1.24	1.19	1.49	4.60			
	Nallah Bunds	0.16	0.29	0.28	0.35	1.08			
	Percolation Tanks	0.14	0.25	0.24	0.30	0.94			
	Ground Water Recharge Structures	0.14	0.25	0.24	0.30	0.94			
	Others WHB/SB	0.22	0.39	0.37	0.47	1.44			
	Sub Total	**7.06**	**12.64**	**12.13**	**15.2**	**47.03**			
Livelihood	on-Farm activities	0.23	0.91	0.68	0.45	2.27			
	off-Farm activities	0.53	2.12	1.59	1.06	5.29			
	Sub Total	**0.76**	**3.03**	**2.27**	**1.51**	**7.56**			
	Pdn. System	0.70	2.82	3.02	1.86	8.40			
	Total	**8.51**	**18.49**	**17.43**	**18.57**	**63.00**			

Financial Break up of Watershed Development Works									Fin. : in Lacs
MWS Code- 2C2H2e3b					Gram Panchayat-Sikri Rahmanpur				
	Activity	**Target as AAP**					**Actual Achievment**		
		2010-11	**2011-12**	**2012-13**	**2013-14**	**Total**	**2010-11**	**2011-12**	**Justification**
Land Development	Afforestation	0.18	0.33	0.32	0.40	1.23			
	Horticulture	0.08	0.14	0.13	0.16	0.50			
	Agriculture								
	Pasture								
SMC	Sttaggered trenching								
	Contour Bunding	1.29	2.32	2.22	2.78	8.62			
	Bench terracing								
	Others FB/MB/PFB	0.99	1.77	1.70	2.12	6.57			
Veg. & Engg. Structures	Earthen Checks	0.51	0.92	0.88	1.10	3.41			
	Brushwood Checks								
	Gully Plugs	0.18	0.32	0.31	0.39	1.20			
	Loose Boulders	0.04	0.08	0.08	0.10	0.29			
	Gabion Structures								
	Others								
WHS	Farm Ponds	0.07	0.12	0.12	0.15	0.45			
	Checkdams/Tanks	0.40	0.72	0.70	0.87	2.69			
	Nallah Bunds	0.09	0.17	0.16	0.20	0.63			
	Percolation Tanks	0.08	0.15	0.14	0.18	0.55			
	Ground Water Recharge Structures	0.08	0.15	0.14	0.18	0.55			
	Others WHB/SB	0.13	0.23	0.22	0.27	0.85			
	Sub Total	**4.12**	**7.42**	**7.12**	**8.9**	**27.54**			
Livelihood	on-Farm activities	0.13	0.53	0.40	0.27	1.33			
	off-Farm activities	0.31	1.24	0.93	0.62	3.10			
	Sub Total	**0.44**	**1.77**	**1.33**	**0.89**	**4.43**			
	Pdn. System	0.41	1.65	1.77	1.09	4.92			
	Total	**4.99**	**10.83**	**10.21**	**10.88**	**36.90**			

Financial Break up of Watershed Development Works								Fin. : in Lacs	
MWS Code- 2C2H2f2b							**Gram Panchayat-Urkhara kalan**		
	Activity	**Target as AAP**					**Actual Achievment**		
		2010-11	**2011-12**	**2012-13**	**2013-14**	**Total**	**2010-11**	**2011-12**	**Justification**
Land Development	Afforestation	0.23	0.41	0.39	0.49	1.53			
	Horticulture	0.09	0.17	0.16	0.20	0.62			
	Agriculture								
	Pasture								
SMC	Sttaggered trenching								
	Contour Bunding	1.61	2.88	2.77	3.46	10.72			
	Bench terracing								
	Others FB/MB/PFB	1.23	2.20	2.11	2.64	8.18			
Veg. & Engg. Structures	Earthen Checks	0.63	1.14	1.09	1.37	4.24			
	Brushwood Checks								
	Gully Plugs	0.22	0.40	0.39	0.48	1.49			
	Loose Boulders	0.06	0.10	0.10	0.12	0.37			
	Gabion Structures								
	Others								
WHS	Farm Ponds	0.08	0.15	0.14	0.18	0.56			
	Checkdams/Tanks	0.50	0.90	0.87	1.08	3.35			
	Nallah Bunds	0.12	0.21	0.20	0.25	0.78			
	Percolation Tanks	0.10	0.18	0.18	0.22	0.69			
	Ground Water Recharge Structures	0.10	0.18	0.18	0.22	0.69			
	Others WHB/SB	0.16	0.28	0.27	0.34	1.05			
	Sub Total	**5.13**	**9.2**	**8.85**	**11.05**	**34.27**			
Livelihood	on-Farm activities	0.17	0.66	0.50	0.33	1.65			
	off-Farm activities	0.39	1.54	1.16	0.77	3.86			
	Sub Total	**0.56**	**2.2**	**1.66**	**1.1**	**5.51**			
	Pdn. System	0.51	2.05	2.20	1.36	6.12			
	Total	**6.20**	**13.47**	**12.70**	**13.53**	**45.90**			

CHAPTER – 6

CAPACITY BUILDING PLAN

The total amount in this activity is Rs 25.80 Lacs have been allocated. According to distribution of fund in different level, a comprehensive detail action plan has been prepared for proper execution of human resource development in the project activities.

YEARWISE FINANCIAL BREAK UP OF INST. & CAP. BULDG. PROGRAMME OF IWMP-IV, DISTRICT- JALAUN								
PIA LAVEL								
S. No.	**Micro watershed**	**Project Area**	**Proposed Amount**	**Institutional & Capacity Building 5% of the Total Project**				
				2009-10	**2010-11**	**2011-12**	**2012-13**	**Total**
1	Bamhora	760	4.56	1.05	1.05	1.05	0.32	3.47
2	Nadai	740	4.44	1.02	1.02	1.02	0.31	3.37
3	Nurpur	730	4.38	1.01	1.01	1.01	0.31	3.33
4	Hathnaura	450	2.70	0.62	0.62	0.62	0.19	2.05
5	Nibhana	700	4.20	0.97	0.97	0.97	0.29	3.19
6	Sikri Rahmanpur	410	2.46	0.57	0.57	0.57	0.17	1.87
7	Urkhara kalan	510	3.06	0.70	0.70	0.70	0.21	2.33
	Sub Total	4300	25.80	5.93	5.93	5.93	1.81	19.61
WCDC LEVEL								
1	Bamhora	760	4.56	0.23	0.23	0.23	0.14	0.82
2	Nadai	740	4.44	0.22	0.22	0.22	0.13	0.80
3	Nurpur	730	4.38	0.22	0.22	0.22	0.13	0.79
4	Hathnaura	450	2.70	0.14	0.14	0.14	0.08	0.49
5	Nibhana	700	4.20	0.21	0.21	0.21	0.13	0.76
6	Sikri Rahmanpur	410	2.46	0.12	0.12	0.12	0.07	0.44
7	Urkhara kalan	510	3.06	0.15	0.15	0.15	0.09	0.55
	Sub Total	4300	25.80	1.29	1.29	1.29	0.77	4.64
SLNA LEVEL								
1	Bamhora	760	4.56	0.09	0.09	0.09	0.00	0.27
2	Nadai	740	4.44	0.09	0.09	0.09	0.00	0.27
3	Nurpur	730	4.38	0.09	0.09	0.09	0.00	0.26
4	Hathnaura	450	2.70	0.05	0.05	0.05	0.00	0.16
5	Nibhana	700	4.20	0.08	0.08	0.08	0.00	0.25
6	Sikri Rahmanpur	410	2.46	0.05	0.05	0.05	0.00	0.15
7	Urkhara kalan	510	3.06	0.06	0.06	0.06	0.00	0.18
	Sub Total	4300	25.80	0.52	0.52	0.52	0.00	1.55
	Total	**4300**	**25.80**	**7.74**	**7.74**	**7.74**	**2.58**	**25.80**

Year-wise bifurcation of capacity building activities IWMP-VI, Jalaun

		First Year					Second Year				Third Year				Fourth Year			
S. No.	Level	Total no of person	No of person to be trained	No of training to be conduct	Training day	Total Cost	No of person to be trained	No of training to be conduct	Training day	Total Cost	No of person to be trained	No of training to be conduct	Training day	Total Cost	No of person to be trained	No of training to be conduct	Training day	Total Cost
1	**SLNA**					0.41				0.62				0.52				
2	**WCDC**	14	14	2	3	1.03	14	2	3	1.55	12	2	3	1.29	10	2	3	0.77
3	**PIA**	19	19	3	4	0.95	19	3	4	1.42	15	3	4	1.19	12	2	2	0.36
4	**WDT**	4	4	3	3	0.47	4	3	3	0.71	4	2	3	0.59	4	2	2	0.18
5	**SHG**	14	140	1	2	1.19	110	1	2	1.78	90	1	2	1.48	75	1	1	0.45
6	**UG**	21	210	1	2	1.66	180	1	1	2.49	135	1	2	2.08	100	1	1	0.63
7	**WC**	35	21	2	3	0.47	15	2	2	0.71	10	2	2	0.59	3	2	3	0.18
	TOTAL		408			6.19	342			9.29	266			7.74	204			2.58

List of identified training institutes for capacity building

Project IWMP - IV **District – JALAUN**

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	2	3	4	5	6	7	8	9
1	CSA-KANPUR	*Vice Chancellor* *CSA-KANPUR*	*Vice Chancellor*	EDUCATIONAL	Soil Conservation	2	200	2.26
2	SIRD	*District training centre ,Jalaun*	*DTO*	TRAINNING	WATERSHED MANAGEMENT	2	200	2.26

CHAPTER -7

PHASING OF PROGRAMME & BUDGETING

FINANCIAL BREAKUP OF VARIOUS COMPONENT IN TERMS OF % OF IWMP-IV, DISTRICT-JALAUN

Amount in Lacs

S. No.	Micro Watershed	Project Area	Proposed Amount	Administrative 10%	EPA 4%	Institution and CB 5%	DPR 1%	Watershed development work 56%	Livelihood for assetless 9%	Production system and Micro enterprises 10%	Monitoring 1%	Evaluation 1%	Consolidation 3%	Total 100%
1	Bamhora	760	91.20	9.12	3.65	4.56	0.91	51.07	8.21	9.12	0.91	0.91	2.74	91.20
2	Nadai	740	88.80	8.88	3.55	4.44	0.89	49.73	7.99	8.88	0.89	0.89	2.66	88.80
3	Nurpur	730	87.60	8.76	3.50	4.38	0.88	49.06	7.88	8.76	0.88	0.88	2.63	87.60
4	Hathnaura	450	54.00	5.40	2.16	2.70	0.54	30.24	4.86	5.40	0.54	0.54	1.62	54.00
5	Nibhana	700	84.00	8.40	3.36	4.20	0.84	47.04	7.56	8.40	0.84	0.84	2.52	84.00
6	Sikri Rahmanpur	410	49.20	4.92	1.97	2.46	0.49	27.55	4.43	4.92	0.49	0.49	1.48	49.20
7	Urkhara kalan	510	61.20	6.12	2.45	3.06	0.61	34.27	5.51	6.12	0.61	0.61	1.84	61.20
	Total	**4300**	**516.00**	**51.60**	**20.64**	**25.80**	**5.16**	**288.9**	**46.44**	**51.60**	**5.16**	**5.16**	**15.48**	**516.00**

YEARWISE PHYSICAL AND FINANCIAL BREAK UP OF WORK COMPONENT OF IWMP-IV, DISTRICT-JALAUN

Phy. in ha. Amount in Lacs

Watershed Development Works 56% of the Project Cost

S. No.	Micro Watershed	Project Area	Proposed Amount	2010-11		2011-12		2012-13		2013-14		TOTAL	
				Phy.	Fin.	Phy.	Fin.	Phy.	Fin.	Phy.	Fin.	Phy.	Fin.
1	Bamhora	760	45.60	101.76	6.84	221.92	14.91	217.13	14.59	219.18	14.73	760.00	51.07
2	Nadai	740	44.40	99.09	6.66	216.08	14.52	211.42	14.21	213.42	14.34	740.00	49.73
3	Nurpur	730	43.80	97.75	6.57	213.16	14.32	208.56	14.02	210.53	14.15	730.00	49.06
4	Hathnaura	450	27.00	60.26	4.05	131.40	8.83	128.57	8.64	129.78	8.72	450.00	30.24
5	Nibhana	700	42.00	93.73	6.30	204.40	13.73	199.99	13.44	201.88	13.57	700.00	47.04
6	Sikri Rahmanpur	410	24.60	54.90	3.69	119.72	8.04	117.14	7.87	118.24	7.95	410.00	27.55
7	Urkhara kalan	510	30.60	68.29	4.59	148.92	10.01	145.71	9.79	147.08	9.88	510.00	34.27
	Total	4300	258.00	575.77	38.70	1255.60	84.37	1228.51	82.56	1240.12	83.33	4300.00	288.96

CHAPTER -8
CONSOLIDATION / EXIT STRATEGY

WATERSHED DEVELOPMENT FUND

The major source of financial assistance after post implementation period is Watershed Development Fund. The contribution of it will come mainly from the fund generated.

