

# **DETAILED PROJECT REPORT OF IWMP, JALORE 10/2010-11**

(UNDER INTEGRATED WATERSHED MANAGEMENT PROGRAMME)

BLOCK: SAYLA          DISTRICT: JALORE

AGRO CLIMATIC ZONE- II A

TOTAL GEOGRAPHICAL AREA – 6205 Hac.

TOTAL EFFECTIVE AREA-5728 Hac.

TOTAL COST- 859.20 Lacs.

UNIT COST- 15,000/Hac.



SUBMITTED BY  
PROJECT MANAGER  
DISTRICT WATERSHED DEVELOPMENT UNIT  
JALORE (RAJASTHAN)

# DPR TEMPLATE

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### **8.2 Documents of Agreements:**

- Proceedings of gram sabha for EPA approval
- Proceedings of gram sabha Resolution for committee constitution
- Documents related to PRA exercise
- Proceedings of gram sabha for DPR approval
- Proceedings of Panchayat Samiti General body for DPR approval
- Watershed Committee Registration certificate
- MoU – PIA – DWMA, PIA – WC(in case of NGO as PIA)

## CHAPTER – I

### INTRODUCTION

#### Location.:-

Jalore-(IWMP) 10/2010-11 Project is located in Sayla Block, of Jalore district. The project area is between the 25° 21' N to 25° 31' N latitudes & 72° 60' E to 72° 67' E longitudes. It is at a distance of 18 km from its Block head quarters and 30 Kms from the district head quarters. There are 2145 no. of habitations in the Project area and other details are given below.

#### General features of watershed

S.No.	Name of Project (as per GOI)	Jalore (IWMP) 10/2010-11
(a)	Name of Catchment	Jalore IWMP 10/10-11
(b)	Name of watershed area(local name)	Revatra
©	Project Area	6205 Ha.
(d)	Net treatable Area	5728 Ha.
e)	Cost of Project	859.2 Lac.
f)	Cost/hectare	15000
g)	Year of Sanction	2010-11
h)	Watershed Code	
i)	No. of Gram Panchayats in project area	2
j)	No. of villages in project area	4
k)	Type of Project	Desert
l)	Elevation (metres)	-
m)	Major streams	Bandi Stream
n)	Slope range (%)	0--3%

Macro/micro	Name of Gram Panchayat	Name of Villages Covered	Census code of villages	Area Ha.
Cluster	Revatra	Revatra	02276600	1633
	Revatra	Virana	02276400	1253
	Revatra	Jor virana	02276500	168
	Bakra	Bakra	02292800	3151

The watershed falls in Agroclimatic Zone-II A (093) .The soil texture is sandy loam. The average rainfall is 408 mm.The temperatures in the area are in the range between 35--47 centigrade during summer and 08—25 centigrade during winter. The major crops in the area are Bajra 72% land is under cultivation 20% land fallow,8% land is wasteland.125 land is irrigated through Tubewell's

435 No. of households are BPL (20.28% households) 24 are landless households (5.78% households) and 1646 household are small and marginal farmers( 76.74 % household) .Average land holding in the area is 1.08 ha. 99.75% area is single cropped area and 0.25% is double cropped. The main source of irrigation is Tube well's. The average annual rainfall (5 years) in the area is 408 mm. The Major streams in the Watershed are Bandi stream. The major festivals in the village are Holi, Deewali, krishana janamaastmi, Navratra, Gangor, Raksha-bandhan. At present this village is having 16730 population with Communities like Rajput, Dewasi, Kumhar, Suthar, Mali,Rajpurohit,Meena,Megwal and Bhil.

### Climatic and Hydrological information

1 Average Annual Rainfall(mm)		
	Year	Average Annual Rainfall(mm)
1	2002	171.60 mm
2	2003	660.60 mm
3	2004	314.20 mm
4	2005	320.60 mm
5	2006	713.20 mm
6	2007	368.00 mm
7	2008	343.60 mm
8	2009	198.60 mm
9	2010	446.34 mm
10	2011	543.00 mm

2 Average Monthly rainfall (last ten years)		
	Month	Rainfall(mm)
i)	June	45.46
ii)	July	123.63
iii)	August	149.56
iv)	September	65.33
3 Maximum rainfall intensity (mm)		
	Duration	rainfall intensity(mm)
	i) 15 minute duration	--
	ii) 30 minute duration	--
	iii) 60 minute duration	--

4	Temperature (Degree C)		
	Season	Max	Min
	i) Summer Season	45	25
	ii) Winter Season	25	13
	iii) Rainy Season	35	30

5	Potential Evaporation Transpiration (PET) (mm/day)			
	Season	PET		
	i) Summer	1.17		
	ii) Winter	0.53		
	iii) Rainy	0.31		
6	Runoff			
	i) Peak Rate (cum/hr)	-		
	ii) Total run off volume of rainy season (ha.m.)	-		
	iii) Time of return of maximum flood	5 years	10 years	In-Year
	iv) Periodicity of Drought in village area	-	-	-

### 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	MG NREGA	RURAL DEVELOPMENT & PANCHAYAT RAJ DEPTT.	45	3814	3814
2	TFC		51	5096	5096
3	SFC		30	2950	2950
4	BRGF		27	3600	3600
5	TSC		-	-	-
6	SGS		-	-	-
7	IAY		164	164	164

### Details of infrastructure in the project areas

Parameters		Status			
(i)	No. of villages connected to the main road by an all-weather road	03			
(ii)	No. of villages provided with electricity	03			
(iii)	No. of households without access to drinking water	230			
(iv)	No. of educational institutions :	(P)	(S)	(HS)	(VI)
	Primary(P)/ Secondary(S)/ Higher Secondary(HS)/ vocational institution(VI)	4	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	2			

(viii)	No. of villages with access to Banks	2			
(ix)	No. of villages with access to Markets/ mandis	0			
(x)	No. of villages with access to Agro-industries	NIL			
(xi)	Total quantity of surplus milk	2350 Ltr.			
(xii)	No. of milk collection centres	(U)	(S)	(PA)	(O)
	(e.g. Union(U)/ Society(S)/ Private agency(PA)/ others (O))	-	-	-	-
(xiii)	No. of villages with access to Anganwadi Centre	4			
(xiv)	Any other facilities with no. of villages (please specify)	-			
(xv)	KVK	Kesvana (Jalore)			
(xvi)	cooperative society	2			
(xvii)	NGOs	-			
(xviii)	Credit institutions				
	(i) Bank	2			
	(ii) Cooperative Society	2			
(xix)	Agro Service Centre's	-			

### Institutional arrangements (SLNA,DWDU,PIA,WDT,WC, Secretary)

#### DWDU Details

1	2	3
S.No	Particulars	Details of DWDU
1.	PM ,DWDU	Sh. R.P.Vyas Executive Engineer
2.	Address with contact no., website	PM,WCDC, District Jalore
3.	Telephone	9414992951
4.	Fax	-
5.	E-mail	dwdu.jalore@gmail.com

#### PIA particulars

1	2	3
S.No	Particulars	Details of PIA
6.	Name of PIA	Sh. M.L.Paliwal
7.	Designation	Assist. Engineer
8.	Address with contact no., website	AEN. (IWMP) P.S. jalore
9.	Telephone	9414566144
10	Fax	-
11	E-mail	Jalore.iwmp@gmail.com

**WDT Particulars:**

1	2	3	4	5	6	7	8
S. No	Name of WDT member	M/F	Age	Qualification	Experience in watershed(Yrs)	Description of professional training	Role/ Function
1	Jetha Ram	M	27	B.Sc.Ag.	-	Yes	Agriculture Expert
2	Natha Ram		35	B.A. Sociology	-	Yes	Social Scientist

## Details of Watershed Committees (WC)

S.N	Name of WCs	Date of Gram Sabha for WC	Date of Reg. as a Society (dd/mm/yy)	Designation	Name	M/F	SC/ST/OBC/General	L.LesF/SF/ BF	Name of UG/SHG	Educational qualification
1	Rewatra	17-10-11	-	President	Narayan singh S/oSh. Hastaji	M	Gen	MF	UG	Literate
				Secretary	Rana Ram S/o Vaga ji	M	SC	MF	-	B.A .II Yr.
				Member	Pyari Devi W/o Guman Singh	F	Gen	SF	SHG	Literate
				Member	Chagan LalS/o Punama ji	M	Gen	MF	UG	Middle
				Member	Keshu Lal S/o Bela ji	M	Gen	MF	UG	Literate
				Member	Hari Shankar S/o Shiv Nath ji	M	Gen	SF	-	Middle
				Member	Guman Singh S/oKaran Sigh ji	M	Gen	SF	-	Literate
				Member	Bada Ram S/o Choga ji	M	SC	MF	UG	Literate
				Member	Narayan Singh S/oAje Singh	M	Gen	MF	UG	Middle
				Member	Mangla Ram S/o Chamana Ram	M	SC	SF	UG	Literate
				Member	Babu singh S/o Kapur ji	M	Gen	MF	-	Literate
				Member	Smt. Sumari W/o Vaja Ram ji	F	OBC		SHG	Illiterate
				Member	Smt Manju W/O Bhura Ram	F	SC	SF	SHG	Illiterate
				Member	Smt.Hanja devi W/O Aja ram ji	F	ST	MF	-	Illiterate
				Member	Mool Singh S/o Rugnath Singh	M	Gen	MF	-	Literate
				Member	Keshar Singh S/o Momta ji	M	Gen	MF	-	XII
				Member	Smt. Bhawani W/O Mohan ji	F	Gen	LL		Literate
				Member	Khim Singh S/o Adara ji	M	Gen	MF	UG	Literate
				Member	Jababr Singh S/o Bhop Singh	M	Gen	MF	UG	Literate
				Member	Meetha Ram S/o birama ji	M	OBC	LL		Literate
				Member	Aja Ram S/o Joga ji	M	SC	LL		Literate

