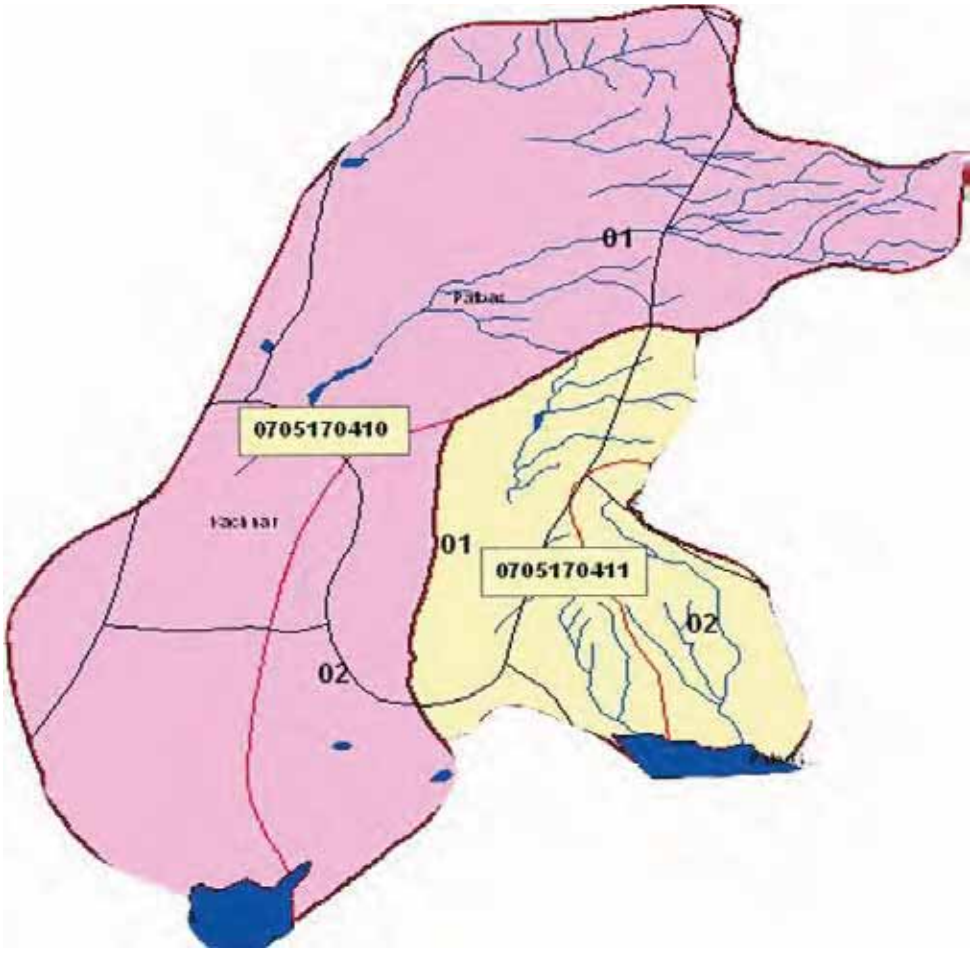
GOVERMENT OF RAJASTHAN

RURAL DEVELOPMENT & PANCHAYATI RAJ DEPARTMENT

Watershed Development &Soil Conservation Department

Rajasthan, Jaipur

DETAILED PROJECT REPORT



INTEGRATED WATERSHED MANGEMENT PROGRAMME

JAIPUR (IWMP) - XVII/2011-12

DUDU

PROJECT IMPLEMENTING AGENCY

ASSISTANT ENGINEER PANCHATAT SAMITI - DUDU

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CHAPTER – I

1. INTRODUCTION

Water is the basic requirement for every living life. The importance of water conservation in the country has been recognized since immemorial times. Over the years, watershed approach has conventionally been applied for the purpose of arresting rainwater runoff, its harvesting and in situ soil and moisture conservation in the country. The objective has essentially been achieved through development of waste and degraded lands under various Central and State Government Programmes. The Ministry of Rural Development is implementing special area development programmes for the purpose of water harvesting in drought prone, desert and rainfed areas. The Drought Prone Areas Programme and Desert Development Programme were started in 1973-74 and 1977-78 respectively. The Integrated Wastelands Development Programme was launched in 1989. On the basis of recommendations of the Hanumantha Rao Committee (1994), in the year 2003, the Ministry of Rural Development brought out the Guideline for Hariyali by suitably modifying the earlier guidelines. This brought the DDP, the DPAP and IWDP under a single umbrella. In the year 2000, the Ministry of Agriculture revised its guidelines for its programme, the National Watershed Development Project for Rainfed Areas (NWDPRA).

In order to assess the performance of various ongoing programmes of watershed development, series of evaluation studies were conducted by Indian Council of Agricultural Research, State Agriculture Universities, National Remote Sensing Agency etc. After series of evaluation studies and impact assessment studies, in coordination with the Planning Commission, in the year 2008, Common Guidelines for Watershed Development Projects was formulated in order to have a unified perspective by all Ministries. This Common Guideline is applicable to all Watershed Development Projects in all Departments/Ministry of Government of India concerned with Watershed Development Projects. These guidelines coupled with the flexibilities, would provide an enabling framework for the planning, design, management and implementation of all watershed development projects in the country. All the watershed projects are being implemented in accordance with these Common Guidelines with effect from 1.4.2008. For interpretation of any of the provisions of these guidelines, the National Rainfed Area Authority (NRRA), which has been set up in November 2006, will be the final authority. The common Guidelines for watershed development projects are based on equity and gender sensitivity; decentralization; facilitating agencies; community

participation; capacity building and technology inputs; monitoring evaluation and learning and organizational restructuring.

1.1. Sanction of IWMP project:

During the year 2011-12 under the Centrally Sponsored Scheme Integrated Watershed Management Programme (IWMP) for implementation in accordance with the Common Guideline for Watershed Development Projects, 2008, the 4896 ha Watershed Project IWMP-XV has been sanctioned in DUDU block of Jaipur District. The Administrative and Financial Sanction of the project has been issued by Rural Development & Panchayati Raj Department, Commissionerate, Watershed Development and Soil Conservation vide letter no. F18 (I-51) WDSC/IWMP/2011-12/4800-5087, Dated 5-8-2011.

1.2. Location:

The Dudu Block is distributed in 56 Gram Panchayats. The proposed watershed area is covered in 6 villages of 4 Gram Panchayats. The project area is between the latitudes : 75º to 75 35º North longitude 26 35º to 26 45º East. The distance/vicinity of the watershed area from Dudu Panchayat Samiti Headquarter is 15 to 20 Km and 46 Kms from the district head quaters. There are2374 no. of habitations in the Project area and other details are given below.

1.3 General features of watershed

S.No.	Name of Project (as per GOI)	IWMP- XVII
a)	Name of Catchment	Manshi
b)	Name of watershed area (local name)	Palbas
c)	Project Area	3901 Ha
d)	Net treatable Area	3901 Ha
e)	Cost of Project	585.15 Lac
f)	Cost/hectare	Rs.15000/Hac
g)	Year of Sanction	2011-12
h)	Watershed Code	

i)	No. of Gram Panchayats in project area	4
j)	No. of villages in project area	6
k)	Type of Project	Desert
l)	Elevation (metres)	315
m)	Major Streams	Manshi Nadi
n)	Slope range (%)	1 to 3 %

Macro	**Micro**	**Name of Gram Panchayat**	**Name of Villages Covered**	**Census code of Villages**	**Area**
10	1	Akoda	Akoda	01509400	119
10	1	Akoda	Palbas	01517900	1037
10	2	Akoda	Sainipura	01509500	804
11	1	Bichoon	Bichoon	01517600	279
11	3	Gidani	Palu kalan	01505000	388
11	2	Sawarda	Sawarda	01514500	1274
					3901

1.4 Climatic and Hydrological information

The watershed falls in Agro climatic Zone III A . The soil texture is Sandy loam. The average rainfall is 417 mm. The temperatures in the area are in the range between 47^{o} to 32^{o} centigrade during summer and 30^{o} to 3^{o} Centigrade during winter. The major crops in the area are Bajra, Gwar, Moong, Wheat, Barley, Mustered and land is under cultivation 04.89% land fallow, 14.50% land is wasteland. 29.89% land is irrigated through Tubewell, wells.

149 No of households are BPL (06.24% households) are landless households 0.92% households) are 1838 household are small and marginal farmers (78.22% household). Average land holding in the area is 2.09 ha. 60.61% area is single cropped area and 29.89% is double cropped. The major festivals in the village are Holi, Diwali, Raksha Bandhan. & dashahera. At present this village is having 15995 population with Communities like Jat, Gurjar and Regar, berva etc.

1	**Average Annual Rainfall (mm)**		
	Year	**Average Annual Rainfall (mm)**	
1	2003	165	
2	2004	523	
3	2005	502	
4	2006	435	
5	2007	213	
6	2008	286	
7	2009	430	
8	2010	279	
9	2011	570	
10	2012	575	
2	**Average Monthly rainfall (last ten years)**		
	Month	**Rainfall (mm)**	
1	June	50	
2	July	109.20	
3	August	133.5	
4	September	8.5	
3	**Maximum rainfall Intensity(mm)**		
	Duration	**Rainfall intensity(mm)**	
	15 minute durtion	**10**	
	30 minute durtion	**25**	
	60 minute durtion	**40**	
4	**Temperature (Degree C)**		
	Season	Max(^{o} c)	Min(^{o} c)
	i) Summer Season	47	32
	ii) Winter Season	30	3
	iii) Rainy Season	35	25
5	**Potential Evaporation Transpiration (PET) (mm/day)**		
	Season	PET	
	iv) Summer Season	50-60 mm	
	v) Winter Season	15-20 mm	
	vi) Rainy Season	40-50 mm	
6	**Runoff**		
	i) Peak Rate (cum/hr)		

	ii) Total run off volume of rainy season (cu.m.)		2165916	
	iii) Time of return of maximum flood	5 years	10 years	15 years
	iv) Periodicity of Drought in village area	3	5	7

1.5 Other Development Schemes in the project area

S.No.	Scheme	Name of the Department	Key interventions under the Scheme	Targeted Beneficiaries	Provisions under the Scheme
1.	MGNREGA	P.R.	Employment	ALL	Gravel Road Nadi/WHS
2.	PMGRY	PWD	Jan-Upyogi	ALL	Road
3.	MLA/MPLAD	P.R.	Jan-Upyogi	ALL	C.C. Road Common Hall/tubewell
4.	SFC/FFC	P.R.	Jan-Upyogi	ALL	Drainage wall
5.	IAY/MMA	P.R.	House For Landless	BPL	Residential Awar
6.					

1.6 **Details of infrastructure in the project areas**

	Parameters	Status			
(i)	No. of villages connected to the main road by an all-weather road	All the 6 villages of project area is connected to main road. The nearest railway station is Shamber			
(ii)	No. of villages provided with electricity	All villages are provided with electricity			
(iii)	No. of households without access to drinking water	Nil			
(iv)	No. of educational institutions:	Primary	Middle	Secondary	Hr. Sec.
	Primary(P)/ Secondary(S)/ Higher SecondaryHS)/ Vocational Institution(VI)	6	5	2	2
(v)	No. of villages with access to Primary Health Centre	2			
(vi)	No. of villages with access to Veterinary Dispensary	0			
(vii)	No. of Villages with access to Post Office	4			
(viii)	No. of villages with access to Banks	0			
(ix)	No. of villages with access to Markets/mandis	6			
(x)	No. of villages with access to Agro-industries	Nil			
(xi)	Total quantity of surplus milk	5798 MT			
(xii)	No. of milk collection centres	(U)	(S)	(PA)	(O)
	(e.g. Union (U)/ Society(S)/ Private agency(PA)/ Others (O)	Nil	6	4	1
(xiii)	No. of villages with access to Anganwadi Centre	All Village			
(xiv)	Any other facilities with no. of villages (please specify)	No			
(xv)	Nearest KVK	Durgapura			
(xvi)	Cooperative society	Akoda,Bichun			
(xvii)	NGOs	nil			
(xviii)	Credit institutions	nil			

	(i) Bank	JTGB, Akoda,Bichun
	(ii) Cooperative Society	Akoda,Bichun,Sawarda
(xix)	Agro Service Centre's	Nil

1.7 Institutional arrangements

a. State Level Nodal Agency (SLNA) : At State level

b. WCDC Details

S.No.	Particulars	Details of WCDC
1.	PM, WCDC	Mr. Heeralal Rai, Executive Er,.
2.	Address with contact no., website	Jila Parishad, Jaipur
3.	Telephone	9414727336
4.	Fax	-
5.	E-mail	dwdu.jaipur@gmail.com

c. PIA Details

S.No.	Particulars	Details of PIA
1.	Name of PIA	Mr. M.L.Rawat
2.	Designation	AEN.(Watershed)
3.	Address with contact no., website	P.S. Dudu / aen.dudu@hotmail.com
4.	Telephone	9694080944
5.	Fax	-
6.	E-mail	aen.dudu@hotmail.com

d. WDT Particulars:

S. No.	Name of WDT member	M/F	Age	Qualification	Experence in watershed (yrs)	Description of professiona l training	Role/ function
1.	Banwari lala Meena	M	25	B.Sc Ag./ .Sc. Ag.	5 months	WDT Training, Durgapura	WDT -Agri
2.	vacant						WDT- Engg.
3.	Surendra Chhaba	M	24	Diploma in Animal Husbandry	5 month	WDT Training, Ajmer	WDT-AH.
4.	vacant						WDT-SS

e. User Groups:

As per guideline and directions given by SLNA, with the help of WDT members, for each Gram Panchayat separate user groups have been formed for different works/ activities. The homogeneous groups have been constituted, who may be most affected by each work/activity and shall include the persons having land holding within the watershed areas. Each UG's have been formed of the persons who are likely to derive direct benefits from a particular watershed work or activity. The representation of each village has been considered in the formulation of groups. In each group a president has been elected. These groups have been constituted in Gram Sabha's. The programme of Gram Sabhas in different Gram Panchayats was been scheduled by Block Development Officer, Panchayat Samiti, Jamua Ramgarh. The Gram Panchayat wise details of elected user groups have been enclosed at **Annexure –I**.

f. Self Help Groups:

In the Gram Panchayat the SHG groups have been constituted. The groups have been formed according to interest of their work. The homogeneous groups have been formed having common identity, who are dependent on the watershed area such as agricultural labourers, landless persons, women, scheduled caste/scheduled tribes persons. The Gram Panchayat wise details of selected SHG groups are enclosed at **Annexure –II**.

g. Watershed Committee (WC):

In the Gram Sabha, after constitution of UG's and SHG's, the watershed committee for each gram panchayat has been formed separately. The committee comprises of 10-13 members. In the committee all the presidents of user and self help groups, representation of SC/ST, land less persons and female representation have been considered. In the formation of committee it was also considered that the members of all the villages of Gram Panchayat are included, so that they can take care of work/need of their village. After constitution of watershed committee the Chairman/President and Secretary has been selected/ elected. The Gram Panchayat wise detail of Watershed Committee is enclosed at **Annexure –III**.

h. Details of Bank Account:

For each water shed committee, the separate saving bank account has been opened with the name of Gram Panchyat Sarpanch, Watershed Committee Secretary and Govt. member (Junior Engineer/Assistant Engineer). One separate Watershed Development Fund (WDF) account has been opened for each committee. In the WDF Account no transaction will be done only the contribution received from beneficiaries will be deposited.

The details of bank account for watershed committee are as follows:

S.No	Watershed Committe	Saving A/C No.	Bank Name
1.	Akoda	3460010000	Bank of Baroda,Dudu
2.	Bichun	3460010000	Bank of Baroda,Dudu
3.	Gidani	3460010000	Bank of Baroda,Dudu
4.	Sawarda	3460010000	Bank of Baroda,Dudu

1.8 Problems and scope of improvement in the project area

The area includes the high hilly and hard rocks, in which rainwater flows in Nallas/Nadi. The water level is regularly decreasing due to increasing well/tube wells. Due to various significant problems, the area has been selected for integrated development.

As per the social survey and by interviewing the people of the area, shows that in the area water table is decreasing, land degradation due to soil erosion, increase in population, poor

livestock productivity, fodder shortage and marketing opportunities. Therefore the area has been selected for integrated development with focus on integrated farming system for increasing productivity, livelihood and regular income in a regular way. As various research conducted for rainfed areas shows that the efficient water management through soil and water conservation measures is the key to sustainable development. The integrated watershed approach i.e. conserving natural resources of water, soil and vegetation has been accepted as a major theme for development of rainfed areas.

The introduction of NREGA in the area various water harvesting structures specially Farm Ponds/Talai have been constructed. Looking to the plan of the NREGA the few new water harvesting structures has been proposed. In some places only spillways have been proposed. The main stress have been given on contour vegetative bunds with proper outlets/wasteweirs, pasture development, loose stone check dams, small earthen bunds, staggered box trenches in pasture areas and table land protection bunds. Also in watershed area diversion channels from higher areas towards farm ponds have been proposed, where water is spread and stagnated in the field.

The socio economic conditions of the area can be improved through increased production which can be achieved through expansion in cultivated area and productivity enhancement 3969 ha land is arable wasteland and 761 ha is fallow can be brought under cultivation.
556 ha is only irrigated and with efforts this can be increased to Production. The productivity gap of major crops in the area as compared with district and with areas in the same agro climatic zones indicate potential to increase the productivity. The demonstration of improved package of practices, improved varieties, increased irrigation facilities and soil conservation measures under the project can bridge this gap. Due to small land holdings in the area focus of the project would be on diversification in agriculture (horticulture, vegetables, green houses, Agro forestry, fodder crops) and diversification in Livelihoods (Agriculture, Animal husbandry, self employment).
91.98 Quintal fodder scarcity can be met out through Pasture development. Improved animal Husbandry practices can increase the productivity of livestock . no of persons migrate due to unemployment .this migration can be checked through creation of employment opportunities in the project area through increase in production and diversification in agriculture and Livelihoods as mentioned above.

Base Line Survey Format for IWMP MIS website

Project Name- IWMP XVIII

Total Geographical Area of Project (Lakh Hectares)-0.03901

Treatable Area

Wasteland (Lakh Hactares)	0.00877	Rainfed Agricultural Land (Lakh Hectares)	0.01550
Total Cropped Area (Lakh Hectares)	0.02211	Net Sown Area (Lakh Hactares)	0.02679
Total no. of Water Storage Structure	39	Total no. of Water Extracting Units pumping selt wells	9
Total storage capacity of water storage structures (cubic meters)	585000		

No. of Household

SC	481	ST	37
Others	1856		
Total Population of project Area	15995	No. of Household of Landless people	23
Total no. of BPL Household	149	No of State BPL	578
No. of person-days of Seasonal Migration	970	No. of Marginal Farmer's Household	887

Depth of Ground Water (meters) below Ground level

Pre-monsoon	65	Post-monsoon	62 meter
No. of person-days of Seasonal Migration	477		

1. Name of Project : PALBAS IWMP-17
2. Sanction Not : F18 (I-51) WDSC/IWMP/2011-12/4800-5087,
3. Sanction Date : 5-8- 2011
4. Macro & Micro Nos : 10/1,2 11/1,2,3
5. Deviation from Project Sanctioned :

Items	As per Project Sanctioned	As proposed in DPR
Project Area	3901	3901
Macro/Micro No	10/1, 11/1,2,3	10/1,2 11/1,2,3
Name of Gram Panchayats	Akoda,Bichun,Sawarda,Palu	Akoda,Bichun,Sawarda,Palu
Name of Villages	Keriya,Bichun,Morsar,Akoda,Palbas,Kachhanar,Sawarda,Palu khurd,Palu kalan	Bichun,Sainipura,Akoda,Palbas,Sawarda, ,Palu kalan
Project Cost (Rs in Lakhs)	585.15	585.15

Causes of Deviation :
1 After receiving maps from PD Cor actual project area is finalized
2.Macro/Micro no.-10/2 was included but by mistake it was not shown in PPR.Now it has corrected

CHAPTER – II

Socio economic Features, Problems and Scope

Table 2.1 Demography Details: Population & Household

Total Population				
Male	Female	Total	SC	ST
8351	7644	15995	3840	562

Household Details						
BPL household	L.Less	Small Farmer	M. Farmer	Total household	SC household	ST household
149	23	970	887	2374	481	37

Table 2.2 Development indicators

S.No.	Development Indicators	State	Project Area
1.	Per capita income (Rs)		30700/year
2.	Poverty ratio		21 %
3.	Literacy (%)	67.06 %	61 %
4.	Sex Ratio	911	915/1000
5.	Infant mortality rate		67/1000
6.	Maternal mortality ratio		13/1000

The above table indicates average, socio economic conditions.

Table 2.3 Land Use

Land Use	Total area in Ha.				
	Private	Panchayat	Government	Community	Total
Agriculture Land	2211				2211
Temporary Fallow	0.41				0.41
Permanent Fallow	191.1				191.1
Cultivated Rainfed	1550				1550
Cultivated irrigated	661.46				661.46
Net Sown Area	2211				2211
Net Area sown more than once	661.46				661.46
Forest Land					
Waste Land			877.74		**877.74**
Pastures		482.4			482.4
Others			329.86		329.86

Table 2.4 .a Agriculture and Horticulture status and fuel availability.

S. N	Season	Rain fed				Irrigated				Total	
	Crop Sown	Varieties	Area (Ha)	Production (Ton)	Productivity (Kg/ha)	Varieties	Area (Ha)	Production (Ton)	Productivity (Kg/ha)	Area (Ha)	Production (Ton)
I	**Kharif**										
1	Bajara	HHB-67, Nirmal1651	950	1045	1100	-	-	-	-	950	1045
2	Gwar	CSH-11	370	259	700	-	-	-	-	370	259
3	Moong	T-44, SML-668	1040	624	600	-	-	-	-	1040	624
II	**Rabi**										
S. N	**Season**	**Rain fed**				**Irrigated**				**Total**	
	Crop Sown	Varieties	Area (Ha)	Production (Ton)	Productivity (Kg/ha)	Varieties	Area (Ha)	Production (Ton)	Productivity (Kg/ha)	Area (Ha)	Production (Ton)
1	Wheat	0	0	0	0	Raj-3765	556	1529	2750	556	1529
2	Barely	Desi / RD 2052	270	569	2110					270	569
3	Mustered	Bio-902	540	459	850					540	459
4	Gram	RSG-44	1200	1020	850					1200	1020

III	**Zaid**										
S. N	**Season**	**Rain fed**				**Irrigated**				**Total**	
	Crop Sown	Varieties	Area (Ha)	Production (Ton)	Productivity (Kg/ha)	Varietes	Area (Ha)	Production (Ton)	Productivity (Kg/ha)	Area (Ha)	Production (Ton)
1	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil

2	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil

Table 2.4.b Abstract of cropped Area (ha)	
Area under Single crop	2210
Area under Double crop	661
Area under Multiple crop	21
Total	

The table 2.4 shows that only 661 ha is (29.89 %) is double cropped area. Also the crop rotation show that fallow lands are there. This indicates that there is scope for change in crop rotation in fields where there are fallow lands through soil and Water conservation measures, crop demonstration and diversification in agriculture.

Soil and Water conservation measures besides putting fallow lands under cultivation can change the area under single cropping to double and multiple cropping.

Table 2.4.c Productivity Gap Analysis

Name of the crop	Productivity Kg/ha				
	India	Highest Average in Rajasthan	Highest Average of Agro climatic zone	District	Project Area
I Kharif					
Bajara	1300	1300	1350	1200	1100
Moong	2200	2250	2100	1950	700
Gwar	800	830	900	580	600
II Rabi					
Wheat	3000	2900	2900	2800-2900	2750
Barely	2800	2675	2600	2650-2700	2110
Mustered	900	900	900	900	850
Gram	900	800	875	875	850
III Zaid					
Tomato	16-17 Ton	15-16 Ton	14-15 Ton	16-15 Ton	-
Chilly	13-14 Ton	13-12 Ton	12-13 Ton	12-13 Ton	-
Birajal	15-16 Ton	14-15 Ton	15- Ton	14-15 Ton	-

Analysis of the above table indicate that besides national gap there is wide gap in productivity within state and even within same agro climatic zones.

The reasons for this variation are

The productivity gap and reasons of it indicate potential to increase the productivity through crop demonstration. Crop demonstration would be carried out on improved crops/ varieties, improved agronomic practices. INM, IPM Mixed cropping, distribution of fodder seed mini kit. Demonstration of improved methods and economics of fodder crops cultivation and also distribution foundation seeds of forage crops for further multiplication, introduction of fodder crops in the existing crop rotations.

Table 2.6 Land holding Pattern in project area

Type of Farmer	Total House holds	Land Holding (ha)			Land holding (ha) Social group wise				
		Irrigated (source)	Rainfed	Total	Gen.	SC	ST	OBC	BPL
(i) Large farmer	347	213	440	653	159.54	76.46	0	417	
(ii) Small Farmer	970	217	610	827	310.89	135.11	54	327	
(iii) Marginal Farmer	885	229.5	477	706.5	39	67.5	359	241	
(iv) Landless Person	23								
(v) No. of BPL households	149	1.5	23	24.5					24.5
Total	**2374**	**661**	**1550**	**2211**	**509.43**	**279.07**	**413**	**985**	**24.5**

69.35 % land holdings belong to small and marginal farmers who own 69.35% of total cultivated area. Horticulture/vegetables could be more economical to small and Marginal farmers and with irrigation source. For large farmers with no irrigation facility Horticulture/vegetables will be promoted in a part of land with farm pond/Tanka construction.

The following activities will be more beneficial for small land holdings and for diversification and income for large farmers.

Horticulture plantation, Medicinal and Aromatic Crops, floriculture:. Horticulture/vegetables could be more economical to Small and marginal farmer with irrigation source. Also the project area has good potential for medicinal & aromatic crops like Sonamukhi, Isabgol, Ashwagandha, Khus, Mehandi etc.

Agro forestry plantation: To increase the income of farmers and also for shelter belt plantation as wind velocity is high in the project area.

Setting of Vermi Compost Units – Keeping in view the side effect of residues of chemicals and fertilizers on human health the emphasis would be on cultivation of organic produce

through motivating farmers and providing assistance for production for organic input, vermi compost.

Production and distribution of quality seed – There is need to ensure that good quality seed is available for cultivators for which adequate seed production would be initiated in watershed are as with the assistance of private sector and agriculture department technologies.

Sprinklers and pipelines for efficient water management practices emphasis on demonstration of sprinklers with adequate financial support and convergence/ private partnership.

Establishment of Green House – For growing off season vegetables seedlings and other horticultural crops under controlled atmospheric conditions of green house.

Establishment of nurseries: Most of the planting material is procured from other parts of the State/ Country. That procurement of planting material from distant places causes damage to the planting material and often results in untimely supply. Hence nursery development activity can be promoted in the area.

Innovative Hi-tech/ export oriented activities: innovative hi-tech/export oriented projects like mushroom cultivation, floriculture, etc which are in negligible existence at present, can be implemented by individual farmers/ private companies.

Drip irrigation Drip irrigation will be promoted in all horticulture plantations, vegetables, green houses and in nurseries for rational use of irrigation higher yields and quality produce.

Table 2.7 Livestock Status – animals/milk production/average yield.

S.N.	Description of animals	Population (in No.)	yield				Dry matter	
			milk		mutton	wool	per day	per year
			kg/day	ton/year	kg	kg/year	(kg)	(ton)
1	cow	3512	12229	4463.59	0	0	24584	8973.16
	Indigenous	2750	8800	3212	0	0	19250	7026.25
	Crossbreed	762	3429	1251.59	0	0	5334	1946.91
2	Buffalo	3790	20844.7	7608.3	0	0	38829	14172.6
3	Goat	9585	7188.75	2623.89	124486	0	12877.5	4700.29
4	Sheep	1662	664.8	242.652	8937	496.5	2317	845.705
5	Camel	157	274.75	100.284	0	420.8	16306	5951.69

6	Poultry	1257	0	0	697.2	0	174.3	63.6195
7	Piggy	0	0	0	0	0	0	0
	Total	**23475**	**53430.96**	**19502.3**	**134119.7**	**917.3**	**119671.8**	**43680.21**

In spite of the large number of livestock, production is less hence increase in productivity across all species, is a major challenge. To enhance production of unproductive cattle and improve the productivity following activities will be taken up:-

Demonstration of improved methods of conservation and utilization of Forage crops are proposed.

Table 2.8 Existing area under fodder (ha)

S.N.	Item	Unit (Ha)	Area/Quantity
1	Existing Cultivable area under Fodder	235	27170 ton/ha 22 ton/ha
2	Production of Green fodder	3.5	110.25 ton 31.5ton/ha
3	Production of Dry Fodder	227	4086 ton, 18ton/ha
4	Area under Pastures	222	4073.4 kg/year
5	Production of fodder	1230	35439.65ton
6	Existing area under Fuel wood	79	22892.8 ton/year
7	Supplementary feed	57	51.1 ton/year
8	Silage Pits	Nil	Nil
9	Availability of fodder	1235 ha	35439.65 ton
10	Deficiency of fodder	8240.56 ton	

The table above shows there is fodder deficiency (Requirement is 43680.21 Ton and availability 35439.65 Ton). To minimize the large and expanding gap between feed and fodder resource availability and demand there is need for

- Increase in area under fodder crops
- Increase in productivity of fodder crops
- Development of pastures

- And reduction in large number of livestock production through replacement by few but productive animals.

Table 2.9 Agriculture implements

S.No.	Implements	Nos.
1.	Tractor	23
2.	Sprayers-manual/power	19
3.	Cultivators/Harrows	27
4.	Seed drill	23
5.	Any other Thresar	13
6.	Tractor Driven Chaffcater	31
7.	Chaffcater	978

Farm mechanization and seed banks: As discussed earlier.69.35.% land holdings belong to small and marginal farmers who own only.69.35.% to total cultivated area so owning of big farm implements by individual farmers is not economical so SHG would be promoted to buy farm implements and rent to farmer.