USER CHARGES

Various user groups will be formed in village. These user groups will collect user according to the designated rules formed during the formation of user group. These funds will be transferred to the WDF funds as per these formulated rules. The secretary of watershed committee (WC) shall maintain the records.

SUSTAINABILITY AND ENVIRONMENT SECURITY

In the proposed watershed management plan of I.W.M.P.-3 Jalaun watershed, proper blending of bio engineering measures will be applied on 60% of the total watershed area. Based on the results of studies conducted in this region, it is estimated that more 50% of the watershed area will be treated and consequently the soil loss and runoff from the area is expected to be reduced by 70% and 65% respectively. The proposed land use plan will improve the land utilization index and crop diversification index significantly as compared to the existing one. It will help in maintaining ecosystem integrity on sustained basis along with improving the livelihood security of the farming community.

ECONOMIC ANALYSIS

Economic analysis of the project was carried by taking direct benefits and costs considering 25 year project life at 10 per cent discount rate. For this purpose of economic analysis, whole watershed development plan was divided into three sectors namely,

Agriculture, horticulture and forest/fuel wood plantation. Net present value (NPV), Benefit cost ratio (BC) ratio criteria were employed to judge the economic efficiency of each enterprise and sector.

The Annual Rate of Return (IRR):- It is a rate of return used in Capital budgeting to measure and compare the profitability of investments. It is also called the discounted cash flow rate of return. Under the livelihood activety in the project, a sum of rupees 5.16 lacs were invested, out of which 25% profit was expected to be gain, again in the next year 30% profit was expected to be gain,according to calculation of irr value is 9.1426%.

AGRICULTURE

In rainfed agriculture the development cost can be recovered within one year as the present rainfed agriculture is being done on well maintained field, therefore, does not require much investment.

CHAPTER -9
EXPECTED OUTCOME

ABTRACT OF OUTCOMES

The overall assessment of the project certain parameters have been evaluated on the present and future basis. As mentioned in the above the food grain production according to the expenditure has been analyzed after the completion of the project.

Ratio of Cost and Profit

S. No.	Name of Cereal	Area in ha	Production /ha in q	InvestCost/ha	Rate/q	Net profit/ha	Total Net profit
1	Jowar	1422.20	16.77	4000	1000	12770	18161494.00
2	Arhar	536.40	7.87	2300	4500	33115	17762886.00
3	Urd/Mung	141.30	5.08	3300	800	764	107953.20
4	Wheat	1117.30	28.2	4200	1000	24000	26815200.00
5	Mustard	496.30	4.26	2600	2000	5920	2938096.00
	Total	**3713.50**					**65785629.20**

Status After Work:

S. No.	Name of Cereal	Area in hectare	Production /ha in q	InvestCost/ha	Rate/q	Net profit/ha	Total Net profit
1	Jowar	1654.25	20	4000	1000	16000	26468000.00
2	Arhar	612.23	8	2300	4500	33700	20632151.00
3	Urd/Mung	151.60	7.5	3600	800	2400	363840.00
4	Wheat	1326.23	22	4200	1000	17800	23606894.00
5	Mustard	505.20	12	2600	2000	21400	10811280.00
	Total	**4249.51**					81882165.00

Bhoomi Sanrakshan after the treatment of Land	**81882165.00**
Bhoomi Sanrakshan before the treatment of Land	**65785629.20**
Net Profit	**16096535.80**
Ratio of cost and profit	**1.24**

The above ratio clearly indicated that the conservation of land is extremely profitable.

SUMMARY OF EXPECTED /ESTIMATED OUTCOMES OF IWMP-IV of District- Jalaun (2009-2010)

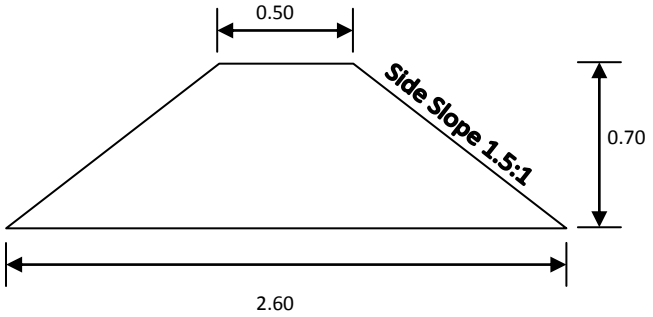
S. No.	Name of the District	Item	Unit of Measurement	Pre-project Status	Expected Post-project Status
1	**2**	**3**	**4**	**5**	**6**
1	Jalaun	Status of water table	Meter	16.00-17.00	14.00-15.00
2		Grand water structure repaired/ rejuvenated	-	-	-
3		Quality of drinking water	Good	Good	Good
4		Availability of drinking water	Meter	09 months	12 Months
5		Increase in irrigation potential			
		Change in cropping/land use pattern	-	Jowar, Til	Double Cropping
6		Area under agriculture crop	ha	3666.00	3800.00
		i- Area under single crop	ha	1180	1652
		ii- Area under double crop	ha	1914	2400
		iii- Area under multiple crop	ha	-	50
		iv-Cropping Intensity	%	120.78	145.20
7		Increase in area under vegetation	ha	175	250
8		Increase in area under horticulture	ha	165	300
9		Increase in area under fuel & fodder	ha	3.50	9.0
10		Increase in milk production	%	3	4
11		No. of SHGs	No.	16	25
12		Increase in no. of livelihoods	No.	-	54
13		Migration	No.	260	150
14		SHG Federation formed	No.	-	-
15		Credit Linkage with banks	-	-	-

Chapter-10

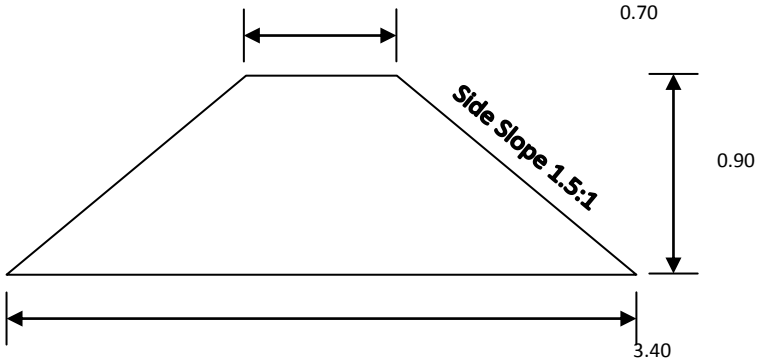
COST NORMS & DESIGN OF STRUCTURE PROPOSED

DRAWING OF C.B., S.B., P.B., AND M.B.

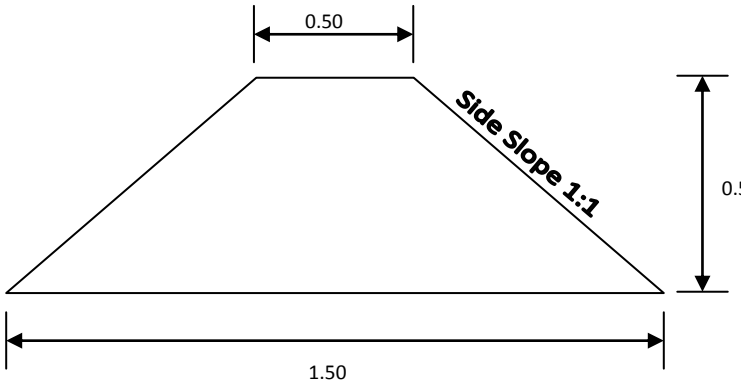
(Not to Scale)



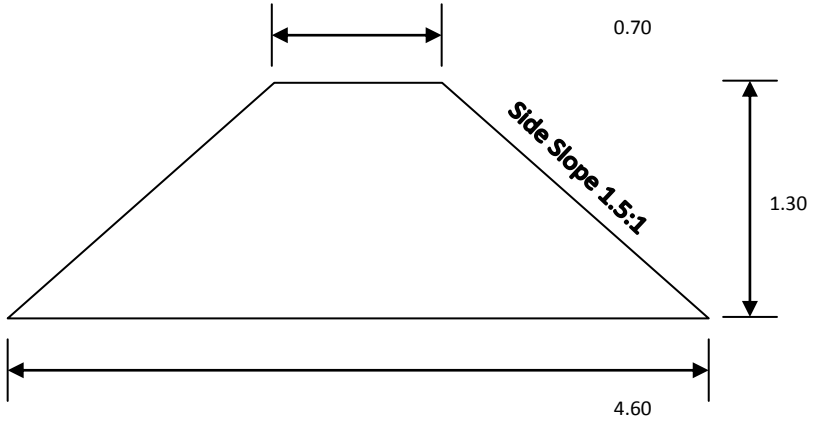
(C.B., Cross-Section – 1.085 m^2)



(S.B., Cross-Section – 1.845m^2)



(Field Bund, Cross-Section – 0.50 m^2)

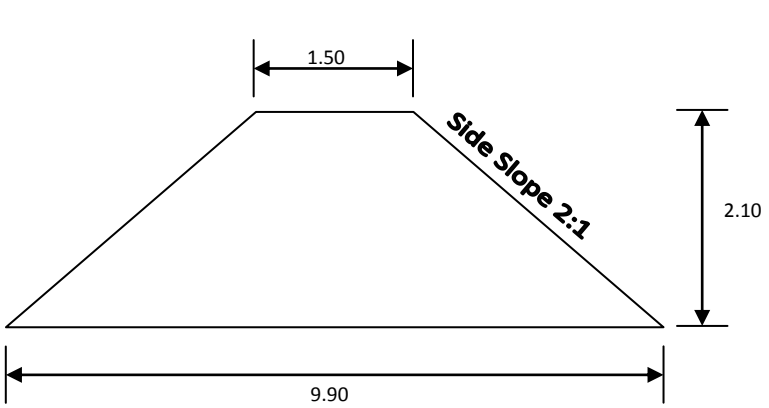


(S.B. /P.B. /M.B., Cross-Section – 3.445 m^2)

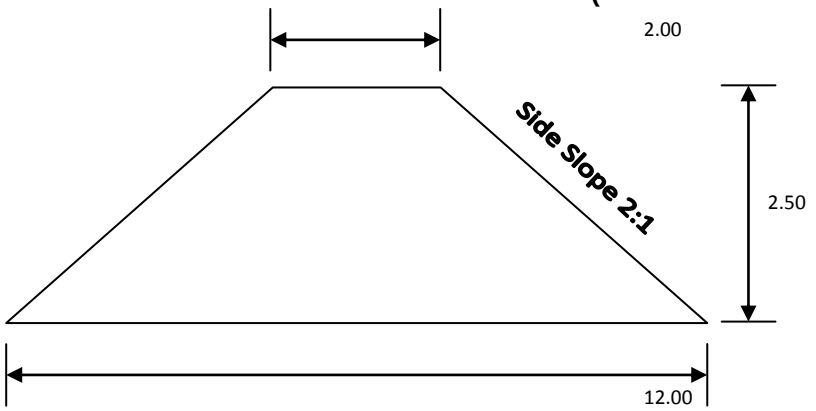
(All dimensions in Meter)

DRAWING OF EARTHEN CHEKDAM / GULLY PLUG

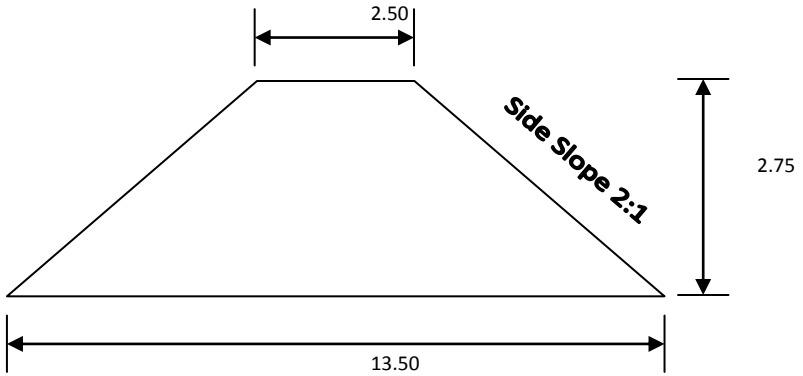
(Not to Scale)



(C.D. /G.P., Cross-Section – 11.97 m^2)



(C.D. /G.P., Cross-Section – 17.50 m^2)



(W.H.B., Cross-Section – 22.00 m^2)

(All dimensions in Meter)

DESIGN OF CONTOUR BUND

Type of Soil	-Loam,Sandy Loam
Rain fall	-24 hr in cm -25 cm
Field Stop -1%	
Vertical Interval (VI)	= [s/3+2] x 0.3
	= [1/3+2] x 0.3
	= 0.70 m
Horizontal Interval (HI)	= 100 x V.I/s
	= 100 x 0.7/1
Height of bund h	= $\sqrt{(\text{Re x VI})/50}$ Re=maximum rainfall in cm
	= $\sqrt{(25 \text{ x } 0.7)/50}$
	= $\sqrt{0.35}$
	= 0.59
	Say 0.60 m
Free board	=15% of height minimum -10 cm
Height	= 0.60 + 0.10
	= 0.70 m
Taking top width of bund 0.50 m and side slope 1.5:1	
Then base of Bund	= 0.50 + (1.50 d) x 2
	= 2.60 m
Cross-Section of bund	= (0.50 + 2.60) x 0.70 / 2
	= 1 .085 m^2
Length of bund	= 100 s / V.I.
	= 100 x 1 / 0.70
	=142.85 m/ha
	Say 150 m/ha