S.N.	Name of WCs	Date of Gram Sabha for WC	Date of Registration as a Society (dd/mm/yy)	Designation	Name	M/F	SC/ST/OBC/Gen	Landles s/MF/SF/BF	Name of UG/SHG	Educational qualification
2	Bakra	20-07-12	-	President	Bhawar Lal S/o Pratap ji	M	Gen	MF	UG	Literate
				Secretary	Mishri Khan S/O Fse khan	M	OBC	MF	-	B. A.
				Member	Virama Ram S/o Moti ji	M	OBC	MF	-	Literate
				Member	Rupa Ram S/o Ganesh ji	M	OBC	MF	UG	Middle
				Member	Kanti Lal S/o Peera ji	M	OBC	SF	UG	Secondary
				Member	Vajinga Ram S/o Kewal ji	M	OBC	LL	-	Primary
				Member	Parsa Ram S/o Sutha ji	M	SC	MF	-	Primary
				Member	Khima Ram S/o Fuya ji	M	OBC	SF	-	Primary
				Member	Jog singh S/o Bhoma ji	M	OBC	SF	UG	Middle
				Member	Smt. Pawanii W/o Darga Ram	M	OBC	MF	SHG	Literate
				Member	Paarasa S/o punama ji	M	SC	SF	UG	Literate
				Member	Smt Laxmi W/O Geega Ram	F	SC	SF	SHG	Illiterate
				Member	Bhamara Ram S/O Kheta ji	M	ST	LL	-	Illiterate
				Member	Smt. Aasi Devi W/o Kesa ram	F	ST	LL	SHG	Literate

				Member	Mangala Ram S/o Chopaji	M	SC	MF	-	Illiterate
				Member	Hara ram S/o Ranaji	M	SC	SF	-	Literate
				Member	Smt. Laxmi Devi W/o Ratan Lal	F	SC	LL	SHG	-
				Member	Kamala Devi W/o Govind singh	F	OBC	SF	SHG	Literate
				Member	Vikaram kumar S/o Kishana ji	M	SC	LL	-	VIII

### **Problems and scope of improvement in the project area**

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. **731** ha land is arable temporary fallow and 547 ha is non arable fallow can be brought under cultivation and Pasture.

125 ha is only irrigated and with efforts this can be increased to 200. 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)

89850 Quintal fodder scarcity can be met out through Pasture development .Improved animal Husbandry practices can increase the productivity of livestock. 450 no. of persons migrate due to Employment 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.

## CHAPTER – II

### Socio economic Features, Problems and Scope

**Table 2.1 Population & Household Details:**

Total Population				
Male	Female	Total	SC	ST
8780	7950	16730	3245	845

Household Details						
BPL household	L. Less	Small Farmer	M. Farmer	Total household	SC household	ST household
528	124	976	670	3094	506	230

**Table 2.2 Development indicators**

S. No.	Development Indicators	State	Project Area
1	Per capita income (Rs.)	16260	15780
2	Poverty ratio	0.22	26.56%
3	Literacy (%)	0.604	40.78%
4	Sex Ratio	926	935
5	infant mortality rate		5.90%
6	maternal mortality ratio		0.04%

The table indicates poor socio economic conditions.

**Table 2.3 Land Use**

Land Use	Total area in Ha.				
	Private	Panchayat	Government	Community	Total
Agriculture Land	5181	-	-	-	5181
Temporary fallow	731	-	-	-	731
Permanent Fallow	-	135	412	-	547
Cultivated Rainfed	4450	-	-	-	4450
Cultivated irrigated	-	-	-	-	-
Net Sown Area	4450	-	-	-	4450
Net Area sown more than once	125	-	-	-	125
Forest Land	-	-			
Waste Land	-	-	180	-	180
Pastures	-	115	195	-	310
Others	-	127	250	100	477

The project area has 547 ha of cultivable wasteland (total 5728 ha) can be brought under cultivation if some irrigation source can be provided through Construction of WHS like Khadin, Tanka, Farm ponds etc. and also through demonstration of rainfed varieties of crops. Construction of WHS can also increase in area under irrigation which is only 2%.

547 ha. (8.81% of the project area) is under wastelands and can be brought under vegetative cover, with reasonable effort. Activities like Earthen check dams, Vegetative filter strip, V-ditches, staggered trenches, WHS (Johad) Afforestation of wastelands and Pasture development will be taken up on these lands

**Pasture development:** The land use table shows that there is 45 hectare pasture land (0.07%). This emphasizes the need for taking up pasture land development works through sowing of promising species of grasses and plantation

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

<b>Cropping Status</b>												
S. No	Season	Crop sown	Rain fed				Irrigated				Total	
			Varieties	Area (ha)	Production (Ton)	Productivity (kg/ha)	Varieties	Area (ha)	Production (Ton)	Productivity (kg/ha)	Area (ha)	Production (Ton)
1	Kharif	Bajra	HHB 67	3850	1190	600	-	-	-	-	3850	1190
		Moong	K851	575	264	500	-	-	-	-	575	264
2	Rabi	Mustered	-	-	-	-	Pusha Bold	80	514	1500	80	514
		Wheat	-	-	-	-	Raj 3077	-	-	2500	-	-
3	Jaid	-	-	-	-	-	-	-	-	-	-	

**Table 2.4.b Abstract of cropped Area(ha)**

Area under Single crop	4450
Area under Double crop	125
Area under Multiple crop	-

**\*\*Write for each crop:** The farmers are using WCC 75, Raj. 171, varieties of Bajra, whereas varieties like HHB 67, RCB2 can increase the production.

**Crop Rotation\*\*** will vary from project to project

Bajra	-	Wheat
Bajra	-	Fallow
Moong	-	Mustered
Moong	-	Fallow
Fallow	-	Jeera
Fallow	-	Isabgoal
Fallow	-	Lucern
Cluster Bean	-	Fallow
Fallow	-	Tarameera
Til	-	Fallow
Caster	-	Caster
Moth	-	Fallow

The table 2.3 shows that only 125 ha is (2%) is double cropped area. Also the crop rotation shows 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 (The table can also be given in bar chart form)**

Name of the crop	Productivity kg/ha				
	India	Highest Average in Rajasthan	Highest Average of Agro climatic zone	District	Project Area
Wheat	2708	2751	2200	2200	2200
Mustured	1095	1203	1250	1250	1250
Zeera	-	339	500	500	500
Isab gol	-	476	600	600	600
Bajra	886	679	750	750	800
Guar	-	277	400	400	500
Ground nut	866	1310	1000	1000	1000
Moong	-	312	450	450	500
Caster	-	997	800	800	850

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 farmers are using varieties WCC-75,Raj.171 of Bajra. whereas the recommended varieties like HHB 67, RCB -2 provide 18 qnt. yield (write for all crops)
- Lack of Availability of good quality seeds of desired crop and variety in adequate quantities and time to the farmers.
- Availability of water for cultivation

The productivity gap and reasons of it indicate potential to increase the productivity through crop demonstration .Crop demonstrations 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.

<b>Table 2.5 Existing area under horticulture/Vegetables/Floriculture (ha)</b>					
<b>Activity</b>	<b>Area(Hact.)</b>	<b>Species</b>	<b>Varieties</b>	<b>Recommended varieties</b>	<b>Production</b>
Horticulture	-	-	-	-	-
Vegetables	-	-	-	-	-
Floriculture	-	-	-	-	-
Medicinal Plants	-	-	-	-	-

**Table 2.6 Land holding Pattern in project area**

<b>Type of Farmer</b>	<b>Total House holds</b>	<b>Land holding (ha) irrigation source wise</b>			<b>Land holding (ha)Social group wise</b>				
		<b>Irrigated (source)</b>	<b>Rain fed</b>	<b>Total</b>	<b>Gen</b>	<b>SC</b>	<b>ST</b>	<b>OBC</b>	<b>BPL</b>
(i) Large farmer	40	125	975	975	850	125	-	-	-
(ii) Small farmer	976	-	2355	2355	700	540	125	990	-
(iii) Marginal farmer	670	-	1120	1120	545	230	0	345	-
(iv) Landless person	24	-	-	-	-	-	-	-	-
(V) No. of BPL households	528	-	-	-	-	-	-	-	-
<b>Total</b>	<b>2238</b>	<b>125</b>	<b>4450</b>	<b>4450</b>	<b>2045</b>	<b>895</b>	<b>125</b>	<b>1335</b>	

78.08 % land holdings belong to small and marginal farmers who own 75.33 % of total cultivated area. Horticulture/vegetables could be more economical to Small and marginal farmers 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:** As discussed earlier . Horticulture/vegetables could be more economical to Small and marginal farmers with irrigation source. Also the project area has good potential for medicinal & aromatic crops like Sonamukhi, Isabgol, Ashwagandha, , 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 of 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 areas 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. The procurement of planting material from distant places causes damage to the planting material and often results in untimely supply. Hence nursery development activity in 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.No	Description of animals	Population in No.	Yield(milk/mutton/ Wool)	Equ. cow units	Dry matter requirement per year (7Kg per animal.)	Total requirement in M.T.
1	Cows					
	Indigenous	2350	4 ltr. per day	2350	6004250	6004.25
	Hybrid	50	6 ltr. per day	50	127750	127.75
2	Buffaloes	3234	7 ltr. per day	3233	8260315	8260.31
3	Goat	1428	2 ltr. per day	714	1824270	1824.27
4	Sheep	6866	½ kg per no.	3433	8771315	8771.31
5	Camel	38	-	38	97090	97.09
6	Poultry	21	-	21	0	0
7	Piggery	0	-	0	0	0
	Total	13987	-	9839	25084990	25084.98

In spite of the large number of livestock, production is less hence increase in productivity across all species, is a major challenge. To reduce production of unproductive cattle and improve the productivity by improving the breeds by breeding management following activities will be taken up

- Castration
- Artificial insemination
- Distribution of superior Breeding bulls for use in Cattle and Buffalo
- Breeding distribution crossbred rams

Besides breed improvement other animal husbandry practices like better health, hygiene and feeding practices can increase productivity of livestock. Hence Activities like Animal health camps ,Urea-Molasses treatment demonstration ,demonstration of improved methods of conservation and utilization of Forage crops are proposed.