Table 2.10 NREGA Status – No. of Card Holder, activities taken so far, employment status.

S.No.	Name of village	Total No. of job cards	Employment Status (days/year)	Activity taken up so far
1.	Akoda	1178	95	Gravel Road/ Renovation Nadi
2.	Palbas	567	89	Gravel Road/ Renovation Nadi
3.	Sainipura	230	91	Gravel Road/ Renovation Nadi
4.	Bichoon	957	85	Gravel Road/ Renovation Nadi
5.	Palu kalan	771	96	Gravel Road/ Renovation Nadi
6.	Sawarda	976	90	Gravel Road/ Renovation Nadi

Table 2.11 Migration Details

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)
Akoda	35	150	employment	71 km	Labour	0.05
Palbas	11	150	employment	63 km	Labour	0.05
Sainipura	17	150	employment	60 km	Labour	0.05
Bichoon	67	120	employment	55 km	Labour	0.05
Palu kalan	71	140	employment	53 km	Labour	0.05
Sawarda	60	150	employment	57 km	Labour	0.05

The migration can be check by creation of employment opportunities, enhancing farm level economy, increases the income of the people engaged in animal husbandry by dairy, poultry and marketing and value addition. and diversification in livelihoods.

The existing livelihoods Village are given below

Table 2.12 (a)Major activities (On Farm)

Name of activity	No of Households	Average annual income from
Cultivators	1349	40,000
Dairying	1171	35,000
Poultry	3	25,000
Piggery	Nil	-
Landless Agri. Labourers	23	12000

Table 2.12 (b)Major activities (Off Farm)

Name of activity	No of Households	Average annual income from
Artisans	Nil	Nil
Carpenter	39	54750/Candidates/year
Blacksmith	9	30220/Candidates/year
Leather Craft	234	65000/Candidates/year
Porter	12	45625/Candidates/year
Mason	412	95000/Candidates/year
Others specify (Cycle Repair, STD, Craft etc.)	231	59250/Candidates/year

The efforts for increase in income through off farm activities will be made under livelihood component through assistance to SHG or individuals.

Table 2.13 (a) Status of Existing SHG

S.No.	Village Name	Gram Panchayat Name	S.H.G. Name	Member Activity	Saving Amount	Present Name & Add. & Contact No.	Saving Bank Account No.
1	Akoda	Akoda	Rajlaxmi Selp Help Group	Animal husbendary	10000		
2	Akoda	Akoda	Anamika Selp Help Group	Animal husbendary	40000		
3	Akoda	Akoda	Vishakha Selp Help Group	Animal husbendary	35000		
4	Akoda	Akoda	Salini Selp Help Group	Animal husbendary	12000		
5	Bichoon	Bichoon	Milan Selp Help Group	Animal husbendary	3000		
6	Bichoon	Bichoon	Mamta Selp Help Group	Animal husbendary	17000		
7	Bichoon	Bichoon	Laxmi Selp Help Group	Animal husbendary	18000		
8	Palu kalan	Palu kalan	Mahila milan Selp Help Group	Animal husbendary	8000		
9	Palbas	Akoda	Durga Selp Help Group	Animal husbendary	9500		
10	Sainipura	Akoda	Arti Selp Help Group	Animal husbendary	25000		
11	Sainipura	Akoda	Mamta Selp Help Group	Animal husbendary	12000		
12	Sawarda	Sawarda	Priya Selp Help Group	Manihari, Agarbatti	2000		
13	Sawarda	Sawarda	Rekha Selp Help Group	Manihari, Agarbatti	2000		
14	Sawarda	Sawarda	Anjali Selp Help Group	Cloth stitching	5000		

II. Technical Features

Table 2.14 Ground Water

S.N.	Source	No.	Functional Depth	Dry	Area irrigated	Water availability (days)
i)	Dug wells	5	90 feet	1	13	165
ii)	Shallow tube wells	56	130 feet	0	345	48
iii)	Pumping sets	7	45 feet	0	34	180
iv)	Deep Tube Wells	5	0	0	157	180

Table 2.15 Availability of drinking water

S.N.	**Name of the village**	**Drinking water requirement ltrs/ day**	**Present availability of drinking water ltrs/day**	**No. of drinking water sources available**	**No. functional units**	**No. requires repairs**	**No. defunct**
1.	Akoda	37500	27000	35	24	9	2
2.	Palbas	17500	12400	12	10	2	0
3.	Sainipura	12500	10000	40	30	7	3
4.	Bichoon	23000	19700	17	11	4	2
5.	Palu kalan	45600	36700	40	35	10	5
6.	Sawarda	3500	2900	8	4	3	1
	TOTAL	**139600**	**108700**	**152**	**114**	**35**	**13**

Table 2.16 Water Use efficiency

Name of Major Crop	Area (Hectare)			
	Through water saving devices (Drip/sprinklers)	Through water conserving agronomic practices#	Any other (pl. specify)	Total
Wheat	Nil	567	Nil	567
Barley	-	202	-	202
Bajara	-	2027	-	2027
Mustered	-	229	-	229

- The tables above indicate need for judicious use of available Water.
- Encouraging optimum use of water through installation of sprinklers on every operational wells.

Table 2.17 Slope details.

Slope of Watershed		
S.No.	**Slope Percentage**	**Area in Hectares**
1.	**0-1%**	**1449**
2.	**1-3%**	**1258**
3.	**3-5%**	**427**
4.	**5-10%**	**281**
5.	**>10%**	**486**

As most of the area has slope less than 3% construction of contour bunds can solve the problem of water erosion in agriculture fields and protect washing of top soil and manures/fertilisers.

Table 2.18 Water Budgeting

To propose the total number of water harvesting structures, it is necessary to do water budgeting of the area i.e. how much total run-off is available, out of which how much is being already stored in existing structures and how much balance is available for storage. As

per guideline, maximum 8 to 9 % of balance available run-off is to be stored and rest % of balance available run-off is to be allowed to flow in the drainage line.

In the proposed area, the various water harvesting structures have been constructed. The surface runoff has been stored in the structures. In the area about 82 structures have been constructed.

For water budgeting, the area is calculated and divided in following three groups:

Good Catchment : Where runoff is maximum and infiltration is minimum like hillocks, plateau etc Normally a funnel shaped catchment in hilly terrain with less vegetation.

Average Catchment:Cultivated land, forest land with vegetation Catchment in the plains where there is no dense growth of vegetation

Bad Catchment : Where runoff is minimum and infiltration is maximum e.g. sandy soil Catchment with dense growth of vegetation & highly permeable top soil & sub soil.

For estimation/water budgeting the proposed water shed area has been divided as follows:

Total available runoff (cum) use Stranges table

Average Rain Fall --417.. mm

Monsoon Rainfall in mm	Yield of Runoff from Catchment (Cum)		
	Good Catchment	Average Catchment	Bad Catchment
406.40 mm	426.902	320.149	213.396
431.80 mm	501.061	375.713	250.476
25.40 mm	74.159	55.564	37.08
1.00 mm	2.920	2.188	1.460
417.00 mm	457.850	343.337	228.870

Type of Catchment	Area in ha.	Yield of runoff from catchment per ha. (cum.) use Stranges table	Total Runoff in cum
Good	1194	457.850	663424.65
Average	1258	343.337	431917.946
Bad	1449	228.870	273270.78
Total	**3901**		1368613.376

Runoff trapped in existing structures

S.N.	Name	No	Storage Capacity (cum)
i)	WHS (earthen)	7	3500
ii)	Talab	5	12500
iii)	Farm Ponds	Nil	0
iv)	Anicuts	6	15000
	Total		**31000**

Runoff to be Trapped in proposed structures:

S.N.	Name	No	Storage Capacity (cum)
i)	WHS	20	5000
ii)	Small WHS	50	12500
iii)	Farm Ponds	50	25000
iv)	Drop structure	3	7500
	Total	**121**	**50000**

Runoff trapped in existing & proposed structures = 31000 + 50000 = 81000 cum.

%Runoff trapped = total runoff trapped X100/Total available runoff=..5.92 %.

Height of all structures proposed is between.. 0.5. metre to....1.5 ... metre. There is no structures whose water impounding height is more than 2 metre.

Table 2.19 Soil details

A	**Soil Profile**		
	Major Soil	**Area in hectares**	
1	Sandy loam	3750.00 ha.	
2	Loam	151.00 ha	
B	**Soil Depth:**		
	Depth (Cms.)	**Area in hactares**	
1	0.00 to 7.50	377	
2	7.50 to 45.00	3401	
3	> 45.00	123	
C	**Soil fertility Status**	**Kg/ha**	**Recommended**
1	N	48-52	55-60
2	P	18-24	24-28
3	K	12-15	16-20
4	Micronutrients	PPM 100-450	175-550

The analysis of table shows need to improve and maintain soil fertility. Soil health card to every farmer every crop season will be provided, which will include the recommendation for Application micro nutrient and fertilizers

Table 2.20 Erosion details

Erosion status in project Area				
Cause	Type of erosion	Area affected (ha)	Run off (mm/year)	Average soil loss (tonnes/ha/year)
Water erosion				
a	Sheet	2768	73	35
b	Rill	657		
c	Gully	476		
Sub-Total		3901		
Wind erosion				
Total for project		3901		

CHAPTER – III

Proposed Development Plan:

The Activities are indicative addition/deletion in activities will be as per local conditions

A) Preparatory phase activities Capacity Building Training and EPA

The IEC activities like Kalajathas. Group meetings, door to door campaign, slogans and wall writings etc. were carried out in all the habitations of IWMP XVIII Micro Watershed. A series of meetings were conducted with GP members, community and discussed about the implementation of IWMP programme. User groups were also formed.

Gram Sabhas were conducted for approval of EPA (Village), for selecting the watershed committee and approval of DPR.

S.No.	Name of the Gram Panchayat	Date on which Gram Sabha Apporved WC& EPA
1.	Akoda	10-09-2012
2.	Bichun	11-09-2012
3.	Gidani	13-09-2012
4.	Sawarda	12-09-2012

1	2	3	4	5	6	7	8	9
S. N.	Name of Gram panchyat	Amount Earmarked for EPA	Entry Point Activities Planned	Estimated cost	Expenditure Incurred	Balance	Expected outcome	Actual outcome
1	Akoda	11.76	Shamshan Shed,Boundary wall etc	11.76	0	11.76	Fulfil the needs of people	Fulfil the needs of people
2	Bichun	1.67	Shamshan Shed	1.67	0	1.67	Fulfil the needs of people	Fulfil the needs of people
3	Gidani	2.33	Shamshan Shed	2.33	0	2.33	Fulfil the needs of people	Fulfil the needs of people
4	Sawarda	7.64	Shamshan Shed,Boundary wall etc	7.64	0	7.64	Fulfil the needs of people	Fulfil the needs of people

The PRA exercise was carried out in all the villages on the dates shown below:

S.No.	Name of the Village	Date on which PRA conducted
1.	Akoda	17/10/2012
2.	Palbas	17/10/2012
3.	Sainipura	18/10/2012
4.	Bichoon	18/10/2012
5.	Palu kalan	19/10/2012
6.	Sawarda	19/10/2012

Transact walk were carried out involving the community for Social mapping, Resource mapping. Detailed discussions and deliberations with all the primary stakeholders were carried out.

Secio-economic survey was carried out during October 2012 to January 2013 period covering all the households and primary date on demography, Land holdings, Employment status, Community activities etc. was collected as mentioned in chapter 2.

Capacity Building

Table- List of approved Training Institutes[@] for Capacity Building in the project area

1	2	3	4	5	6	7	8
S. N.	Name of Stakeholders	Name of the Training Institute	Full Address with contact no., website & e-mail	name & Designation of the Head of Institute	Type of Institute [#]	Area(s) of specialization[$]	Accreditation details
1	PIAs	IGPRS, SIAM, NIRD	jaipur	Director	GO	Training	
2	WDTs	IGPRS, SIAM, NIRD	jaipur	Director	NGO	Training	
3	UGs	Arpan Sewa Sansthan	Arpan Sewa Sansthan	Director	NGO	Training	
4	SHGs	Arpan Sewa Sansthan	Arpan Sewa Sansthan	Director	NGO	Training	
5	WCs	Arpan Sewa Sansthan	Arpan Sewa Sansthan	Director	NGO	Training	
6	GPs	Arpan Sewa Sansthan	Arpan Sewa Sansthan	Director	NGO	Training	
7	Community	Arpan Sewa Sansthan	Arpan Sewa Sansthan	Director	NGO	Training	
8	PM/SLNA	IGPRS, SIAM, NIRD	jaipur	Director	NGO	Training	

Table-, Education & Communication (IEC) activities in the project area (1% of total Project cost.)

1	2	3	4	5						6
S. No.	Activity	Executing agency	Allocation (%)	Allocation in lacs						Expected Outcome
				I year	II year	III year	Iv year	V year	Total	
1	मॉडल रुफटॉप वाटर हार्वेटिग स्ट्रक्चर्स (पंचायत समितिए राजीव गॉधी सेवा केन्द्र या अन्य पंचायत समिति स्तरीय नजदीकी सरकारी भवन)।	PIA	0.2	-	1.17	-	-	-	1.17	
2	जलग्रहण क्षेत्र गतिविधियों को दर्शाता हुआ POP / CLAY / WOOD / PLASTIC से बना हुआ मॉडल।	PIA	0.1	-	0.3	-	-	-	0.58	
3	डीस्पले बोर्डे / प्लेगक्सी बोर्ड /	PIA		-	0.28	-	-	-		
4	वॉल पेन्टिंग–जलग्रहण गतिविधियों, लक्ष्यो व प्राप्ति आदि को दर्शाती हुई ।	PIA	0.25	-	0.5		-	-	1.46	
5	जलग्रहण विकास संबंधी मुद्रित पम्पलेटस / लिफ लेटस / चार्ट / पोस्टर / आदि।	PIA		0.1	0.1	0.1	0.1	0.06		
6	नारा लेखन	PIA		0.5	-		-	-		
7	सफलता की कहानीयों की वीडियोंग्राफी / फोटोग्राफी / लघुफिल्म एवं कृषको से साक्षरातकार / वार्ता ।	PIA	0.15	-	0.2	0.3	-	-	0.89	
8	निबन्ध व वाद–विवाद प्रतियोगिता	PIA		-	0.15	0.15		0.09		
9	रेडियों / दूरदर्शन पर वार्ता व विज्ञापन	PIA		-	-	-	-	-		
10	सांस्कृतिक त्यौहार / मेले आदि के अवसर पर प्रर्दशनी	PIA	0.1	-	-	-	-	-	0.58	
11	नुक्कड़ नाटक	PIA			0.2	0.2		0.18		
12	कटपुतली प्रदर्शन	PIA		-	-	-	-	-		
13	रात्रि गोष्ठी	PIA	0.2	-	-	-	-	-	1.17	
14	भू संरक्षण सप्ताह	PIA			0.15	0.15	0.15	0.15		
15	चेतना रैली	PIA			0.1	0.12	0.1			
16	जलग्रहण विकास का संदेश देने वाले सांस्कृतिक कार्यक्रम	PIA			0.1		0.07			
17	कृषक दिवस का आयोजन एवं क्षेत्र भ्रमण दिवस का आयोजन इत्यादि	PIA			0.15	0.15	0.1			
18	**कुल**		**1**	**0.6**	**3.4**	**1.17**	**0.52**	**0.48**	**5.85**	

PDCOR was assigned the work of preparing various thematic layers using Cartosat-1 and LISS-3 imageries for Creation, development and management of geo-spatial database depicting present conditions of land (terrain), water and vegetation with respect to watershed under different ownerships at village level

Various thematic layers provided by PDCOR are :

- Delineation of Macro/Micro watershed boundaries.
- Digitised Khasara maps of the villages falling in project area.
- Network of Drainage lines, existing water bodies, falling in the project area.
- Base maps (transport network, village/boundaries, and settlements).
- Land Use / Land cover map.
- Contours at 1 meter interval, slope map **(in delineated watershed projects)**

Based on GIS thematic layers, Field visits , PRA and analysis of benchmark data (as discussed in chapter 2) final Treatment plan on revenue map for implementation has been framed. Thus each intervention identified has been marked on revenue map (map enclosed in DPR as annexures).The GIS based intervention map, PRA based intervention map are annexed as PRA 1 TO 6.

B) Livelihood Action Plan (LAP):

An awareness programme has been undertaken at Gram Sabha for communication & sensitization of the target beneficiaries. Livelihood Action Plan is a pre requisite for availing the funds under the livelihood component. LAP has been prepared by the PIA in consultation with WDT, WC & the members of SHG,SC/ST, women, landless/ assetless households. Details of funds available & their utilisation is as under :

(i) Total project cost **Rs.585.15 Lacs.**

(ii) Funds available under livelihood component is 9% of total project cost= **Rs.52.663 Lacs.**

(a) Seed money for SHGs as revolving fund = **Rs.32.00 Lacs**.

(minimum 60% of livelihood component)

- - No. Of SHG to be formed **128** Nos.

Details of enterprising SHG/federation and Details of project activities would be prepared in coming years after formation of SHG federation or as the case may be.

C) Production Plan:

An awareness programme has been undertaken at Gram Sabha for communication & sensitization of the target beneficiaries. Production System & micro enterprises Action Plan is pre-requisite for availing the funds under the Production System & micro enterprises component. Production plan has been prepared by the PIA in consultation with WDT, WC & the members of Users Group. Details of funds available & their utilisation is as under :

(iii) Total project cost Rs.—585.15-Lacs.

(iv) Funds available under Production System & Micro enterprises component is 10% of total project cost= Rs.—58.515---Lacs.

Proposed Activities for production system & Micro enterprises

	Name of activity*	**No. of house holds**	**Cost of activity**	**WDF**
A	**Production System**			
1	Dairying	60	25000	15.00
2	Poultry	5	25000	1.25
3	Goatry	40	17500	7.00
B	**Crop Demontration**			
1	Integrated Nutrient Management	70	2500	1.75
2	Distribution of seed / Mini kit of HYV	540	650	3.51

Goatry	13	3.25
Nursery	1	0.25
Others (specify)	5	1.25
Total	128	32.00

Proposed Major activities (Off Farm)**		
Name of activity*	No of SHGs	Revolving fund
Carpenter	2	0.50
Leather Craft	5	1.25
Porter	4	1.00
Tea Stall	2	0.413
Mechanic / Misc. shop	5	1.25
Total	19	4.663

List of persons & Proposed Activities. i. e. 10% of (9%) would be prepared in coming years

(c) Funds for Enterprising SHG/Federations of SHG

(Maximum 30 % of livelihood activities)= Rs.16.00 Lacs

The funding for major livelihood activities will enable the enterprising SHGs/SHG federation to avail a composite loan for undertaking major livelihood activities or to upscale activities as recommended by the WC & approved by WCDC in consultation with line departments.

3	Distribution of Seed cum ferti. drill	30	6700	2.01
4	Distribution of other Agricultural & plant protection equipment	100	1300	1.30
5	Fodder production	260	1800	4.68
6	Agro Horticulture	100	1140	1.14
7	Floriculture	13	2500	0.33
8	Vegetable cultivation	22	6500	1.43
9	Organic farming (Green Manuaring, Vermicompost, Nadep Compost)	20	20000	4.00
10	Green House	10	25000	2.50
	Total			
C	**Microenterprises**			
1	Flour Mill	20	14000	2.80
D	**Para Vetnery services**			
1	AI	5000	35	1.75
2	Castration	500	15	0.08
3	Manger	699	500	3.50
4	Animal Shed	15	30000	4.50
	TOTAL			5851500

Awareness Programme

-Slogan Wall Painting,

Scientific Animal Husbandry Practices ; Seminars / Debates / Pamphlet distribution/ Stickers/ Chetana Rally

--- No of persons (members) in SHGs **975** Nos.

(b) Seed money for enterprising individuals = **Rs.4.663 -Lacs**

(minimum 10% of livelihood component)

-- No of persons identified as enterprising individuals **19** Nos.

S.N	Item	Numbers	Revolving fund/Seed money	% of LAP
1	SHG			
a	Existing	14	3.50	7
b	New	114	28.50	53
	Sub Total	128	32.00	60
2	Enterprising individuals	19	4.663	10
3	Enterprising SHG / Federations of SHG	8	16.00	30
	Total		**52.663**	100

Proposed Activities (On Farm)*		
Name of activity*	No of SHGs	Revolving fund
Dairying	98	24.5
Poultry	10	2.5
Piggery	1	0.25

Broadcasting / Telecasting Film Show

Visit- intra/ inter/ out of State/ Abroad

Fortnightly Meetings with Livestock keeper to discuss and decide all breedable females to be covered.

Creation Of Disease Free Zone: Livestock's health coverage

Establishment of Pashudhan Seva Kendra (PSK) (Convergence with peer department)

Deworming to reduce worm load and enhance disease resistance. (Convergence with peer department)

Distribution of mineral mixture. (Convergence with peer department)

Free of Cost Vaccination in IWMP area Livestock for H.S., B.Q., F.M.D., PPR, ETV and Sheep Pox.

Ensure Hygenic measures to check Zonosis.(DAH/ IWMP)

Construction of Animal Sheds with Manger and Portable Manger With accessories

Provision of Cattle Water Troughs.

Infertility Management: To ensure Livestock's Productivity

Expansion of AI Coverage/ reduction in no.of infertile females.

PCPD+ COMBAT INFERTILITY+ CAMPS INFERTILITY RLDB+ CAMPS INFERTILITY SC COMPONENT

Breed Improvment: To ensure Livestock's Productivity enhancement

A.I. (Convergence with peer department)

Incentive based Mass Castration at Door Step of Scrub Bulls to Check ND Recycling.

Registration of bulls (Convergence with peer department)

Bull / Buck Distribution for NS-.Gir, Murrah And Sirohi /Jamunapari Breed Bulls/ Bucks Should Be Distributed For 3yrs 6 (3 In Each Iwmp Area, Where Ever A.I. Facility Is Not Available Round's O Clock. On 100% Subsidized Rate To WC.

Financial Incentive to the Inseminator for Calf Borns.

Convergence with peer Department/DAH/Agriculture/ATMA/ Board/ Trust/ Goseva

An Assistance to control Malnutrition: Protein Supplementation

Feed & fodder production enhancement.

ANNUAL ACTION PLAN : PIA will prepare annual action plan in the month of January indicating outgoing liabilities as well as new projects which they wish to take during next financial years & will submit to PM(WCDC). These plans will be placed for approval at P.S. (Standing Committee of Production and Agriculture) & Z.P. (Standing Committee of Production) level every year. While preparing Annual Action Plan (AAP) if rates of labour or material in DPR increased or decreased changed rates will be applicable for preparing AAP & the effect of same can be met by converging the remaining works with other schemes

CHAPTER-IV

PROJECT NAME : PALBAS IWMP-XVII BLOCK :DUDU DISTT. JAIPUR

COST OF PROJECT :585.15 Lacs

Activity wise Total Abstract of cost

	Activity	Unit	Qty	Unit cost	Total cost	Cost from Project Fund			Convergence Fund	Beneficiary Contribution *
1	**ARABLE CONSERVATION WORK**					**Labour**	**material**	**Total**		
i.	Earthen Bund	meter	50045	223	11160035.00	10624353.32	535681.68	11160035.00	10900000	5 TO 10 %
ii	Waste weir TYPE "A"	Nos	50	16200	810000.00	251100.00	558900.00	810000.00		5 TO 10 %
iii.	Waste weir TYPE "B"	Nos	40	31000	1240000.00	384400.00	855600.00	1240000.00		5 TO 10 %
iv.	Farm Pond(500 cum)		50	131100	6555000.00	5375100.00	1179900.00	6555000.00		6 TO 10 %
v	Farm Pond(750 cum)									
vi	Farm Pond(1000 cum)	NO								
vii	Gully Control Structure	Nos	50	17700	885000.00	849600.00	35400.00	885000.00		5 TO 10 %
2	**NON ARABLE CONSERVATION WORK**									
i.	PASTURE DEVLOPMENT	hectare	100	76000	7600000.00	6840000.00	760000.00	7600000.00		NIL
ii	WHS	Nos	20	131900	2638000.00	2558860.00	79140.00	2638000.00	31300000	NIL
3	**DRAINAGE LINE TREATMENT**									
i	Vegetative Check Dam	mtr	5000	35	175000.00	168000.00	7000.00	175000.00		NIL
ii	Sub surface Bareier	NO	3	568500	1705500.00	596925.00	1108575.00	1705500.00		NIL
	TOTAL				32768535.00	27648338.32	5120196.68	32768535.00	42200000.00	
	SAY(LACS.)				327.685	276.483	51.202	327.685	422.000	

CHAPTER V

5. Head Wise /Activity Wise Budget Allocation:

As per letter No., F 18 (I- 51) IWMP/WDSC/2011-12/4800-5087 Dated 05.08.2011 issued by Directorate of Watershed Development and Soil Conservation Department, Rajasthan Jaipur, the component wise total fund distribution for IWMP – XV project having effective area of 5082 ha are as follows:

S.No.	Name of Activity	Budget Head (%)	Amount (lacs)
I.	ADMINISTRATIVE COST (WDT & Secretary Honararium, Office Expenses, Jeep Hiring etc.)	10	58.515
II.	MONITORING	1	5.851
III.	EVALUATION	1	5.851
PREPATORY PHASE			
IV.	ENTRY POINT ACTIVITY	4	23.406
V.	INSTITUTION & CAPACITY BUILDING	5	29.257
VI.	DETAILED PROJECT REPORT (DPR)	1	5.851
WATERSHED WORK PHASE			
VII.	NATURAL RESOURCE MANAGEMENT (NRM)	56	327.685
VIII.	LIVILIHOOD ACTIVITIES FOR ASSETLESS PERSONS	9	52.663
IX.	PRODUCTION SYSTEM & MICROENTERPRISES	10	58.515
X.	CONSOLIDATON PHASE	3	17.554
TOTAL		**100**	**585.15**

It has been clarified in the above order/direction that the above percentage represents the maximum limit and any saving under any component should be utilized for watershed development works only.

The Total Abstract of Cost with convergence and Committee/Gram Panchayat wise Abstract of Cost is enclosed.