Earth work/ha	= 150x1.085
	= 162.75 cum
Cost Rs. / ha	= 162.75 x 39.16 = 6373.29
	Say 6375.00

DESIGN OF SUBMERGENCE BUND

Types of soil – -Loam,Sandy Loam Rainfall intensity for 24 hrs – 25cm

Field slope 3%	V.I.=[s/3+2]x0.30
	=0.90 m
Horizontal Interval = (100xV.I.)/s	= (100x0.90)/3
	=30 m
Height of bund h=$\sqrt{(\text{Re x V. I.})/50}$	=$\sqrt{(25 \text{ x } 0.90)/50}$ =$\sqrt{0.45}$ = 0.67 m. **Say 0.70m**

Free board 20% of height minimum 20cm
Total Height =0.90m
Taking top width of bund 0.70m and side slope 1.5:1

Bottom of bund	= 0.70+2 x 1.5d
	= 0.70+2.70
	= 3.40
Cross Section of Submergence Bund	= (0.70+3.40) x 0.90 / 2
	= 1.845 m^2
Length of bund	= 100 s / V.I.
	= (100 x 3) /0.90
	= 333 m
Feasible length	100 + 25 + 25

	= 150 m
Earth work/ha	=150 x 1.845
	=276.75
Cost per ha	=276.75 x 39.16
	=10,837.53
	Say 10,850=00

TYPICAL SECTION OF FIELD BUND

Top width	= 0.50 m
Side slope	= 1:1
Height of bound	= 0.50 m
Bottom Width	= 1.50 m
Cross section	= (0.50+1.50)x0.50/2 = 0.50 m^2
Length per hectare	= 200 m
Earthwork	= 200 x 0.50 = 100 cum
Cost 39.16/cum	= Rs. 3916.00
Cost per hectare	= Rs. 3916.00

TYPICAL SECTION OF P.B., M.B., S.B.

Top width	= 0.70 m
Side slope	= 1.5:1
Height	= 1.30 m

Bottom	= 4.60 m
Cross section	= (0.70+4.60)x1.30/2
	= 3.445 m^2
Cost/ meter	= Rs. 142.00

TYPICAL SECTION OF EARTHEN CHECK DAM / GULLY PLUG

Top width	= 1.50 m
Side slope	= 2:1
Height	= 2.10m
Bottom Width	= 9.90 m
Cross section	= (1.50 + 9.90) x 2.10 / 2
	= 11.97 m^2
Cost per meter	= Rs. 551.45

TYPICAL SECTION OF CHECK DAM / GULLY PLUG

Top width	= 2.00m
Side slope	= 2:1
Height	= 2.50 m
Bottom Width	= 12.00 m

Cross Section	= (2.00 + 12.00) x 2.50 / 2
	= 17.50 m^2
Cost /meter	= Rs. 839.12

TYPICAL SECTION OF W.H.B

Top width	= 2.50 m
Side slope	= 2:1
Height	= 2.75 m
Bottom Width	= 13.50 m
Cross section	= (2.50 + 13.50) x 2.75 / 2
	= 22.00 m^2
Per meter cost	= Rs. 1085.92