**Table 2.8 Existing area under fodder (ha)**

S.No	Item	Unit	Area/Quantity
1	Existing Cultivable area under Fodder	Ha	350/1750
2	Production of Green fodder	Tonns/year	160/1500
3	Production of Dry fodder	Tonns/ Year	3700/18500
4	Area under Pastures	Ha	215/430
5	Production of fodder	Tonns/year	-
6	Existing area under Fuel wood	Ha	-
7	Supplementary feed	Kgs/ day	1 kg/428
8	Silage Pits	No	-
9	Availability of fodder	quintals	22608

i. Requirement of fodder= 25084.98 tonns

ii. Availability of fodder = 22608 tonns.

Deficiency of fodder = 25084.98-22608 = 2476.41 tonns.

The table above shows there is fodder deficiency 2476.41 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**

1	2	3
S. No	Implements	Nos.
1	Tractor	35
2	Sprayers-manual/ power	10
3	Cultivators/Harrows	10
4	Seed drill	10
5	Any Other	00

**Farm mechanization and seed banks:** As discussed earlier 78.08% land holdings belong to small and marginal farmers who own only 72% 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.**

Sr. no.	Name of village	Total No .of job cards	Employment Status	Activity taken up so far
1	Revatra	625	34900	Nadi,Tanka,Greval road,Bunding
2	Virana	443	17890	
3	Jor virana	57	5890	
4	Bakra	750	42560	

**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)
Revatra	250	100-150	Employment & Business	350-1000	Employment & Business	120.00
Virana	75	100-150				55.00
Jor virana	5	100-150				14.65
Bakra	500	100-150				235.00

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. (As discussed earlier) and diversification in livelihoods .

The existing livelihoods Village are given below

<b>Table 2.12 (a) Major activities (On Farm)</b>		
Name of activity	No of House holds	Average annual income from the
cultivators	1686	51.5 Lac
Dairying	455	3.5 Lac
Poultry	-	-
Piggery	-	-
Landless Agri. Labourers	124	2.50 Lac

Name of activity	Households/individuals	Average annual income from the
Artisans	-	-
Carpenter	80	36.03 Lac
Blacksmith	10	12.51 Lac
Leather Craft	-	-
Porter	10	8.00 Lac
Mason	250	125.00 Lac
Others specify (Cycle Repair ,STD,Craft etc)	09	4.55 Lac

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	Name of SHG	Members	Activity involved	Monthly income	Fund avai.	Assistance available	Source of assistance	Training received
1	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
2	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-	-

The table indicates existence of number of groups in the area also these need to be strengthened through trainings and financial assistance

II. **Technical Features**

**Table 2.14 Ground Water**

S.No	Source	No.	Functional depth(meter)	Dry	Area irrigated	Water availability (days)
i)	Dug wells	14	160	14	-	-
ii)	Shallow tube wells	5	155	-	20 hac	110 -150
iii)	Pumping sets	00	00	-	0 hac	-
iv)	Deep Tube Wells	22	160		105	175-180 days
	<b>Total</b>	<b>21</b>	<b>-</b>	<b>-</b>	<b>125</b>	<b>-</b>

**Table 2.15 Availability of drinking water**

S. No	Name of the village	Drinking water requirement Ltrs/day	Present availability of drinking water Ltrs/day	No. of drinking water sources available	No. functional	No. requires repairs	No. defunct
1	Revatra	62500	58700	2	2	-	-
2	Virana	44300	37540	1	1	-	-
3	Jor virana	4500	3560	0	0	-	-
4	Bakra	88650	48750	1	1	-	-

**Table 2.16 Water Use efficiency**

Name of major crop	Area (Hectare)			Total
	through water saving devices(Drip/S sprinklers)	through water conserving agronomic practices <sup>#</sup>	Any other (pl. specify)	
Mustard	20%	20%	-	-
wheat	20%	20%	-	-

- 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.**

<b>Slope of Watershed</b>		
<b>S.No.</b>	<b>Slope percentage</b>	<b>Area in hectares</b>
1	0 to 3%	5728
2	3 to 8%	-
3	8 to 25%	-
4	> 25%	-

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

### Water Budgeting:

To propose the total number of water harvesting structure, it is necessary to do water budgeting of 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 75% of balance available run-off is to be stored and 25% 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 13 structures have been constructed. After onset of monsoon i.e. in the end of the September month. All the main structures constructed in the area were visited. While visiting the area it was observed that about 10 structures were having water up to 20% of their capacity.

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

Average catchments: Cultivated land, forest land with vegetation

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

Good Catchment: -

Average Catchment: 6502 Hac.

Bad Catchment: -

Average annual Rainfall for the block is 408(16.32) inch

By interpolation method the proportion of estimated runoff of 16.32 inch rainfall have been calculated from Strang's Table as follows:

Monsoon Rainfall in inches	Yield of Runoff from Catchment (MCft/sq.mile)		
	Good catchment	Average catchment	Bad catchment
16 inch	-	2.927	-
17 inch	-	3.439	-
For inch	-	0.512	-
For 0.32 inch	-	0.163	-
For 16.32 inch	-	3.09	-

**Table 2.18 a ) Total available runoff(cum) use Stranges table**

Area	Type of Catchment	Yield of runoff from catchment per ha.(cum.) use Stranges table	Total Runoff
7583	Average catchment	$3.09 \times 109.271 = 331.647$	2095102
	Total		

**Table 2.18 b) Details of already stored runoff(Surface Water structures**

S.No.	Name	No.	Storage Capacity (cum)	Area irrigated (ha)
i)	Major Irrigation Project	-	-	-
ii)	Medium Irrigation Project	-	-	-
iii)	Form Ponds/Tanks	8	105000	-
iv)	Anicuts	2	14000	-
v)	Local Depression	-	-	-
	Total	<b>10</b>	<b>119000</b>	-

**PROPOSED NEW STRUCTURE**

<b>S.No.</b>	<b>Name of Structure</b>	<b>No./ Length</b>	<b>Storage Capacity (CUM.)</b>
<b>1</b>	<b>WHS</b>	<b>4</b>	<b>18320</b>
<b>2</b>	<b>Dug out pond</b>	<b>10</b>	<b>4680</b>
<b>3</b>	<b>Tanka</b>	<b>80</b>	<b>2000</b>
	<b>Total</b>	<b>-</b>	<b>25000</b>

**Total Runoff harvested(%)1.68%**

**Table 2.19 Soil details**

Soil Profile		
S.No.	Major Soil Classes	Area in hectares
1	II class	2350
2	III class	2250
3	Iv class	650
Soil Depth :		
B	Depth (Cms.)	Area in hectares
1	0.00 to 7.50	125
2	7.50 to 45.00	4850
3	> 45.00	650

C	Soil fertility Status	Kg/ha	Recommended
	N	50-70	80-90
	P	20-30	40-50
	K	10-15	20-30
	Micronutrients	10-500 ppm	100-500

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	5150	300	15-20
b	Rill	450	300	
c	Gully	128	300	
Sub-Total		5728	NA	
Wind erosion		-		
<b>Total for project</b>		5728		

The need is:

- To check land degradation
- To reduce excessive biotic pressure by containing the number and increase of livestock
- To check cultivation on sloping lands without adequate precautions of soil and water conservation measures
- To discourage cultivation along susceptible nallah beds
- To check Faulty agriculture techniques
- To check Uncontrolled grazing and developed cattle tracks
- To check Deforestation of steep slopes
- To check erosive velocity of runoff, store Runoff, to arrest silt carried by runoff and to recharge Ground Water structures life Earthen check dams, gully plugs, Bank Stabilisation, Loose stone check Dams, Gabions, Earthen embankment (Nadi) and Anicuts would be taken up.

## **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 Trainings 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 Jalore (IWMP) X Watershed. A series of meetings were conducted with GP members, community and discussed about the implementation of IWMP programme. User groups were also formed.