CHAPTER -V

ABSTRACT OF COST

S. N.	NAME OF ACTIVITY	Unit	Qunatity	Rate	Amount
I.	**ADMINISTRATIVE COST (10%)**				**58.515**
II	**MONITORING (1%)**				**5.852**
III	**EVALUATION (1 %)**				**5.852**
	SUB TOTAL (I+II+III)				**70.218**
	W/S PREPARATORY PHASE				
IV	**ENTRY POINT ACTIVITY (4 %)**				**23.406**
V	**TRAININGS & CAPACITY BUILDING (ICB) 5 %**				**29.258**
VI	**DETAILED PROJECT REPORT (1 %)**				**5.852**
	SUB TOTAL (IV+V+VI)				**58.515**
	WATERSHED WORK PHASE				
VII	**NATURAL RESOURCE MANAGEMENT (NRM) (56 %)**				
1	**ARABLE CONSERVATION WORK**				
i.	Earthen Bund	meter	50045	223.00	11160035.00
ii	Waste weir TYPE "A"	meter	50	16200.00	810000.00
iii.	Waste weir TYPE "B"	meter	40	31000.00	1240000.00
iv.	Farm Pond(500 cum)	meter	50	131100.00	6555000.00
vii	Gully Control Structure	Nos	50	17700.00	885000.00
2	**NON ARABLE CONSERVATION WORK**				
i.	PASTURE DEVLOPMENT	hectare	100	76000.00	7600000.00
ii	WHS	Nos	20	131900.00	2638000.00
3	**DRAINAGE LINE TREATMENT**				
i	Vegetative Check Dam	mtr	5000	35.00	175000.00
ii	WHS Masonary	Nos	3	568500.00	1705500.00
	SUB TOTAL (Natural Resource Management)				**327.684**
VIII	**LIVELIHOOD ACTIVIVITIES FOR ASSET LESS PERSON (9%)**				
i.	Revolving Fund to SHG (60 % minimum)	Nos		0.25	32.00

S. N.	NAME OF ACTIVITY	Unit	Qunatity	Rate	Amount
ii.	Revolving Fund to enterprising individual (10 % maximum)	Nos		0.25	4.66
iii.	Grant in aid to enterprising SHG or Federation of SHGs individual (30 %	Nos		8.00	16.00
	SUB TOTAL (Livelihood Activities)				**52.66**
IX	**PRODUCTION SYSTEM &**				
A	**Production System**				
1	Dairying	Nos	60	25000	15.00
2	Poultry	Nos	5	25000	1.25
3	Goatry	Nos	40	17500	7.00
B	**Crop Demontration**				
1	Integrated Nutrient Management	Nos	70	2500	1.75
2	Distribution of seed / Mini kit of HYV	Nos	540	650	3.51
3	Distribution of Seed cum ferti. drill	Nos	30	6700	2.01
4	Distribution of other Agricultural & plant protection equipment	Nos	100	1300	1.30
5	Fodder production	Nos	260	1800	4.68
6	Agro Horticulture	Nos	100	1140	1.14
7	Floriculture	Nos	13	2500	0.33
8	Vegetable cultivation	Nos	22	6500	1.43
9	Organic farming (Green Manuaring, Vermicompost, Nadep Compost)	Nos	20	20000	4.00
10	Green House	Nos	10	25000	2.50
	Total				
C	**Microenterprises**				
1	Flour Mill	Nos	20	14000	2.80
D	**Para Vetnery services**				
1	AI	Nos	5000	35	1.75
2	Castration	Nos	500	15	0.08
3	Manger	Nos	699	500	3.50
4	Animal Shed	Nos	15	30000	4.50
	SUB TOTAL (Production System)				**58.515**
X	**CONSOLIDATED PHASE (3 %)**				**17.555**
	GRAND TOTAL				**585.15**

AEN
PIA- Block-DUDU

JEN
Block- DUDU

CHAPTER -V

ANNUAL ACTION PLAN

S. N.	NAME OF ACTIVITY	Unit	2012-13		2013-14		2014-15		2015-16		2016-17		Amount	Reference
			FIRST YEAR		SECOND YEAR		THIRD YEAR		FOURTH YEAR		FIFTH YEAR			
			PHY	FIN	PHY	FIN	PHY	FIN	PHY	FIN	PHY	FIN		
I.	**ADMINISTRATIVE COST (10%)**			**11.703**		**11.703**		**11.703**		**11.703**		**11.703**	**58.515**	
II	**MONITORING (1%)**			**1.1703**		**1.1703**		**1.1703**		**1.1703**		**1.1703**	**5.8515**	
III	**EVALUATION (1 %)**			**1.1703**		**1.1703**		**1.1703**		**1.1703**		**1.1703**	**5.8515**	
SUB TOTAL (I+II+III)				**14.0436**		**14.0436**		**14.0436**		**14.0436**		**14.0436**	**70.218**	
	W/S PREPARATORY PHASE													
IV	**ENTRY POINT ACTIVITY (4 %)**			**0.00**		**23.41**							**23.406**	
V	**TRAININGS & CAPACITY BUILDING (ICB) 5 %**			**3.00**		**9.7525**		**9.7525**		**6.7525**			**29.2575**	
VI	**DETAILED PROJECT REPORT (1 %)**			**2.92575**		**2.92575**							**5.8515**	
SUB TOTAL (IV+V+VI)				**5.93**		**36.08**		**9.75**		**6.75**		**0.00**	**58.515**	
	WATERSHED WORK PHASE													
VII	**NATURAL RESOURCE MANAGEMENT (NRM) (56 %)**													
1	**ARABLE CONSERVATION WORK**													
i.	Earthen Bund	meter	NIL	NIL	20738	2790009	20738	2790009	20738	2790009	20738	2790009	**11160035**	**Estimate No. 8**
ii	Waste weir TYPE "A"	meter	NIL	NIL	13	210600	13	210600	13	210600	11	178200	**810000**	**Estimate No. 9**
iii.	Waste weir TYPE "B"	meter	NIL	NIL	10	310000	10	310000	10	310000	10	310000	**1240000**	**Estimate No. 10**
iv.	Farm Pond(500 cum)	meter	NIL	NIL	13	1704300	13	1704300	13	1704300	11	1442100	**6555000**	**Estimate No. 11**
vii	Gully Control Structure	Nos	NIL	NIL	13	230100	13	230100	13	230100	11	194700	**885000**	**Estimate No. 14**
2	**NON ARABLE CONSERVATION WORK**													
i.	PASTURE DEVLOPMENT	hectare	NIL	NIL	25	1900000	25	1900000	25	1900000	25	1900000	**7600000**	**Estimate No. 18**
ii	WHS	Nos	NIL	NIL	5	659500	5	659500	5	659500	5	659500	**2638000**	**Estimate No. 20**
3	**DRAINAGE LINE TREATMENT**													
i	Vegetative Check Dam	mtr	NIL	NIL	60	2100	60	2100	60	2100	4820	168700	**175000**	**Estimate No. 24**
ii	WHS Masonary	Nos	NIL	NIL	1	568500	1	568500	1	568500			**1705500**	**Estimate No. 25**

CHAPTER -V

ANNUAL ACTION PLAN

S. N.	NAME OF ACTIVITY	Unit	2012-13		2013-14		2014-15		2015-16		2016-17		Amount	Reference
			FIRST YEAR		SECOND YEAR		THIRD YEAR		FOURTH YEAR		FIFTH YEAR			
			PHY	FIN	PHY	FIN	PHY	FIN	PHY	FIN	PHY	FIN		
SUB TOTAL (Natural Resource Management)						**83.751**		**83.751**		**83.751**		**76.432**	**327.685**	
VIII	**LIVELIHOOD ACTIVIVITIES FOR ASSET LESS PERSON (9%)**													
i.	Revolving Fund to SHG (60 % minimum)	Nos	NIL	NIL		8.000		8.000		8.000		8.000	**32.000**	
ii.	Revolving Fund to enterprising individual (10 % maximum)	Nos	NIL	NIL		1.166		1.166		1.166		1.166	**4.663**	
iii.	Grant in aid to enterprising SHG or Federation of SHGs individual (30 % maximum)	Nos	NIL	NIL		4.000		4.000		4.000		4.000	**16.000**	
SUB TOTAL (Livelihood Activities)						**13.166**		**13.166**		**13.166**		**13.166**	**52.663**	
IX	**PRODUCTION SYSTEM & MICROENTERPRISES (10%)**													
A	Production System													
1	Dairying	Nos	NIL	NIL		3.750		3.750		3.750		3.750	**15.0000**	
2	Poultry	Nos	NIL	NIL		0.313		0.313		0.313		0.313	**1.2500**	
3	Goatry	Nos	NIL	NIL		1.750		1.750		1.750		1.750	**7.0000**	
B	Crop Demontration	Nos	NIL	NIL		5.663		5.663		5.663		5.663	**22.6500**	
C	Microenterprises													
1	Flour Mill	Nos	NIL	NIL		0.700		0.700		0.700		0.700	**2.8000**	
D	Para Vetnery services													
1	AI	Nos	NIL	NIL		0.438		0.438		0.438		0.438	**1.7500**	
2	Castration	Nos	NIL	NIL		0.019		0.019		0.019		0.019	**0.0750**	
3	Manger	Nos	NIL	NIL		0.874		0.874		0.874		0.874	**3.4950**	
4	Animal Shed	Nos	NIL	NIL		1.125		1.125		1.125		1.125	**4.5000**	
SUB TOTAL (Production System)						**14.63**		**14.63**		**14.63**		**14.63**	**58.515**	
X	**CONSOLIDATED PHASE (3 %)**					4.389		4.389		4.389		4.389	**17.55**	
	GRAND TOTAL			**19.97**		**166.06**		**139.73**		**136.73**		**122.66**	**585.150**	

CHAPTER – VI EXPECTED OUT COMES

1	2		3	4	5	6
S. No.	**Item**		**Unit of measurement**	**Pre-project Status**	**Expected Post-project Status**	**Remarks**
1	Status of water table (Depth to Ground water level)		Meters	64	61	
2	Ground water structures repaired/ rejuvenated		No.	0	60	
3	Quality of drinking water		Description	average	good	
4	Availability of drinking water		Description	358960 lit	485075 lit	
5	Change in irrigated Area		Ha	556	1257	
6	Change in cropping/ land use pattern		Description	-	-	
7	Area under agricultural crop		Ha	3969	4238	
	I	Area under single crop	Ha	2406	2875	
	Ii	Area under double crop	Ha	556	1257	
	Iii	Area under multiple crop	Ha	57	349	
8	Change in cultivated Area		Ha	3969	4238	
9	Yield of Bajra		q/ha	1150	1500	
	Yield of Wheat		q/ha	2750	3000	
	Yield of Gram		q/ha	850	1150	
	Yield of Mustard		q/ha	850	1200	
10	Production of Bajra		ton	1045	1425	
	Production of Wheat		ton	1529	1668	
	Production of Gram		ton	1020	1380	
	Production of Mustard		ton	459	648	
11	Area under vegetation		Ha	0	100	
12	Area under horticulture		Ha	NIL	25	
13	Area under fuel		Ha	36	40	
14	Area under Fodder		Ha	1850	2150	
15	Fodder production		Q	35445.65	48460000	
16	Milk production		Litres/day	53430	94866.	
17	SHGs Active		No.	14	165	
18	No. of enterprising individuals		No.	1488	2875	
19	Income		Rs.in la			
20	Migration		No.	345	137	
21	SHG Federations formed		No.	nil	8	

Critical Assumption

- No severe droughts/ unexpected floods/ natural disasters
- Adequate funds are allocated for the same and released on time.
- There is no significant pest/ disease attack, and if so, then it will have been contained before irreversible damage is done.
- Adverse market conditions do not persist long.

- Sound macro-economic and growth conditions continue and the benefits are widely distributed particularly in the rural areas.
- Facilitating agencies and resource providers have the required competent staff so that timely and appropriate technical advice and services are provided to farmers whenever required.
- The Capacity Building Plan is implemented, monitored and modified to address evolving needs and feedback from participants.

Means of Verification of indicators

- Baseline surveys like household income ,expenditure, health and nutrition etc at the beginning, mid-term and end of the project period
- Annual participatory assessment by communities during project period.
- Regular project monitoring reports prepared by project monitoring teams/ agencies.
- Membership and other Records, Minutes of Meetings maintained by the SHGs, WCs/ Individual beneficiaries/project-related village and local bodies/PRIs.
- External review missions
- Data maintained by Government department (Revenue, Agriculture, Groundwater, Irrigation, Animal Husbandry

CHAPTER VII

7. Technical Designs and Estimates for Proposed Activities:

7.1. Design of Contour Bunds:

For rolling and flatter lands, with scanty or erratic rainfall contour bund is practiced to intercept the runoff flowing down the slope, to conserve the moisture as well as to reduce soil erosion. To remove the excessive runoff, resulting from high intensity storm, surplussing arrangements have been provided wherever necessary.

Spacing of Contour Bunds:

Contour bunds can be adopted on all type of relatively permeable soils except the clayey or deep black cotton soils. For planning the bunds it is necessary to know how far these bunds should be installed. The main criterion for spacing of bunds is to intercept the water before it attains the excessive velocity. The most important factor of it is slope, soil, rainfall, cropping programme and conservation practices. The vertical interval between the bunds has been calculated by following formulae:

$$V.I. = 0.305 (XS + Y)$$

Where

V. I. = Vertical Interval (m)

X = Rainfall factor (as per following table)

Y = Infiltration and Crop Cover factor (as per following table)

S = Slope (%)

Value of X, the Rainfall Factor

Rainfall	Value of X	Annual Rainfall (cm)
Scanty	0.8	Less Than 64
Moderate	0.6	64-90
Heavy	0.4	Over 90

Source: Manual of Soil & Water Conservation Practices, Gurmel Singh, etc.

Value of Y, the Infiltration and Crop Cover Factor

Intake Rate	Crop Cover during Erosive Period of Rains	Value of Y
Below Average (e.g. black soils)	Low Coverage	1.0
Average or above	Good Coverage	2.0
One of the above factors favourable and the other unfavourable		1.5

Source: Manual of Soil & Water Conservation Practices, Gurmel Singh, etc.

Generally the Contour Bunds are made on same elevation, i.e. on contour and therefore, the grade is zero. Due to field boundaries, it is not possible to construct the bunds exactly on contours. The bunds will be constructed by adjusting the field boundaries. The horizontal interval between the bunds has been calculated by following formulae:

$$H.I. = \frac{V.I.}{\text{Slope (\%)}} \times 100$$

The height of impounding is calculated from following formulae:

$$He = \frac{(Re \times V.I.)^{1/2}}{(50)^{1/2}}$$

Where

He = Depth of impounding near the bund (m)

Re = 24 hours rainfall excess (cm)

To the depth of impounding, depth of flow over the waste weir and free board is added. Then with the help of these the cross section of bund has been calculated.

With the help of elevation data of the area, water shed area is divided into different slope groups. The slope group wise map showing the different categories of slope has been prepared by PDCORE, Jodhpur.

From the above formulae the Horizontal and Vertical interval and length of bunds

		X	Y	S	
VI	0.7015	0.8	1.5	1	
		permisible			
	0.1403	deviation			
	0.8418				

for field layout purpose		1.00	

$$h = \sqrt{\frac{(Re \times VI)}{50}}$$

			Re
h	0.580276	0.33672	20
	0.58		
Free board	0.3		
	0.88		
say	1		0.25

Generally the Contour bund is provided on land having slope up to 6 %. As per slope group map generated by PDCORE, the area for different slope range has been calculated. As per above calculated per hectare bund length, the total length of contour bund have been estimated. Due to budget constraints and priority of other works, the length has been reduced. The Gram Panchayat wise area according to the slope range and proposed length of contour bund is calculated as follow:

S.No.	Name of Gram panchayat	Name of village	Length of Contour
1	GAGARDOO	Laporiya	37144.2
2	HARSOLI	Harsauli	34404.88
3	SEWA	Balapura	24184.16
		Dhani Nanda	33123.47
		Norangpura	4937.81
		Sewa	1831.64
4	SUNADIYA	Chhaparwara	30776.36
		Sunadiya	72392.64
5	URSEWA	Kheri Charnan	2108.52
		Ursewa	42394.44
		Grand Total	283298.12

CONSERVATION MEASURES FOR NON-ARABLE LANDS

Introduction

Non-arable lands are those lands which are generally unsuitable for cultivation of agricultural crops due to one or more limitations of slope, erosion, stoniness, shallowness, wetness, flooding, climate etc. Most of the denuded lands are in fact "wasted lands" due to misuse, over exploitation and non-adoption of suitable conservation measures. Man made activities like road construction and mining on steep hill slopes have rendered large areas as denuded. Quite often, establishment of vegetation on these highly degraded lands is difficult due to high runoff/debris movement, lack of moisture and absence of fertile soils. Engineering or mechanical measures are, therefore, often needed before undertaking revegetation programme to stabilize the slopes and create conditions conducive for plant growth by arresting fine soil and improving moisture status. They are, therefore, also called as 'first line of defence'.

Fencing - different types of fencing pasture

Treatment of Pasture and Grazing Lands

Native pastures are often very poor in productivity. The grazing lands, so-called 'village pastures', in and around the cultivated areas have also commonly been devegetated and trampled hard as concrete.

Such lands, in general, have a very high runoff during the rains, and act as a catchment from which water flows to cut its way through valuable cultivated land lower down in the same watershed area.

Numerous problems are associated with low productivity, some of which are technical and others are social. Grass cover is a very effective measure in protecting the land from erosion. The following steps should be taken for developing such lands.

Closure to grazing

As a result of closure to grazing:

- Aristida sp. and other non-palatable annual grasses are replaced by perennials like Heteropogon contortus, Dichan-thium annulatum, and Cenchrus sp.
- The loss of soil and water progressively decreases from the area as the natural vegetation improves
- There is not only qualitative but quantitative increase in the yield of grasses.

There are various ways to protect and close the area:

Ditch cum Bund Fencing

This is the most popular method of fencing. In this a ditch is dug around the area to be protected. The cross section area of the ditch, its top width, bottom width and depth is designed as per the type of soil and as to prevent cattle from entering the protected area:

Top width : 2.10 - 2.60 meters

Depth : 1.10-1.20 meters

Bottom width : 0.60 meters

The suitability of this fencing is in the area where soil depth available is sufficient and there is no wind erosion.

The soil so dug is used for constructing a bund. It can be fortified with local species of vegetation like Ipomea, Ratanjot, Kheri, P. Juliflora, etc. for more effectiveness.

V-ditches

These are constructed on contours by excavating a "V" shape trench and forming bund on downstream of the trench. This ditch laid across the slope, breaks the length of the slope and thereby checks the velocity of runoff. The usual recommended size of "V" ditch is 0.60 m top width and 0.20 m depth so as to form a triangle shape and total capacity per

running meter of V-ditch comes to be 0.06 m^3. The interval between the two adjacent V-ditches should be so designed that the quantity of water coming from the intervening area in V-ditch is not more than 0.06 m^3. V-ditch is recommended to be constructed for the area having land slope upto 15 per cent only. For the slope above this the storage capacity of V-ditch is reduced considerably. The vertical intervals between two adjacent V-ditches are taken in the range of 0.5 m to 1.5 m depending on the slope of the land. The horizontal interval is calculated by the formula earlier mentioned in contour trench.

The excavated soil is heaped on the downstream side in such a way that a continuous ridge is formed having a base width of 30 cm and semicircular height of 25 cm. If required soil depth is available in the area it is recommended that the forest species suitable for the area must be planted in the pits, dugout in the V-ditches so that proper moisture could be available for the growth of the trees. In between the two V-ditches, grasses are to be grown so that it provides complete vegetative cover on the land. Runoff equalizers at 10 m interval for entire length of V-ditches are also to be provided.

The spacing between the two consecutive V-ditches is calculated by the formula:

$$S = \frac{VI}{HI} X 100 \qquad \text{... (6.1)}$$

HI = Horizontal interval between two V-ditches, m

VI = Vertical interval, m

S = Slope of the land (%)

Alignment and Construction of V-ditches

The alignment of these in-situ soil and water conservation measures should start from the ridge. After deciding the necessary horizontal or corresponding vertical interval, contour lines can be laid with the help of simple leveling instrument like "A" frame or hand level etc. The contour line is marked with the help of spade and the alignment of subsequent contours may be done by fixing the requisite horizontal interval between the contour.

Construction of these measures should also be started from the ridge. While excavating the trench the top soil should be kept towards the trench as it can be used for refilling if necessary or otherwise it can be put on that portion of spoil bank where planting is to be done. Boulders, gravel or stones found from excavation should be kept on the lower side of trench to serve as a toe of the spoil bank. Trenches should preferably be completed well in advance, so that site is ready for sowing or planting just at the time of onset of monsoon. During the construction the following important points should be taken into consideration.

1. The excavated soil should be heaped on the lower side leaving the berm of 10 cm so that it may not deposit back into the trench.
2. The bund formed on the lower side of trench by the excavated soil should be hammered to settle down and also to avoid erosion due to high intensity of rainfall.
3. The top height of the bund formed by the excavated soil should be leveled to avoid breaching.

Thease are the potential areas of pasture developement work location of which was find out with the help of GIS layers

S.No.	GP_NAME	VILLAGE_NA	Khasra_No	Area
0	SEWA	Balapura	308	16.48
1	SEWA	Balapura	354	12.41
2	SEWA	Balapura	354/370	15.47
				44.35
3	SEWA	Dhani Nanda	453	16.24
				60.6
4	HARSOLI	Harsauli	2455	12.17
5	HARSOLI	Harsauli	2918	11.51
6	HARSOLI	Harsauli	2443	11.7
7	HARSOLI	Harsauli	2442	17.84
8	HARSOLI	Harsauli	2444	16.34
9	HARSOLI	Harsauli	2669	14.5
				84.05
10	SUNADIYA	Sunadiya	584	14.4
11	SUNADIYA	Sunadiya	593	12
12	SUNADIYA	Sunadiya	592	16.43
				42.83
13	URSEWA	Ursewa	954	29.75
14	URSEWA	Ursewa	271	13.65
15	URSEWA	Ursewa	270	18.89
				62.29

Farm Pond

Major objective of the stabilizing crop production by controlling soil erosion in arable and non-arable lands. Among several interventions, farm pond is the most important and promissing technology in the integrated water shed management program with other environmental benefits. Farm ponds would help the farmers for on farm water management by using stored water for tackling the drought or dryspells during the season which are common as given in

Table 1 : Types of water stress and underlying causes in semiarid Region

	Dry spell	Drought
Meteorological		
Frequency	Two out of three years	One out of ten years
Impact	Yield reduction	Complete crop failure
Cause	Rainfall deficit of 2 to 5 week crop growth periods	Seasonal rainfall below minimum during seasonal plant water requirement
Agricultural		
Frequency	More than two out of years	One out of ten years three
Impact	Yield reduction or complete failure	Complete crop failure crop
Cause	Low plant water availability poor plant water uptake	Poor rainfall partitioning, leading to seasonal and soil moisture deficit for producing harvest capacity (where poor partitioning refers to a high proportion of runoff and nonproductive evaporation relative to soil water infiltration at the surface)

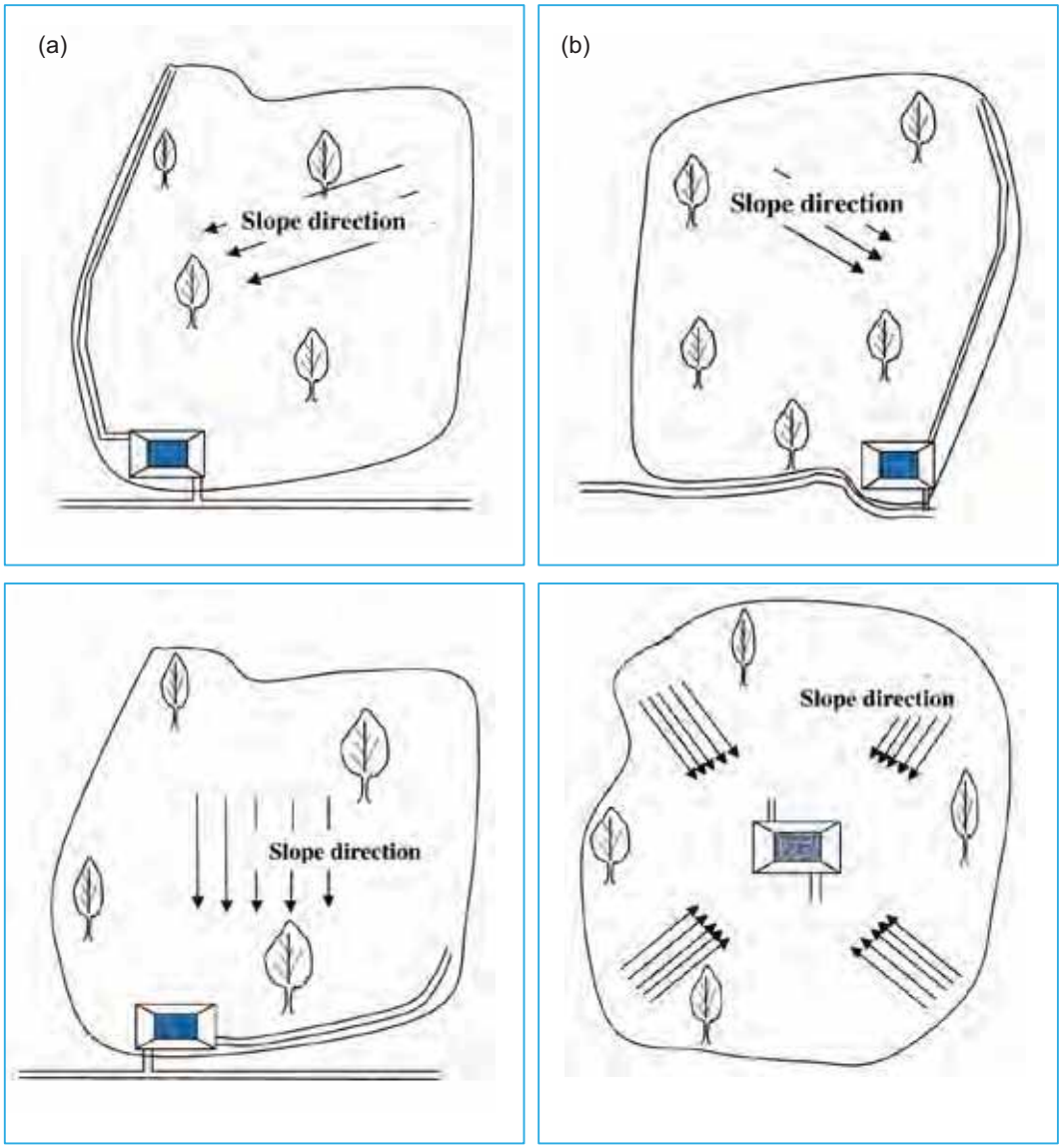
Farm Pond is a dug out structure with definite shape and size having proper inlet and outlet structures for collecting the surface runoff flowing from the farm area. It is one of the most important rain water harvesting structures constructed at the lowest portion of the farm area. The stored water must be used for irrigation only. Inadvertently, some people use the farm ponds as ground water recharge structures which is not correct as per the definition. For recharging the ground water, the structures require high capacity and are generally located in the soils having high infiltration rates and are called percolation tanks. Percolation tank is meant for only recharge purpose and not for irrigation. Such structures conceptually differ in their hydrology and physical location. A farm pond must be located within a farm drawing the maximum runoff possible in a given rainfall event. A percolation pond can be dug out in any area where the land is not utilized for agriculture.

Selection of site

Selection of the site for farm pond depends on local soil condition, topography of area, drainage capacity, infiltration, rainfall pattern and distribution. Selecting the suitable site is considered as one of the most important steps in planning for farm ponds. The following points may be considered for site selection within farm area:

Dugout ponds:

1. Observe the average slope direction in the farm area in which farm pond is to be planned for construction
2. If the slope is towards left bottom corner of the field (Fig.2a), a farm pond must be constructed in the left corner of the plot.
3. If the slope is towards bottom right corner of the field (Fig.2b), a farm pond must be constructed in the right hand corner
4. If the slope is towards the bottom of the field (Fig.2c), a farm pond must be constructed to the corner of either side with proper field channel at the bottom of the field connecting to the inlet of the structure.
5. If the farm area has multiple slopes in different directions (Fig.2d), a farm pond must be located in a portion of area in which water is drained into the structure, may be at centre of the field or near to it.



Planning and selection of site for farm pond location in farm catchment areas with different slopes

Soil type

. For construction of farm pond, the soils must have low hydraulic conductivity with minimum seepage and percolation so that water can be retained

Table 2 : Infiltration rates of different types of soil

Sl. No.	Soil type	Infiltration rate (cm/hr)
1	Coarse sand	2.0-2.5
2	Fine sand	1.2-2.0
3	Fine sandy loam	1.2
4	Silty loam	1.0
5	Clay loam	0.8
6	Clay	0.5

Source: (www.nabard.org)

The soils having outcrops and stones must be avoided for digging farm ponds. The soil profile depth must be investigated before digging of the pond. The soils having good depth of >1 m, free of stones, low Ph, Ec and ground water level may be chosen for site selection for farm pond.

Soil depth

The depth of soil is important where rain water harvesting systems are proposed. Deep soils have the capacity to store harvested water for longer duration. Soils having more than 1m are ideal for construction of farm ponds. More the depth of soil, the depth of farm pond will be more and reduces the evaporation losses.

Topography

The topographic features of the farm catchment area may vary from place to place and proposed land for pond construction must have minimum earth excavation so that cost can be reduced with increased storage. Depending upon the capacity of the farm pond, the contour survey is conducted to determine the slope, drainage pattern within farm. However, for small catchments of 1-5 ha land, a reconnaissance is sufficient to identify the location for farm pond. The contour survey can be done by using dumpy level with staff or a total survey station which gives the digital map of the farm with contours. The farm pond must be located within farm itself looking into the slope and drainage flow pattern to the convenience of the farmer

Depth and side slope of farm ponds

The depth of pond is generally determined by soil depth, kind of material excavated and type of equipment used. The selected pond depth should have a depth equal to or greater than the minimum required for the specific location as depth of pond is most important dimension among the three dimensions. I. depth of 2.5 to 3.5 m may be suitable in general for the ponds.

The side slope of the pond are decided based on their angle of repose of the material being excavated and this angle of repose varies with type of soil. For the most cases, the side slopes of 1: 1 to 1.5:1 are recommended for practical purpose. Based on practical experience it is recommended that, selected side slopes are generally no steeper than the natural angle of repose of material. The recommended side slopes for different soil are given in Table 12.

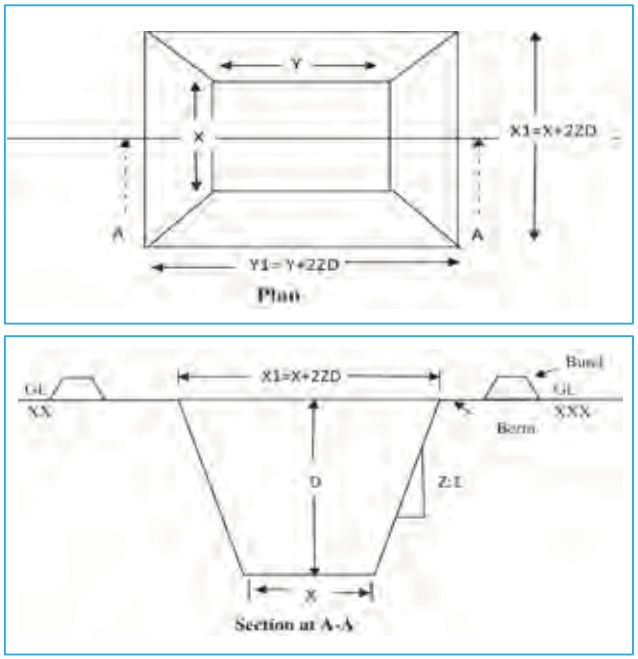
The standing of water in a farm pond for a longer duration, may require relatively flatter side slopes to avoid slippage due to saturation. The area of the top and bottom for rectangular, square and inverted cone can be calculated from their dimensions in case of rectangular or square and diameter in case of inverted cone as per Fig 13(a&b).

Table 3 : Suitable side slopes for different soils

Soil type	Slope (horizontal:vertical)
Clay	1:1 to 2:1
Clay loam	1.5:1to 2:1
Sandy loam	2:1to 2.5:1
Sandy	3:1

(Source: FAO, 2011)

Rectangular farm pond



Plan and section view of square shaped dugout farm pond

Location of farm ponds in the project area are find out with the help of GIS layers and thease are the numbers of farm pond in various villages Detail list containing kasara no ,village and gram panchayatwise is enclosed in tables

S.No.	Name of Gram panchayat	Name of village	No of Farm pond		
			500 cum	750 cum	1000 cum
1	GAGARDOO	Laporiya	7		
2	HARSOLI	Harsauli	4		
3	SEWA	Balapura	3		
		Dhani Nanda	2		
		Norangpura	2		
		Sewa			
4	SUNADIYA	Chhaparwara	4		
		Sunadiya	6		
5	URSEWA	Kheri Charnan	2		
		Ursewa	20		
		Grand Total	50		

DRAINAGE LINE TREATMENT/GULLY CONTROL MEASURES

The formation of drainage line usually starts in hilly and non-arable areas where velocity and amount of runoff is high. The quantity of water further increased when the drainage line passes through the arable areas in lower reaches of the watershed. Looking to the velocity of flow and sequential increase in quantity of water in the stream, the drainage line treatment should start from upper reaches of the watershed. The measures should be adopted after careful consideration of quantity of runoff, velocity of runoff and cross sectional area of drains.