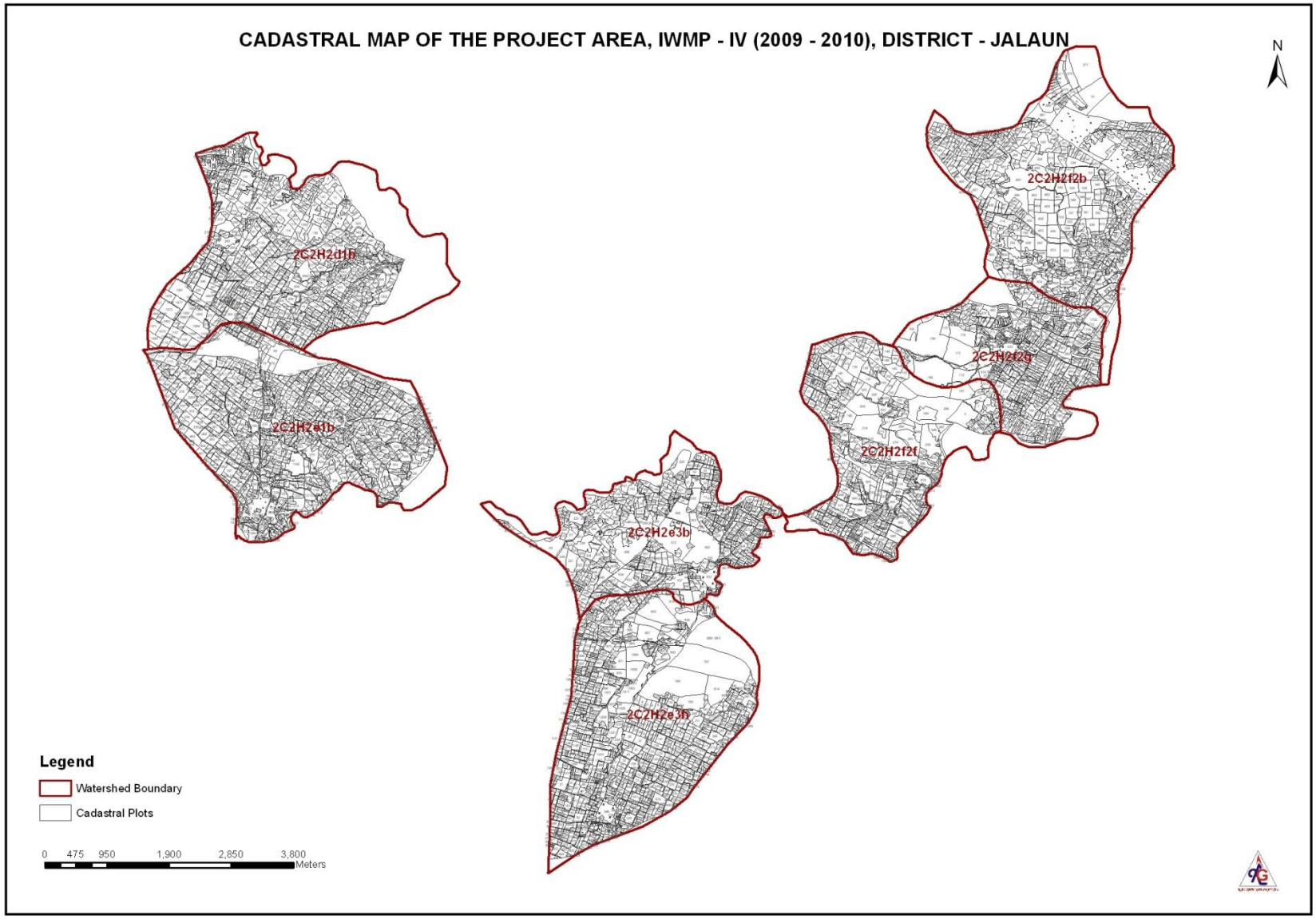
CHAPTER -11
MAPS

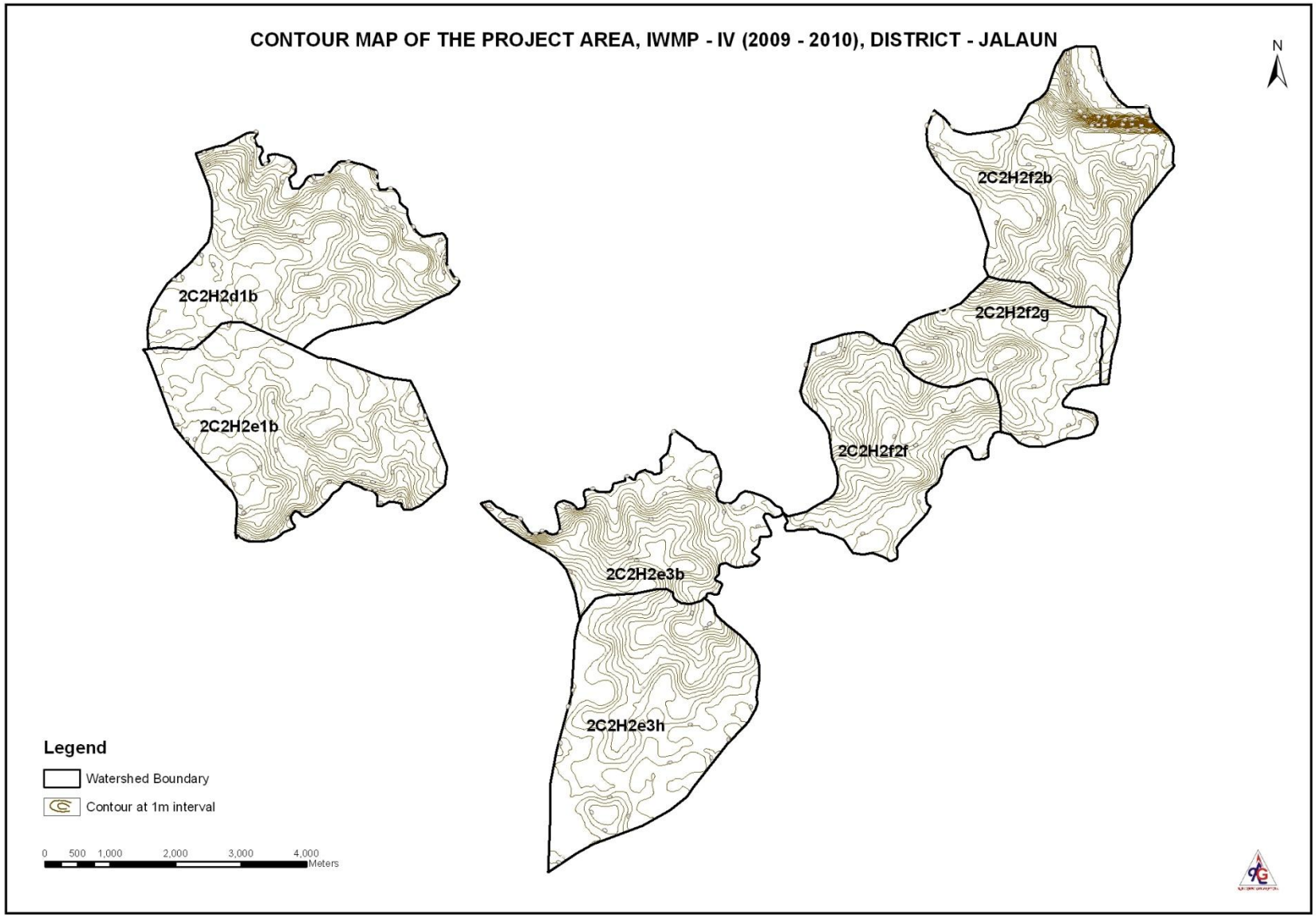
MAPS

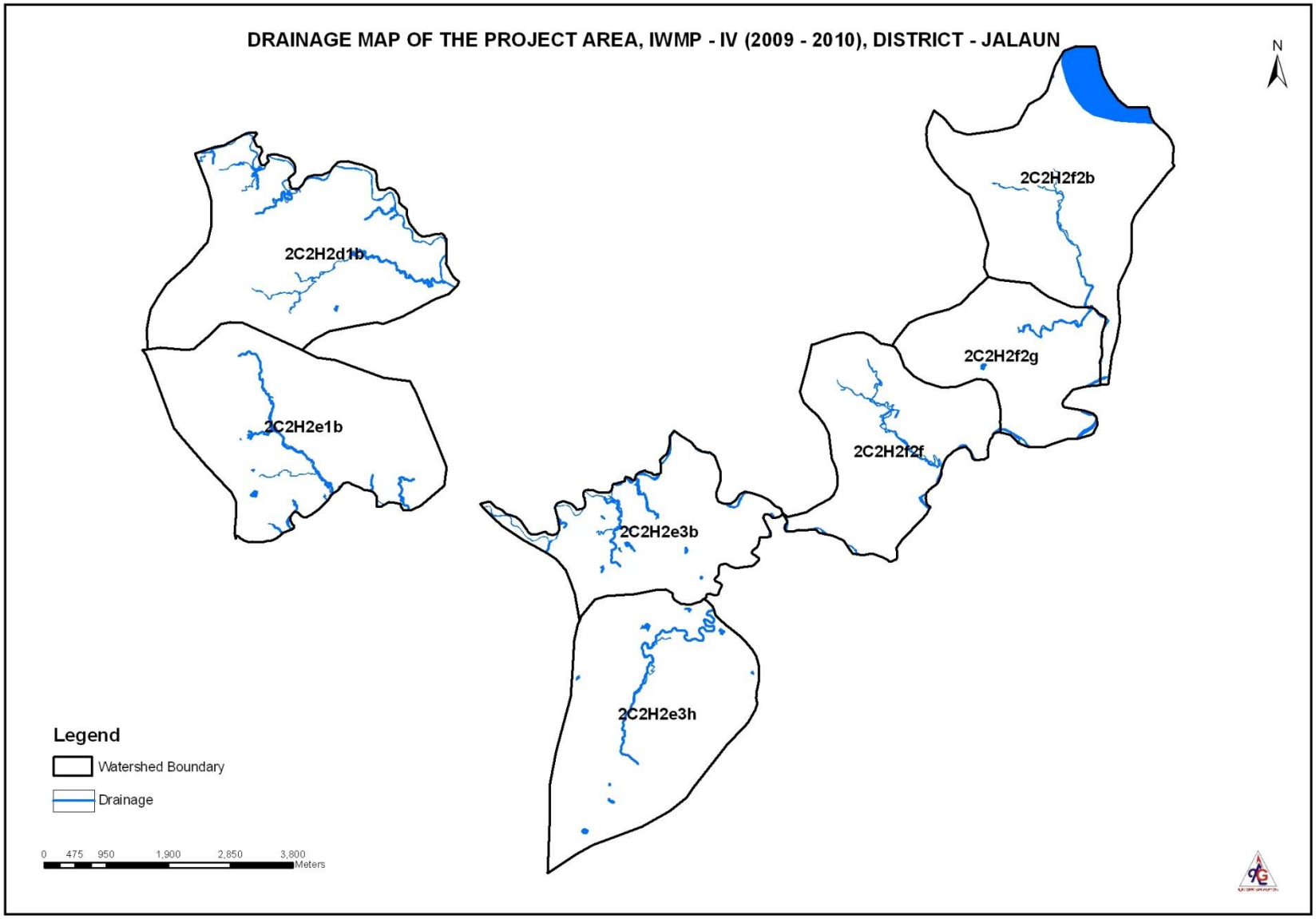
An attempt has been to map the surface details of the project area, as per the instruction of the common Guide lines-2008, All the thematic maps of the study area have been prepared through using remote sensing and geographical information system(G.I.S.) technique, following the fundamental norms of the National Map Policy-2006. The details of the thematic maps have been given below.

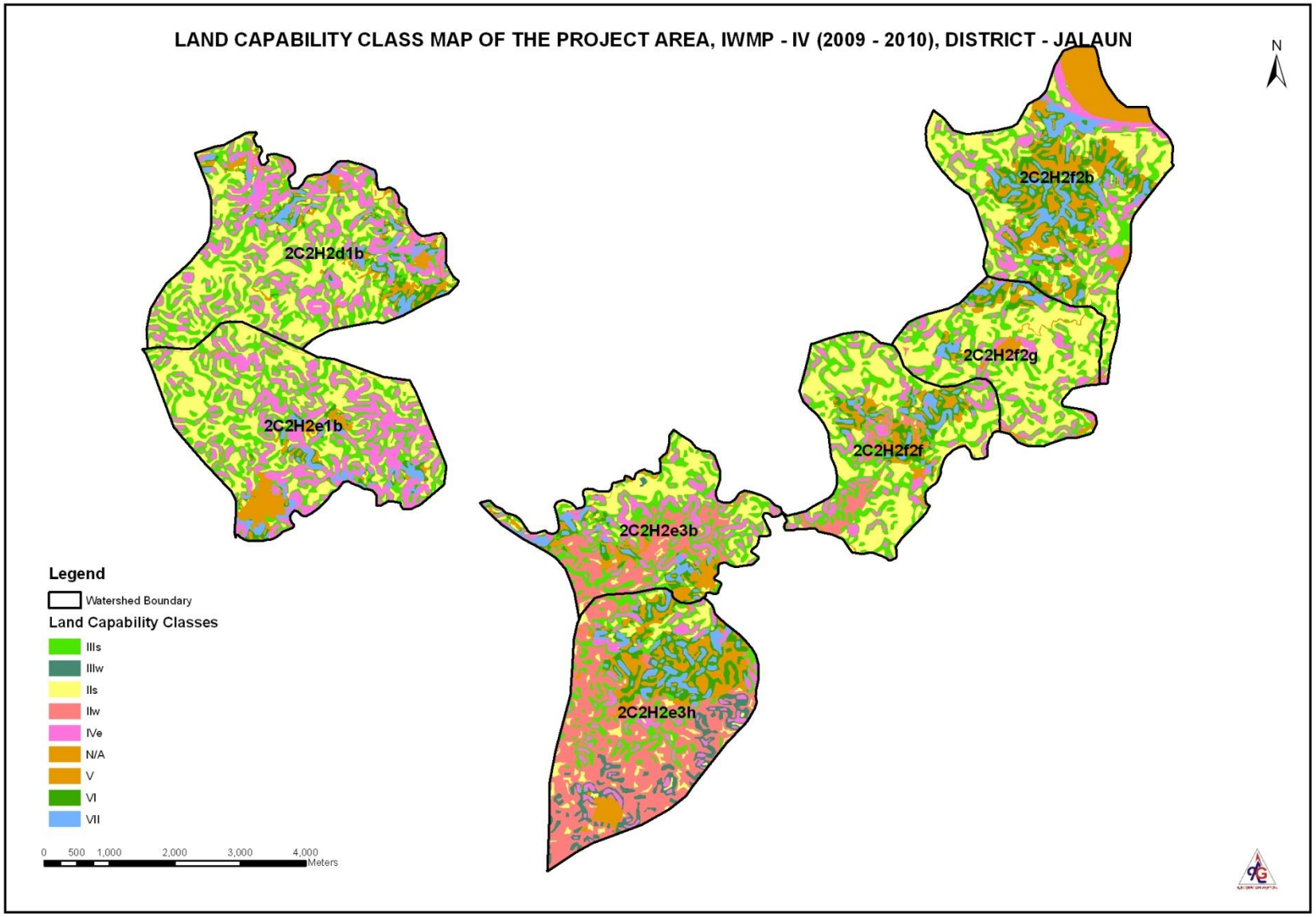
1. Cadastral Map
2. Countor Map
3. Drainage Map
4. LCC Map
5. Land use/ Land cover Map
6. Slope Map
7. Soil Depth Map
8. Soil Erosion Map
9. Action Plan- 2C2H2e3h (Nurpur)
10. Action Plan- 2C2H2f2g (Nibhana)

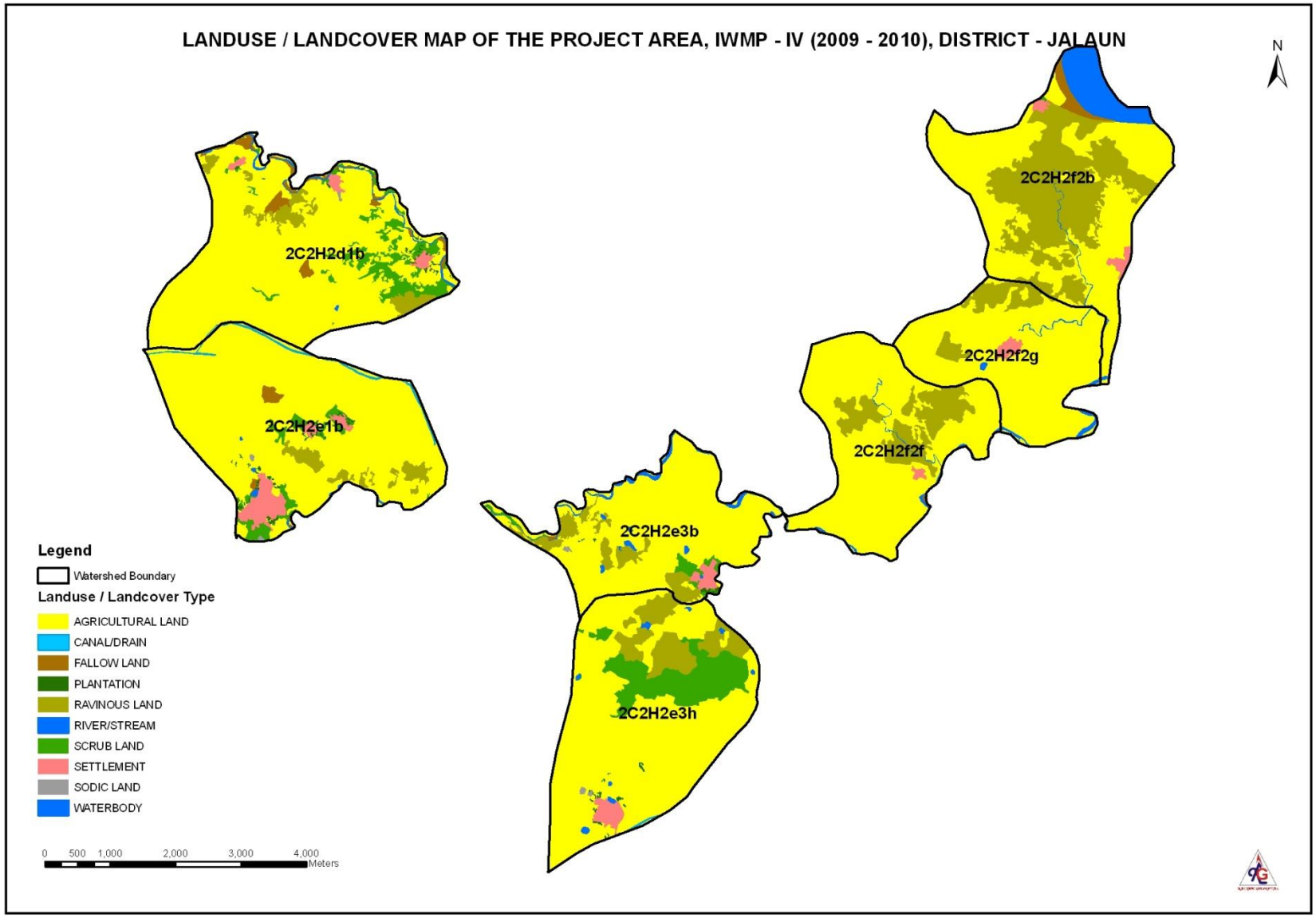
Action Plan- These maps were interpreted from the high resolution satellite dada freely available on internet.

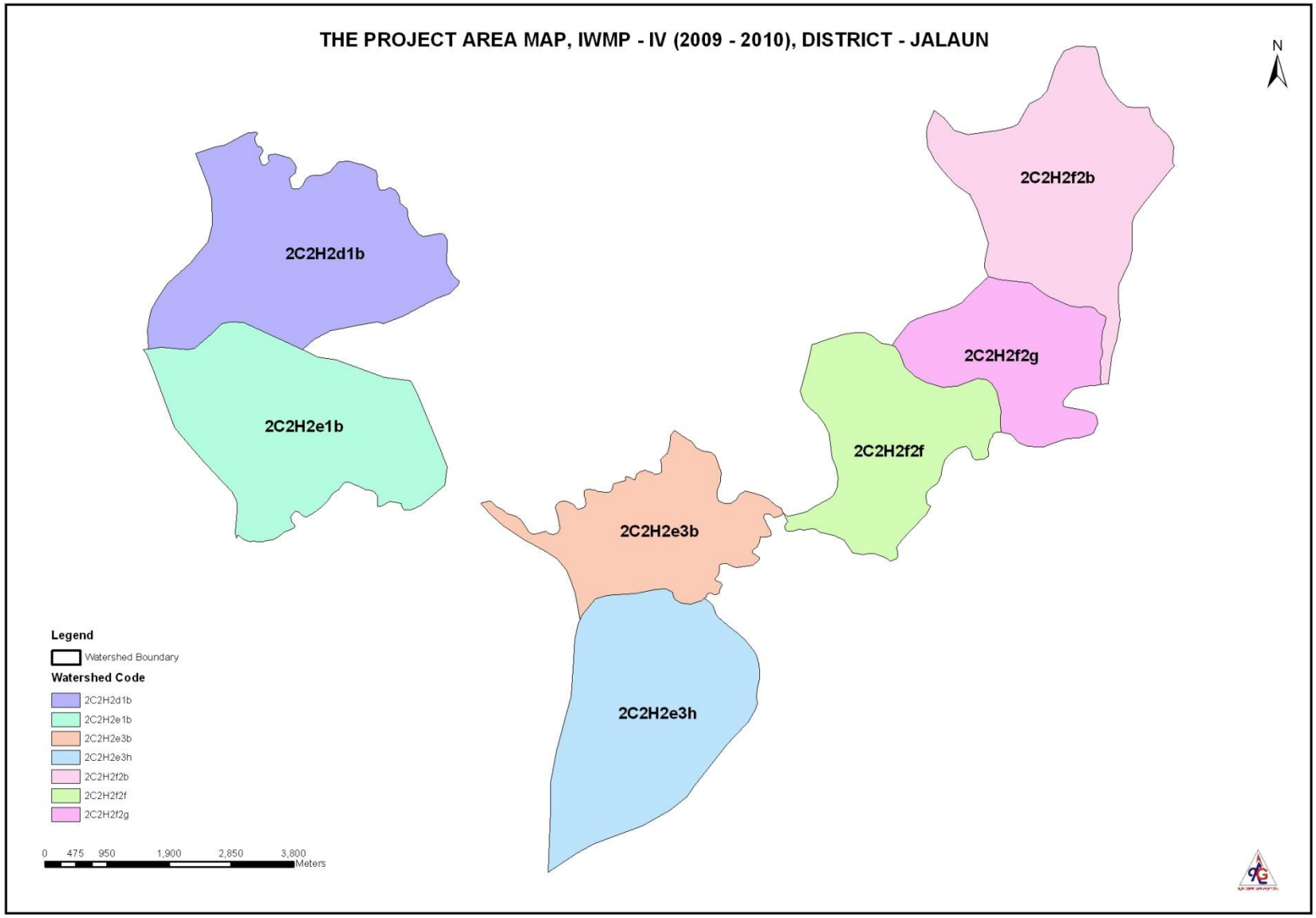

CADASTRAL MAP OF THE PROJECT AREA, IWMP - IV (2009 - 2010), DISTRICT - JALAUN
N
2C2H2d1b
2C2H2e1b
2C2H2f2b
2C2H2f2g
2C2H2f2f
2C2H2e3b
2C2H2e3h
Legend
Watershed Boundary
Cadastral Plots
0 475 950 1,900 2,850 3,800
Meters