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

<b>S.No</b>	<b>Name of the Gram Panchayat</b>	<b>Date on which Grama Sabha approved EPA</b>
1	Revatra	17-10-2011
2	Bakra	20-07-2012

<b>S. No.</b>	<b>Names of village</b>	<b>Amount earmarked for EPA</b>	<b>Entry Point Activities planned</b>	<b>Estimated cost</b>	<b>Expenditure incurred</b>	<b>Balance</b>	<b>Expected outcome</b>	<b>Actual outcome</b>
1	Revatra	9.00	21	9.00	2.25	6.75	9.00	2.25
2	Virana	6.60	16	6.60	1.65	4.95	6.60	1.65
3	Jor virana	0.77	02	0.77	-	0.77	0.77	-
4	Bakra	18.00	24	18.00	4.5	13.50	18.00	4.5
	<b>Total</b>	<b>34.37</b>	<b>63</b>	<b>34.37</b>	<b>8.40</b>	<b>25.97</b>	<b>34.37</b>	<b>8.40</b>



## I 6 A t k y b V

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

S.no	Name of the village/Habitation	Date on which PRA conducted
1	Revatra	22-10-11 to 27.10.11
2	Bakra	20.07.12 to 27.07.12

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. Socio-economic survey was carried out during **March 2012 and July 2012** (dates) period covering all the households and primary data on demography, Land holdings, Employment status, Community activities etc. was collected as mentioned in chapter 2.

WAPCOS LIMITED,GUGAON 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.

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Various thematic layers provided by WAPCOS LIMITED,GUGAON 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

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 annexure XXI).The GIS based intervention map, PRA based intervention map are annexed as XXII..

## PROPOSED DEVELOPMENT PLAN

S.No	Activity	Unit	Quantity	Unit Cost	Total Cost	Cost from Project Fund	Convergence Fund	Beneficiary contribution
1	2	3	4	5	6	7	8	9
A I	Administration cost	10%	0	0	85.920	85.920	0	0
II	Monitoring	1%	0	0	8.590	8.590	0	0
III	Evaluation	1%	0	0	8.590	8.590	0	0
	<b>Total</b>	<b>12%</b>	<b>0</b>	<b>0</b>	<b>103.100</b>	<b>103.100</b>	<b>0</b>	<b>0</b>
B I	Preparatory Phase (Entry Point Activity)	4%	0	0	34.370	34.370	0	0
II	Institution And Capacity Building	5%	0	0	42.960	42.960	0	0
III	Preparation of Detailed Project Report (DPR)	1%	0	0	8.590	8.590	0	0
	<b>Total</b>	<b>10%</b>	<b>0</b>	<b>0</b>	<b>85.920</b>	<b>85.920</b>	<b>0</b>	<b>0</b>
C	<b>Watershed Development Works (NRM)</b>							
	<u>Arable Land Conservation Measures</u>	56%						
(1)	Vegetative Bund	Hac.	1853	12800	237.180	237.180	0	17.780
(2)	Earthen Bund with Pitching	No.	100	54000	54.000	54.000	0	4.050
(3)	Water Harvesting Tanka	No.	80	90400	72.320	72.320	0	5.420
(4)	Wasteweir	No.	10	14700	1.470	1.470	0	0.110
	<b>Total</b>				<b>364.970</b>	<b>364.970</b>	<b>0.000</b>	<b>27.360</b>
II	<b>Non Arable Land Conservation Measures</b>							
(1)	Ditch Cum Bund Fencing	Hac.	50	25420	12.710	12.710	0	0
(2)	Contour Furrow in Pasture Land	Hac.	50	17240	8.620	8.620	0	0
(4)	Plantation in pastureland	Hac.	50	50430	25.310	25.310	0	0
(5)	Earthen Bund with Pitching	No.	50	54000	27.000	27.000	0	0
(6)	Dug out Pond	No.	10	50000	5.000	5.000	0	0
(7)	Wasteweir	No.	20	14700	2.940	2.940	0	0
	<b>Total</b>			<b>0</b>	<b>81.580</b>	<b>81.580</b>	<b>0</b>	<b>0</b>
III	<b>Drainage Line Treatment</b>			0				
(1)	Loose stone check Dam	No.	50	21100	10.550	10.550	0	0
(2)	Wasteweir	No.	20	14700	2.940	2.940	0	0
(3)	Water Harvesting Structure	No.	4	5.28	21.120	21.120	0	0
	<b>Total</b>			<b>0.000</b>	<b>34.610</b>	<b>34.610</b>	<b>0</b>	<b>0</b>
	<b>Total Watershed Development Works</b>			<b>0</b>	<b>481.160</b>	<b>481.160</b>	<b>0</b>	<b>27.360</b>
D	<b>Production Measures</b>	10%		0				
I	<b>Arable Land Production System</b>			0				
(1)	Crop Demonstration	Hac.	1017	2520	25.630	25.630	0	7.690
(2)	Fodder Demonstration	Hac.	100	4750	4.750	4.750	0	1.420
(3)	Agro Forestry	Hac.	280	900	2.520	2.520	0	0.760
(4)	Dry land Horticulture	Hac.	10	76175	7.620	7.620	0	2.280
(5)	Homestead Kitchen Garden	Hac.	20	5000	1.000	1.000	0	0.300

S.No	Activity	Unit	Quantity	Unit Cost	Total Cost	Cost from Project Fund	Convergence Fund	Beneficiary contribution
(6)	i Compost Pit	No.	140	2000	2.800	2.800	0	0.840
(7)	ii Vermi Compost Unit	No.	10	36000	3.600	3.600	0	1.080
(8)	Water Tank.	No.	50	50000	25.000	12.500	12.500	3.750
(9)	HDPE/ PVC Pipe	No.	100	15000	15.000	7.500	7.500	2.250
(10)	Sprinklar set	No.	100	18000	18.000	9.000	9.000	2.700
(11)	Seed cum fertilizer drill	No.	20	25000	5.000	2.500	2.500	0.750
(12)	Isopam (Threser)	No.	10	50000	5.000	2.500	2.500	0.750
	<b>Total</b>	-		<b>0</b>	<b>115.920</b>	<b>81.920</b>	<b>34.000</b>	<b>24.570</b>
<b>III</b>	<b>Live Stock Management</b>			0				
(1)	Distribution of Buffalo bulls	No.	4	10000	0.400	0.400	0	0
(2)	Mangers Distribution	No.	200	600	1.200	1.200	0	0.360
(3)	Animal Health Camps	No.	10	24000	2.400	2.400	0	0
	<b>Total</b>			<b>0</b>	<b>4.000</b>	<b>4.000</b>	<b>0.000</b>	<b>0.360</b>
	<b>Total Production System</b>	<b>10%</b>		<b>0</b>	<b>119.920</b>	<b>85.920</b>	<b>34.000</b>	<b>24.930</b>
<b>D</b>	<b>Livelihood &amp; Micro Enterprises</b>	<b>9%</b>		0				
(1)	<b>Revolving Fund to SHG</b>	<b>60%</b>	50	0	46.400	46.400	0	0
(2)	<b>Revolving Fund to Enterprises (Individual)</b>	<b>10%</b>	15	0	7.730	7.730	0	0
(3)	<b>Grant In Add to faderation SHG</b>	<b>30%</b>	45	0	23.200	23.200	0	6.960
	<b>Total</b>			0	77.330	77.330	0	6.960
<b>E.</b>	<b>Consolidation</b>	<b>3%</b>	<b>0</b>	<b>0</b>	<b>25.770</b>	<b>25.770</b>	<b>0</b>	<b>0</b>
	<b>Grand Total</b>			<b>0</b>	<b>893.200</b>	<b>859.200</b>	<b>34.000</b>	<b>59.250</b>

## PROPOSED DEVELOPMENT PLAN G.P. WISE

S.No	Activity	Unit	Quantity	Unit Cost	G.P. BAKRA				G.P. REVATRA				
					Total Cost	Cost from Project Fund	Convergence Fund	Beneficiary contribution	Quantity	Total Cost	Cost from Project Fund	Convergence Fund	Beneficiary contribution
1	2	3	4	5	6	7	8	9	4	6	7	8	9
A I	Administration cost	10%	0	0	42.960	42.960	0	0	0	42.960	42.960	0	0
II	Monitoring	1%	0	0	4.295	4.295	0	0	0	4.295	4.295	0	0
III	Evaluation	1%	0	0	4.295	4.295	0	0	0	4.295	4.295	0	0
	<b>Total</b>	<b>12%</b>	<b>0</b>	<b>0</b>	<b>51.550</b>	<b>51.550</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>51.550</b>	<b>51.550</b>	<b>0</b>	<b>0</b>
B I	Preparatory Phase (Entry Point Activity)	4%	0	0	17.185	17.185	0	0	0	17.185	17.185	0	0
II	Institution And Capacity Building	5%	0	0	21.480	21.480	0	0	0	21.480	21.480	0	0
III	Preparation of Detailed Project Report (DPR)	1%	0	0	4.295	4.295	0	0	0	4.295	4.295	0	0
	<b>Total</b>	<b>10%</b>	<b>0</b>	<b>0</b>	<b>42.960</b>	<b>42.960</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>42.960</b>	<b>42.960</b>	<b>0</b>	<b>0</b>
C	<b>Watershed Development Works (NRM)</b>												
	<u>Arable Land Conservation Measures</u>	56%											
(1)	Vegetative Bund	Hac.	953	12800	121.980	121.980	0	9.150	900	115.200	115.200	0	8.640
(2)	Earthen Bund with Pitching	No.	50	54000	27.000	27.000	0	2.025	50	27.000	27.000	0	2.025
(3)	Water Harvesting Tanka	No.	40	90400	36.160	36.160	0	2.710	40	36.160	36.160	0	2.710
(4)	Wasteweir	No.	5	14700	0.735	0.735	0	0.055	5	0.735	0.735	0	0.055
	<b>Total</b>				<b>185.875</b>	<b>185.875</b>	<b>0.000</b>	<b>13.940</b>		<b>179.095</b>	<b>179.095</b>	<b>0.000</b>	<b>13.430</b>
II	<b>Non Arable Land Conservation Measures</b>												
(1)	Ditch Cum Bund Fencing	Hac.	25	25420	6.355	6.355	0	0	25	6.355	6.355	0	0
(2)	Contour Furrow in Pasture Land	Hac.	25	17240	4.310	4.310	0	0	25	4.310	4.310	0	0
(4)	Plantation in pastureland	Hac.	25	50630	12.655	12.655	0	0	25	12.655	12.655	0	0
(5)	Earthen Bund with Pitching	No.	25	54000	13.500	13.500	0	0	25	13.500	13.500	0	0
(6)	Dug out Pond	No.	5	50000	2.500	2.500	0	0	5	2.500	2.500	0	0
(7)	Wasteweir	No.	10	14700	1.470	1.470	0	0	10	1.470	1.470	0	0
	<b>Total</b>			<b>0</b>	<b>40.790</b>	<b>40.790</b>	<b>0</b>	<b>0</b>		<b>40.790</b>	<b>40.790</b>	<b>0</b>	<b>0</b>
III	<b>Drainage Line Treatment</b>			0									
(1)	Loose stone check Dam	No.	25	21100	5.275	5.275	0	0	25	5.275	5.275	0	0
(2)	Wasteweir	No.	10	14700	1.470	1.470	0	0	10	1.470	1.470	0	0
(3)	Water Harvesting Structure	No.	2	5.28	10.560	10.560	0	0	2	10.560	10.560	0	0