Importance of Drainage Line Treatments

The upper reaches of the watershed usually consist of hilly and non-arable areas. These areas have an undulating topography and are foci for soil erosion in which small quantity of runoff is conserved. Therefore, considerable amount of runoff flows through drainage lines at high velocities. Due to this, deep nalla or rivulets are formed which further leads to soil erosion in the adjoining fields. To check the erosive velocity of runoff and further enlargement of gully or nalla drainage line treatments are essential. It will also conserve the moisture and trap the sediment to ensure the eventual growth of vegetation.

Criteria of Drainage Line Treatments

The drainage line treatment/gully control structures were previously designed by considering the similar cross section from upper to lower reaches with the concept that the crest elevation of one will be same as the bottom elevation of the adjacent structure. But this design is not correct because the similar cross sections cannot be adopted from upper reaches to lower reaches. In the upper reaches the quantity and erosive velocity of runoff will be much less due to lesser catchment area whereas in the lower reaches the quantity and erosive velocity of runoff will be much high due to sequential increase in catchment area. Under this condition the structure constructed in the upper reaches may be over designed and the structure constructed in the lower reaches may be under designed.

Keeping this crucial factor each drainage lines should be divided into following three reaches:

1. Upper reaches

2. Middle reaches
3. Lower reaches

The first structure in the stream/nalla from ridgeline should be constructed at the point where velocity of flow tends to be erosive. It is very important to note that the drainage line treatment works should be started after the treatment of adjoining non-arable and arable areas so that maximum rainwater shall be conserved in the field itself and the flow of runoff is likely to reduce in the stream/nalla. Keeping this reduced amount of runoff and velocity of water in view, suitable structure with appropriate cross section shall have to be planned in drainage lines.

The cross section of the structures for these three reaches is decided on the basis of slope, catchment area and volume of runoff. The choice of the structures shall depend upon the purpose for which these are to be constructed. Usually these are constructed for two distinct purposes.

1. To reduce and control the runoff velocity so that it never attains erosive velocity.
2. Impounding of water so that the precious water is used for increasing moisture regime, recharging of aquifers and bed cultivation.

The main drainage line of the watershed should not be treated with the temporary structures, as in the main drain the structure will not sustain because of larger quantity of runoff and velocity of flow. If all the runoff contributing drains have been treated with suitable treatment measures there is no need to treat the main drains.

Planning the Drainage Line Treatment

In past, the objective of drainage line treatment was to reduce the velocity of run-off in the drainage lines for safe disposal of run-off water at non erosive velocity, to check soil erosion and stabilize drainage lines. Under watershed development programmes, the main objectives of drainage line treatment are to store maximum possible rain water from start of the drain to end of the drain at maximum number of places and to arrest silt, coming with the run-off water.

To achieve the above mentioned objectives of DLT, different type of structures based on catchment area, bed slope and starta of Nallah and local availability of material are to be constructed starting from upper reach to lower reach of the drainage lines. For optimum utilization of expenditure and scarcely available rain water in rainfed areas, following procedure/guidelines are to be followed in preparing DLT plan of a micro watershed.

Criteria for deciding type of Structure

i. If the catchments area is less than 5 ha and sufficient soil strata is available, then live check dam with small dug out pond be constructed.
ii. If the catchments area is 5 to 20 ha and sufficient soil strata is available and slope of Nallah bed is less than 2%, then dug out pond with fortification by vegetation be constructed.
iii. If the catchments area is less than 20 ha, strata is rocky, and slope more than 2% then LSCD be constructed.
iv. If the catchments area is more than 20 ha and sufficient soil strata is available and slope is less than 2%, then earthen dam or khadin with fortification by vegetation be constructed.
v. If the catchments area is more than 20 ha, slope of the Nallah bed is less than 2% and strata of Nallah bed is rocky then masonry structure be constructed.
vi. If the catchment area is more than 20 ha, strata of Nallah bed are rocky and slope is more than 2%, there Gabion Structure is constructed.
vii. In upper and middle reaches, dug out pond, live check dam, LSCD or gabion structure, looking to the available strata, is constructed.
viii. In middle reaches, if sufficient soil strata is available then khadin or earthen dam

and if strata is rocky then medium masonry structure be constructed.

ix. In lower reaches village pond or anicut be constructed.

x. In deciding the priority of permanent structures, cost of structure per Cum storage of water should be the criteria.

Vegetative Check Dam

Vegetative & low cost structures are usually preferred in rills/gullies with smaller catchment. These should be extended sufficiently into the banks of gully to avoid washing out of structure around the ends. The vegetation used for check dams are grasses, shrubs and trees across the drainage line, like Agave, Ipomea, Ratanjot, Vetiver, Sacramoonja etc. Bushes/trees are also to be planted in two three rows on both banks of the nallah.

A small bund or single row of loose stones is to be provided downstream $_0$f such barriers to facilitate initial establishment of vegetation. The middle row of the vegetation is to be extended up to the top of the banks or even one meter beyond on both sides.

Design of Check Dams

Temporary check dams are specially adapted to gullies with small watersheds. They should be extended far enough into the bottom and sides of the gully to prevent wash outs underneath or around the ends. Sufficient spillway capacity must be provided in the structure. Low dams are less likely to fail and better after silt up and rot away. The vegetation can protect low over fall height of a temporary check dam which should not ordinarily be more than 1 meter and preferably 75 cm. With greater heights, the static pressure increases. , tending to force leaks underneath the structure.

Earthen Gully Plugs

The earthen gully plugs are constructed in the streams to check the velocity of the flowing water and also to check the erosion as well as conserving moisture. These are provided where separate surplusing arrangement is available at site.

Surface-cum-Subsurface Masonry Dam

A surface-cum-subsurface masonry dam is an alternative involving slightly more advance engineering for which skilled labour (mason) is needed. In this system one advantage is that it is raised above the level of river bed up to the height of one mater to act as a temporary reservoir of water and down below the bed level up to the availability of bed rock or solid impermeable layer to arrest the subsurface flow. For construction of such type of dams stones are generally used. The cross-section of a surface-cum-subsurface masonry dam is shown in Fig. 8.13.

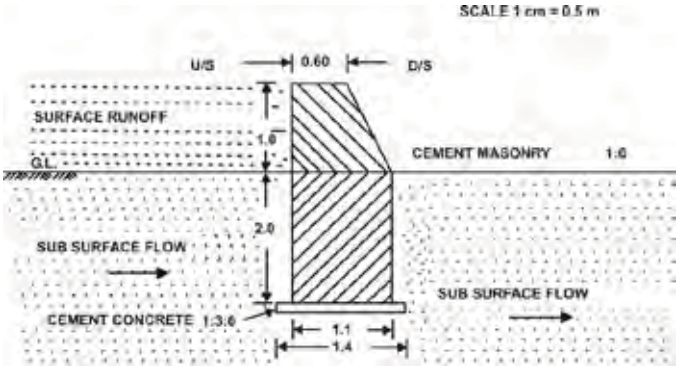


Fig. 8.13 : Surface cum subsurface masonry dam

Bricks are also commonly available in many areas. Building a brick wall and plastering it to make it watertight is a fairly simple procedure, which can be completed by a local mason. The masonry dams constructed using bricks is not a cost effective technique and its stability is also doubtful. The general design feature of surface-cum-surface masonry dam is as under:

- The construction of a masonry dam should commence immediately after the monsoon

and must be completed before the next monsoon.

- The dam should be 50 cm wide
- The height of the dam depends on the depth of the bedrock layer
- The dam should be located where impermeable bedrock rises up towards the river bed surface to within less than five meters.
- A sound foundation must be constructed to avoid seepage under the dam.
- A spill-over apron must be constructed to protect the downstream side of the dam from erosion caused by flowing water, which would remove material from the area behind the dam.
- The dam should be extended with two wing walls into the river bank to prevent seepage between the river banks and the dam.
- The top of the dam and side walls must be protected against erosion from flowing water.

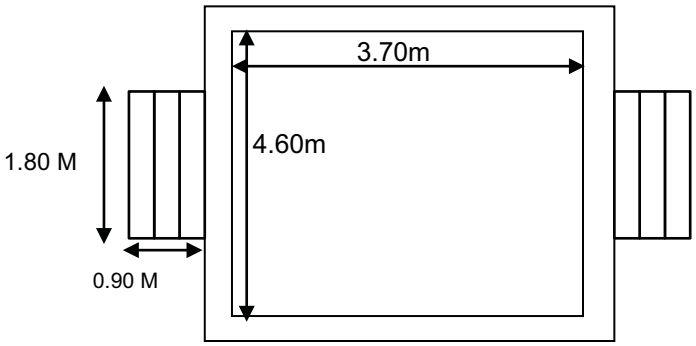
कार्यालय सहायक अभियन्ता पी आइ ए पंचायत समिति दूदू, जिला जयपुर

-:विस्तृत तकमीना:-

कार्य का नाम श्मशान धाट निमार्ण **योजना –**

क.स.	विवरण	माप				मात्रा	ईकाइ	दर		राशि	
		स.	ल.	चौ.	उ			श्रम	कुल	श्रम	कुल
1	नींव, खाई, परनाला में 1.5 गहराई तक मिट्टी की खुदाई करना, तल को कूटना, पानी डालना, बगल को संवारना, खुदी मिट्टी को बाहर निकालना, नींव भरने के बाद खाली स्थानों को पुनः मिट्टी से भरना तथा बची हुई मिट्टी को 50 मीटर की दूरी तक निस्तारण करना।										
	सख्त, चिकनी, कंकर मिट्टी में										
		2	4.71	0.60	0.90	5.08					
		2	4.42	0.60	0.90	4.78					
	Steps	2	1.80	0.90	0.30	0.97					
						10.83	cum	82.00	82.00	888.221	888.22
2	सीमेन्ट कांक्रीट नींव या फर्श में 40 मि. मी. नामीय माप की पत्थर गिट्टी/ईट गिट्टी, सीमेन्ट – रेत मसाला में 1 सीमेन्ट : 4 रेत : 8 गिट्टी अनुपात में मिलाकर डालना तथा कुटाई करना, तराई समेत।										
	पत्थर की गिट्टी के साथ										
		2	4.71	0.60	0.15	0.85					
		2	4.42	0.60	0.15	0.80					
		2	1.80	0.90	0.15	0.49					
						2.13	cum	255.00	1954.00	542.979	4160.71
3	नींव तथा कुर्सी मे पत्थर की वे रद्धा–ढ़ोका सीमेंट–बजरी 1 : 3, 1 : 6 या 1 : 8 मसाले मे, मय बगल की झिरी बन्द करना तथा तराई आदि।										
	सीमेंट बजरी 1:6										
		2	4.71	0.60	0.75	4.24					
		2	4.42	0.60	0.75	3.98					
		2	4.56	0.45	0.75	3.08					
		2	4.57	0.45	0.75	3.09					
		2	1.80	0.90	0.35	1.13					
		2	1.80	0.60	0.20	0.43					
		2	1.80	0.30	0.20	0.22					
						16.16	cum	438.00	1646.00	7078.57	26601.20
4	पत्थ्र की रफ तरासी दहल, दासा तथा कोपिंग को सीमेंट मसाला 1:4 मे लगाना तथा आपूर्ति करना। 50 mm										
		6	1.80	0.30		3.24	sqm	286.50	654.00	928.26	2118.96
5	सीमेंट कर्कीट 1 सीमेंट : 2 बजरी : 4 पत्थर एग्रीगेट अनुपात मे 20 मि.मी. नामीय माप की एग्रीगेट के साथ डालना।										
		2	4.56	0.45	0.075	0.31					
		2	4.57	0.45	0.075	0.31					
						0.62	cum	513.00	3189.00	316.135	1965.21
6	सीमेंट प्लास्टर दीवार पर 1:6 अनुपात मे सीमेंट–बजरी मिलाकर जोडों को कुरेदने तथा तराई समेत।										
	20 मी. मी.										
		2	4.56		0.75	6.84					
		2	5.47		0.75	8.21					
		6	1.80		0.20	2.16					
						15.04	sqm	43.00	92.00	646.909	1384.08
7	मिटटी भरत का कार्य 1 कि0मी0 दूरी से										
		1	3.66	4.57	0.75	12.54	cum				
						12.54		71.00	105.27	890.476	1320.29

	विवरण	माप				मात्रा	ईकाइ	दर		राशि	
क.स.		स.	ल.	चौ.	उ			श्रम	कुल	श्रम	कुल
8	0.80 मि.मी. मोटाई (22 गेज) की लोहै की इस्पात नालीदार चद्दर जिन्हे इस्पात के जे या एल हुक तथा 8मि.मी. व्यास के वोल्ट तथा नट, विटुमन वाशर के साथ लगाई जाएगी। इसमे कैची तथा परलिन की लागत शामिल नही है।										
		2	4.56		2.99	27.23					
		1	4.56		1.50	6.84					
						34.06	Sqm	39.54	744.00	1346.85	25342.80
9	इस्पात की जूडी काट वाले खण्डों केचिंयों व ढांचेदार काम में जैसे टी कोनिया, नालीदार, पत्तीकाटना, छिद्र करना, जोडना, बोल्ट तथा ढिबरियों को कसना, यथा स्थान रखना										
						500	Kg	10.00	70.00	5000	35000.00
										17638.4	98781.48
								जोड़ 2 % कन्टिन जेंसी			1975.63
								कुल योग			100760.00
									लागत श्रम मद में	17.50%	**17638.00**
									लागत सामग्री मद में	82.50%	**83122.00**
									कुल योग		**100760.00**



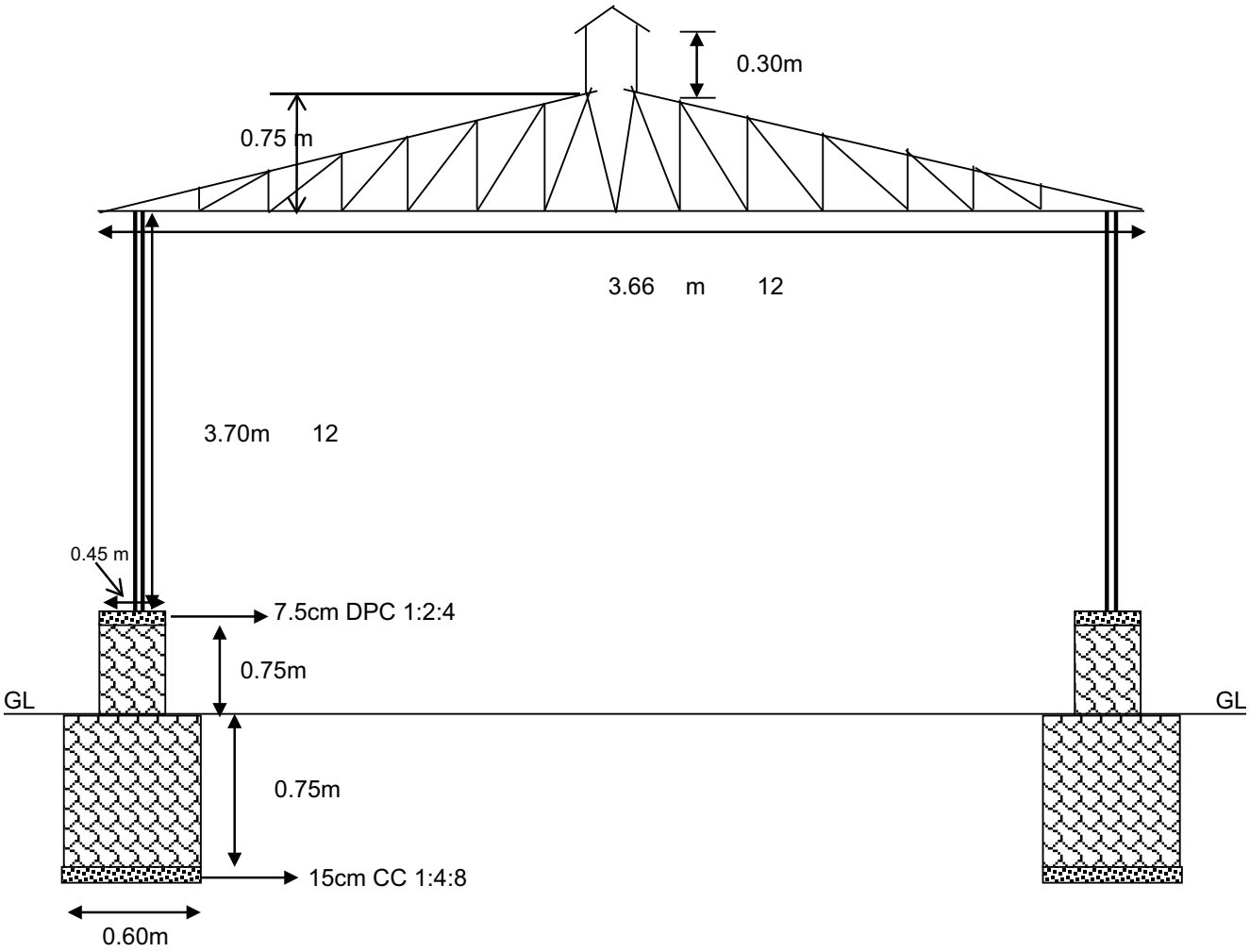
Plan of Shmashan Ghat

कनिष्ठ अभियंता
पंचायत समिति दूदू

सहायक अभियंता
पंचायत समिति दूदू

कार्यालय सहायक अभियन्ता पी आइ ए पंचायत समिति दूदू, जिला जयपुर

कार्य का नाम श्मशान धाट निमार्ण **योजना –**



Cross Section of Shamshan Ghat

कनिष्ठ अभियंता
पंचायत समिति दूदू

सहायक अभियंता
पंचायत समिति दूदू

चारदीवारी निर्माण कार्य

योजना हेतु विस्तृत तकमीने का आधार : – दर अनुसूची 2012

क्र0सं0	विवरण					मात्रा / युनिट	दर		राशि	
	गुणांक	लम्बाई फीट में	चोडाई फीट में	गहराई फीट में	मात्रा		श्रम दर	कुल दर	श्रम राशि	कुल राशि
1	नींव, खाई, परनाला में 1.5 गहराई तक मिट्टी की खुदाई करना, तल को कूटना, पानी डालना, बगल									
2	को संवारना, खुदी मिट्टी को बाहर निकालना, नींव भरने के बाद खाली स्थानों को पुनः मिट्टी से भरना तथा बची हुई मिट्टी को 50 मीटर की दूरी तक निस्तारण करना। सख्त मिटटी में									
	1 x	350 x	2.50 x	2.50 =	2187.5	61.94				
				कुल =	2188	?ku eh	82.00	82.00	5079.29	5079.29
2	नींव तथा कुर्सी मे पत्थर की वे रद्धा–ढ़ोका सीमेंट–बजरी 1 : 6 मसाले मे, मय बगल की झिरी बन्द									
11	1 x	350 x	2.00 x	2.50 =	1750	49.55				
				कुल =	1750	?ku eh	438.00	1646.00	21704.66	81565.91
3	नींव तथा कुर्सी मे पत्थर की वे रद्धा–ढ़ोका सीमेंट–बजरी 1 : 6 मसाले मे, मय बगल की झिरी बन्द									
24	करना तथा तराई आदि।									
	1 x	350 x	1.50 x	1.00 =	525	14.87				
				कुल =	525	?ku eh	438.00	1646.00	6511.40	24469.77
4	अधिरचना मे पत्थर की वे रद्धा–ढ़ोका सीमेंट–बजरी 1 : 6 मसाले मे, मय बगल की झिरी बन्द करना									
26	1 x	350 x	1.00 x	4.00 =	1400	39.64				
				कुल =	1400	?ku eh	438.00	1646.00	17363.73	65252.73
5	50 मी. मी. मोटाई में सीमेंट कंक्रीट 1:2:4 मिश्रण जिसमें 1 सीमेंट 2 बजरी 4 पत्थर की या ईंट की									
58	12 . मी. नाभीय गिट्टी के साथ मिलाकर डालना, कूटना, दबाना तथा तराई आदि समेत । पत्थर की गिटी									
	1 x	350 x	1	0.15 =	52.5	4.8792				
				कुल =	52.5	ox| eh	513	3189	2503.0204	15559.71
6	सीमेंट प्लास्टर दीवार पर 1:6 अनुपात मे सीमेंट–बजरी मिलाकर जोडों को कुरेदने तथा तराई समेत।									
67	20 मिमी									
	1 x	350	x	10.00 =	3500	325.16				

		कुल =	3500	ox| eh	38.00	83.00	12356.00	26988.11
	d|y						65518.1	218915.51
	;k							66000.00	219000.00

से 625.714286

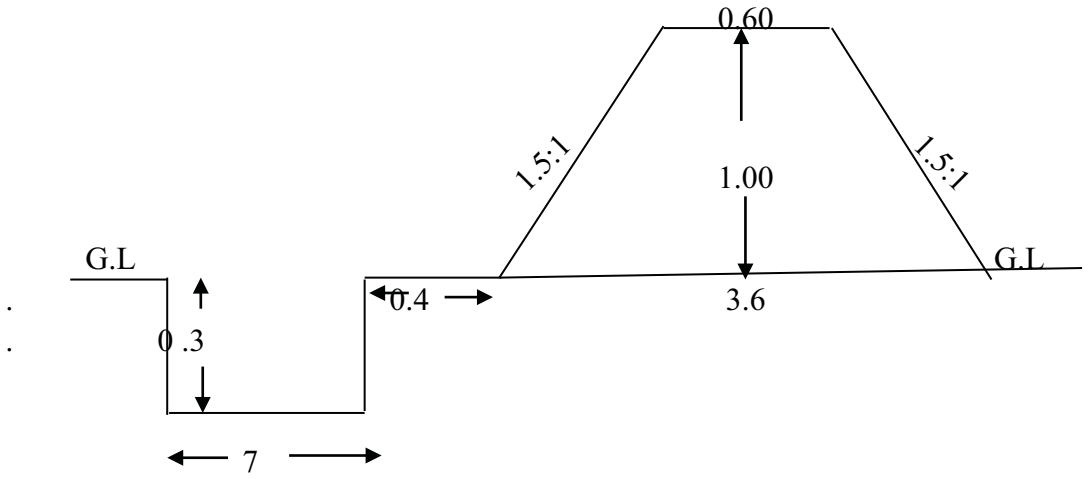
626/meter

ESTIMATE NO. 1

NAME OF WORK: CONSTRUCTION OF CONTOUR EARTHEN BUND

B.S.R._RD_JAIPUR_2012

Cross section of bund - 2.1 sqm					
For lenth 100 M.					
S.no.	**Item**	**Quantity**	**Unit**	**Rate**	**Amount**
1	Dag belling work up to 5-7 cm depth	400	Rm	0.25	100.00
2	Earth work in hard soil for construction of bund including ramming compaction and dressing up to the lead of 50m and lift 1.5 m By machine(Subjected to Permision of X.En.)	210.00	Cum	101.00	21210.00
3	Sowing of seed on bunds	500	Rm	0.59	295.00
4	Grass seed				
	Dhaman/Stylohemata	1	LS	125.00	125.00
		Sub Total			**21630.00**
5	Contingency @ 3 %				648.90
		Grand Total			**22278.90**
			Say	**22279**	
			Per. M. Cost	**223.00**	



X-Section

ESTIMATE NO. 2

NAME OF WORK: CONSTRUCTION OF WASTE WEIR TYPE "A"

B.S.R._RD_JAIPUR_2012

क. सं.	कार्य विवरण					इकाई	दर सामग्री सहित	राशि
1	नींव, खाई, परनाला में 1.5 गहराई तक मिट्टी की खुदाई करना, तल को कूटना, पानी डालना, बगल को संवारना, खुदी मिट्टी को बाहर निकालना, नींव भरने के बाद खाली स्थानों को पुनः मिट्टी से भरना तथा बची हुई मिट्टी को 50 मीटर की दूरी तक निस्तारण करना।							
	सख्त, चिकनी, कंकर मिट्टी में							
H.W.	1	6.00	2.50	3.00	45.000			
H.W.Ext.	2	5.00	2.50	3.00	75.000			
S.W.	2	5.00	2.00	3.00	60.000			
T.W.	1	6.00	1.50	2.00	18.000			
Apron	1	6.00	3.50	1.00	21.000			
					219.000	घन फीट	**101.00**	**626.41**
					6.202	घन मी.	**प्रति घनमी**	
2	सीमेन्ट कांक्रीट नींव या फर्श में 40 मि. मी. नामीय माप की पत्थर गिट्टी/ईट गिट्टी, सीमेन्ट – रेत मसाला में 1 सीमेन्ट : 4 रेत : 8 गिट्टी अनुपात में मिलाकर डालना तथा कुटाई करना, तराई समेत।							
	पत्थर की गिट्टी के साथ							
H.W.	1	6.00	2.50	0.50	7.500			
H.W.Ext.	2	5.00	2.50	0.50	12.500			
S.W.	2	5.00	2.00	0.50	10.000			
T.W.	1	6.00	1.50	0.50	4.500			
					34.500	घन फीट	**2160.00**	**2110.41**
					0.977	घन मी.	**प्रति घनमी**	
3	नींव तथा कुर्सी मे पत्थर की वे रद्धा–ढ़ोका सीमेंट–बजरी 1 : 3, 1 : 6 या 1 : 8 मसाले मे, मय बगल की झिरी बन्द करना तथा तराई आदि।							
	सीमेंट बजरी 1:6							
H.W.	1	6.00	2.50	2.50	37.500			
H.W.Ext.	2	5.00	2.50	2.50	62.500			
S.W.	2	5.00	2.00	2.50	50.000			
T.W.	1	6.00	1.50	1.50	13.500			
					163.500	घन फीट	**1773.00**	**8209.56**
					4.630	घन मी.	**प्रति घनमी**	
4	अधिरचना मे पत्थर की वे रद्धा–ढ़ोका सीमेंट–बजरी 1 : 3, 1 : 6 या 1 : 8 मसाले मे, मय बगल की झिरी बन्द करना तथा तराई आदि।							
H.W.	1	6.00	2.00	0.750	9.000			
H.W.Ext.	2	5.00	2.00	1.350	27.000			
S.W.	2	5.00	1.85	0.825	15.263			
T.W.	1	6.00	1.35	0.300	2.430			
					53.693	घन फीट	**1910.00**	**2904.29**
					1.521	घन मी.	**प्रति घनमी**	

क. सं.	कार्य विवरण					इकाई	दर सामग्री सहित	राशि
5	15 से 30 से.मी. मोटे, हथोडे से तरासे हुए एकल पत्थर की पिचिंग समस्त उठान के साथ, आपूर्त्ति के साथ।							
Apron	1	6.00	3.60	0.50	**10.800**	घन फीट	**612.00**	**187.18**
					0.306	घन मी.	**प्रति घनमी**	
6	50 मी. मी. मोटाई में सीमेंट कंक्रीट 1:2:4 मिश्रण जिसमें 1 सीमेंट 2 बजरी 4 पत्थर की या ईंट की 12 . मी. नाभीय गिट्टी के साथ मिलाकर डालना, कूटना, दबाना तथा तराई आदि समेत ।							
H.W.	1	6.00	2.00		12.000			
H.W.Ext.	2	5.00	2.00		20.000			
S.W.	2	2.00	1.85		7.400			
T.W.	1	6.00	1.35		8.100			
					47.500	वर्ग फीट	**237.00**	**1045.82**
					4.413	वर्ग मी.	**प्रति वर्ग मी.**	
7	सीमेंट कार्क्रीट 1 सीमेंट, 3 बजरी तथा 6 गिट्टी पत्थर की 20 मि.मी. नामीय माप की नींव मे डालना एनीकट के लिए।							
Apron	1	6.00	3.60	0.100	**2.16**	घन फीट	**2553.00**	**156.17**
					0.061	घन मी.	**प्रति घनमी**	
8	सीमेंट प्लास्टर दीवार पर 1:6 अनुपात मे सीमेंट–बजरी मिलाकर जोडों को कुरेदने तथा तराई समेत।20 मी. मी.							
H.W.	1	2 rjQ	6.00	0.75	9.000			
H.W.Ext.	2	2 rjQ	5.00	1.35	27.000			
S.W.	2	2 rjQ	2.00	0.83	6.600			
T.W.	1	2 rjQ	6.00	0.30	3.600			
					46.200	वर्ग फीट	**103.00**	**442.07**
					4.292	वर्ग मी.	**प्रति वर्ग मी.**	
							कुल	**15681.92**
9	आकस्मिक व्यय 3 प्रतिशत						**रूपये**	470.46
							कुल रूपये	16152.37
							माना	**16200.00**

ESTIMATE NO. 3

NAME OF WORK: CONSTRUCTION OF WASTE WEIR TYPE "B"