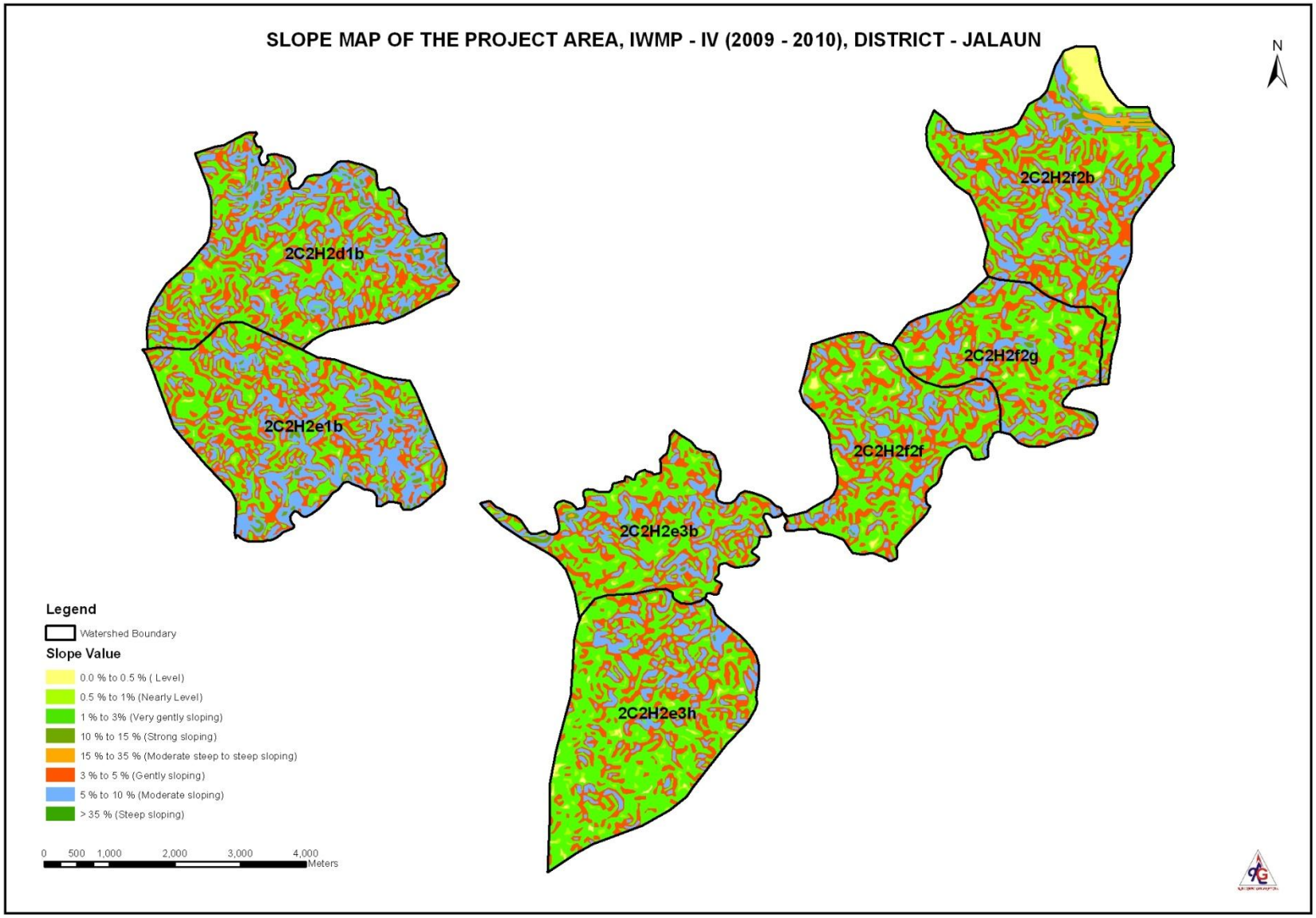

CONTOUR MAP OF THE PROJECT AREA, IWMP - IV (2009 - 2010), DISTRICT - JALAUN
N
2C2H2d1b
2C2H2e1b
2C2H2f2b
2C2H2f2g
2C2H2f2f
2C2H2e3b
2C2H2e3h
Legend
Watershed Boundary
Contour at 1m interval
0 500 1,000 2,000 3,000 4,000
Meters

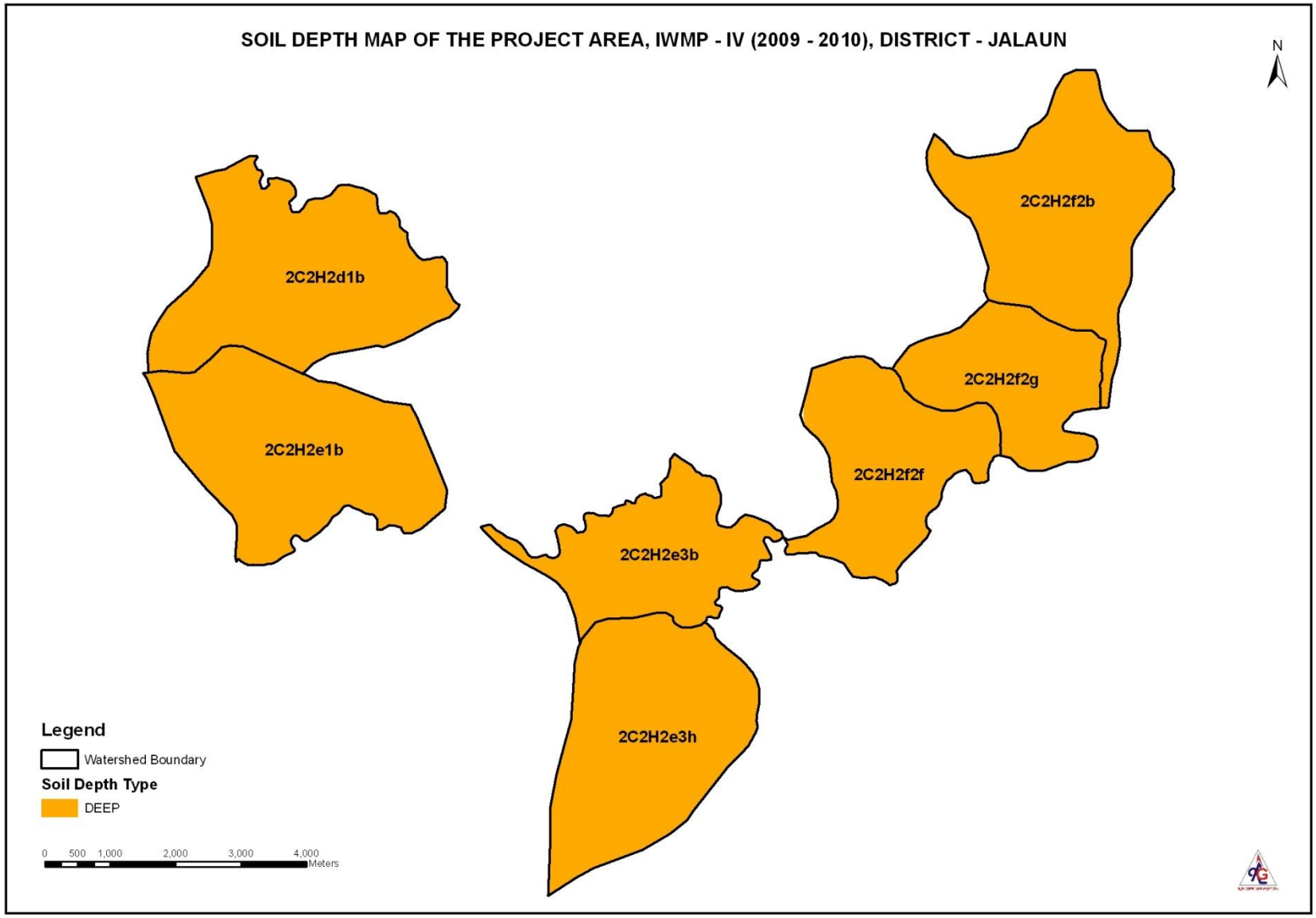

DRAINAGE MAP OF THE PROJECT AREA, IWMP - IV (2009 - 2010), DISTRICT - JALAUN
N
2C2H2d1b
2C2H2e1b
2C2H2f2b
2C2H2f2g
2C2H2f2f
2C2H2e3b
2C2H2e3h
Legend
Watershed Boundary
Drainage
0 475 950 1,900 2,850 3,800
Meters

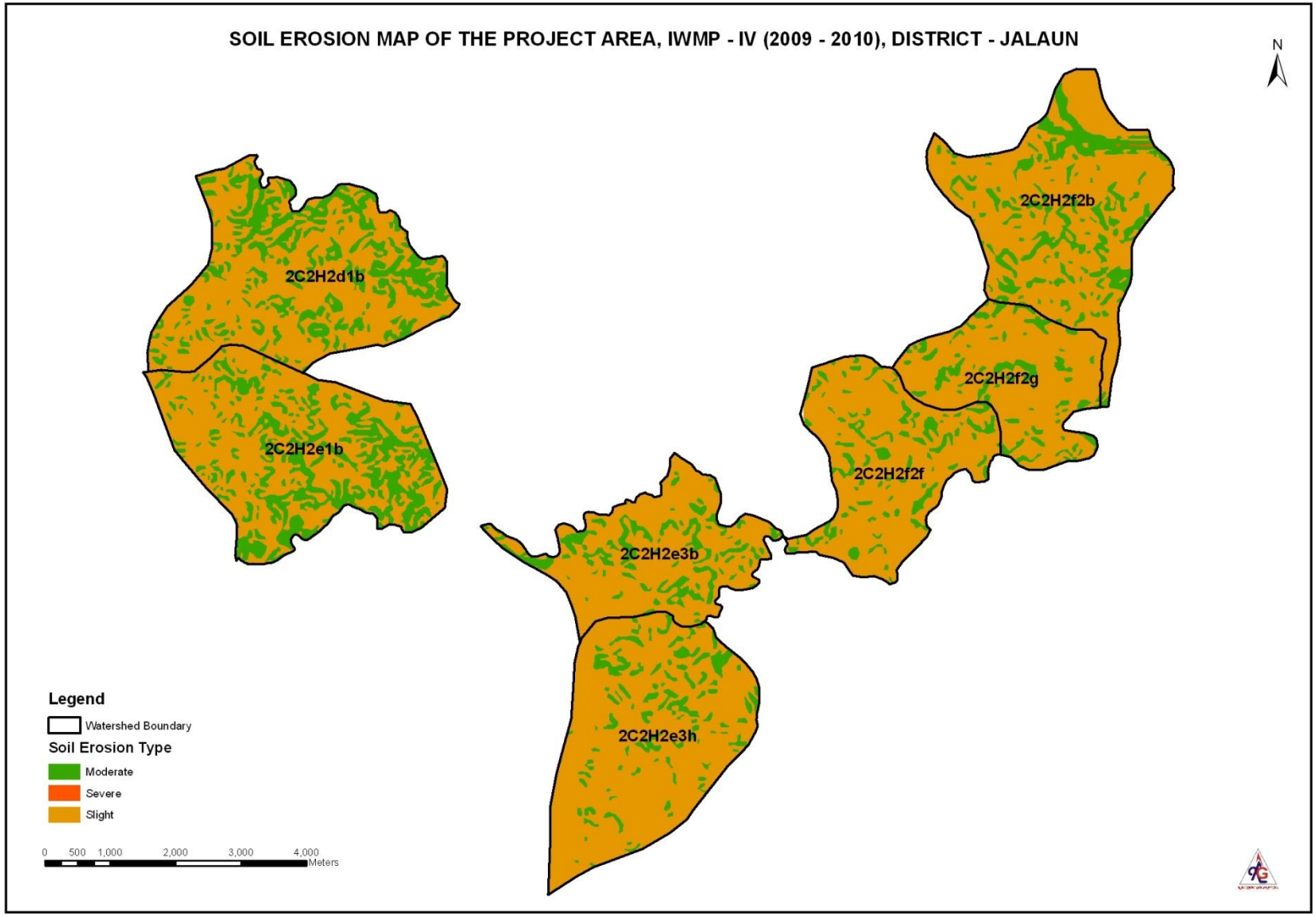

LAND CAPABILITY CLASS MAP OF THE PROJECT AREA, IWMP - IV (2009 - 2010), DISTRICT - JALAUN
N
2C2H2d1b
2C2H2e1b
2C2H2f2b
2C2H2f2g
2C2H2f2f
2C2H2e3b
2C2H2e3h
Legend
Watershed Boundary
Land Capability Classes
IIIs
IIIw
IIs
IIw
IVe
N/A
V
VI
VII
0 500 1,000 2,000 3,000 4,000
Meters