S.No	Activity	Unit	Quantity	Unit Cost	G.P. BAKRA				G.P. REVATRA				
					Total Cost	Cost from Project Fund	Convergence Fund	Beneficiary contribution	Quantity	Total Cost	Cost from Project Fund	Convergence Fund	Beneficiary contribution
	<b>Total</b>			<b>0.000</b>	<b>17.305</b>	<b>17.305</b>	<b>0</b>	<b>0</b>		<b>17.305</b>	<b>17.305</b>	<b>0</b>	<b>0</b>
	<b>Total Watershed Development Works</b>			<b>0</b>	<b>243.970</b>	<b>243.970</b>	<b>0</b>	<b>13.940</b>		<b>237.190</b>	<b>237.190</b>	<b>0</b>	<b>13.430</b>
<b>D</b>	<b>Production Measures</b>	10%		0									
<b>I</b>	<b>Arable Land Production System</b>			0									
(1)	Crop Demonstration	Hac.	517	2520	13.030	13.030	0	3.900	500	12.600	12.600	0	3.780
(2)	Fodder Demonstration	Hac.	50	4750	2.375	2.375	0	0.710	50	2.375	2.375	0	0.710
(3)	Agro Forestry	Hac.	140	900	1.260	1.260	0	0.380	140	1.260	1.260	0	0.380
(4)	Dry land Horticulture	Hac.	5	76175	3.810	3.810	0	1.140	5	3.810	3.810	0	1.140
(5)	Homestead Kitchen Garden	Hac.	10	5000	0.500	0.500	0	0.150	10	0.500	0.500	0	0.150
(6)	i Compost Pit	No.	70	2000	1.400	1.400	0	0.420	70	1.400	1.400	0	0.420
(7)	ii Vermi Compost Unit	No.	5	36000	1.800	1.800	0	0.540	5	1.800	1.800	0	0.540
(8)	Water Tank.	No.	25	50000	12.500	6.250	6.250	1.875	25	12.500	6.250	6.250	1.875
(9)	HDPE/ PVC Pipe	No.	50	15000	7.500	3.750	3.750	1.125	50	7.500	3.750	3.750	1.125
(10)	Sprinklar set	No.	50	18000	9.000	4.500	4.500	1.350	50	9.000	4.500	4.500	1.350
(11)	Seed cum fertilizer drill	No.	10	25000	2.500	1.250	1.250	0.375	10	2.500	1.250	1.250	0.375
(12)	Isopam (Threser)	No.	5	50000	2.500	1.250	1.250	0.375	5	2.500	1.250	1.250	0.375
	<b>Total</b>	<b>-</b>		<b>0</b>	<b>58.175</b>	<b>41.175</b>	<b>17.000</b>	<b>12.340</b>		<b>57.745</b>	<b>40.745</b>	<b>17.000</b>	<b>12.220</b>
<b>III</b>	<b>Live Stock Management</b>			0									
(1)	Distribution of Buffalo bulls	No.	2	10000	0.200	0.200	0	0	2	0.200	0.200	0	0
(2)	Mangers Distribution	No.	100	600	0.600	0.600	0	0.180	100	0.600	0.600	0	0.180
(3)	Animal Health Camps	No.	5	24000	1.200	1.200	0	0	5	1.200	1.200	0	0
	<b>Total</b>			<b>0</b>	<b>2.000</b>	<b>2.000</b>	<b>0.000</b>	<b>0.180</b>		<b>2.000</b>	<b>2.000</b>	<b>0.000</b>	<b>0.180</b>
	<b>Total Production System</b>	<b>10%</b>		<b>0</b>	<b>60.175</b>	<b>43.175</b>	<b>17.000</b>	<b>12.520</b>		<b>59.745</b>	<b>42.745</b>	<b>17.000</b>	<b>12.400</b>
<b>D</b>	<b>Livelihood &amp; Micro Enterprises</b>	<b>9%</b>		0									
(1)	<b>Revolving Fund to SHG</b>	<b>60%</b>	25	0	23.200	23.200	0	0	25	23.200	23.200	0	0
(2)	<b>Revolving Fund to Enterprises (Individual)</b>	<b>10%</b>	8	0	3.865	3.865	0	0	7	3.865	3.865	0	0
(3)	<b>Grant In Add to faderation SHG</b>	<b>30%</b>	25	0	11.600	11.600	0	3.480	20	11.600	11.600	0	3.480

S.No	Activity	Unit	Quantity	Unit Cost	G.P. BAKRA				G.P. REVATRA				
					Total Cost	Cost from Project Fund	Convergence Fund	Beneficiary contribution	Quantity	Total Cost	Cost from Project Fund	Convergence Fund	Beneficiary contribution
	<b>Total</b>			0	38.665	38.665	0	3.480		38.665	38.665	0	3.480
<b>E.</b>	<b>Consolidation</b>	3%	0	0	12.890	12.890	0	0	0	12.890	12.890	0	0
	<b>Grand Total</b>			0	450.210	433.210	17.000	29.940		443.000	426.000	17.000	29.310

## CHAPTER IV

### ACTIVITY WISE TOTAL ABSTRACT OF COST

STATE: RAJASTHAN  
 DISTRICT: JALORE  
 AGROCLIMATIC ZONE: 093  
 NAME OF THE BLOCK : Sayla  
 NAME OF WATERSHED: JALORE X (IWMP)2010-11  
 CATEGORY OF WATERSHED: DESERT AREA  
 IRRIGATION PERCENTAGE 2.18 %

UNIT COST: RS.15000/- Hac.  
 GEOGRAPHICAL AREA:6205 Hac.  
 EFFECTIVE AREA:  
 (I) ARABLE LAND:5181 HAC.  
 (II) NON ARABLE LAND: 547 Hac.  
**TOTAL : 5728 Hac**  
**TOTAL COST:859.20 Lacs**

S.No	Activity	Unit	Quantity	Unit Cost	Total Cost	Cost from Project Fund	Convergence Fund	Beneficiary contribution
1	2	3	4	5	6	7	8	9
A I	Administration cost	10%	0	0	85.920	85.920	0	0
II	Monitoring	1%	0	0	8.590	8.590	0	0
III	Evaluation	1%	0	0	8.590	8.590	0	0
	<b>Total</b>	<b>12%</b>	<b>0</b>	<b>0</b>	<b>103.100</b>	<b>103.100</b>	<b>0</b>	<b>0</b>
B I	Preparatory Phase (Entry Point Activity)	4%	0	0	34.370	34.370	0	0
II	Institution And Capacity Building	5%	0	0	42.960	42.960	0	0
III	Preparation of Detailed Project Report (DPR)	1%	0	0	8.590	8.590	0	0
	<b>Total</b>	<b>10%</b>	<b>0</b>	<b>0</b>	<b>85.920</b>	<b>85.920</b>	<b>0</b>	<b>0</b>
C	<b>Watershed Development Works (NRM)</b>							
	Arable Land Conservation Measures	56%						
(1)	Vegetative Bund	Hac.	1853	12800	237.180	237.180	0	17.780
(2)	Earthen Bund with Pitching	No.	100	54000	54.000	54.000	0	4.050
(3)	Water Harvesting Tanka	No.	80	90400	72.320	72.320	0	5.420
(4)	Wasteweir	No.	10	14700	1.470	1.470	0	0.110
	<b>Total</b>				<b>364.970</b>	<b>364.970</b>	<b>0.000</b>	<b>27.360</b>
II	<b>Non Arable Land Conservation Measures</b>							
(1)	Ditch Cum Bund Fencing	Hac.	50	25420	12.710	12.710	0	0
(2)	Contour Furrow in Pasture Land	Hac.	50	17240	8.620	8.620	0	0
(4)	Plantation in pastureland	Hac.	50	50630	25.310	25.310	0	0
(5)	Earthen Bund with Pitching	No.	50	54000	27.000	27.000	0	0
(6)	Dug out Pond	No.	10	50000	5.000	5.000	0	0
(7)	Wasteweir	No.	20	14700	2.940	2.940	0	0
	<b>Total</b>			<b>0</b>	<b>81.580</b>	<b>81.580</b>	<b>0</b>	<b>0</b>
III	<b>Drainage Line Treatment</b>			0				
(1)	Loose stone check Dam	No.	50	21100	10.550	10.550	0	0
(2)	Wasteweir	No.	20	14700	2.940	2.940	0	0
(3)	Water Harvesting Structure	No.	4	5.28	21.120	21.120	0	0
	<b>Total</b>			<b>0.000</b>	<b>34.610</b>	<b>34.610</b>	<b>0</b>	<b>0</b>
	<b>Total Watershed Development Works</b>			<b>0</b>	<b>481.160</b>	<b>481.160</b>	<b>0</b>	<b>27.360</b>
D	<b>Production Measures</b>	10%		0				
I	<b>Arable Land Production System</b>			0				
(1)	Crop Demonstration	Hac.	1017	2520	25.630	25.630	0	7.690