B.S.R._RD_JAIPUR_2012

क्र. सं.	कार्य विवरण					इकाई	दर सामग्री सहित	राशि
1	नींव, खाई, परनाला में 1.5 गहराई तक मिट्टी की खुदाई करना, तल को कूटना, पानी डालना, बगल को संवारना, खुदी मिट्टी को बाहर निकालना, नींव भरने के बाद खाली स्थानों को पुनः मिट्टी से भरना तथा बची हुई मिट्टी को 50 मीटर की दूरी तक निस्तारण करना।							
	सख्त, चिकनी, कंकर मिट्टी में							
H.W.	1	10.00	3.00	3.50	105.00			
H.W.Ext.	2	5.00	3.00	3.50	105.00			
S.W.	2	8.00	2.50	3.50	140.00			
T.W.	1	10.00	2.00	2.00	40.00			
Apron	1	10.00	6.00	1.50	90.00			
					480.00	घन फीट	**101.00**	**1372.95**
					13.59	घन मी.	**प्रति घनमी**	
2	सीमेन्ट कांक्रीट नींव या फर्श में 40 मि. मी. नामीय माप की पत्थर गिट्टी/ईट गिट्टी, सीमेन्ट – रेत मसाला में 1 सीमेन्ट : 4 रेत : 8 गिट्टी अनुपात में मिलाकर डालना तथा कुटाई करना, तराई समेत।							
	पत्थर की गिट्टी के साथ							
H.W.	1	10.00	3.00	0.50	15.00			
H.W.Ext.	2	5.00	3.00	0.50	15.00			
S.W.	2	8.00	2.50	0.50	20.00			
T.W.	1	10.00	2.00	0.50	10.00			
					60.00	घन फीट	**2160.00**	**3670.27**
					1.70	घन मी.	**प्रति घनमी**	
3	नींव तथा कुर्सी मे पत्थर की वे रद्धा–ढ़ोका सीमेंट–बजरी 1 : 3, 1 : 6 या 1 : 8 मसाले मे, मय बगल की झिरी बन्द करना तथा तराई आदि।							
	सीमेंट बजरी 1:6							
H.W.	1	10.00	3.00	3.00	90.00			
H.W.Ext.	2	5.00	3.00	3.00	90.00			
S.W.	2	8.00	2.50	3.00	120.00			
T.W.	1	10.00	2.00	1.50	30.00			
					330.00	घन फीट	**1773.00**	**16569.75**
					9.35	घन मी.	**प्रति घनमी**	
4	अधिरचना मे पत्थर की वे रद्धा–ढ़ोका सीमेंट–बजरी 1 : 3, 1 : 6 या 1 : 8 मसाले मे, मय बगल की झिरी बन्द करना तथा तराई आदि।							
	सीमेंट बजरी 1:6							
H.W.	1	10.00	2.50	0.75	18.75			
H.W.Ext.	2	5.00	2.50	1.35	33.75			
S.W.	2	8.00	2.35	0.83	31.02			
T.W.	1	10.00	1.85	0.30	5.55			
					89.07	घन फीट	**1910.00**	**4817.90**
					2.52	घन मी.	**प्रति घनमी**	

क्र. सं.	कार्य विवरण					इकाई	दर सामग्री सहित	राशि
5	15 से 30 से.मी. मोटे, हथोडे से तरासे हुए एकल पत्थर की पिचिंग समस्त उठान के साथ, आपूर्त्ति के साथ।							
Apron	1	10.00	6.10	0.50	30.50	घन फीट	**612.00**	**528.62**
					0.86	घन मी.	**प्रति घनमी**	
6	50 मी. मी. मोटाई में सीमेंट कंक्रीट 1:2:4 मिश्रण जिसमें 1 सीमेंट 2 बजरी 4 पत्थर की या ईंट की 12 . मी. नाभीय गिट्टी के साथ मिलाकर डालना, कूटना, दबाना तथा तराई आदि समेत ।							
H.W.	1	10.00	2.50		25.00			
H.W.Ext.	2	5.00	2.50		25.00			
S.W.	2	2.00	2.35		9.40			
T.W.	1	10.00	1.85		18.50			
					77.90	वर्ग फीट	**237.00**	**1715.15**
					7.24	वर्ग मी.	प्रति वर्ग मी.	
7	सीमेंट काक्रींट 1 सीमेंट, 3 बजरी तथा 6 गिट्टी पत्थर की 20 मि.मी. नामीय माप की नींव मे डालना एनीकट के लिए।							
Apron	1	10.00	6.10	0.10	6.10	घन फीट	**2553.00**	**441.04**
					0.17	घन मी.	**प्रति घनमी**	
8	सीमेंट प्लास्टर दीवार पर 1:6 अनुपात मे सीमेंट–बजरी मिलाकर जोडों को कुरेदने तथा तराई समेत।							
	20 मी. मी.							
H.W.	1	2 तरफ	10.00	0.75	15.00			
H.W.Ext.	2	2 तरफ	5.00	1.35	27.00			
S.W.	2	2 तरफ	2.00	0.83	6.60			
T.W.	1	2 तरफ	10.00	0.30	6.00			
					54.60	वर्ग फीट	**103.00**	**522.45**
					5.07	वर्ग मी.	प्रति वर्ग मी.	
							कुल	**29638.13**
9	आकस्मिक व्यय 3 प्रतिशत						रूपये	889.14
							कुल रूपये	30527.28
							माना	**31000.00**

ESTIMATE NO. 4

NAME OF WORK: CONSTRUCTION OF GULLY CONTROL STRUCTURE IN ARABLE LAND

Considerations -

A	Seepage Line	5:1	
B	Side Slope		6.4
	U/s	2:1	
	D/S	2:1	
C	Length of Structure	20.00 Mtr.	
D	Height of Structure	1.60 Mtr.	

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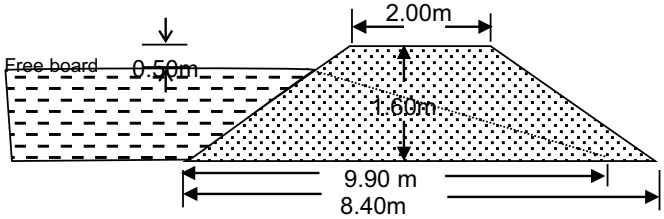
क्रम संख्या	विवरण		मात्रा	दर	राशि
1	डाग बेलिंग 2.5 से 5 सेमी. गहराई तक	(3'लम्बाई)	60.00	0.25 प्रति मीटर	15.00
2	मिट्टी का कार्य बन्ध मे (सूखी या गीली), 15 से. मी. परत मे डालना, ढेलों को तोड़ना, घास–पात तथा कंकर बीनकर अलग करना तथा मिट्टी की दरेसी करना तथा शीप फूट रोलर/हैंड रैमर से मिट्टी दबाना, 1.5 मी उठान तथा 50 मी. दूरी के लिए।				
	कठोर मिट्टी	20*(2.0+8.4)/2*1.60	166.40	101.00 प्रति घन मीटर	16806.40
3	बीज बुवाई बनाये गये रिज पर।	(5*yEckbZ)	100.00	0.59 प्रति मीटर	59.00
4	10 से.मी. दूरी पर ;4 से 5 स्लीप्स एक जगहद्ध वानस्पतिक अवरोध स्थापित करना मूंजा/खस स्लिप प्रूनिंग एवं सेपेरेटिंग कार्य	(4*yEckbZ)	80.00	525.00 प्रति किमी	42.00
5	प्लान्टींग एवं ड्रेसिंग कार्य		80.00	1425.00 प्रति किमी	114.00
6	इन्सेक्टीसाइड/ पेस्टीसाइड से उपचार करना		80.00	308.00 प्रति किमी	24.64
7	तिक स्त्रोत्र से मूंजा/खस स्लिप उखाडने का कार्य		2000	1638.50 1 लाख स्लिप	32.77
			योग		17093.81
8	आकस्मिक व्यय 3 प्रतिशत				512.81
			कुल योग		17606.62
				माना	17700.00



ESTIMATE NO. 5

NAME OF WORK: CONSTRUCTION OF PASTURE DEVELOPMENT WORK IN W/S IWMP XV

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FOR 10 HACT.

S.NO	ITME OF WORK	UNIT	DETAILS OF QUANTITY					RATE			AMOUNT		
			No.	L	W	D	T.Q.	Labour	Material	Total	Labour	Material	Total
1	चरागाह क्षेत्र में ड़िच कम बन्ड़ खुदाई कार्य कठोर मिट्टी में	CUM.	0	1800	1.2	1.2	2592.00	101		101	261792	0	261792
2	सतत कन्टर ट्रेचेज का निमार्ण (कठोर मिट्टी में)	CUM.	0	6000	0.6	0.3	1080.00	101		101	109080	0	109080
3	खड्ड़े खुदाई का कार्य – सतत कन्टर ट्रेचेज में	NO.	4000	0.45 X .45 X .45			4000.00	9.2		9.2	36800	0	36800
4	घास बीज बुवाई का कार्य									0			
	(अ.) ट्रेक्टर द्वारा हकाई कार्य	HA.					10.00	30	259	289		2890	2890
	(ब.) घास बीज को तालाब मिट्टी के साथ मिलाकर गोलिया बनाना	KG.					90.00	10.43		10.43	938.7	0	938.7
	(स.) घास बीज को फेलाने का कार्य	MD					15.00	73		73	1095	0	1095
5	बीज बुवाई बनाये गाये रिज पर तीनों लाईनों में									0		0	0
	(अ.) सतत कन्टर ट्रेचेज के बन्ड़ पर (धामण/हमैटा)	M.	0	6000	0	0	6000.00	0.59		0.59	3540	0	3540
	(ब.) ड़ीसीबी बन्ड़ पर (केस्टर,ड़ीबी,रतनजोत)	M.		2000			2000.00	0.59		0.59	1180	0	1180
6	पौधे का परिवहन (30 किमी लीड़ से) मय लोड़िग व अनलोड़िग सहित – प्रथम वर्ष	NO.	4000				4000.00		1.35	1.35		5400	5400
	पौधे का परिवहन (30 किमी लीड़ से) मय लोड़िग व अनलोड़िग सहित – द्वितीय वर्ष	NO.	800				800.00		1.35	1.35		1080	1080
7	पौधारोपण करना– सामान्य जमीन पर (प्रथम वर्ष)	NO.	4000				4000.00	3.20		3.2	12800	0	12800
	पौधारोपण करना– सामान्य जमीन पर (द्वितीय वर्ष) 20 प्रतिशत गेप फिलिगं	NO.	800				800.00	3.20		3.2	2560	0	2560
8	खड्डो़ को किटनाशक/पेस्टीसाईड़ एवं फर्टिलाईजर से उपचार करना	NO.					0.00			0		0	0
	(अ.) किटनाशक/पेस्टीसाईड़	NO.	4000				4000.00	0.3		0.3	1200	0	1200
	(ब.) फर्टिलाईजर	NO.	4000				4000.00	0.15		0.15	600	0	600
9	पौधे को पानी पिलाना (15 ली. प्रति पौधा) – प्रथम वर्ष	NO.	3	4000			12000.00	1.9		1.9	22800	0	22800
	पौधे को पानी पिलाना (15 ली. प्रति पौधा) – द्वितीय वर्ष	NO.	2	4000			8000.00	1.9		1.9	15200	0	15200
	पौधे को पानी पिलाना (15 ली. प्रति पौधा) – तृतीय वर्ष	NO.	1	4000			4000.00	1.9		1.9	7600	0	7600

S.NO	ITME OF WORK	UNIT	DETAILS OF QUANTITY					RATE			AMOUNT		
			No.	L	W	D	T.Q.	Labour	Material	Total	Labour	Material	Total
10	पौधो को निराई गुड़ाई 15 सेमी गहराई एवं 45 सेमी अर्द्धव्यास तक – प्रथम वर्ष	NO.	1	4000			4000.00	1.3		1.3	5200	0	5200
	पौधो को निराई गुड़ाई 15 सेमी गहराई एवं 45 सेमी अर्द्धव्यास तक – द्वितीय वर्ष	NO.	2	4000			8000.00	1.3		1.3	10400	0	10400
	पौधो को निराई गुड़ाई 15 सेमी गहराई एवं 45 सेमी अर्द्धव्यास तक – तृतीय वर्ष	NO.	3	4000			12000.00	1.3		1.3	15600	0	15600
11	पौधो हेतु पानी की सप्लाई (ठिकर द्वारा) – ट्रैक्टर मय टेंकर 4000 ली. क्षमता मय ड्राईवर के – प्रथम वर्ष	TRIP.	3	15			45.00		250	250	0	11250	11250.00
	पौधो हेतु पानी की सप्लाई (ठिकर द्वारा) – ट्रैक्टर मय टेंकर 4000 ली. क्षमता मय ड्राईवर के – द्वितीय वर्ष	TRIP.	2	15			30.00		250	250	0	7500	7500.00
	पौधो हेतु पानी की सप्लाई (ठिकर द्वारा) – ट्रैक्टर मय टेंकर 4000 ली. क्षमता मय ड्राईवर के – तृतीय वर्ष	TRIP.	1	15			15.00		250	250	0	3750	3750.00
12	सामाग्री की लागत –									0	0	0	0.00
	(अ.) पौधे – प्रथम वर्ष	NO.	4000				4000.00		4	4	0	16000	16000.00
	(ब.) पौधे – द्वितीय वर्ष	NO.	800				800.00		4	4	0	3200	3200.00
	(स.) धामणघास बीज	KG.	60				60.00		150	150	0	9000	9000.00
	(द.) स्ट्राईलोमेंटा बीज	KG.	40				40.00		60	60	0	2400	2400.00
	(य.) केस्टर सीड़	KG.	7				7.00		100	100	0	700	700.00
	(ल.) रतनजोत बीज	KG.	7				7.00		100	100	0	700	700.00
	(व.) देशी बबूल बीज	KG.	7				7.00		50	50	0	350	350.00
	(र) यूरिया/वर्मी कम्पोस्ट खाद	BAG	10				10.00		400	400	0	4000	4000.00
	(ह.) एलर्ड़िन दवा	LTR.	10				10.00		300	300	0	3000	3000.00
13	चरागाह की चौकीदारी	MONTH	40				40.00	4400	0	4400	176000	0	176000
TOTAL											684385.7	71220	755605.7
								SAY COST PER HACT.			Rs /-	76000	

ESTIMATE NO. 6

NAME OF WORK: CONSTRUCTION OF WATER HARVESTING STRUCTURE IN NON ARABLE

B.S.R._RD_JAIPUR_2013

क्रं.सं.	विवरण	मात्रा	दर	राशि
1	डाग बेलिंग 2.5 से 5 सेमी गहराई			
	3 x लंबाई	210.00	0.25	52.50
		मीटर	प्रति मीटर	
2	मिट्टी का कार्य बन्ध में (सुखी या गीली) 15 सेमी . की परत में बिछाना, ढेलों को तोड़ना, घास पात बीनकर अलग करना तथा मि्टी की ड्रेसिंग करना, 1. 5 मी. उठान तथा 50 मी. दूरी के लिये, कठोर मिट्टी में			
		1256.49	101.00	126905.49
		घन मीटर	प्रति घनमीटर	
3	बीज बुवाई बनाये गये रिज पर (3 लाईन में)			
	3xलंबाई	210.00	0.59	123.90
		मीटर	प्रति मीटर	
4	10 सेमी दूरी पर (4 से 5 स्लीप्स एक जगह) वानस्पितक अवरोध स्थापित करना, मूंजा/खस स्लीप्स, प्रुनिंग एवं सेपरेटिंग कार्य			
	4xलंबाई	280.00	0.525	147.00
		मीटर	प्रति मीटर	
5	प्लाटिंग एवं ड्रेसिंग कार्य	280.00	1.425	399.00
		मीटर	प्रति मीटर	
6	इन्सेक्टीसाइड/पेस्टीसाइड से उपचार करना	280.00	0.308	86.24
		मीटर	प्रति मीटर	
7	प्राकृतिक स्त्रोत से मूंजा/खस स्लीप्स उखाड़ने का कार्य	0.14	1638.500	229.39
		लाख स्लीप्स	प्रति लाख स्लीप्स	
4	बीज की लागत	0.50	45.00	22.50
		किग्रा	प्रति किग्रा	
	योग			127966.02
5	आकस्मिक व्यय 3 प्रतिशत			3838.98
	कुल योग			131805.00
			माना	131900.00

ESTIMATE NO. 7

NAME OF WORK: CONSTRUCTION OF VEGETATIVE CHECK DAM IN DLT

क्रं.सं.	विवरण	मात्रा	दर	राशि
1	डाग बेलिंग 2.5 से 5 सेमी गहराई			
	3 x लंबाई	3000.00	0.25	750.00
		मीटर	प्रति मीटर	
2	मिट्टी का कार्य बन्ध में (सुखी या गीली) 15 सेमी . की परत में बिछाना, ढेलों को तोड़ना, घास पात बीनकर अलग करना तथा मि्टी की ड्रेसिंग करना, 1. 5 मी. उठान तथा 50 मी. दूरी के लिये, कठोर मिट्टी में			
		250.00	101.00	25250.00
		घन मीटर	प्रति घनमीटर	
3	बीज बुवाई बनाये गये रिज पर (3 लाईन में)			
	3xलंबाई	3000.00	0.59	1770.00
		मीटर	प्रति मीटर	
4	10 सेमी दूरी पर (4 से 5 स्लीप्स एक जगह) वानस्पितक अवरोध स्थापित करना, मूंजा/खस स्लीप्स, प्रुनिंग एवं सेपरेटिंग कार्य			
	4xलंबाई	4000.00	0.909	3636.00
		मीटर	प्रति मीटर	
5	प्लाटिंग एवं ड्रेसिंग कार्य	1000.00	1.952	1952.00
		मीटर	प्रति मीटर	
6	इन्सेक्टीसाइड/पेस्टीसाइड से उपचार करना	1000.00	0.308	308.00
		मीटर	प्रति मीटर	
7	प्राकृतिक स्त्रोत से मूंजा/खस स्लीप्स उखाड़ने का कार्य	0.10	2433.000	243.30
		लाख स्लीप्स	प्रति लाख स्लीप्स	
4	बीज की लागत	0.50	45.00	22.50
		किग्रा	प्रति किग्रा	
	योग			33931.80
5	आकस्मिक व्यय 3 प्रतिशत			1017.95
	कुल योग			34949.75
			माना	35000.00

Rates are as per BSR ZP Jaipur2013

35

say 35.00/mtr

ESTIMATE NO. 8

NAME OF WORK: CONSTRUCTION OF SUB SURFACE BARREIR IN DLT

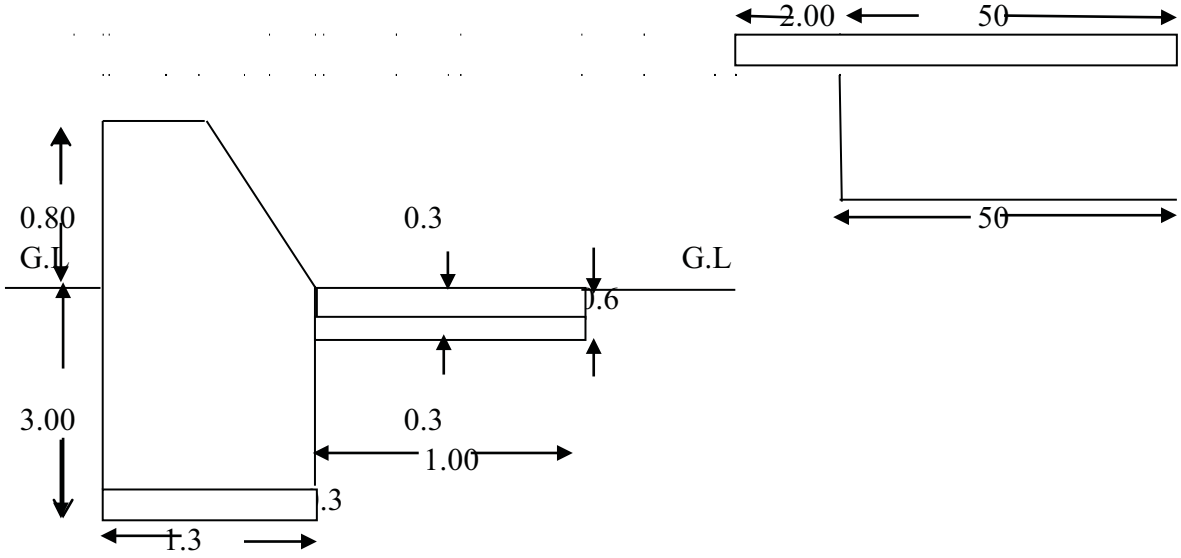
1	Available crest length	50	M
2	Hight of structure	0.80	M
3	Top Width	0.6	M
4	Bottom Width	1.25	M
5	Depth of foundation taking as	3.00	M
6	Length of Basin	1.00	M
7	Head wall ext.	2+2	M

DETAILED ESTIMATE

S.No.	PARTICULAR	No.	L	B	H/D	Qty	Rate	Amount
1	Excavation in hard soil dry or most&disposal of excavated material within intial lead of 30 m and liftof 1.5m including dressing etc complete							
	H.W.	1.00	50.00	1.25	3.00	187.50		
	H.W.EX.	2.00	2.00	0.90	3.00	10.80		
	Apron	1.00	50.00	1.00	0.60	30.00		
				Total	(cu.m)	228.30		
				Total		228.30	101.00	23058.30
2	cement concrete well mixed in cement mortar(1:4:8) laid in position complete including curing Aggregate size upto 50mm. HB							
	H.W.	1.00	50.00	1.25	0.30	3.38		
	H.W.EX.	2.00	2.00	0.90	0.30	1.08		
	Apron	1.00	50.00	1.00	0.30	15.00		
				Total		19.46	2160	42022.80
3	Random rubble stone masonry in cement sand mortar(1:6) for foundation							
	H.W.	1.00	50.00	1.25	3.00	187.50		
	H.W.EX.	2.00	2.00	0.60	3.00	7.20		
	Apron	1.00	50.00	1.00	0.30	15.00		
				Total		209.70	1773	371798.10
4	Random rubble stone masonry in cement sand mortar(1:6) for super structure							
	H.W.	1.00	50.00	0.93	0.80	37.00		
	H.W.EX.	2.00	2.00	0.60	1.30	3.12		

				Total		37.00	1910	70670.00
5	Cement plaster including smooth finishing in cement mortar (1:4)25mm thick							
	H.W.	1.00	50.00	0.80		40.00		
		1.00	50.00	1.10		55.00		
	H.W.EX.	2.00	0.60	0.50		0.60		
	Apron	1.00	50.00	1.00		50.00		
				Total		145.60	172	25043.20
6	Cement concrete coping in cement mortar1:1:5 :3 100 mm thick							
	H.W.	1.00	50.00	0.60	0.075	2.25		
	H.W.EX.	2.00	2.00	0.60	0.075	0.18		
	Apron	1.00	50.00	1.25	0.075	4.69		
				Total		7.12	3467	24676.37

TOTAL		**557268.77**
MATERIAL		**453675.19**
LABOUR		**103593.59**
	TOTAL	**557268.77**
Add 3% Contingency Charges		**11145.38**
	TOTAL Rs.	**568414.15**
	Say	**568500.00**



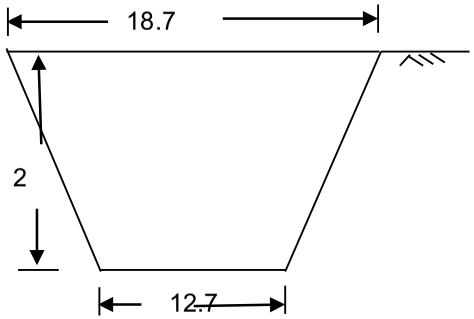
X-Section

Estimate no. 9

1.	फार्म पोंड निर्माण कार्य												
क्रं.सं.	कार्य का विवरण	सं0	पैदें का क्षेत्रफल	ऊपर का क्षेत्रफल	2*(B.W *T.W.)/ 2	गहराई	मात्रा	इकाई	दर		राशि		
									श्रम	सामग्री	श्रम	सामग्री	योग
1	नींव, खाई, परनाला में 1.5 गहराई तक मिट्टी की खुदाई करना, तल को कूटना, पानी डालना, बगल को संवारना, खुदी मिट्टी को बाहर निकालना, नींव भरने के बाद खाली स्थानों को पुनः मिट्टी से भरना तथा बची हुई मिट्टी को 50 मीटर की दूरी तक निस्तारण करना।												
A-	सख्त, चिकनी, कंकर मिट्टी में प्रति. औसत	1	161.29	349.69	237.49	2	149.69	घन मी.	**101**	**0.00**	**15119.09**	**0.00**	**15119.09**
B-	विघटित चट्टान /मुर्रम प्रति. औसत	1	161.29	349.69	237.49	2	436.61	घन मी.	**159**	**0.00**	**69420.59**	**0.00**	**69420.59**
2	खुदी हुई मिट्टी के काम्पकशन का कार्य (मानव श्रम द्वारा बिना गिला किए हुए) (यह दर दूदू क्षेत्र में एप्लीकेबल के आधार पर ली गई है।)	1	161.29	349.69	237.49	2	498.98	सख्या	**43.00**	**0.00**	**21456.14**	**0.00**	**21456.14**
3	120cm. high fencing with angle iron posts 50x50x6mm. placed at every 3 Mtr. apart 30cm. in ground embedded in cement concrete 1:3:6 (30x30x45cm) corner & every tenth posts to be strutted with 50x50x6mm angle iron provided with three horizontal lines and two diagonals of black barbed wire between two posts fitted and fixed with G.I. staple including earth work in excavation etc. complete.	1	4	19.7			78.8			**270.00**	**0.00**	**21276.00**	**21276.00**
	Total										**105995.83**	**21276.00**	**127271.83**

	Contengency 3%										**3179.87**	**638.28**	**3818.15**
	Grand Total										**109175.70**	**21914.28**	**131089.98**

SAY 131100.00



Cross- Section

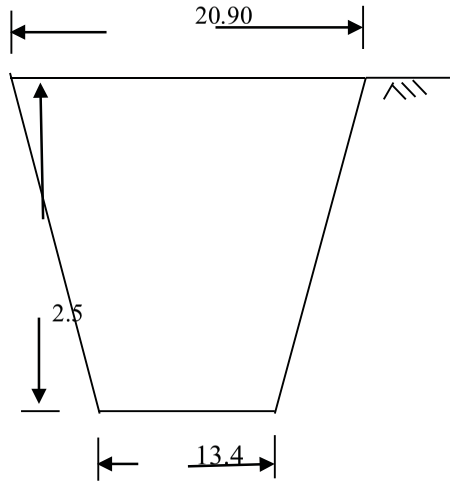
DRAWINGS FRAM POND - 500 CUM STRAGE CAPACITY

Estimate no. 10

1.	फार्म पोंड निर्माण कार्य												
क्रं.सं.	कार्य का विवरण	सं0	पैदें का क्षेत्रफल	ऊपर का क्षेत्रफल	2*(B.W *T.W.)/ 2	गहराई	मात्रा	इकाई	दर		राशि		
									श्रम	सामग्री	श्रम	सामग्री	योग
1	नींव, खाई, परनाला में 1.5 गहराई तक मिट्टी की खुदाई करना, तल को कूटना, पानी डालना, बगल को संवारना, खुदी मिट्टी को बाहर निकालना, नींव भरने के बाद खाली स्थानों को पुनः मिट्टी से भरना तथा बची हुई मिट्टी को 50 मीटर की दूरी तक निस्तारण करना।												
A-	सख्त, चिकनी, कंकर मिट्टी में प्रति. औसत	1	179.56	436.81	280.06	2.5	224.11	घन मी.	**101**	**0.00**	**22634.86**	**0.00**	**22634.86**
B-	विघटित चट्टान /मुर्रम प्रति. औसत	1	179.56	436.81	280.06	2.5	522.92	घन मी.	**159**	**0.00**	**83143.88**	**0.00**	**83143.88**
2	खुदी हुई मिट्टी के काम्पक्शन का कार्य (मानव श्रम द्वारा बिना गिला किए हुए)	1	179.56	436.81	280.06	2.5	747.03	सख्या	**43.00**	**0.00**	**32122.08**	**0.00**	**32122.08**
3	120cm. high fencing with angle iron posts 50x50x6mm. placed at every 3 Mtr. apart 30cm. in ground embedded in cement concrete 1:3:6 (30x30x45cm) corner & every tenth posts to be strutted with 50x50x6mm angle iron provided with three horizontal lines and two diagonals of black barbed wire between two posts fitted and fixed with G.I. staple including earth work in excavation etc. complete.	1	4	21.9			87.6			**270.00**	**0.00**	**23652.00**	**23652.00**
	Total										**137900.82**	**23652.00**	**161552.82**

	Contengency 3%										**4137.02**	**709.56**	**4846.58**
	Grand Total										**142037.84**	**24361.56**	**166399.40**

SAY 166400.00



Cross- Section

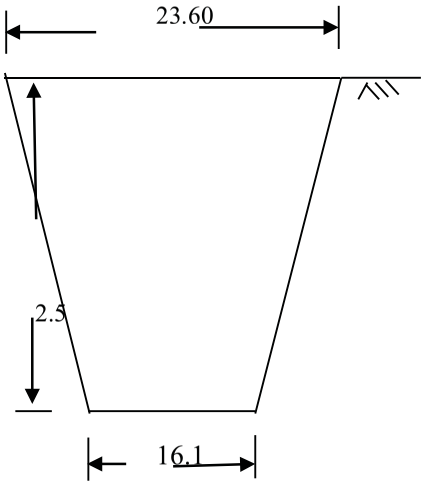
DRAWINGS FRAM POND - 750 CUM STORAGE CAPACITY