LANDUSE / LANDCOVER MAP OF THE PROJECT AREA, IWMP - IV (2009 - 2010), DISTRICT - JALAUN
N
2C2H2d1b
2C2H2e1b
2C2H2f2b
2C2H2f2g
2C2H2f2f
2C2H2e3b
2C2H2e3h
Legend
Watershed Boundary
Landuse / Landcover Type
AGRICULTURAL LAND
CANAL/DRAIN
FALLOW LAND
PLANTATION
RAVINOUS LAND
RIVER/STREAM
SCRUB LAND
SETTLEMENT
SODIC LAND
WATERBODY
0 500 1,000 2,000 3,000 4,000
Meters


THE PROJECT AREA MAP, IWMP - IV (2009 - 2010), DISTRICT - JALAUN
N
2C2H2d1b
2C2H2e1b
2C2H2e3b
2C2H2e3h
2C2H2f2b
2C2H2f2g
2C2H2f2f
Legend
Watershed Boundary
Watershed Code
2C2H2d1b
2C2H2e1b
2C2H2e3b
2C2H2e3h
2C2H2f2b
2C2H2f2f
2C2H2f2g
0 475 950 1,900 2,850 3,800
Meters


SLOPE MAP OF THE PROJECT AREA, IWMP - IV (2009 - 2010), DISTRICT - JALAUN
N
2C2H2d1b
2C2H2e1b
2C2H2e3b
2C2H2e3h
2C2H2f2b
2C2H2f2g
2C2H2f2f
Legend
Watershed Boundary
Slope Value
0.0 % to 0.5 % (Level)
0.5 % to 1% (Nearly Level)
1 % to 3% (Very gently sloping)
10 % to 15 % (Strong sloping)
15 % to 35 % (Moderate steep to steep sloping)
3 % to 5 % (Gently sloping)
5 % to 10 % (Moderate sloping)
> 35 % (Steep sloping)
0 500 1,000 2,000 3,000 4,000
Meters

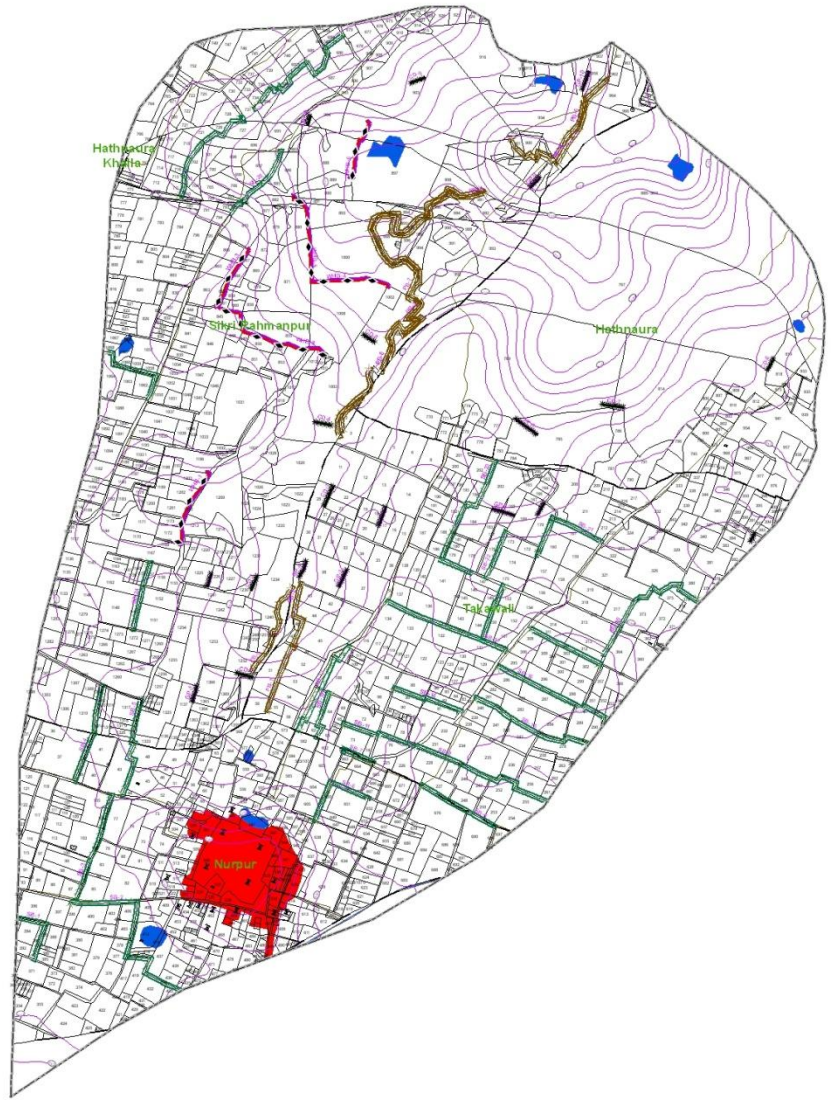

SOIL DEPTH MAP OF THE PROJECT AREA, IWMP - IV (2009 - 2010), DISTRICT - JALAUN
N
2C2H2d1b
2C2H2e1b
2C2H2e3b
2C2H2e3h
2C2H2f2b
2C2H2f2g
2C2H2f2f
Legend
Watershed Boundary
Soil Depth Type
DEEP
0 500 1,000 2,000 3,000 4,000
Meters


SOIL EROSION MAP OF THE PROJECT AREA, IWMP - IV (2009 - 2010), DISTRICT - JALAUN
N
2C2H2d1b
2C2H2e1b
2C2H2e3b
2C2H2e3h
2C2H2f2b
2C2H2f2g
2C2H2f2f
Legend
Watershed Boundary
Soil Erosion Type
Moderate
Severe
Slight
0 500 1,000 2,000 3,000 4,000
Meters

ACTION PLAN MAP OF JALAUN

Project Name: IWMP-IV (2009-10)
District Name: Jalaun
Code: 2C2H2e3h (Nurpur)
Total Area: 894.85 ha.

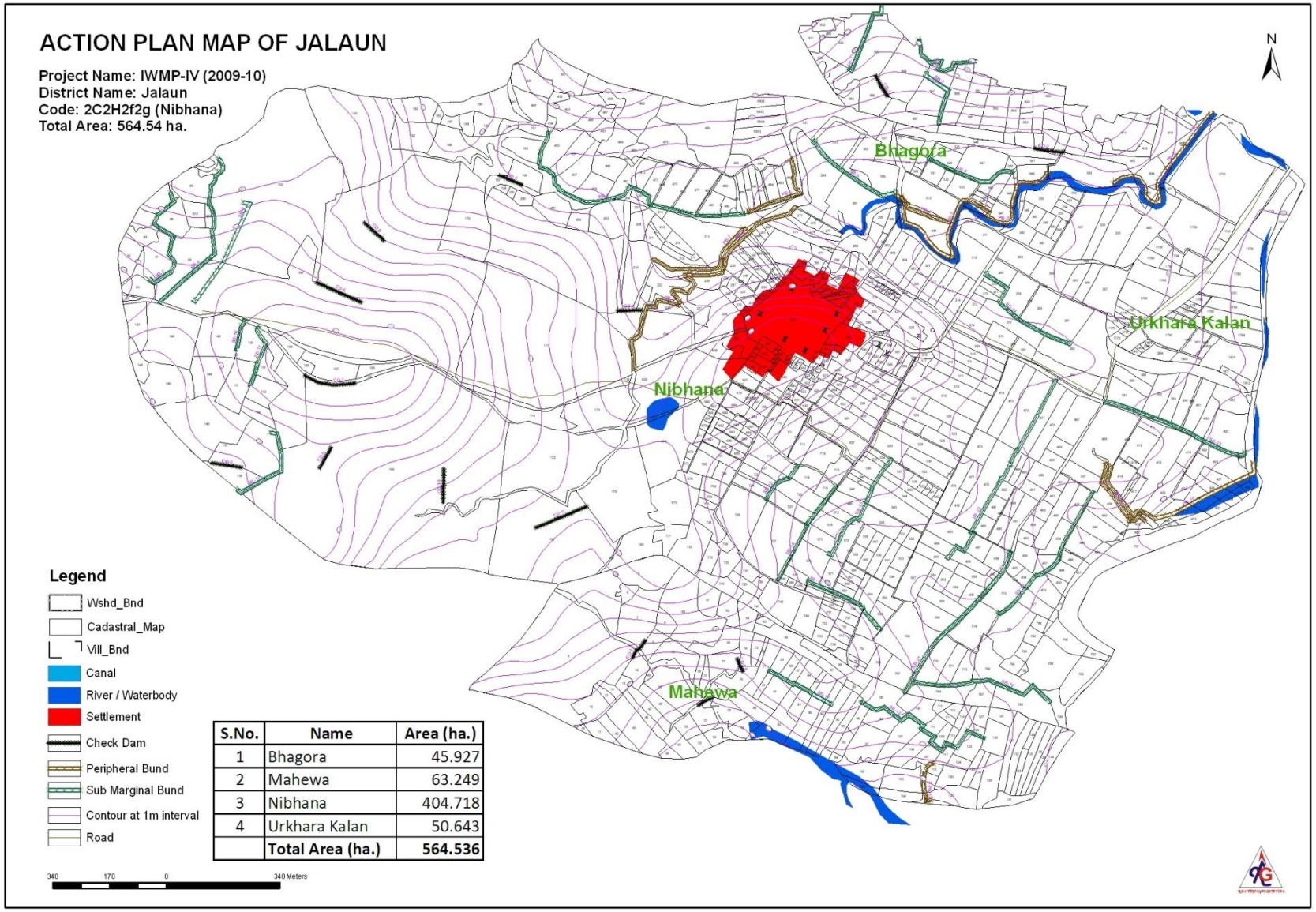
S.No.	NAME	AREA (ha.)
1	Takawali	202.13
2	Khalla	0.17
3	Nurpur	156.07
4	Sikri Rahmanpur	358.90
5	Hathnaura	0.01
6	Hathnaura	177.56
	TOTAL AREA (ha.)	**894.85**



Legend

- Wshd_Bnd
- Cadastral_Map
- Vill_Bnd
- Canal
- River / Waterbody
- Settlement
- Check Dam
- Gully Plug
- Peripheral Bund
- Sub Marginal Bund
- Water Harvesting Bund
- Contour at 1m interval
- Road

570 285 0 570 Meters



S.No.	Name	Area (ha.)
1	Bhagora	45.927
2	Mahewa	63.249
3	Nibhana	404.718
4	Urkhara Kalan	50.643
	Total Area (ha.)	**564.536**

Annexure_1

DETAIL COST ESTIMATE OF WATER SHED WORK

MWS NAME-NOORPUR OF JALAUN IWMP-IV

CODE No 2C2H2e3h

S. N0.	Act-ivity	Khasra No.	Area	Lenth	C.S. (Top+Base/2)* Height	E.W.	Out-put	Man-days	Rate	Amount	WDF	Village Name
1	2	6	5	7	8	9	10	11	12	13	14	15
1	WHB 1	1030, 1169, 1172, 1173, 1174, 1196, 1201, 1202, 1203	23.7	201	(2.0+12.5)/2*3.5= 25.38	5101.38	2.46	2073.73	120	248848	24885	Sikri Rahmanpur
2	WHB 2	854, 853, 852, 850, 849, 848, 845, 1013, 1012, 1010, 1009, 1008	21.35	350	(1.5+9.0)/2*2.5=13.13	4595.5	2.46	1868.09	120	224171	22417	Sikri Rahmanpur
3	WHB 3	859, 861, 862, 865, 866, 867, 868, 871, 872, 874	19.78	180	(2.0+12.5)/2*3.5= 25.38	4568.4	2.64	1730.45	120	207655	20766	Sikri Rahmanpur
4	WHB 4	1000, 1002, 1008	29.48	250	(2.0+12.5)/2*3.5= 25.38	6345	2.46	2579.27	120	309512	30951	Sikri Rahmanpur
5	WHB 5	893, 883, 882, 881, 880, 877, 871, 1008, 1000	17.08	280	(1.5+9.0)/2*2.5=13.13	3676.4	2.46	1494.47	120	179337	17934	Sikri Rahmanpur
6	WHB 6	888, 889, 897	17.69	290	(1.5+9.0)/2*2.5=13.13	3807.7	2.46	1547.85	120	185741	18574	Sikri Rahmanpur
SUB TOTAL										1355263	135526	