S.No	Activity	Unit	Quantity	Unit Cost	Total Cost	Cost from Project Fund	Convergence Fund	Beneficiary contribution
(2)	Fodder Demonstration	Hac.	100	4750	4.750	4.750	0	1.420
(3)	Agro Forestry	Hac.	280	900	2.520	2.520	0	0.760
(4)	Dry land Horticulture	Hac.	10	76175	7.620	7.620	0	2.280
(5)	Homestead Kitchen Garden	Hac.	20	5000	1.000	1.000	0	0.300
(6)	i Compost Pit	No.	140	2000	2.800	2.800	0	0.840
(7)	ii Vermi Compost Unit	No.	10	36000	3.600	3.600	0	1.080
(8)	Water Tank.	No.	50	50000	25.000	12.500	12.500	3.750
(9)	HDPE/ PVC Pipe	No.	100	15000	15.000	7.500	7.500	2.250
(10)	Sprinklar set	No.	100	18000	18.000	9.000	9.000	2.700
(11)	Seed cum fertilizer drill	No.	20	25000	5.000	2.500	2.500	0.750
(12)	Isopam (Threser)	No.	10	50000	5.000	2.500	2.500	0.750
	<b>Total</b>	-		<b>0</b>	<b>115.920</b>	<b>81.920</b>	<b>34.000</b>	<b>24.570</b>
<b>III</b>	<b>Live Stock Management</b>			0				
(1)	Distribution of Buffalo bulls	No.	4	10000	0.400	0.400	0	0
(2)	Mangers Distribution	No.	200	600	1.200	1.200	0	0.360
(3)	Animal Health Camps	No.	10	24000	2.400	2.400	0	0
	<b>Total</b>			<b>0</b>	<b>4.000</b>	<b>4.000</b>	<b>0.000</b>	<b>0.360</b>
	<b>Total Production System</b>	<b>10%</b>		<b>0</b>	<b>119.920</b>	<b>85.920</b>	<b>34.000</b>	<b>24.930</b>
<b>D</b>	<b>Livelihood &amp; Micro Enterprises</b>	<b>9%</b>		0				
(1)	<b>Revolving Fund to SHG</b>	<b>60%</b>	50	0	46.400	46.400	0	0
(2)	<b>Revolving Fund to Enterprises (Individual)</b>	<b>10%</b>	15	0	7.730	7.730	0	0
(3)	<b>Grant In Add to faderation SHG</b>	<b>30%</b>	45	0	23.200	23.200	0	6.960
	<b>Total</b>			0	77.330	77.330	0	6.960
<b>E.</b>	<b>Consolidation</b>	<b>3%</b>	<b>0</b>	<b>0</b>	<b>25.770</b>	<b>25.770</b>	<b>0</b>	<b>0</b>
	<b>Grand Total</b>			<b>0</b>	<b>893.200</b>	<b>859.200</b>	<b>34.000</b>	<b>59.250</b>

## CHAPTER IV

### ACTIVITY WISE TOTAL ABSTRACT OF COST G.P.BAKRA

STATE: RAJASTHAN  
 DISTRICT: JALORE  
 AGROCLIMATIC ZONE: 093  
 NAME OF THE BLOCK : Sayla  
 NAME OF WATERSHED: JALORE X (IWMP)2010-11  
 CATEGORY OF WATERSHED: DESERT AREA  
 IRRIGATION PERCENTAGE 2.18 %

UNIT COST: RS.15000/- Hac.  
 GEOGRAPHICAL AREA:3190 Hac.  
 EFFECTIVE AREA:  
 (I) ARABLE LAND:2752 HAC.  
 (II) NON ARABLE LAND: 313 Hac.  
**TOTAL : 3065 Hac**  
**TOTAL COST:433.210 Lacs**

S.No	Activity	Unit	Quantity	Unit Cost	Total Cost	Cost from Project Fund	Convergence Fund	Beneficiary contribution
1	2	3	4	5	6	7	8	9
A I	Administration cost	10%	0	0	42.960	42.960	0	0
II	Monitoring	1%	0	0	4.295	4.295	0	0
III	Evaluation	1%	0	0	4.295	4.295	0	0
	<b>Total</b>	<b>12%</b>	<b>0</b>	<b>0</b>	<b>51.550</b>	<b>51.550</b>	<b>0</b>	<b>0</b>
B I	Preparatory Phase (Entry Point Activity)	4%	0	0	17.185	17.185	0	0
II	Institution And Capacity Building	5%	0	0	21.480	21.480	0	0
III	Preparation of Detailed Project Report (DPR)	1%	0	0	4.295	4.295	0	0
	<b>Total</b>	<b>10%</b>	<b>0</b>	<b>0</b>	<b>42.960</b>	<b>42.960</b>	<b>0</b>	<b>0</b>
C	<b>Watershed Development Works (NRM)</b>							
	Arable Land Conservation Measures	56%						
(1)	Vegetative Bund	Hac.	953	12800	121.980	121.980	0	9.150
(2)	Earthen Bund with Pitching	No.	50	54000	27.000	27.000	0	2.025
(3)	Water Harvesting Tanka	No.	40	90400	36.160	36.160	0	2.710
(4)	Wasteweir	No.	5	14700	0.735	0.735	0	0.055
	<b>Total</b>				<b>185.875</b>	<b>185.875</b>	<b>0.000</b>	<b>13.940</b>
II	<b>Non Arable Land Conservation Measures</b>							
(1)	Ditch Cum Bund Fencing	Hac.	25	25420	6.355	6.355	0	0
(2)	Contour Furrow in Pasture Land	Hac.	25	17240	4.310	4.310	0	0
(4)	Plantation in pastureland	Hac.	25	50630	12.655	12.655	0	0
(5)	Earthen Bund with Pitching	No.	25	54000	13.500	13.500	0	0
(6)	Dug out Pond	No.	5	50000	2.500	2.500	0	0
(7)	Wasteweir	No.	10	14700	1.470	1.470	0	0
	<b>Total</b>			<b>0</b>	<b>40.790</b>	<b>40.790</b>	<b>0</b>	<b>0</b>
III	<b>Drainage Line Treatment</b>			0				
(1)	Loose stone check Dam	No.	25	21100	5.275	5.275	0	0
(2)	Wasteweir	No.	10	14700	1.470	1.470	0	0
(3)	Water Harvesting Structure	No.	2	5.28	10.560	10.560	0	0
	<b>Total</b>			<b>0.000</b>	<b>17.305</b>	<b>17.305</b>	<b>0</b>	<b>0</b>
	<b>Total Watershed Development Works</b>			<b>0</b>	<b>243.970</b>	<b>243.970</b>	<b>0</b>	<b>13.940</b>
D	<b>Production Measures</b>	10%		0				
I	<b>Arable Land Production System</b>			0				
(1)	Crop Demonstration	Hac.	517	2520	13.030	13.030	0	3.900