Estimate no. 11

1.	फार्म पोंड निर्माण कार्य												
क्रं.सं.	कार्य का विवरण	सं0	पैदें का क्षेत्रफल	ऊपर का क्षेत्रफल	2*(B.W *T.W.)/ 2	गहराई	मात्रा	इकाई	दर		राशि		
									श्रम	सामग्री	श्रम	सामग्री	योग
1	नींव, खाई, परनाला में 1.5 गहराई तक मिट्टी की खुदाई करना, तल को कूटना, पानी डालना, बगल को संवारना, खुदी मिट्टी को बाहर निकालना, नींव भरने के बाद खाली स्थानों को पुनः मिट्टी से भरना तथा बची हुई मिट्टी को 50 मीटर की दूरी तक निस्तारण करना।												
A-	सख्त, चिकनी, कंकर मिट्टी में प्रति. औसत	1	259.21	556.96	379.96	2.5	299.03	घन मी.	**101**	**0.00**	**30202.28**	**0.00**	**30202.28**
B-	विघटित चट्टान /मुर्रम प्रति. औसत	1	259.21	556.96	379.96	2.5	697.74	घन मी.	**159**	**0.00**	**110941.06**	**0.00**	**110941.06**
2	खुदी हुई मिट्टी के काम्पक्शन का कार्य (मानव श्रम द्वारा बिना गिला किए हुए)	1	259.21	556.96	379.96	2.5	996.78	सख्या	**43.00**	**0.00**	**42861.33**	**0.00**	**42861.33**
3	120cm. high fencing with angle iron posts 50x50x6mm. placed at every 3 Mtr. apart 30cm. in ground embedded in cement concrete 1:3:6 (30x30x45cm) corner & every tenth posts to be strutted with 50x50x6mm angle iron provided with three horizontal lines and two diagonals of black barbed wire between two posts fitted and fixed with G.I. staple including earth work in excavation etc. complete.	1	4	24.6			98.4			**270.00**	**0.00**	**26568.00**	**26568.00**
	Total										**184004.67**	**26568.00**	**210572.67**

	Contengency 3%										**5520.14**	**797.04**	**6317.18**
	Grand Total										**189524.80**	**27365.04**	**216889.84**

SAY 216900.00



Cross- Section

DRAWINGS FRAM POND - 1000 CUM STORAGE CAPACITY

List of farmers for horticulture plantation

S. No.	Village	Name of farmer	Water Source	Area (Sq.M.)	Type of plants	No. of plants						
						Lemon	Papaya	Ber	Karonda	Pomegranate	Aonla	Total
1	Akoda	Dharm Chand S/o Jamna Lal Jain	Well	10000	Fruit	80	100	35		50	50	315
2	Akoda	Ram Karan, Ram Narayan S/o Keshara Ram Rundla	Well	10000	Fruit	130	100	35			50	315
3	Bichoon	Ranveer Singh S/o Man Singh Khangarot	Well	20000	Fruit	277	400					677
4	Bichoon	Ramesh S/o Bishan Lal Dhabhai	Well	2500	Fruit	35	50					85
5	Bichoon	Balmukund S/o Hari Narayan Dhabhai	Well	2500	Fruit	35	50					85
6	Bichoon	Onkar Mal S/o Hari Narayan Bagra	Well	10000	Fruit	92	132				52	276
7	Bichoon	Kishan Lal Jevalya S/o Balu Ram	Well	10000	Fruit	100	60	30			52	242
8	Bichoon	Dhanna Lal S/o Ramu Kumawat	Well	5000	Fruit	10	20	100	10			140
9	Bichoon	Chhitar S/o Balu Ram Kumawat	Well	5000	Fruit	10	15	100	10			135
10	Bichoon	Balu Ram S/o Birda Mali	Well	10000	Fruit	70	20	50		10	20	170
11	Palu kalan	Shrawan Lal S/o Mool Chand Jat	Well	5000	Fruit	30	50	10	30		50	170
12	Palu kalan	Banna Ram(Ram Narayan) S/o Ramdev Gurjar	Well	10000	Fruit	50	100	30	50		100	330
13	Palu kalan	Mool Chand Jat S/o Ram Karan Jat	Well	10000	Fruit	60	100	30	60		100	350
14	Palu kalan	Tulsi Ram S/o Kishana Ram Balai	Well	5000	Fruit	30	100		20		50	200
15	Palu kalan	Hanuman Gurjar S/o Ram Chandra Gurjar	Well	5000	Fruit	30	100		20		50	200
16	Palbas	Kailash Chand S/o Jagdish Mali	Well	5000	Fruit		100	60				160
17	Palbas	Bhairu Ram S/o Chhoga Ram Gurjar	Well	5000	Fruit	70	100			20		190

18	Palbas	Nanu Ram S/o Dunga Ram Mali	Well	5000	Fruit		100	50		20		170
19	Palbas	Ram Karan S/o Kalyan Gurjar	Well	5000	Fruit	60	100	20				180
20	Sainipura	Sona Ram S/o Dalla Ram Mali	Well	10000	Fruit		150	100			50	300
21	Sainipura	Nanu Ram S/o Dunga Ram Mali	Well	10000	Fruit	70	300	20		30		420
22	Sainipura	Ramavatar S/o Mumaram Mali	Well	10000	Fruit	50	200	80	30			360
23	Sainipura	Mala Ram S/o Binjha Ram Mali	Well	10000	Fruit	60	100	80	60	30		330
24	Sainipura	Madan Lal S/o Dalla Ram Mali	Well	5000	Fruit		100	50			50	200
25	Sawarda	Hanuman Sahay S/o Ramdev Jat	Well	10000	Fruit	20	200	40	30	20		310
26	Sawarda	Ram Kishan S/o Ram Narayan Jat	Well, Nada	10000	Fruit	35	50	20	20		150	275
27	Sawarda	Chhitar S/o Ram Karan Khurdia	Well	7500	Fruit	10	25	20	10		100	165
28	Sawarda	Ram Sahay S/o Hanuman Prasad Kumhar	Well	5000	Fruit	20	50	20	20		50	160
29	Sawarda	Chhitar Mal S/o Ladu Ram Jat	Well, Nada	10000	Fruit	100	200	10	10		10	330

Detail of S.H.G.

S. No.	Village	Name of SHG	Members	Activity Involved	Monthly Income	Fund available	Assistance available	Source of assistance	Training received
1	Akoda	Rajlaxmi Selp Help Group	10	Animal husbendary	500	10000	Yes	bank	
2	Akoda	Anamika Selp Help Group	13	Animal husbendary	650	40000	Yes	bank	
3	Akoda	Vishakha Selp Help Group	11	Animal husbendary	550	35000	Yes	bank	
4	Akoda	Salini Selp Help Group	10	Animal husbendary	500	12000	Yes	bank	
5	Bichoon	Milan Selp Help Group	15	Animal husbendary	1500	3000	Yes	bank	
6	Bichoon	Mamta Selp Help Group	10	Animal husbendary	500	17000	Yes	bank	
7	Bichoon	Laxmi Selp Help Group	11	Animal husbendary	550	18000	Yes	bank	
8	Palu kalan	Mahila milan Selp Help Group	16	Animal husbendary	1600	8000	Yes	bank	
9	Palbas	Durga Selp Help Group	10	Animal husbendary	1600	9500	Yes	bank	
10	Sainipura	Arti Selp Help Group	10	Animal husbendary	200	25000	Yes	bank	
11	Sainipura	Mamta Selp Help Group	10	Animal husbendary	500	12000	Yes	bank	
12	Sawarda	Priya Selp Help Group	10	Manihari, Agarbatti	1000	2000	Yes	bank	
13	Sawarda	Rekha Selp Help Group	10	Manihari, Agarbatti	1000	2000	Yes	bank	
14	Sawarda	Anjali Selp Help Group	10	Cloth stitching	1000	5000	Yes	bank	

GP Name	Village Name	Area Ha
akoda	Akoda	119
	Palbas	1037
	Sainipura	804
Bichoon	Bichoon	279
Gidani	Palu kalan	388
Sawarda	Sawarda	1274
Total		**3901**

Macro	Micro	Fourth Order Drainage	Second Order Drainage	Third Order Drainage	SETTLEMENT	AGRICULTURE LAND	AGRICULTURE LA 1
10	1	9.96	0.3	3.13	60.93	189.87	0
10	2	0	0	0.08	238.95	713.3	0.41
11	1	0.75	0.02	0.16	6.15	317.12	0
11	2	0.2	0	0	23.83	88.35	0
Total		**10.91**	**0.32**	**3.37**	**329.86**	**1308.64**	**0.41**

Macro	Micro	GULLIED RAVENO	LAND WITH SCRUB	LAND WITHOUT SCR	MINING INDUSTR	SCATTERED VEGETA	WATER BODY
10	1	31	90.09	56.39	5.33	21.79	1.93
10	2	136.9	317.48	308.6	8.91	97.18	19.5
11	1	0	17.36	100.08	2.69	15.21	1.64
11	2	23.2	57.47	24.07	3.54	18.64	1.14
Total		**191.1**	**482.4**	**489.14**	**20.47**	**152.82**	**24.21**

Macro	Micro	Slope 1-3%	Slope 3-5%	Slope 5-10%	Slope >10%	Slope 0-1%
10	1	196.64	81.23	58.82	28.94	132.69
10	2	698.45	263.99	174.03	186.29	880.97
11	1	236.03	43.14	16.58	12.22	326.9
11	2	127.48	38.92	32.12	23.91	108.7
Total		**1258.6**	**427.28**	**281.55**	**251.36**	**1449.26**

macro	micro	Canal	First Order Drainage	Second Order Drainage	Third Order Drainage	Fourth Order Drainage	Fifth Order Drainage	Major Road	Medium Road	Other Road	State Highway	Village Road
10	1	1222.29	36349.94	17948.7	7211.62	0	0	1950.54	12530.27	19170.14	2707.49	6802.79
10	2	0	8251.6	945.59	0	0	0	4506.26	4042.02	1324.54	0	1080.95
11	1	0	10469.96	6033.9	3423.29	1995.31	0	0	2830.16	2561.93	850.6	919.17
11	2	0	5443.11	4061.64	2327.29	3127.27	69.51	0	1226.25	2525.15	0	0
11	3	0	2081.82	0	0	0	0	0	2247.73	3275.57	0	0
Total		**1222.29**	**62596.43**	**28989.83**	**12962.2**	**5122.58**	**69.51**	**6456.8**	**22876.43**	**28857.33**	**3558.09**	**8802.91**

macro	micro	Anicut	Historical Monument	Post Telegraph	Worship Place
10	1	6	2	1	3
11	1	3	0	0	1
11	2	2	0	0	0
Total		**11**	**2**	**1**	**4**

Village Name	Area Ha	Anicut	First Order Drainage	Third Order Drainage	Second Order Drainage	Fourth Order Drainage	Fifth Order Drainage
Blank	2519.19	431.01	39522.85	10504.62	22093.08	5122.58	69.51
Bichoon	282.64	0	15427.1	2457.58	6896.75	0	0
Keriya	26.87	0	640.74	0	0	0	0
Sawarda	913.49	0	7005.74	0	0	0	0
Total	**3742.19**	**431.01**	**62596.43**	**12962.2**	**28989.83**	**5122.58**	**69.51**

Village Name	Area Ha	Anicut	First Order Drainage	Second Order Drainage	Third Order Drainage	Fourth Order Drainage	Fifth Order Drainage
Blank	2519.19	11	251	68	23	2	1
Bichoon	282.64	0	84	20	4	0	0
Keriya	26.87	0	8	0	0	0	0
Sawarda	913.49	0	4	0	0	0	0
Total	**3742.19**	**11**	**347**	**88**	**27**	**2**	**1**

Village Name	Area Ha	SETTLEMENT	AGRICULTURE LAND	AGRICULTURE LA 1	AGRICULTURE LA 2	GULLIED RAVENO	LAND WITH SCRUB	LAND WITHOUT SCR
Blank	2519.19	266.72	910.76	0	382.47	101.92	350.46	374.46
Bichoon	282.64	16.47	4.93	0	0.01	88.07	122.23	8
Morsar	222.15	38.45	143.37	0	6.77	0	0	25.6
Sawarda	913.49	8.22	360.24	0.41	402.37	0	0	114.94
Total	**3937.47**	**329.86**	**1419.3**	**0.41**	**791.62**	**189.99**	**472.69**	**523**

MINING INDUSTR	SCATTERED VEGETA	WATER BODY	Slope 0-1%	Slope 1-3%	Slope 3-5%	Slope 5-10%	Slope >10%	Second Order Drainage
15.13	91.68	19.43	865.82	955.76	354.44	222.04	121.14	0.02
5.15	35.06	2.62	34.87	42.2	35.02	49.95	120.58	0.3
0	7.16	0.24	130.63	77.38	12.75	1.4	0	0
0.18	23.67	2.62	584.73	283.27	36.84	8.46	0.22	0
20.46	**157.57**	**24.91**	**1616.05**	**1358.61**	**439.05**	**281.85**	**241.94**	**0.32**

Third Order Drainage	Fourth Order Drainage
2.81	9.12
0.48	1.8
0	0
0.08	0
3.37	**10.92**

Demografical Details of Project Area

S.no.	VILLAGE CODE	VILLAGE NAME	Number of Households	T_P	T_M	T_F	SC_P	SC_M	SC_F	ST_P	ST_M	ST_F
1	01509400	Akoda	483	3374	1771	1603	1203	629	574	152	81	71
2	01517900	Bichoon	672	4076	2151	1925	944	498	446	225	112	113
3	01509500	Palbas	202	1477	782	695	97	51	46	0	0	0
4	01517600	Paloo Kalan	171	1173	621	552	220	116	104	84	46	38
5	01505000	Sainipura	186	1595	800	795	176	88	88	0	0	0
6	01514500	Sawarda	660	4300	2226	2074	1200	629	571	101	56	45
			2374	15995	8351	7644	3840	2011	1829	562	295	267

S.No.	Name of Gram panchayat	Name of village	No of Farm pond	
			500 cum	750 cum
1	Akoda	Akoda	11	
2	Akoda	Palbas	4	
3	Akoda	Sainipura	8	
4	Bichoon	Bichoon	0	
5	Gidani	Palu kalan	12	
6	Sawarda	Sawarda	15	
		Grand Total	50	

नरेगा कार्य योजना में मेडबंदी कार्य

	ग्राम पंचायत	गांव का नाम	कार्य का नाम	अनुमानित श्रम राशि	अनुमानित सामग्री राशि	कुल
1	गिदानी	पालूकलां	मेडबन्दी कार्य रामलाल/लादूराम	0.90	0.60	1.50
2	गिदानी	पालूकलां	मेडबन्दी कार्य भूरा/गंगाराम	0.90	0.60	1.50
3	गिदानी	पालूकलां	मेडबन्दी कार्य देवा/गंगाराम	0.90	0.60	1.50
4	गिदानी	पालूकलां	मेडबन्दी कार्य भागीरथ/मोहरूराम	0.90	0.60	1.50
5	गिदानी	पालूकलां	मेडबन्दी कार्य छीतर/मोहरूराम	0.90	0.60	1.50
6	सावरदा	सावरदा	मेडबन्दी कार्य सत्यनारायण/सुवालाल	0.90	0.60	1.50
7	सावरदा	सावरदा	मेडबन्दी कार्य शान्ति /मंगलचन्द	0.90	0.60	1.50
8	सावरदा	सावरदा	मेडबन्दी कार्य मोहन /भूरा	0.90	0.60	1.50
9	सावरदा	सावरदा	मेडबन्दी कार्य कैलाश/भुरा	0.90	0.60	1.50
10	सावरदा	सावरदा	मेडबन्दी कार्य बंशीलाल/गोपाल	0.90	0.60	1.50
11	सावरदा	सावरदा	मेडबन्दी कार्य रामेश्वर/भागुडा	0.90	0.60	1.50
12	सावरदा	सावरदा	मेडबन्दी कार्य नोरतमल/धन्नाराम	0.90	0.60	1.50
13	सावरदा	सावरदा	मेडबन्दी कार्य नारायण/अर्जुन	0.90	0.60	1.50
14	सावरदा	सावरदा	मेडबन्दी कार्य राधादेवी/धन्नाराम	0.90	0.60	1.50
15	सावरदा	सावरदा	मेडबन्दी कार्य चिरजीलाल/रामदेव	0.90	0.60	1.50
16	सावरदा	सावरदा	मेडबन्दी कार्य बोदूराम/रामकरण	0.90	0.60	1.50
17	सावरदा	सावरदा	मेडबन्दी कार्य धन्नाराम/गंगाराम	0.90	0.60	1.50
18	सावरदा	सावरदा	मेडबन्दी कार्य बुद्विप्रकाश/मंगल	0.90	0.60	1.50
19	सावरदा	सावरदा	मेडबन्दी कार्य गोविन्द /भुरा राम	0.90	0.60	1.50
20	सावरदा	सावरदा	मेडबन्दी कार्य सोहन / चन्दाराम	0.90	0.60	1.50
21	सावरदा	सावरदा	मेडबन्दी कार्य गोपाल /चन्दा	0.90	0.60	1.50
22	सावरदा	सावरदा	मेडबन्दी कार्य गोपाल /भुरा	0.90	0.60	1.50
23	सावरदा	सावरदा	मेडबन्दी कार्य सिताराम /भुरा	0.90	0.60	1.50
24	सावरदा	सावरदा	मेडबन्दी कार्य रामकरण/भागीरथ	0.90	0.60	1.50
25	सावरदा	सावरदा	मेडबन्दी कार्य कानाराम/रधुनाथ	0.90	0.60	1.50
26	सावरदा	सावरदा	मेडबन्दी कार्य फुलचन्द /गणेश	0.90	0.60	1.50
27	आकोदा	आकोदा	मेडबन्दी वानस्पतिक बाड कार्य गणेश/श्योकरण	0.90	0.60	1.50
28	आकोदा	आकोदा	उपजाऊ मिट्टी डलवाने का कार्य हरिराम/बोदूराम	0.90	0.60	1.50
29	आकोदा	आकोदा	मेडबन्दी वानस्पतिक बाड कार्य किशनलाल/घीसा बैरवा	0.90	0.60	1.50
30	आकोदा	आकोदा	मेडबन्दी वानस्पतिक बाड कार्य रामनारायण/रामकरण परेवा	0.90	0.60	1.50
31	आकोदा	आकोदा	वेस्ट वीयर पक्का निर्माण कार्य चेतनप्रकाश/सुवालाल	0.90	0.60	1.50
32	आकोदा	आकोदा	मेडबन्दी वानस्पतिक बाड कार्य मांगीलाल/बोदूराम धोबी	0.90	0.60	1.50

33	आकोदा	आकोदा	मेडबन्दी वानस्पतिक बाड कार्य बंशीलाल / लच्छाराम	0.90	0.60	1.50
34	आकोदा	आकोदा	मेडबन्दी वानस्पतिक बाड कार्य श्योनाथ / लालाराम मीणा	0.90	0.60	1.50
35	आकोदा	आकोदा	मेडबन्दी वानस्पतिक बाड कार्य मोहनलाल / रघुनाथ मीणा	0.90	0.60	1.50
36	आकोदा	आकोदा	मेडबन्दी वानस्पतिक बाड कार्य रामप्रसाद / हनुमान मीणा	0.90	0.60	1.50
37	आकोदा	आकोदा	मेडबन्दी वानस्पतिक बाड कार्य ओमप्रकाश / हनुमान मीणा	0.90	0.60	1.50
38	आकोदा	आकोदा	मेडबन्दी वानस्पतिक बाड कार्य हरिनारायण / रामदास	0.90	0.60	1.50
39	आकोदा	आकोदा	मेडबन्दी वानस्पतिक बाड कार्य रोडूराम कोरवाणा / छोगाराम	0.90	0.60	1.50
40	आकोदा	आकोदा	मेडबन्दी वानस्पतिक बाड कार्य कमलेश / कल्याणमल शर्मा	0.90	0.60	1.50
41	आकोदा	आकोदा	मेडबन्दी वानस्पतिक बाड कार्य राधेश्याम / रूपनारायण सैन	0.90	0.60	1.50
42	आकोदा	आकोदा	मेडबन्दी वानस्पतिक बाड कार्य शांति देवी / भंवरलाल माली	0.90	0.60	1.50
43	आकोदा	आकोदा	मेडबन्दी वानस्पतिक बाड कार्य गोगाराम / मोहनलाल माली	0.90	0.60	1.50
44	आकोदा	आकोदा	मेडबन्दी वानस्पतिक बाड कार्य रामावतार / रामपाल नाई	0.90	0.60	1.50
45	आकोदा	आकोदा	मेडबन्दी वानस्पतिक बाड कार्य गीता देवी / राधेश्याम	0.90	0.60	1.50
46	आकोदा	आकोदा	मेडबन्दी वानस्पतिक बाड कार्य झूथाराम देवन्दा / ज्ञानाराम	0.90	0.60	1.50
47	आकोदा	आकोदा	मेडबन्दी वानस्पतिक बाड कार्य लादूराम फामड़ा / सांवतरराम	0.90	0.60	1.50
48	आकोदा	आकोदा	मेडबन्दी वानस्पतिक बाड कार्य महादेव / मूलचन्द	0.90	0.60	1.50
49	आकोदा	आकोदा	मेडबन्दी वानस्पतिक बाड कार्य दुर्गालाल / भंवरलाल माली	0.90	0.60	1.50
50	आकोदा	पालवास	मेडबन्दी वानस्पतिक बाड कार्य बालूराम / श्रवणलाल रेबारी	0.90	0.60	1.50
51	आकोदा	पालवास	मेडबन्दी वानस्पतिक बाड कार्य हीरालाल / रामू गुर्जर	0.90	0.60	1.50
52	आकोदा	पालवास	मेडबन्दी वानस्पतिक बाड कार्य श्रीकिशन / सुवाराम गुर्जर	0.90	0.60	1.50
53	आकोदा	आकोदा	मेडबन्दी वानस्पतिक बाड कार्य हींगलाजदान / अम्बादान	0.90	0.60	1.50
54	आकोदा	आकोदा	मेडबन्दी वानस्पतिक बाड कार्य प्रभूदयाल / नानूराम	0.90	0.60	1.50
55	आकोदा	आकोदा	मेडबन्दी वानस्पतिक बाड कार्य गोपीराम / लालूराम	0.90	0.60	1.50
56	आकोदा	आकोदा	मेडबन्दी वानस्पतिक बाड कार्य हीरालाल / लादूलाल बैरवा	0.90	0.60	1.50

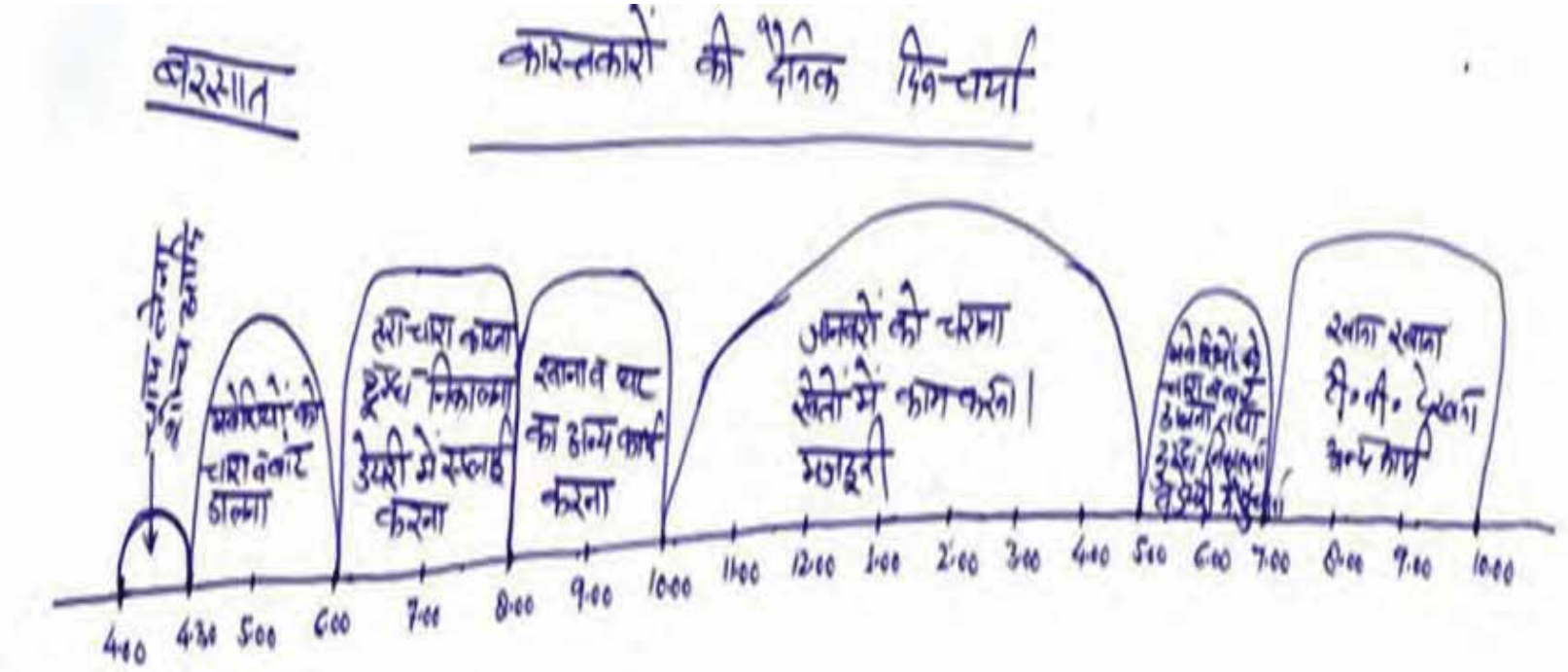
57	आकोदा	आकोदा	मेडबन्दी वानस्पतिक बाड कार्य रामेश्वरलाल/रामचन्द्र बैरवा	0.90	0.60	1.50
58	आकोदा	आकोदा	मेडबन्दी वानस्पतिक बाड कार्य बाबूलाल/श्योकरण बैरवा	0.90	0.60	1.50
59	आकोदा	आकोदा	मेडबन्दी वानस्पतिक बाड कार्य ग्यारसीलाल/ जगन्नाथ	0.90	0.60	1.50
60	आकोदा	आकोदा	मेडबन्दी वानस्पतिक बाड कार्य हनुमान/शिवकरण	0.90	0.60	1.50
61	आकोदा	पालवास	मेडबन्दी वानस्पतिक बाड कार्य रामेश्वरलाल/बन्नाराम	0.90	0.60	1.50
62	आकोदा	पालवास	मेडबन्दी वानस्पतिक बाड कार्य जगदीश प्रसाद/नानूराम बलाई	0.90	0.60	1.50
63	आकोदा	पालवास	मेडबन्दी वानस्पतिक बाड कार्य सुण्डाराम/नानूराम बलाई	0.90	0.60	1.50
64	आकोदा	पालवास	मेडबन्दी वानस्पतिक बाड कार्य सूरजमल/रामदेव बलाई	0.90	0.60	1.50
65	आकोदा	पालवास	मेडबन्दी वानस्पतिक बाड कार्य रामेश्वर/नानूराम बलाई	0.90	0.60	1.50
66	आकोदा	पालवास	मेडबन्दी वानस्पतिक बाड कार्य भूराराम/जोहरीलाल बलाई	0.90	0.60	1.50
67	आकोदा	पालवास	मेडबन्दी वानस्पतिक बाड कार्य ईश्वरलाल/जोहरीलाल बलाई	0.90	0.60	1.50
68	आकोदा	पालवास	मेडबन्दी वानस्पतिक बाड कार्य लालाराम/जोहरीलाल बलाई	0.90	0.60	1.50
69	आकोदा	पालवास	मेडबन्दी वानस्पतिक बाड कार्य मोहनलाल/सुवाराम बलाई	0.90	0.60	1.50
70	बिचून	बिचून	मेडबन्दी कार्य हनुमान प्रसाद / कामड खटीक	0.90	0.60	1.50
71	बिचून	बिचून	समतलीकरण कार्य लालचन्द / लादूराम कुमावत	0.90	0.60	1.50
72	बिचून	बिचून	मेडबन्दी कार्य मोहरूलाल / नारायण बलाई	0.90	0.60	1.50
73	बिचून	बिचून	भूमि सुधार एवं मेडबन्दी कार्य मांगीलाल / श्रवणलाल	0.90	0.60	1.50
				65.70	43.80	109.50