S. N0.	Act-ivity	Khasra No.	Area	Lenth	C.S. (Top+Base/2)* Height	E.W.	Out-put	Man-days	Rate	Amount	WDF	Village Name
1	2	6	5	7	8	9	10	11	12	13	14	15
1	CD 1	1252, 1369	3.6	80	(2.0+12.5)/2*3.5=25.38	2030.4	2.35	864	120	103680	10368	Sikri Rahmanpur
2	CD 2	1234, 1230	3.6	80	(1.5+9.0)/2*2.5=13.13	1050.4	2.35	447	120	53637	5364	Sikri Rahmanpur
3	CD 3	22, 23, 28	5.6	120	(2.0+12.5)/2*3.5=25.38	3045.6	2.35	1296	120	155520	15552	Takawali
4	CD 4	1003	4.6	100	(1.5+9.0)/2*2.5=13.13	1313	2.35	559	120	67047	6705	Sikri Rahmanpur
5	CD 5	383, 388	3.2	60	(1.5+9.0)/2*2.5=13.13	787.8	2.35	335	120	40228	4023	Takawali
6	CD 6	767, 818	4.5	80	(2.0+12.5)/2*3.5=25.38	2030.4	2.35	864	120	103680	10368	Hathnaura
7	CD 7	814, 769	6.6	90	(1.5+9.0)/2*2.5=13.13	1181.7	2.27	521	120	62469	6247	Hathnaura

8	CD 8	1003	6.2	80	(2.0+12.5)/2*3.5=25.38	2030.4	2.27	894	120	107334	10733	Sikri Rahmanpur
9	CD 9	903	5.6	100	(1.5+9.0)/2*2.5=13.13	1313	2.35	559	120	67047	6705	Sikri Rahmanpur
10	CD 10	888, 904	8	120	(2.0+12.5)/2*3.5=25.38	3045.6	2.27	1342	120	161001	16100	Sikri Rahmanpur
SUB TOTAL										921643	92164	

S. N0.	Act-ivity	Khasra No.	Area	Lenth	C.S. (Top+Base/2)*Heig ht	E.W.	Rate	Amount	WDF	Village Name
1	2	6	5	7	8	9	12	13	14	15
1	GP 1	1137, 1367	2.1	80	(1.5+9.0)/2*2.5=13.13	1050.4	44.12	46344	4634	Sikri Rahmanpur
2	GP 2	1225, 1226	1.8	70	(1.5+9.0)/2*2.5=13.13	919.1	44.12	40551	4055	Sikri Rahmanpur
3	GP 3	38	2.8	120	(2.0+12.5)/2*3.5=25.38	3045.6	44.12	134372	13437	Takawali
4	GP 4	38	3.1	130	(2.0+12.5)/2*3.5=25.38	3299.4	44.12	145570	14557	Takawali
5	GP 5	17, 18	2.4	90	(1.5+9.0)/2*2.5=13.13	1181.7	44.12	52137	5214	Takawali
6	GP 6	168, 177, 183, 203	3.1	80	(2.0+12.5)/2*3.5=25.38	2030.4	44.12	89581	8958	Takawali
7	GP 7	167, 169, 170	1.3	60	(1.5+9.0)/2*2.5=13.13	787.8	44.12	34758	3476	Takawali
8	GP 8	785	4.7	120	(2.0+12.5)/2*3.5=25.38	3045.6	44.12	134372	13437	Hathnaura
9	GP 9		6	120	(1.5+9.0)/2*2.5=13.13	1575.6	44.12	69515	6952	Sikri Rahmanpur
10	GP 10	956	2.7	120	(2.0+12.5)/2*3.5=25.38	3045.6	44.12	134372	13437	Sikri Rahmanpur
SUB TOTAL								881571	88157	

S. No	Activi ty	Khasra No.	Area	Lenth	C.S. (Top+Base/2)*Heig ht	E.W.	Rate	Amount	WDF	Village Name
1	2	6	5	7	8	9	10	11	14	15
1	SB-1	375, 390, 391, 393, 394, 395	6.6	180	(0.7+4.9)/2*1.4=3.92	705.6	42.11	29713	2971	Nurpur
2	SB-2	187, 375, 377, 378, 395, 397, 398, 400, 403, 404, 405, 406, 415, 417, 418, 432, 433, 434,	18.8	650	(0.7+4.75)/2*1.35=3.68	2392	42.11	100727	10073	Nurpur

		437								
3	SB-3	86, 87, 96, 98, 99, 103, 104, 105, 501	10.2	350	(0.9+5.7)/2*1.6=5.28	1848	42.11	77819	7782	Nurpur
4	SB-4	37 , 38, 501, 1288, 1309, 1310, 1311	10.2	350	(0.7+4.75)/2*1.35=3.68	1288	42.11	54238	5424	Nurpur, Sikri Rahmanpur
5	SB-5	43, 44, 45, 48, 501, 1288, 1317, 1318, 1319, 1320, 1333	10.2	340	(0.7+4.9)/2*1.4=3.92	1332.8	42.11	56124	5612	Nurpur, Sikri Rahmanpur
6	SB-6	606, 647, 649, 650, 651, 652	8.4	280	(0.7+4.9)/2*1.4=3.92	1097.6	42.11	46220	4622	Nurpur
7	SB-7	73, 74, 75, 606	8.4	260	(0.9+5.7)/2*1.6=5.28	1372.8	42.11	57809	5781	Nurpur, Takawali
8	SB-8	227, 248, 249, 250, 253, 254, 675, 676, 689, 690, 694	5.5	150	(0.7+4.75)/2*1.35=3.68	552	42.11	23245	2325	Nurpur, Takawali
9	SB-9	226, 228, 229, 230, 246, 247, 249, 252, 255, 256, 261, 305	11.2	320	(0.9+5.7)/2*1.6=5.28	1689.6	42.11	71149	7115	Takawali
10	SB-10	75, 76, 77, 78, 305	6.5	180	(0.9+5.7)/2*1.6=5.28	950.4	42.11	40021	4002	Takawali
11	SB-11	70, 72, 73, 74, 75	6.5	200	(0.7+4.75)/2*1.35=3.68	736	42.11	30993	3099	Takawali
12	SB-12	62, 63, 64, 65	4.4	120	(0.7+4.9)/2*1.4=3.92	470.4	42.11	19809	1981	Takawali
13	SB-13	61, 63, 108, 113, 115	10.2	300	(0.7+4.75)/2*1.35=3.68	1104	42.11	46489	4649	Takawali
14	SB-14	79, 81, 82, 88, 89, 97, 305	7.6	250	(0.7+4.9)/2*1.4=3.92	980	42.11	41268	4127	Takawali
15	SB-15	230, 240, 241, 242, 243, 278, 280	15.2	420	(0.9+5.7)/2*1.6=5.28	2217.6	42.11	93383	9338	Takawali
16	SB-16	280, 286, 287, 289, 290, 291, 293	12.4	350	(0.7+4.75)/2*1.35=3.68	1288	42.11	54238	5424	Takawali
17	SB-17	9, 131, 132, 133, 134, 135, 305	9	300	(0.7+4.9)/2*1.4=3.92	1176	42.11	49521	4952	Takawali
18	SB-18	135, 150, 153, 155	5.5	150	(0.9+5.7)/2*1.6=5.28	792	42.11	33351	3335	Takawali
19	SB-19	302, 303, 304, 308, 309, 310	8.7	250	(0.7+4.75)/2*1.35=3.68	920	42.11	38741	3874	Takawali
20	SB-20	312, 313, 315, 316, 317, 320, 321, 326, 373, 374, 375, 379, 380	12.4	400	(0.9+5.7)/2*1.6=5.28	2112	42.11	88936	8894	Takawali
21	SB-21	157, 160, 161, 162, 170, 208, 211, 212	7.6	250	(0.9+5.7)/2*1.6=5.28	1320	42.11	55585	5559	Takawali
22	SB-22	155, 171, 173, 174, 175, 176	5.5	120	(0.7+4.9)/2*1.4=3.92	470.4	42.11	19809	1981	Takawali

23	SB-23	141, 142, 147, 155, 184, 185, 186, 188, 192, 193, 194, 202, 203	14.4	430	(0.7+4.75)/2*1.35 =3.68	1582.4	42.11	66635	6664	Takawali
24	SB-24	1150, 1151, 1152, 1154, 1157, 1158, 1162, 1166, 1270	7.8	245	(0.7+4.9)/2*1.4=3. 92	960.4	42.11	40442	4044	Sikri Rahmanpur
25	SB-25	837, 1058, 1059, 1060, 1061, 1062, 1064, 1065, 1068, 1078	4.4	130	(0.7+4.9)/2*1.4=3. 92	509.6	42.11	21459	2146	Sikri Rahmanpur
26	SB-26	696, 702, 703, 709, 710, 711, 715, 716, 717, 718, 721, 726, 727, 728, 729	11.3	370	(0.7+4.75)/2*1.35 =3.68	1361.6	42.11	57337	5734	Sikri Rahmanpur
27	SB-27	681, 685, 686, 687, 688, 689, 692, 693, 694, 731, 734, 735, 738, 739, 742	12.4	425	(0.7+4.75)/2*1.35 =3.68	1666	42.11	70155	7016	Sikri Rahmanpur
28	SB-28	696, 697, 699, 706, 708, 792, 793, 794, 837	9.5	280	(0.7+4.9)/2*1.4=3. 92	1097.6	42.11	46220	4622	Sikri Rahmanpur
SUB TOTAL								1431437	143144	
S. No.	**Act-ivity**	**Khasra No.**	**Area**	**Lenth**	**C.S. (Top+Base/2)*Heig ht**	**E.W.**	**Rate**	**Amount**	**WDF**	**Village Name**
1	**2**	**6**	**5**	**7**	**8**	**9**	**10**	**11**	**14**	**15**
1	PB 1	48, 51, 52, 53, 54, 55, 56	13.3	310	(0.7+4.6)/2*1.3=3. 45	1069.5	42.11	45037	4504	Takawali
2	PB 2	40, 43, 44, 45, 46, 47, 48	10	240	(0.7+4.45)/2*1.25 =3.22	772.8	42.11	32543	3254	Takawali
3	PB 3	1, 2, 768, 993, 999	21.1	480	(0.7+4.75)/2*1.35 =3.68	1766.4	42.11	74383	7438	Sikri Rahmanpur
4	PB 4	981, 982, 986, 993, 994, 995, 996, 998, 999	25	578	(0.7+4.6)/2*1.3=3. 45	1994.1	42.11	83972	8397	Sikri Rahmanpur
5	PB 5	955, 962, 964	15.6	360	(0.7+4.45)/2*1.25 =3.22	1159.2	42.11	48814	4881	Sikri Rahmanpur
6	PB 6	900, 901, 954	12.3	290	(0.7+4.75)/2*1.35 =3.68	1067.2	42.11	44940	4494	Sikri Rahmanpur
7	PB 7	893, 894, 895, 897, 898, 899, 999, 1000, 1003	15.1	350	(0.7+4.6)/2*1.3=3. 45	1207.5	42.11	50848	5085	Sikri Rahmanpur
8	PB 8	999, 1003	12.8	300	(0.7+4.45)/2*1.25 =3.22	966	42.11	40678	4068	Sikri Rahmanpur
9	PB 9	1234, 1239, 1240, 1251, 1252	16	368	(0.7+4.75)/2*1.35 =3.68	1354.2 4	42.11	57027	5703	Sikri Rahmanpur
SUB TOTAL								478241	47824	
GRAND TOTAL								5068155	506816	