S.No	Activity	Unit	Quantity	Unit Cost	Total Cost	Cost from Project Fund	Convergence Fund	Beneficiary contribution
(2)	Fodder Demonstration	Hac.	50	4750	2.375	2.375	0	0.710
(3)	Agro Forestry	Hac.	140	900	1.260	1.260	0	0.380
(4)	Dry land Horticulture	Hac.	5	76175	3.810	3.810	0	1.140
(5)	Homestead Kitchen Garden	Hac.	10	5000	0.500	0.500	0	0.150
(6)	i Compost Pit	No.	70	2000	1.400	1.400	0	0.420
(7)	ii Vermi Compost Unit	No.	5	36000	1.800	1.800	0	0.540
(8)	Water Tank.	No.	25	50000	12.500	6.250	6.250	1.875
(9)	HDPE/ PVC Pipe	No.	50	15000	7.500	3.750	3.750	1.125
(10)	Sprinklar set	No.	50	18000	9.000	4.500	4.500	1.350
(11)	Seed cum fertilizer drill	No.	10	25000	2.500	1.250	1.250	0.375
(12)	Isopam (Threser)	No.	5	50000	2.500	1.250	1.250	0.375
	<b>Total</b>	-		<b>0</b>	<b>58.175</b>	<b>41.175</b>	<b>17.000</b>	<b>12.340</b>
<b>III</b>	<b>Live Stock Management</b>			0				
(1)	Distribution of Buffalo bulls	No.	2	10000	0.200	0.200	0	0
(2)	Mangers Distribution	No.	100	600	0.600	0.600	0	0.180
(3)	Animal Health Camps	No.	5	24000	1.200	1.200	0	0
	<b>Total</b>			<b>0</b>	<b>2.000</b>	<b>2.000</b>	<b>0.000</b>	<b>0.180</b>
	<b>Total Production System</b>	<b>10%</b>		<b>0</b>	<b>60.175</b>	<b>43.175</b>	<b>17.000</b>	<b>12.520</b>
<b>D</b>	<b>Livelihood &amp; Micro Enterprises</b>	<b>9%</b>		0				
(1)	Revolving Fund to SHG	<b>60%</b>	25	0	23.200	23.200	0	0
(2)	Revolving Fund to Enterprises (Individual)	<b>10%</b>	8	0	3.865	3.865	0	0
(3)	Grant In Add to faderation SHG	<b>30%</b>	25	0	11.600	11.600	0	3.480
	<b>Total</b>			0	<b>38.665</b>	<b>38.665</b>	<b>0</b>	<b>3.480</b>
<b>E.</b>	<b>Consolidation</b>	<b>3%</b>	<b>0</b>	<b>0</b>	<b>12.890</b>	<b>12.890</b>	<b>0</b>	<b>0</b>
	<b>Grand Total</b>			<b>0</b>	<b>450.210</b>	<b>433.210</b>	<b>17.000</b>	<b>29.940</b>

## CHAPTER IV

### ACTIVITY WISE TOTAL ABSTRACT OF COST G.P. REVATRA

STATE: **RAJASTHAN**  
 DISTRICT: **JALORE**  
 AGROCLIMATIC ZONE: **093**  
 NAME OF THE BLOCK : **Sayla**  
 NAME OF WATERSHED: **JALORE X (IWMP)2010-11**  
 CATEGORY OF WATERSHED: **DESERT AREA**  
 IRRIGATION PERCENTAGE **2.18 %**

UNIT COST: **RS.15000/- Hac.**  
 GEOGRAPHICAL AREA:**3015 Hac.**  
 EFFECTIVE AREA:  
 (I) ARABLE LAND**2429 HAC.**  
 (II) NON ARABLE LAND: **234 Hac.**  
**TOTAL : 2663 Hac**  
**TOTAL COST:426 Lacs**

S.No	Activity	Unit	Quantity	Unit Cost	Total Cost	Cost from Project Fund	Convergence Fund	Beneficiary contribution
1	2	3	4	5	6	7	8	9
A I	Administration cost	10%	0	0	42.960	42.960	0	0
II	Monitoring	1%	0	0	4.295	4.295	0	0
III	Evaluation	1%	0	0	4.295	4.295	0	0
	<b>Total</b>	<b>12%</b>	<b>0</b>	<b>0</b>	<b>51.550</b>	<b>51.550</b>	<b>0</b>	<b>0</b>
B I	Preparatory Phase (Entry Point Activity)	4%	0	0	17.185	17.185	0	0
II	Institution And Capacity Building	5%	0	0	21.480	21.480	0	0
III	Preparation of Detailed Project Report (DPR)	1%	0	0	4.295	4.295	0	0
	<b>Total</b>	<b>10%</b>	<b>0</b>	<b>0</b>	<b>42.960</b>	<b>42.960</b>	<b>0</b>	<b>0</b>
C	<b>Watershed Development Works (NRM)</b>							
	<b>Arable Land Conservation Measures</b>	56%						
(1)	Vegetative Bund	Hac.	900	12800	115.200	115.200	0	8.640
(2)	Earthen Bund with Pitching	No.	50	54000	27.000	27.000	0	2.025
(3)	Water Harvesting Tanka	No.	40	90400	36.160	36.160	0	2.710
(4)	Wasteweir	No.	5	14700	0.735	0.735	0	0.055
	<b>Total</b>				<b>179.095</b>	<b>179.095</b>	<b>0.000</b>	<b>13.430</b>
II	<b>Non Arable Land Conservation Measures</b>							
(1)	Ditch Cum Bund Fencing	Hac.	25	25420	6.355	6.355	0	0
(2)	Contour Furrow in Pasture Land	Hac.	25	17240	4.310	4.310	0	0
(4)	Plantation in pastureland	Hac.	25	50630	12.655	12.655	0	0
(5)	Earthen Bund with Pitching	No.	25	54000	13.500	13.500	0	0
(6)	Dug out Pond	No.	5	50000	2.500	2.500	0	0
(7)	Wasteweir	No.	10	14700	1.470	1.470	0	0
	<b>Total</b>			<b>0</b>	<b>40.790</b>	<b>40.790</b>	<b>0</b>	<b>0</b>
III	<b>Drainage Line Treatment</b>			0				
(1)	Loose stone check Dam	No.	25	21100	5.275	5.275	0	0
(2)	Wasteweir	No.	10	14700	1.470	1.470	0	0
(3)	Water Harvesting Structure	No.	2	5.28	10.560	10.560	0	0
	<b>Total</b>			<b>0.000</b>	<b>17.305</b>	<b>17.305</b>	<b>0</b>	<b>0</b>
	<b>Total Watershed Development Works</b>			<b>0</b>	<b>237.190</b>	<b>237.190</b>	<b>0</b>	<b>13.430</b>
D	<b>Production Measures</b>	10%		0				
I	<b>Arable Land Production System</b>			0				
(1)	Crop Demonstration	Hac.	500	2520	12.600	12.600	0	3.780

S.No	Activity	Unit	Quantity	Unit Cost	Total Cost	Cost from Project Fund	Convergence Fund	Beneficiary contribution
(2)	Fodder Demonstration	Hac.	50	4750	2.375	2.375	0	0.710
(3)	Agro Forestry	Hac.	140	900	1.260	1.260	0	0.380
(4)	Dry land Horticulture	Hac.	5	76175	3.810	3.810	0	1.140
(5)	Homestead Kitchen Garden	Hac.	10	5000	0.500	0.500	0	0.150
(6)	i Compost Pit	No.	70	2000	1.400	1.400	0	0.420
(7)	ii Vermi Compost Unit	No.	5	36000	1.800	1.800	0	0.540
(8)	Water Tank.	No.	25	50000	12.500	6.250	6.250	1.875
(9)	HDPE/ PVC Pipe	No.	50	15000	7.500	3.750	3.750	1.125
(10)	Sprinklar set	No.	50	18000	9.000	4.500	4.500	1.350
(11)	Seed cum fertilizer drill	No.	10	25000	2.500	1.250	1.250	0.375
(12)	Isopam (Threser)	No.	5	50000	2.500	1.250	1.250	0.375
	<b>Total</b>	-		<b>0</b>	<b>57.745</b>	<b>40.745</b>	<b>17.000</b>	<b>12.220</b>
<b>III</b>	<b>Live Stock Management</b>			<b>0</b>				
(1)	Distribution of Buffalo bulls	No.	2	10000	0.200	0.200	0	0
(2)	Mangers Distribution	No.	100	600	0.600	0.600	0	0.180
(3)	Animal Health Camps	No.	5	24000	1.200	1.200	0	0
	<b>Total</b>			<b>0</b>	<b>2.000</b>	<b>2.000</b>	<b>0.000</b>	<b>0.180</b>
	<b>Total Production System</b>	<b>10%</b>		<b>0</b>	<b>59.745</b>	<b>42.745</b>	<b>17.000</b>	<b>12.400</b>
<b>D</b>	<b>Livelihood &amp; Micro Enterprises</b>	<b>9%</b>		<b>0</b>				
(1)	Revolving Fund to SHG	<b>60%</b>	25	0	23.200	23.200	0	0
(2)	Revolving Fund to Enterprises (Individual)	<b>10%</b>	7	0	3.865	3.865	0	0
(3)	Grant In Add to faderation SHG	<b>30%</b>	20	0	11.600	11.600	0	3.480
	<b>Total</b>			<b>0</b>	<b>38.665</b>	<b>38.665</b>	<b>0</b>	<b>3.480</b>
<b>E.</b>	<b>Consolidation</b>	<b>3%</b>	<b>0</b>	<b>0</b>	<b>12.890</b>	<b>12.890</b>	<b>0</b>	<b>0</b>
	<b>Grand Total</b>			<b>0</b>	<b>443.000</b>	<b>426.000</b>	<b>17.000</b>	<b>29.310</b>

## CHAPTER V

### ANNUAL ACTION PLAN THROUGH PROJECT FUND

STATE: **RAJASTHAN**  
 DISTRICT: **JALORE**  
 AGROCLIMATIC ZONE: **093**  
 NAME OF THE BLOCK : **Sayla**  
 NAME OF WATERSHED: **JALORE X (IWMP)2010-11**  
 CATEGORY OF WATERSHED: **DESERT AREA**  
 IRRIGATION PERCENTAGE **2.18 %**

UNIT COST: **RS15000/- Hac.**  
 GEOGRAPHICAL AREA: **6205 Hac.**  
 EFFECTIVE AREA:  
 (I) ARABLE LAND: **5181 HAC.**  
 (II) NON ARABLE LAND: **547 Hac.**  
**TOTAL : 5728 Hac**  
**TOTAL COST: 859.20 Lacs**