नरेगा कार्य योजना में W.H.S निर्माण कार्य

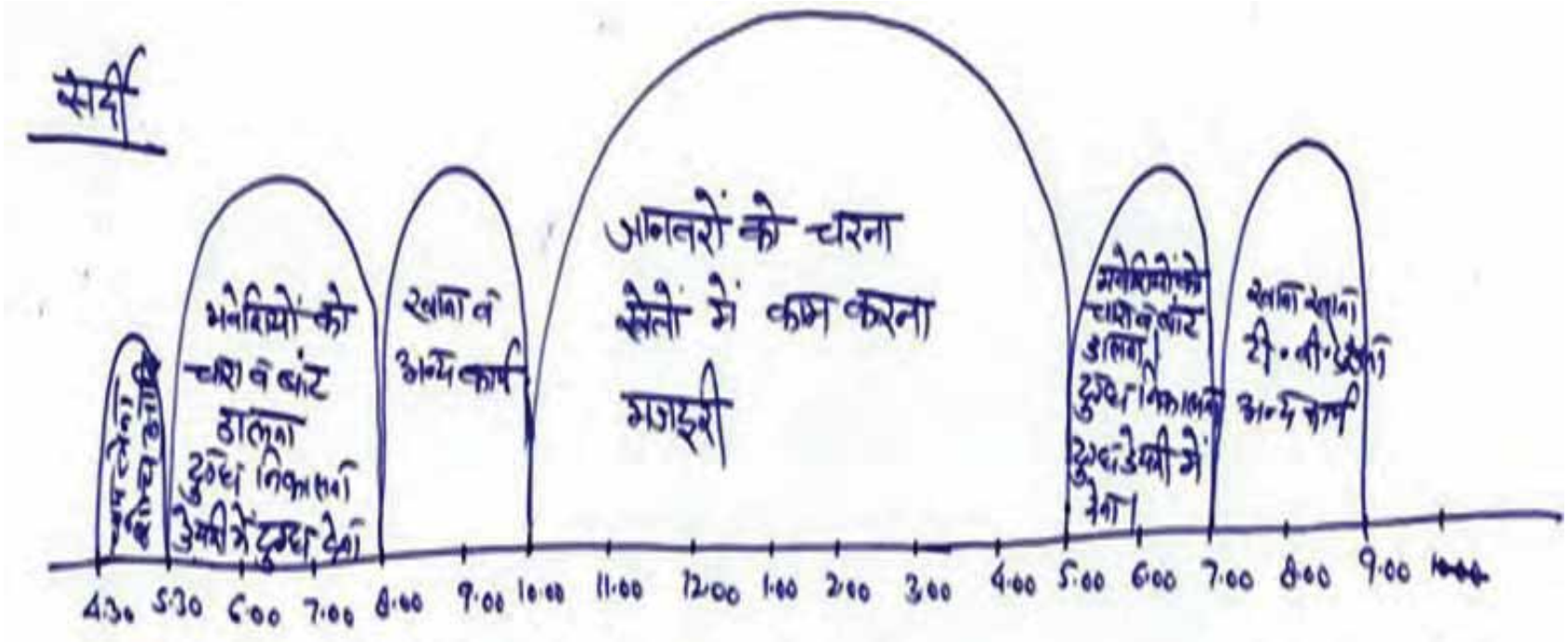
	ग्राम पंचायत	गांव का नाम	कार्य का नाम	अनुमानित श्रम राशि	अनुमानित सामग्री राशि	कुल
1	गिदानी	पालूकलां	सार्व. तालाब खुदाई व फेसवाल निर्माण कार्य पालूकलां	4.00	5.00	9.00
2	सावरदा	सावरदा	सार्व.तालाब/नाडी/तालई खुदाई एवं फेसवाल निर्माण,बडवाली नाडी	18.12	1.88	20.00
3	सावरदा	सावरदा	सार्व. तालाब/नाडी/तलाई खुदाई निर्माण कार्य झीली खाना नाडा	18.12	1.88	20.00
4	सावरदा	सावरदा	सार्व. तालाब/नाडी/तलाई खुदाई निर्माण कार्य प्रकाश टकलिया नाडा	18.12	1.88	20.00
5	सावरदा	सावरदा	सार्व. तालाब/नाडा/तलाई खुदाई कार्य बडवाली की ढाणी में	17.10	2.90	20.00
6	सावरदा	सावरदा	सार्व. तालाब नाडा खुदाई कार्य पीपली खाना वाला नाडा	9.00	1.00	10.00
7	सावरदा	सावरदा	सार्व. तालाब नाडा खुदाई कार्य मांजी वाला नाडा	9.00	1.00	10.00
8	सावरदा	सावरदा	सार्व. तालाब नाडा खुदाई कार्य नीलो वाला नाडा	9.00	1.00	10.00
9	सावरदा	सावरदा	सार्व. तालाब नाडा खुदाई कार्य मुरडिया नाडा	9.00	1.00	10.00
10	सावरदा	सावरदा	सार्व. तालाब नाडा खुदाई कार्य चरागाह में झांगर की ढाणी	9.00	1.00	10.00
11	सावरदा	सावरदा	सार्व. तालाब नाडा खुदाई कार्य बडवाली में	9.00	1.00	10.00
12	सावरदा	सावरदा	सार्व. तालाब नाडा खुदाई कार्य नवल सागर नाडा	9.00	1.00	10.00
13	आकोदा	आकोदा	सार्व. नाडा खुदाई कार्य खेडीराम चारागाह भमि में	17.10	2.90	20.00
14	सैनीपुरा	आकोदा	सार्व. तालाब / नाडी / तलाई खुदाई व पाल निर्माण कार्य सैनीपुरा तालाब	17.10	2.90	20.00
15	आकोदा	आकोदा	सार्व. तालाब/नाडा/तलाई खुदाई कार्य मावतो की ढाणी कचोलिया नाडा	7.58	2.42	10.00
16	आकोदा	सैनीपुरा	सार्व. तालाब/नाडा/तलाई खुदाई कार्य शमशान घाट के पास	8.00	1.00	9.00
17	आकोदा	आकोदा	सार्व. तालाब/नाडा/तलाई खुदाई कार्य डाकन टीबा के पास आकोदा	8.00	1.00	9.00
18	आकोदा	आकोदा	सार्व. तालाब/नाडा/तलाई खुदाई कार्य श्मशान डूंगरी के पास	8.00	1.00	9.00
19	आकोदा	पालवास	सार्व. तालाब/नाडा/तलाई खुदाई कार्य बोझा वाला नाडा पालवास	8.00	1.00	9.00
20	आकोदा	पालवास	सार्व. तालाब/नाडा/तलाई खुदाई कार्य गंगा सागर तालाब	8.00	1.00	9.00

21	आकोदा	सैनीपुरा	सार्व. तालाब/नाडा/तलाई खुदाई कार्य श्मशान घाट के पास सैनीपुरा	8.00	1.00	9.00
22	बिचून	बिचून	सार्व.तालाब/नाडी/तालई खुदाई एवं फेसवाल निर्माण, सूरसागर तालाब	18.12	1.88	20.00
23	बिचून	बिचून	सार्व. तालाब खुदाई कार्य श्याणा बाबा ग्राम बाडा	17.10	2.90	20.00
24	बिचून	बिचून	सार्व. तालाब नाडी तलाई खुदाई कार्य बालाजी तालाब	9.00	1.00	10.00
				272.46	40.54	313.00

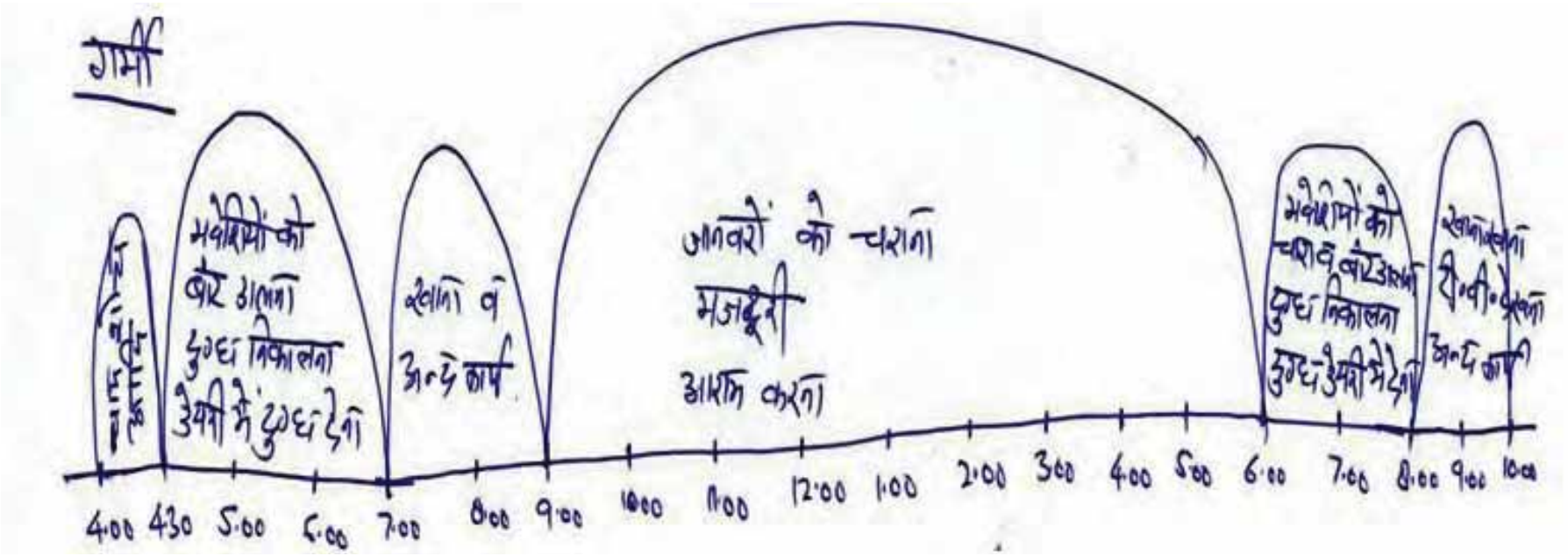
Daily Activity Schedule of Villagers in the Project Area during Rainy Season



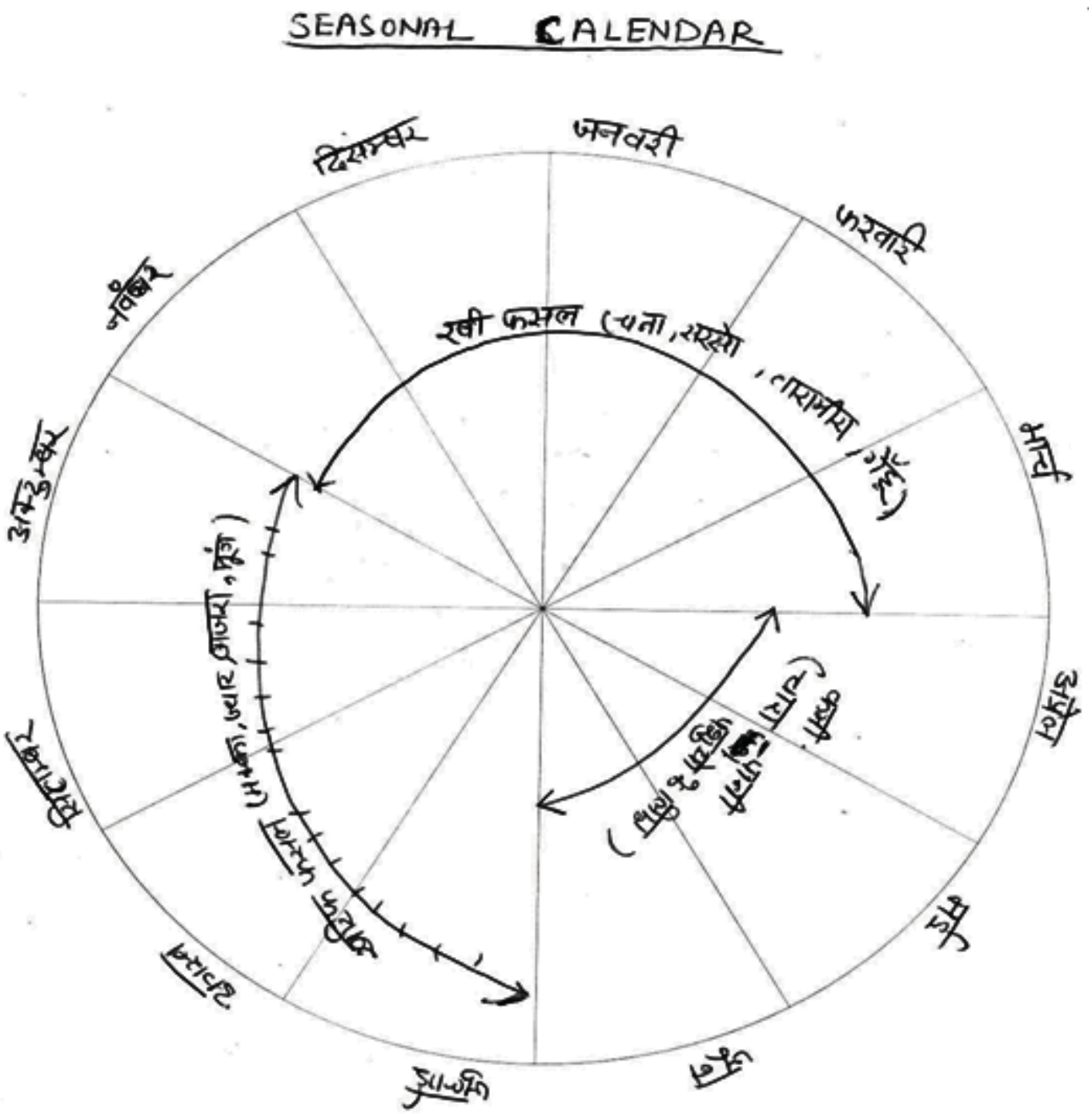
Daily Activity Schedule of Villagers in the Project Area Winter Season



Daily Activity Schedule of Villagers in the Project Area Summer Season



Seasonal Calendar

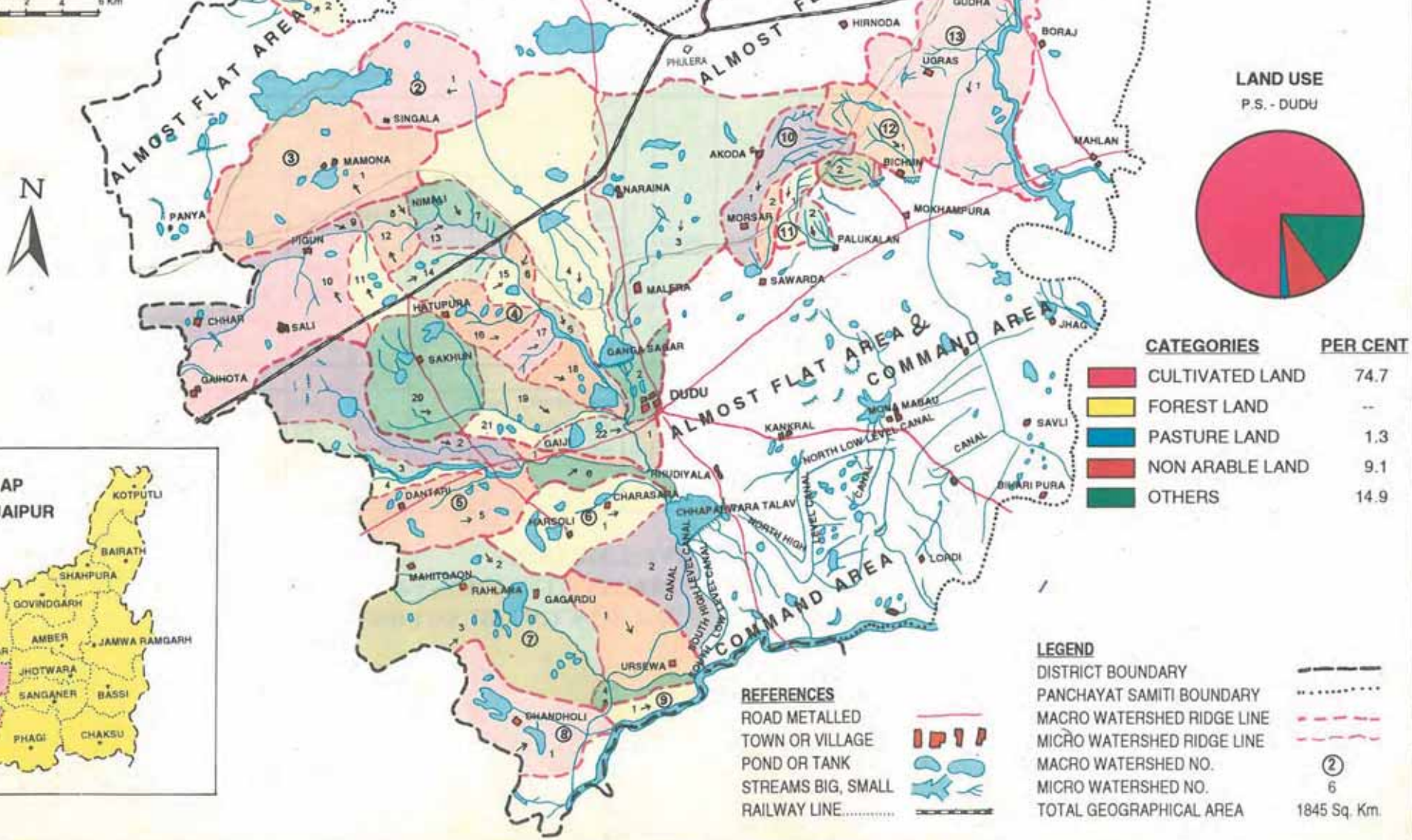


MICRO WATERSHED MAP

PANCHAYAT SAMITI - DUDU

DISTRICT - JAIPUR

0 2 4 6 Km



INDEX MAP
DISTRICT - JAIPUR

LAND USE
P.S. - DUDU

CATEGORIES	PER CENT
CULTIVATED LAND	74.7
FOREST LAND	--
PASTURE LAND	1.3
NON ARABLE LAND	9.1
OTHERS	14.9

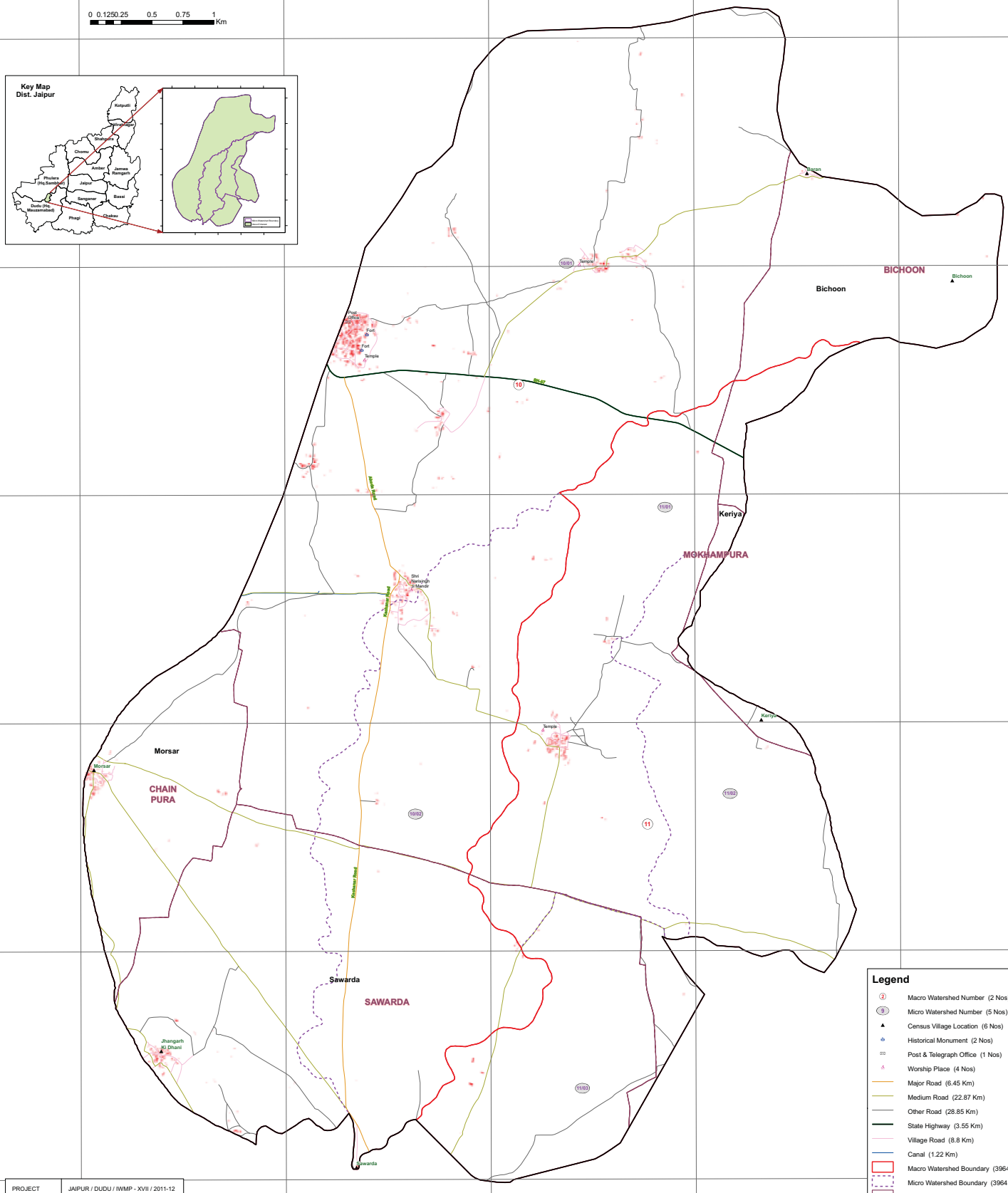
REFERENCES

ROAD METALLED
TOWN OR VILLAGE
POND OR TANK
STREAMS BIG, SMALL
RAILWAY LINE.....

LEGEND

DISTRICT BOUNDARY	
PANCHAYAT SAMITI BOUNDARY	
MACRO WATERSHED RIDGE LINE	
MICRO WATERSHED RIDGE LINE	
MACRO WATERSHED NO.	②
MICRO WATERSHED NO.	6
TOTAL GEOGRAPHICAL AREA	1845 Sq. Km.

BASE MAP



PROJECT	JAIPUR / DUDU / IWMP - XVII / 2011-12
SUBMITTED TO	WATERSHED DEPARTMENT GOVERNMENT OF RAJASTHAN
SUBMITTED BY	PDCOR Limited

CHAPTER- I

CHAPTER-X

CHAPTER-XI

CHAPTER- II

CHAPTER- III

CHAPTER- IV

CHAPTER- V

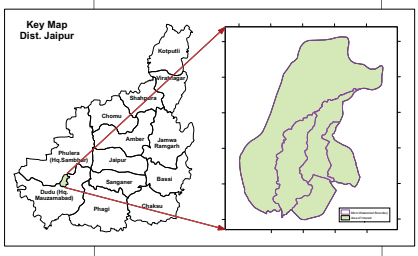
CHAPTER- VI

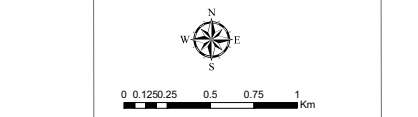
CHAPTER-VII

CHAPTER-VIII

CHAPTER-IX

CONTOUR MAP

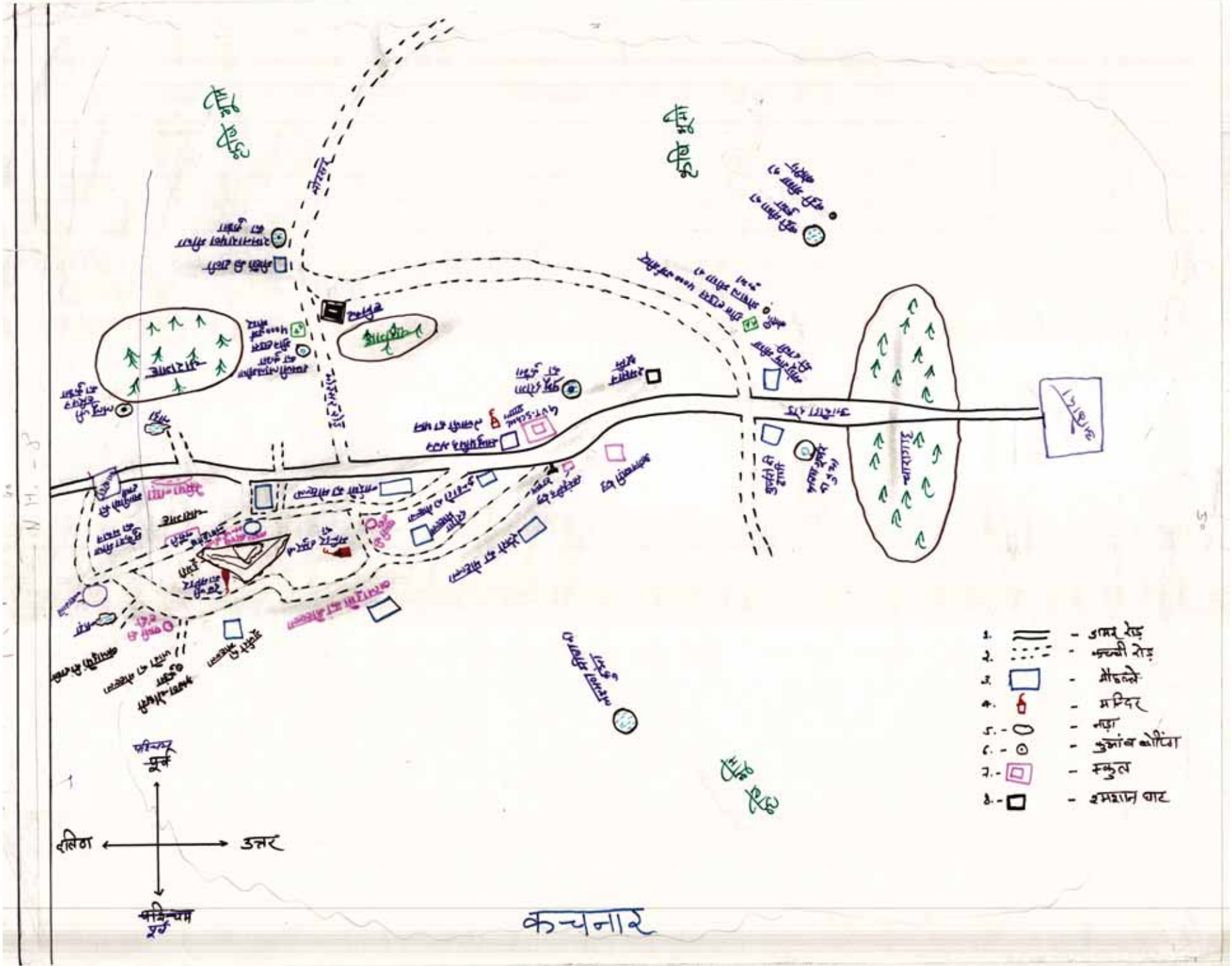




Legend

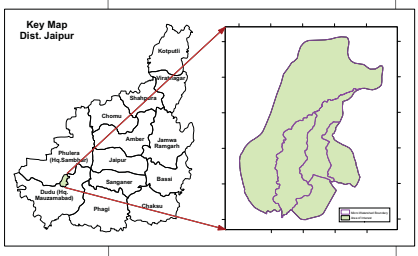
- Macro Watershed Number (2 Nos)
- Micro Watershed Number (5 Nos)
- Census Village Location (6 Nos)
- Tank for Cattle Drinking (2.74 Ha)
- Anicut (0.43 Km)
- Major Contour - 5m interval (HL -645), (LL -356)
- Minor Contour - 1m interval (HL -645), (LL -356)
- First Order Drainage (62596.38 Mtr)
- Second Order Drainage (28989.81 Mtr)
- Third Order Drainage (12962.19 Mtr)
- Fourth Order Drainage (5122.57 Mtr)
- Fifth Order Drainage (69.51 Mtr)
- Second Order Drainage (0.31 Ha)
- Third Order Drainage (3.37 Ha)
- Fourth Order Drainage (10.91 Ha)
- Water Body (10.3 Ha)
- Macro Watershed Boundary (3964.33 Ha)
- Micro Watershed Boundary (3964.33 Ha)
- Village Boundary (3964.33 Ha)
- Khasra Boundary (3964.33 Ha)
- Area of Interest (3964.33 Ha)

PROJECT	JAIPUR / DUDU / IWMP - XVII / 2011-12
SUBMITTED TO	WATERSHED DEPARTMENT GOVERNMENT OF RAJASTHAN
SUBMITTED BY	PDCOR Limited

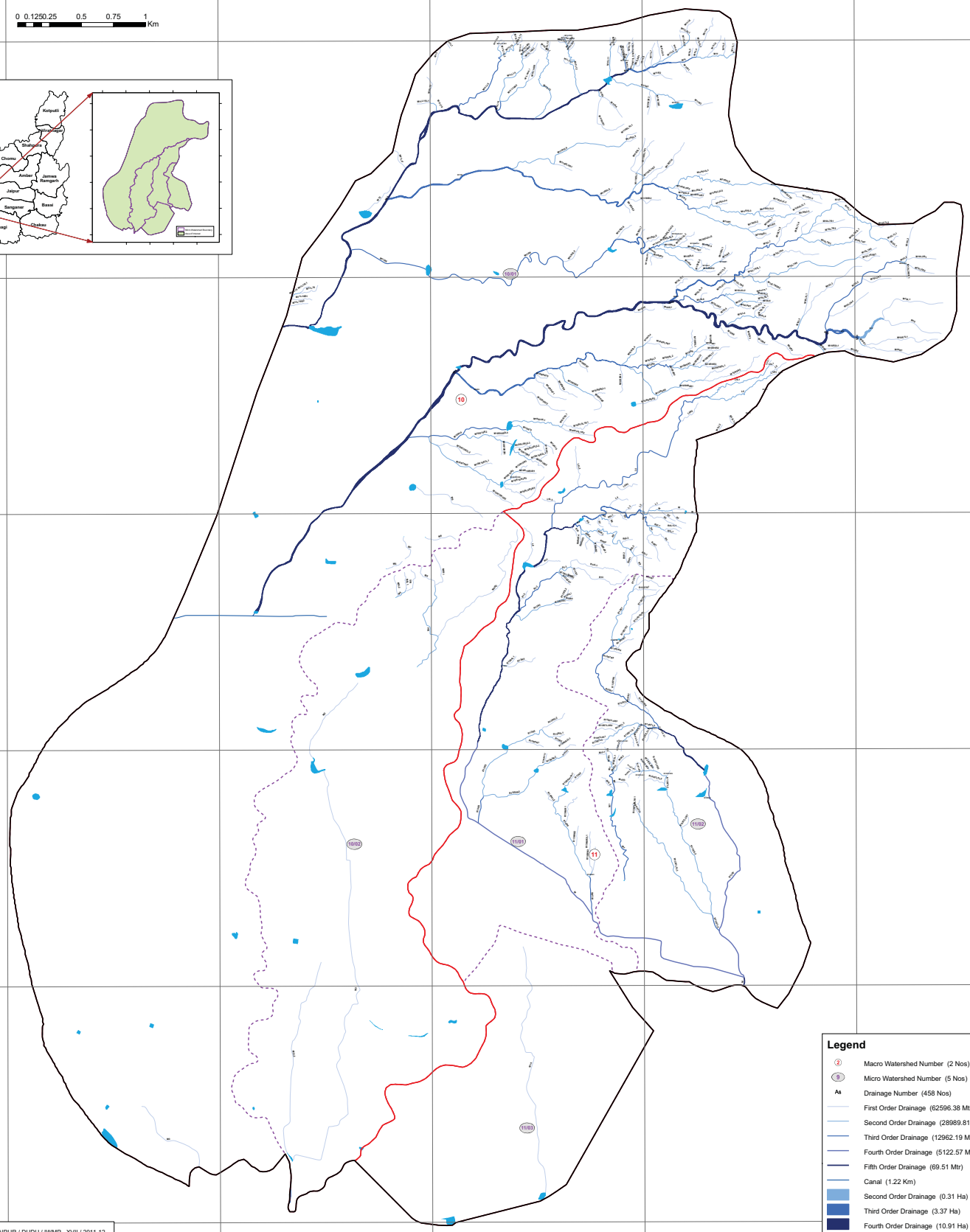

पश्चिम
पूर्व
दक्षिण
उत्तर
पश्चिम
पूर्व
1. - कच्ची रोड़
2. - मौहल्ले
3. - मन्दिर
4. - पेड़
5. - पुलांब कोटिंग
6. - स्कूल
7. - श्मशान घाट