DETAIL COST ESTIMATE OF WATER SHED WORK

GRAM PANCHAYAT WISE OF JALAUN IWMP-IV

S. N0.	Act-ivity	Khasra No.	Area	Lenth	C.S. (Top+Base/2)* Height	E.W.	Rate	Amount	WDF	Gram Panchayat
1	2	6	5	7	8	9	12	13	14	15
1	WHB 1	1030, 1169, 1172, 1173, 1174, 1196, 1201, 1202, 1203	23.7	201	(2.0+12.5)/2*3.5 =25.38	5101.38	120	248848	24885	Sikri Rahmanpur
2	WHB 2	854, 853, 852, 850, 849, 848, 845, 1013, 1012, 1010, 1009, 1008	21.35	350	(1.5+9.0)/2*2.5= 13.13	4595.5	120	224171	22417	Sikri Rahmanpur
3	WHB 3	859, 861, 862, 865, 866, 867, 868, 871, 872, 874	19.78	180	(2.0+12.5)/2*3.5 =25.38	4568.4	120	207655	20766	Sikri Rahmanpur
4	WHB 4	1000, 1002, 1008	29.48	250	(2.0+12.5)/2*3.5 =25.38	6345	120	309512	30951	Sikri Rahmanpur
5	WHB 5	893, 883, 882, 881, 880, 877, 871, 1008, 1000	17.08	280	(1.5+9.0)/2*2.5= 13.13	3676.4	120	179337	17934	Sikri Rahmanpur
6	WHB 6	888, 889, 897	17.69	290	(1.5+9.0)/2*2.5= 13.13	3807.7	120	185741	18574	Sikri Rahmanpur
7	CD 1	1252, 1369	3.6	80	(2.0+12.5)/2*3.5 =25.38	2030.4	120	103680	10368	Sikri Rahmanpur
8	CD 2	1234, 1230	3.6	80	(1.5+9.0)/2*2.5= 13.13	1050.4	120	53637	5364	Sikri Rahmanpur
9	CD 4	1003	4.6	100	(1.5+9.0)/2*2.5= 13.13	1313	120	67047	6705	Sikri Rahmanpur
10	CD 8	1003	6.2	80	(2.0+12.5)/2*3.5 =25.38	2030.4	120	107334	10733	Sikri Rahmanpur
11	CD 9	903	5.6	100	(1.5+9.0)/2*2.5= 13.13	1313	120	67047	6705	Sikri Rahmanpur
12	CD 10	888, 904	8	120	(2.0+12.5)/2*3.5 =25.38	3045.6	120	161001	16100	Sikri Rahmanpur
13	GP 1	1137, 1367	2.1	80	(1.5+9.0)/2*2.5= 13.13	1050.4	44.12	46344	4634	Sikri Rahmanpur
14	GP 2	1225, 1226	1.8	70	(1.5+9.0)/2*2.5= 13.13	919.1	44.12	40551	4055	Sikri Rahmanpur

15	GP 9		6	120	(1.5+9.0)/2*2.5=13.13	1575.6	44.12	69515	6952	Sikri Rahmanpur
16	GP 10	956	2.7	120	(2.0+12.5)/2*3.5=25.38	3045.6	44.12	134372	13437	Sikri Rahmanpur
17	SB-24	1150, 1151, 1152, 1154, 1157, 1158, 1162, 1166, 1270	7.8	245	(0.7+4.9)/2*1.4=3.92	960.4	42.11	40442	4044	Sikri Rahmanpur
18	SB-25	837, 1058, 1059, 1060, 1061, 1062, 1064, 1065, 1068, 1078	4.4	130	(0.7+4.9)/2*1.4=3.92	509.6	42.11	21459	2146	Sikri Rahmanpur
19	SB-26	696, 702, 703, 709, 710, 711, 715, 716, 717, 718, 721, 726, 727, 728, 729	11.3	370	(0.7+4.75)/2*1.35=3.68	1361.6	42.11	57337	5734	Sikri Rahmanpur
20	SB-27	681, 685, 686, 687, 688, 689, 692, 693, 694, 731, 734, 735, 738, 739, 742	12.4	425	(0.7+4.75)/2*1.35=3.68	1666	42.11	70155	7016	Sikri Rahmanpur
21	SB-28	696, 697, 699, 706, 708, 792, 793, 794, 837	9.5	280	(0.7+4.9)/2*1.4=3.92	1097.6	42.11	46220	4622	Sikri Rahmanpur
22	PB 3	1, 2, 768, 993, 999	21.1	480	(0.7+4.75)/2*1.35=3.68	1766.4	42.11	74383	7438	Sikri Rahmanpur
23	PB 4	981, 982, 986, 993, 994, 995, 996, 998, 999	25	578	(0.7+4.6)/2*1.3=3.45	1994.1	42.11	83972	8397	Sikri Rahmanpur
24	PB 5	955, 962, 964	15.6	360	(0.7+4.45)/2*1.25=3.22	1159.2	42.11	48814	4881	Sikri Rahmanpur
25	PB 6	900, 901, 954	12.3	290	(0.7+4.75)/2*1.35=3.68	1067.2	42.11	44940	4494	Sikri Rahmanpur
26	PB 7	893, 894, 895, 897, 898, 899, 999, 1000, 1003	15.1	350	(0.7+4.6)/2*1.3=3.45	1207.5	42.11	50848	5085	Sikri Rahmanpur
27	PB 8	999, 1003	12.8	300	(0.7+4.45)/2*1.25=3.22	966	42.11	40678	4068	Sikri Rahmanpur
28	PB 9	1234, 1239, 1240, 1251, 1252	16	368	(0.7+4.75)/2*1.35=3.68	1354.24	42.11	57027	5703	Sikri Rahmanpur
29	SB-1	375, 390, 391, 393, 394, 395	6.6	180	(0.7+4.9)/2*1.4=3.92	705.6	42.11	29713	2971	Nurpur
30	SB-2	187, 375, 377, 378, 395, 397, 398, 400, 403, 404, 405, 406, 415, 417, 418, 432, 433, 434, 437	18.8	650	(0.7+4.75)/2*1.35=3.68	2392	42.11	100727	10073	Nurpur
31	SB-3	86, 87, 96, 98, 99, 103, 104, 105, 501	10.2	350	(0.9+5.7)/2*1.6=5.28	1848	42.11	77819	7782	Nurpur
32	SB-4	37 , 38, 501, 1288, 1309, 1310, 1311	10.2	350	(0.7+4.75)/2*1.35=3.68	1288	42.11	54238	5424	Nurpur

33	SB-5	43, 44, 45, 48, 501, 1288, 1317, 1318, 1319, 1320, 1333	10.2	340	(0.7+4.9)/2*1.4= 3.92	1332.8	42.11	56124	5612	Nurpur
34	SB-6	606, 647, 649, 650, 651, 652	8.4	280	(0.7+4.9)/2*1.4= 3.92	1097.6	42.11	46220	4622	Nurpur
35	SB-7	73, 74, 75, 606	8.4	260	(0.9+5.7)/2*1.6= 5.28	1372.8	42.11	57809	5781	Nurpur
36	SB-8	227, 248, 249, 250, 253, 254, 675, 676, 689, 690, 694	5.5	150	(0.7+4.75)/2*1.3 5=3.68	552	42.11	23245	2325	Nurpur
37	GP 3	38	2.8	120	(2.0+12.5)/2*3.5 =25.38	3045.6	44.12	134372	13437	Gorakalan
38	GP 4	38	3.1	130	(2.0+12.5)/2*3.5 =25.38	3299.4	44.12	145570	14557	Gorakalan
39	GP 5	17, 18	2.4	90	(1.5+9.0)/2*2.5= 13.13	1181.7	44.12	52137	5214	Gorakalan
40	GP 6	168, 177, 183, 203	3.1	80	(2.0+12.5)/2*3.5 =25.38	2030.4	44.12	89581	8958	Gorakalan
41	GP 7	167, 169, 170	1.3	60	(1.5+9.0)/2*2.5= 13.13	787.8	44.12	34758	3476	Gorakalan
42	GP 8	785	4.7	120	(2.0+12.5)/2*3.5 =25.38	3045.6	44.12	134372	13437	Gorakalan
43	CD 3	22, 23, 28	5.6	120	(2.0+12.5)/2*3.5 =25.38	3045.6	120	155520	15552	Gorakalan
44	CD 5	383, 388	3.2	60	(1.5+9.0)/2*2.5= 13.13	787.8	120	40228	4023	Gorakalan
45	CD 6	767, 818	4.5	80	(2.0+12.5)/2*3.5 =25.38	2030.4	120	103680	10368	Gorakalan
46	CD 7	814, 769	6.6	90	(1.5+9.0)/2*2.5= 13.13	1181.7	120	62469	6247	Gorakalan
47	SB-9	226, 228, 229, 230, 246, 247, 249, 252, 255, 256, 261, 305	11.2	320	(0.9+5.7)/2*1.6= 5.28	1689.6	42.11	71149	7115	Gorakalan
48	SB-10	75, 76, 77, 78, 305	6.5	180	(0.9+5.7)/2*1.6= 5.28	950.4	42.11	40021	4002	Gorakalan
49	SB-11	70, 72, 73, 74, 75	6.5	200	(0.7+4.75)/2*1.3 5=3.68	736	42.11	30993	3099	Gorakalan
50	SB-12	62, 63, 64, 65	4.4	120	(0.7+4.9)/2*1.4= 3.92	470.4	42.11	19809	1981	Gorakalan
51	SB-	61, 63, 108, 113, 115	10.2	300	(0.7+4.75)/2*1.3	1104	42.11	46489	4649	Gorakalan

	13				5=3.68					
52	SB-14	79, 81, 82, 88, 89, 97, 305	7.6	250	(0.7+4.9)/2*1.4=3.92	980	42.11	41268	4127	Gorakalan
53	SB-15	230, 240, 241, 242, 243, 278, 280	15.2	420	(0.9+5.7)/2*1.6=5.28	2217.6	42.11	93383	9338	Gorakalan
54	SB-16	280, 286, 287, 289, 290, 291, 293	12.4	350	(0.7+4.75)/2*1.35=3.68	1288	42.11	54238	5424	Gorakalan
55	SB-17	9, 131, 132, 133, 134, 135, 305	9	300	(0.7+4.9)/2*1.4=3.92	1176	42.11	49521	4952	Gorakalan
56	SB-18	135, 150, 153, 155	5.5	150	(0.9+5.7)/2*1.6=5.28	792	42.11	33351	3335	Gorakalan
57	SB-19	302, 303, 304, 308, 309, 310	8.7	250	(0.7+4.75)/2*1.35=3.68	920	42.11	38741	3874	Gorakalan
58	SB-20	312, 313, 315, 316, 317, 320, 321, 326, 373, 374, 375, 379, 380	12.4	400	(0.9+5.7)/2*1.6=5.28	2112	42.11	88936	8894	Gorakalan
59	SB-21	157, 160, 161, 162, 170, 208, 211, 212	7.6	250	(0.9+5.7)/2*1.6=5.28	1320	42.11	55585	5559	Gorakalan
60	SB-22	155, 171, 173, 174, 175, 176	5.5	120	(0.7+4.9)/2*1.4=3.92	470.4	42.11	19809	1981	Gorakalan
61	SB-23	141, 142, 147, 155, 184, 185, 186, 188, 192, 193, 194, 202, 203	14.4	430	(0.7+4.75)/2*1.35=3.68	1582.4	42.11	66635	6664	Gorakalan
62	PB 1	48, 51, 52, 53, 54, 55, 56	13.3	310	(0.7+4.6)/2*1.3=3.45	1069.5	42.11	45037	4504	Gorakalan
63	PB 2	40, 43, 44, 45, 46, 47, 48	10	240	(0.7+4.45)/2*1.25=3.22	772.8	42.11	32543	3254	Gorakalan
GRAND TOTAL								**5068157**	**506816**	

CHAPTER -12
ABBRIVIATIONS/ REFERENCES

LIST OF ABBRIVIATIONS/REFERENCES

DOLR	Department of Land Resources
IWMP	Integrated Watershed Management Programme
SLNA	State Level Nodal Agency
CGL	Common Guidelines
PIA	Project Implementing Agency
BSA	Bhoomi Sangrakshan Adhikari
WDT	Watershed Development Team
WC	Watershed Committee
UC	User Group
SHG	Self Help Group
CB	Contour Bund
MB	Marginal Bund
PFB	Peripheral Bund

REFERENCES

- Common Guideline of watershed development-2008.
- Jila Sankhikiya Patrika
- Census 2001
- www.jalaun.nic.in

Preparation of DPR

Detail Project Report of Integrated Watershed Management Programme IWMP-IV had been prepared through base line/ bench Mark survey for physiography climate, soil, land use, vegetation, and hydrology and socio economic data analysis. PRA have been exercised to collect primary data, secondary data have been collected from Revenue, Statistics department, Statistical Magazine of the district Jalaun.

S. NO.	Name	Designation
1	B.S.A.	Shri Dinesh Kumar Srivastav
2	Junior Engineer	Shri Kamla Pati Goutam
3	Accountant	Shri Chandra Bhusan Singh
4	Sr. Clerk	Shri Sashi Kant Dixit
5	Ju. Clerk	Shri M CSrivastava
6	Draftman	Shri Sangam Lal Verma
7	Traser	Shri Mh. Yasim Sidqui
8	A.S.C.I.	Shri Manoj Kumar
9	A.S.C.I.	Shri Chhote Lal
10	A.S.C.I.	Shri Harikrishna Singh
11	A.S.C.I.	Shri Uma Shanker
12	A.S.C.I.	Shri Nooral Haq Ansari
13	A.S.C.I.	Smt Vandana Singh
14	Sri A. K. Srivastava	MD, Kalyani Geospatial, Lucknow
15	Dr. A. K. Kulshestra	Consultant
16	Sri Dipendra Kumar Sharma	Statistical Analyst
17	Ku. Sulochna Pareekh	GIS Analyst
18	Ku. Sunita	GIS Analyst
19	Rahul Sharma	Cad Expert