कचनार

Drainage & Surface Water Bodies Map



0 0.1250.25 0.5 0.75 1 Km

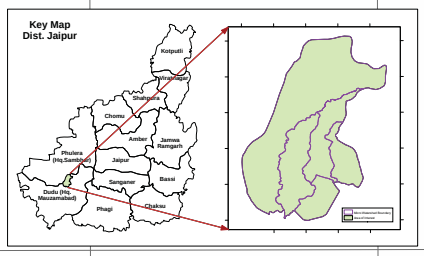


PROJECT	JAIPUR / DUDU / IWMP - XVII / 2011-12
SUBMITTED TO	WATERSHED DEPARTMENT GOVERNMENT OF RAJASTHAN
SUBMITTED BY	RPDCOR Limited

Legend

- Macro Watershed Number (2 Nos)
- Micro Watershed Number (5 Nos)
- Drainage Number (458 Nos)
- First Order Drainage (62596.38 Mtr)
- Second Order Drainage (28989.81 Mtr)
- Third Order Drainage (12962.19 Mtr)
- Fourth Order Drainage (5122.57 Mtr)
- Fifth Order Drainage (69.51 Mtr)
- Canal (1.22 Km)
- Second Order Drainage (0.31 Ha)
- Third Order Drainage (3.37 Ha)
- Fourth Order Drainage (10.91 Ha)
- Water Body (10.3 Ha)
- Macro Watershed Boundary (3964.33 Ha)
- Micro Watershed Boundary (3964.33 Ha)
- Area of Interest (3964.33 Ha)

LANDUSE / LANDCOVER MAP



Bichoon

Keriya

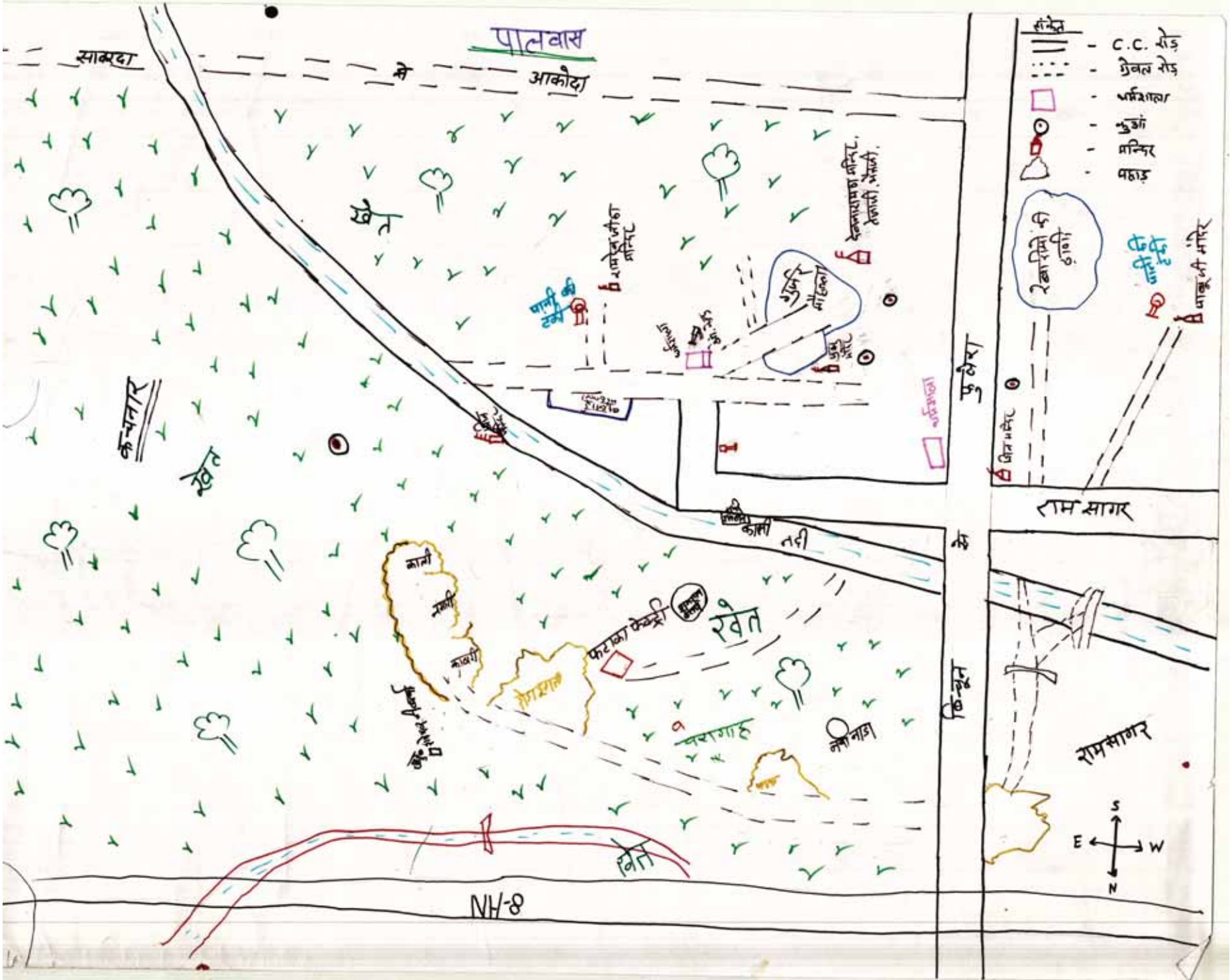
Morsar

Sawgarda

PROJECT	JAIPUR / DUDU / IWMP - XVII / 2011-12
SUBMITTED TO	WATERSHED DEPARTMENT GOVERNMENT OF RAJASTHAN
SUBMITTED BY	PDCOR Limited

Legend

- Macro Watershed Number (2 Nos)
- Micro Watershed Number (5 Nos)
- Census Village Location (6 Nos)
- Tank for Cattle Drinking (2.74 Ha)
- Anicut (0.43 Km)
- First Order Drainage (62596.38 Mtr)
- Second Order Drainage (28989.81 Mtr)
- Third Order Drainage (12962.19 Mtr)
- Fourth Order Drainage (5122.57 Mtr)
- Fifth Order Drainage (69.51 Mtr)
- Second Order Drainage (0.31 Ha)
- Third Order Drainage (3.37 Ha)
- Fourth Order Drainage (10.91 Ha)
- Macro Watershed Boundary (3964.33 Ha)
- Micro Watershed Boundary (3964.33 Ha)
- Village Boundary (3964.33 Ha)
- Khasra Boundary (3964.33 Ha)
- Area of Interest (3964.33 Ha)
- Water Body (25.05 Ha)
- Settlement (7.67 Ha)
- Scattered Vegetation (161.05 Ha)
- Mining / Industrial Waste (20.58 Ha)
- Land Without Scrub (525.29 Ha)
- Land With Scrub (483.92 Ha)
- Gullied / Ravenous (191.38 Ha)
- Agriculture Land Without Crop (330.09 Ha)
- Agriculture Land With Rabi Crop (0.5 Ha)
- Agriculture Land With Kharif Crop (1423.2 Ha)
- Agriculture Land With Kharif + Rabi (803.6 Ha)


पालवास
सांवरदा
से
आकोदा
कचनार
खेत
कालीं नदी
फुलेरा
रेलवे स्टेशन
रामसागर
C.C. रोड़
रेलवे रोड़
धर्मशाला
कुआँ
मन्दिर
पहाड़
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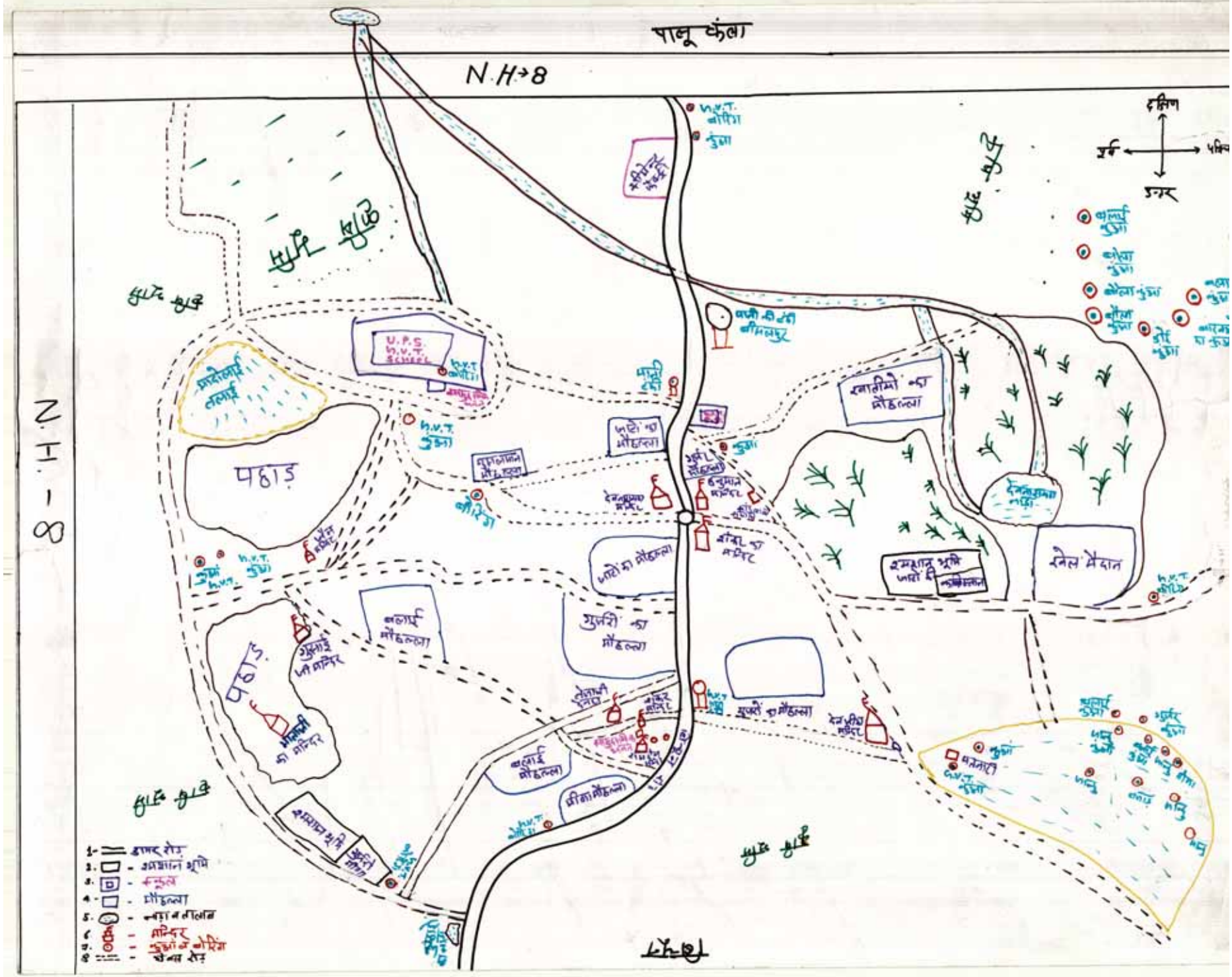

पालू कंला
N.H-8
N.H-8
दक्षिण
पश्चिम
उत्तर
U.P.S.
M.V.T. SCHOOL
पहाड़
पहाड़
रेलवे मैदान
1- डामर रोड
2. - असफाल भूमि
3. - स्कूल
4. - मोहल्ला
5. - नाला व तालाब
6. - मन्दिर
7. - पुल्ला व मोरिंग
8. - रेलवे रोड

A Day of Work for Men in Summer

5	सुबह के चाय
6	चारा काटना व दूध दोहना
7	सुबह कि दूसरी चाय व खाना
8	किसान खेती में काम करने व मजदूर मजदूरी का काम
9	दोपहर का खाना
10	आराम करते है।
11	दूध निकालना व चाय
12	दूध बेचने जाते है व हजामत खेती में काम पर जाते है।
1	घर के काम करते है व आराम करते है।
2	शाम का खाना
3	T.V. देखना व सोना

ON THE TIME OF GREEN GRAM

5	सुबह के चाय
6	चारा काटना व दूध दोहना
7	सुबह कि दूसरी चाय व खाना
8	खेत में काम
9	दोपहर का खाना व आराम
10	करना
11	खेत में काम
12	दोपहर का खाना व आराम
1	करना
2	शाम का खाना
3	खेत में काम से आराम करना

A DAY OF WORK FOR MEN IN WINTER SEASON

সুবহ ঠিক ৫টায়

চড়ুই কী ৮টায় ৫ ইধা ইকঠা হোনা

সুবহ ঠিক ৯টায় ও ঘানা

খীলী মেঁ কাম হোনা ওগর ফসল ছা লৈ ঔনমা ঔরাম হোনা

খাঁয়ইস কা ঘানা

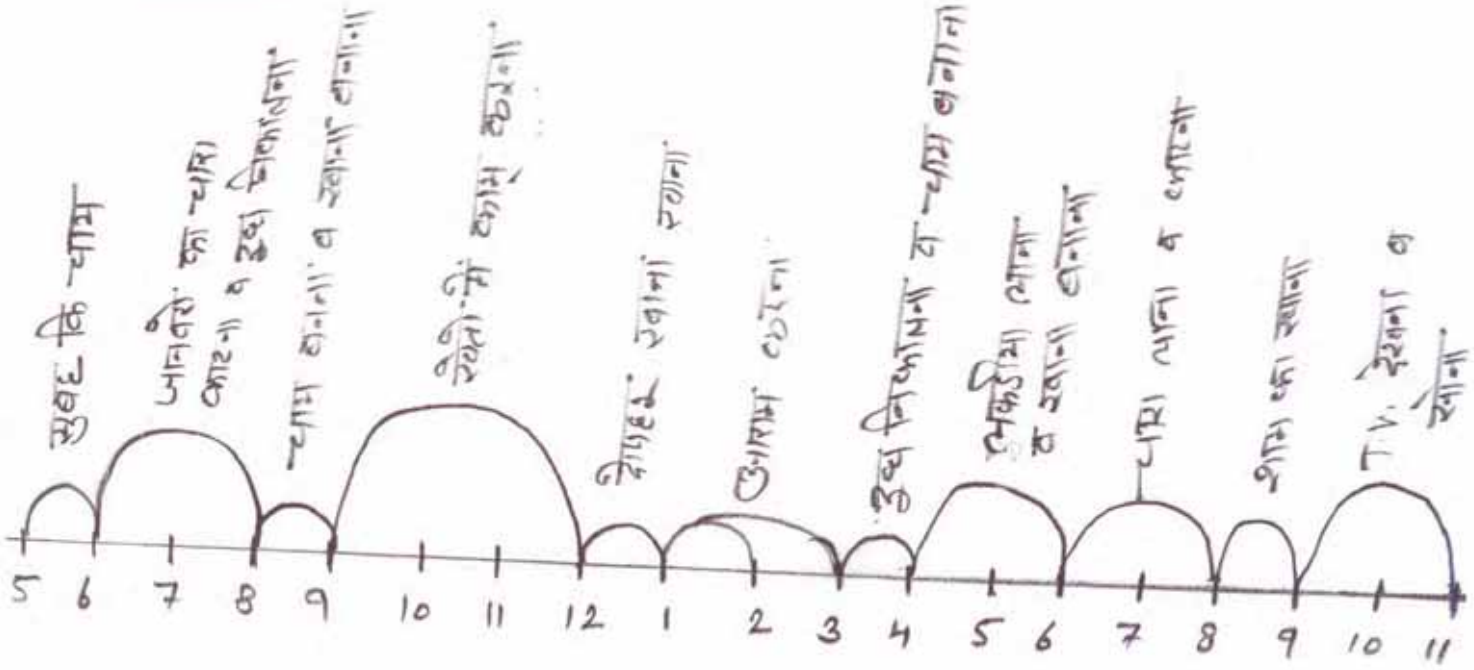
ঔরাম হোনা

দোনঘস কা ঘরা ঘানা ৱা ঔধা ঔঘানা

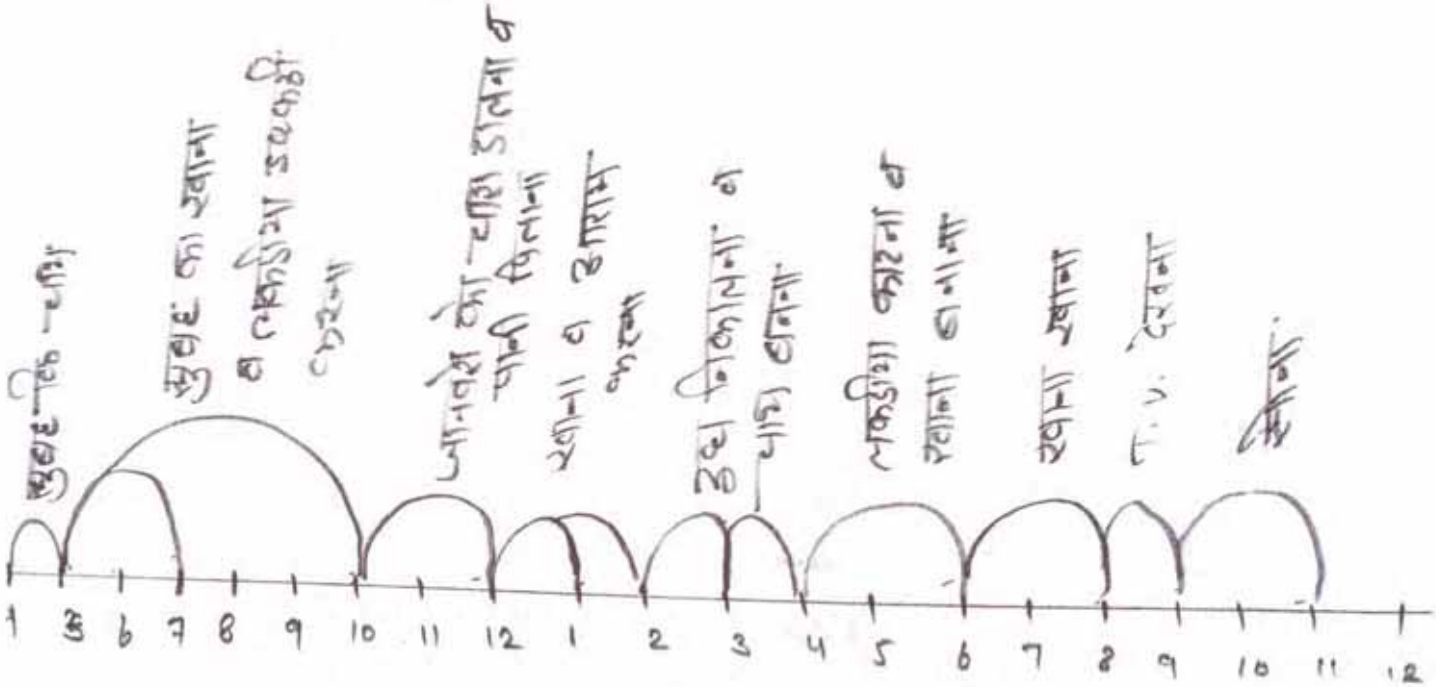
৫ কারত ফসম

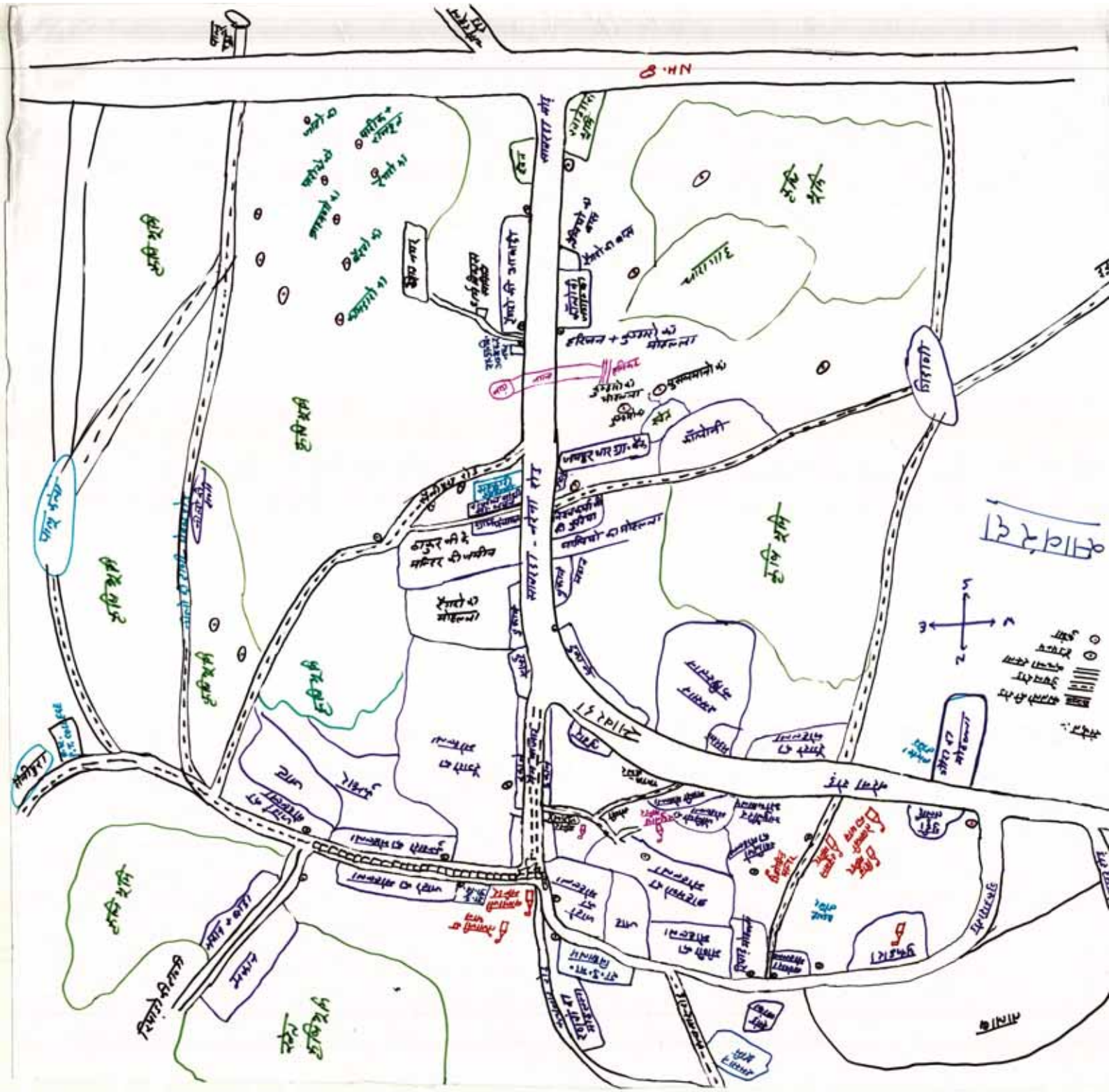
ঘরান ঘানা ৩ ঔনা ৱা T.V. দেখনা.

A DAY OF WORK FOR WOMEN IN SUMMER SEASON

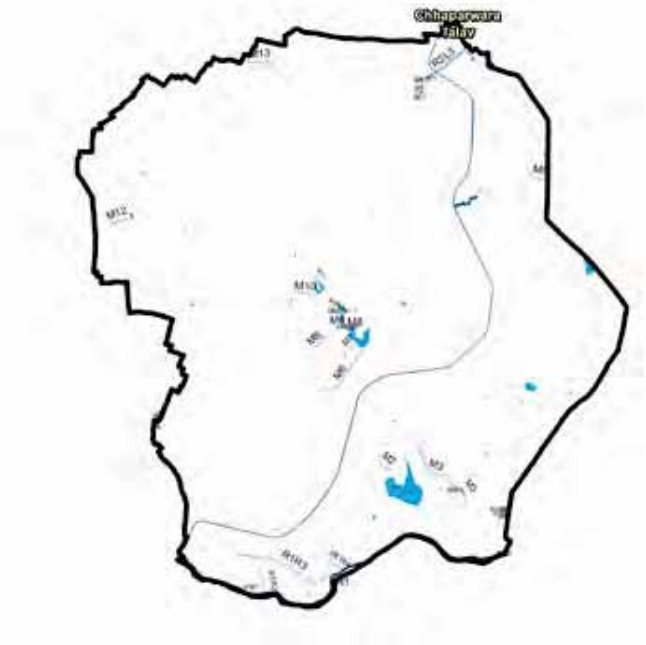


⇒ A DAY OF WORK FOR WOMEN IN WINTER SEASON



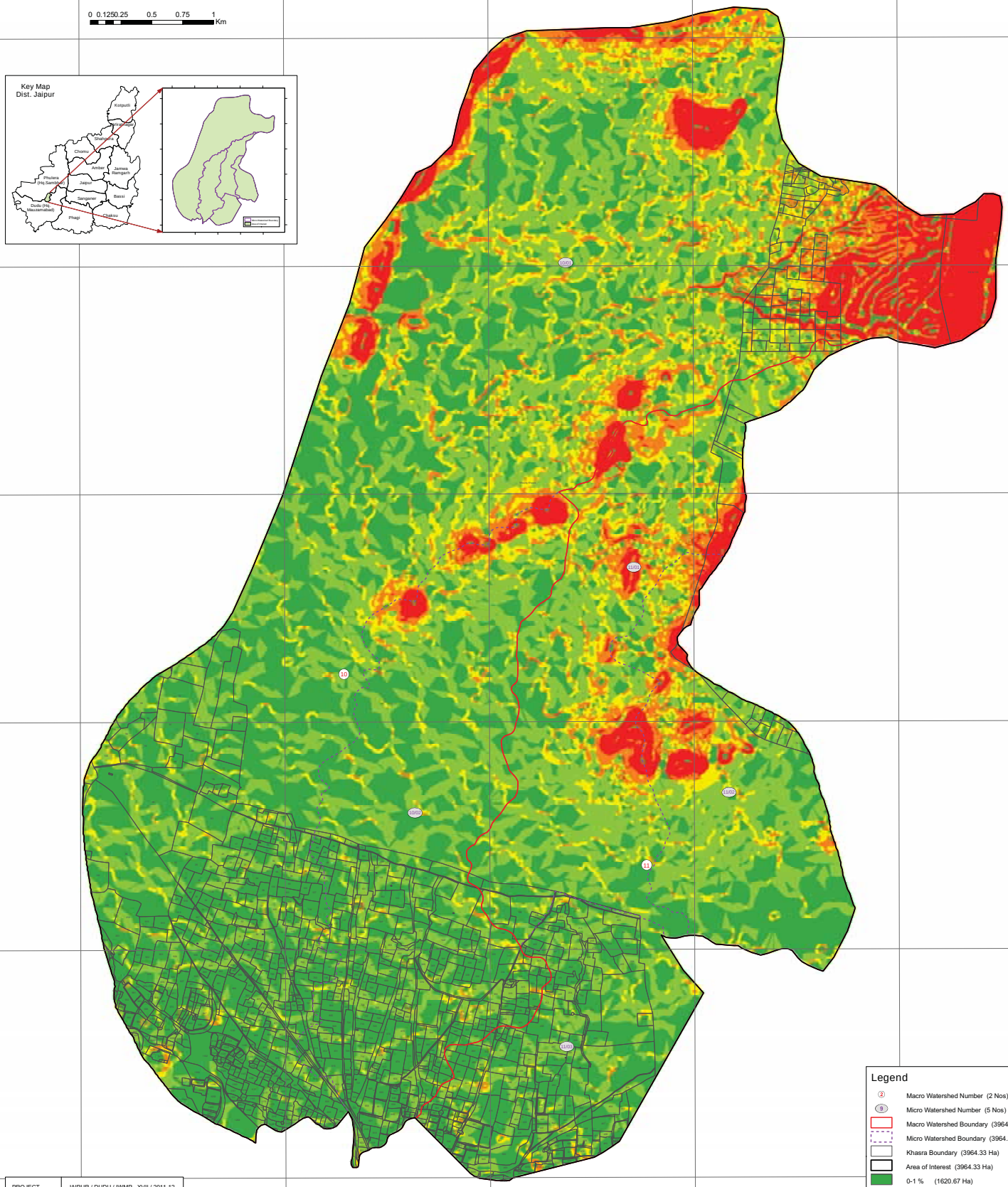

N.H. 8

IWMP XV



ESTIMATES

SLOPE MAP



PROJECT	JAIPUR / DUDU / IWMP - XVII / 2011-12
SUBMITTED TO	WATERSHED DEPARTMENT GOVERNMENT OF RAJASTHAN
SUBMITTED BY	PDCOR Limited

Legend

- Macro Watershed Number (2 Nos)
- Micro Watershed Number (5 Nos)
- Macro Watershed Boundary (3964.33 Ha)
- Micro Watershed Boundary (3964.33 Ha)
- Khasra Boundary (3964.33 Ha)
- Area of Interest (3964.33 Ha)
- 0-1 % (1620.67 Ha)
- 1-3 % (1366.83 Ha)
- 3-5 % (440.74 Ha)
- 5-10 % (284.74 Ha)
- >10 % (251.37 Ha)