S.No	Activity	Unit	Quantity	Unit Cost	Total Cost	1st year		2st year		3st year		4st year		5st year	
						Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
A I	Administration cost	10%	0	0	85.920	0	12.89	0	17.18	0	21.48	0	17.18	0	17.19
II	Monitoring	1%	0	0	8.590	0	1.72	0	2.15	0	2.15	0	1.29	0	1.28
III	Evaluation	1%	0	0	8.590	0	0.00	0	0.86	0	3.44	0	0	0	4.29
	<b>Total</b>	<b>12%</b>	<b>0</b>	<b>0</b>	<b>103.100</b>	<b>0</b>	<b>14.61</b>	<b>0.00</b>	<b>20.19</b>	<b>0.00</b>	<b>27.07</b>	<b>0.00</b>	<b>18.47</b>	<b>0.00</b>	<b>22.76</b>
B I	Preparatory Phase (Entry Point Activity)	4%	0	0	34.370	0	34.37	0	0	0	0	0	0	0	0
II	Institution And Capacity Building	5%	0	0	42.960	0	17.18	0	8.59	0	8.59	0	4.30	0	4.30
III	Preparation of Detailed Project Report (DPR)	1%	0	0	8.590	0	8.59	0	0	0	0	0	0	0	0
	<b>Total</b>	<b>10%</b>	<b>0</b>	<b>0</b>	<b>85.920</b>		<b>60.140</b>	<b>0.000</b>	<b>8.590</b>	<b>0.000</b>	<b>8.590</b>	<b>0.000</b>	<b>4.300</b>	<b>0.000</b>	<b>4.300</b>
C	<b>Watershed Development Works (NRM)</b>														
	<u>Arable Land Conservation Measures</u>	56%													
(1)	Vegetative Bund	Hac.	1853	12800	237.180	0	0.000	670	85.76	815	104.32	368	47.10	0	0.00
(2)	Earthen Bund with Pitching	No.	100	54000	54.000	0	0	36	19.44	44	23.56	20	11.00	0	0
(3)	Water Harvesting Tanka	No.	80	90400	72.320	0	0.000	29	25.950	35	31.910	15	14.460	0	0
(4)	Wasteweir	No.	10	14700	1.470	0	0	4	0.240	4	0.790	2	0.440	0	0
	<b>Total</b>				<b>364.970</b>	<b>0</b>	<b>0.000</b>		<b>131.390</b>		<b>160.580</b>		<b>73.000</b>		<b>0.000</b>
II	<b>Non Arable Land Conservation Measures</b>														
(1)	Ditch Cum Bund Fencing	Hac.	50	25420	12.710	0	0.000	50	12.710	0	0	0	0	0	0
(2)	Contour Furrow in Pasture Land	Hac.	50	17240	8.620	0	0.000	50	8.620	0	0	0	0	0	0
(4)	Plantation in pastureland	Hac.	50	50630	25.310	0	0.000	50	8.040	0	17.270	0	0	0	0
(5)	Earthen Bund with Pitching	No.	50	54000	27.000	0	0	0	0.000	38	20.340	12	6.660	0	0.000

S.No	Activity	Unit	Quantity	Unit Cost	Total Cost	1st year		2st year		3st year		4st year		5st year	
						Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin
(6)	Dug out Pond	No.	10	50000	5.000	0	0.000	0	0.000	0	0.000	10	5.000	0	0.000
(7)	Wasteweir	No.	20	14700	2.940	0	0	0	0.000	0	0.000	20	2.940	0	0
	<b>Total</b>			<b>0</b>	<b>81.580</b>	<b>0</b>	<b>0.000</b>		<b>29.370</b>		<b>37.610</b>		<b>14.600</b>		<b>0.000</b>
III	<b>Drainage Line Treatment</b>														
(1)	Loose stone check Dam	No.	50	21100	10.550	0	0.000	50	10.550	0	0.000				
(2)	Wasteweir	No.	20	14700	2.940	0	0	4	1	16	2.410	0	0.000	0	0
(3)	Water Harvesting Structure	No.	4	5.28	21.120	0	0	0	0	3	14	1	6.920	0	0.000
	<b>Total</b>			<b>0.000</b>	<b>34.610</b>	<b>0</b>	<b>0.000</b>		<b>11.080</b>		<b>16.610</b>		<b>6.920</b>		<b>0.000</b>
	<b>Total Watershed Development Works</b>			<b>0</b>	<b>481.160</b>	<b>0</b>	<b>0.000</b>		<b>171.840</b>		<b>214.800</b>		<b>94.520</b>		<b>0.000</b>
D	<b>Production Measures</b>	10%		0		0	0	0	0	0	0	0	0	0	0
I	<b>Arable Land Production System</b>			0			0								
(1)	Crop Demonstration	Hac.	1017	2520	25.630	0	0.000	203	5.130	356	8.970	356	8.970	102	2.560
(2)	Fodder Demonstration	Hac.	100	4750	4.750	0	0	20	0.950	35	1.660	35	1.660	10	0.480
(3)	Agro Forestry	Hac.	280	900	2.520	0	0	56	0.510	98	0.880	98	0.880	28	0.250
(4)	Dry land Horticulture	Hac.	10	76175	7.620	0	0	2	1.520	4	2.670	3	2.670	1	0.760
(5)	Homestead Kitchen Garden	Hac.	20	5000	1.000	0	0	4	0.200	7	0.350	7	0.350	2	0.100
(6)	i Compost Pit	No.	140	2000	2.800	0	0	28	0.560	49	0.980	49	0.980	14	0.280
(7)	ii Vermi Compost Unit	No.	10	36000	3.600	0	0.000	2	0.720	4	1.260	3	1.260	1	0.360
(8)	Water Tank.	No.	50	50000	12.500	0	0	10	2.500	18	4.380	17	4.370	5	1.250
(9)	HDPE/ PVC Pipe	No.	100	15000	7.500	0	0	20	1.500	35	2.620	35	2.630	10	0.750
(10)	Sprinklar set	No.	100	18000	9.000	0	0	20	1.800	35	3.150	35	3.150	10	0.900
(11)	Seed cum fertilizer drill	No.	20	25000	2.500	0	0	4	0.500	7	0.880	7	0.870	2	0.250
(12)	Isopam (Thresher)	No.	10	50000	2.500	0	0	2	0.500	4	0.880	3	0.870	1	0.250
	<b>Total</b>	<b>-</b>		<b>0</b>	<b>81.920</b>		<b>0.000</b>		<b>16.390</b>		<b>28.680</b>		<b>28.660</b>		<b>8.190</b>
III	<b>Live Stock Management</b>			0		0	0	10	0.750	10	0.750	0	0.000	0	0.000
(1)	Distribution of Buffalo bulls	No.	4	10000	0.400	0	0	1	0.080	1	0.140	1	0.140	1	0.040
(2)	Mangers Distribution	No.	200	600	1.200		0.000	40	0.240	70	0.420	70.000	0.420	20	0.120
(3)	Animal Health Camps	No.	10	24000	2.400	0	0.000	2	0.480	4	0.840	3	0.840	1	0.240
	<b>Total</b>			<b>0</b>	<b>4.000</b>	<b>0</b>	<b>0.000</b>	<b>43</b>	<b>0.800</b>	<b>75</b>	<b>1.400</b>	<b>74.000</b>	<b>1.400</b>	<b>22</b>	<b>0.400</b>

S.No	Activity	Unit	Quantity	Unit Cost	Total Cost	1st year		2st year		3st year		4st year		5st year	
						Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin
	<b>Total Production System</b>	<b>10%</b>		<b>0</b>	<b>85.920</b>	<b>0</b>	<b>0.000</b>		<b>17.190</b>		<b>30.080</b>		<b>30.060</b>		<b>8.590</b>
<b>D</b>	<b>Livelihood &amp; Micro Enterprises</b>	<b>9%</b>													
(1)	<b>Revolving Fund to SHG</b>	<b>60%</b>	50	0	46.400	0	0.000	10	7.730	10	18.050	10	18.040	10	2.580
(2)	<b>Revolving Fund to Enterprises (Individual)</b>	<b>10%</b>	15	0	7.730	0	0	0	1.290	0	3.010		3.000	0	0
(3)	<b>Grant In Add to faderation SHG</b>	<b>30%</b>	45	0	23.200	0	0	0	3.870	0	9.020	0	9.020	0	1
	<b>Total</b>			<b>0</b>	<b>77.330</b>	<b>0</b>	<b>0.000</b>	<b>10</b>	<b>12.890</b>	<b>10</b>	<b>30.080</b>	<b>10</b>	<b>30.060</b>	<b>10</b>	<b>4.300</b>
<b>E.</b>	<b>Consolidation</b>	<b>3%</b>	<b>0</b>	<b>0</b>	<b>25.770</b>		<b>0.000</b>		<b>0.000</b>		<b>0.000</b>		<b>0.000</b>		<b>25.770</b>
	<b>Grand Total</b>			<b>0</b>	<b>859.200</b>		<b>74.750</b>		<b>230.700</b>		<b>310.620</b>		<b>177.410</b>		<b>65.720</b>





S.No	Activity	Unit	Quantity	Unit Cost	Total Cost	1st year		2st year		3st year		4st year		5st year	
						Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin
(2)	Revolving Fund to Enterprises (Individual)	10%	0	0	0	0	0	0	0	0	0	0	0	0	0
(3)	Grant In Add to faderation SHG	30%	0	0	0	0	0	0	0	0	0	0	0	0	0
	<b>Total</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
E.	<b>Consolidation</b>	<b>3%</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
	<b>Grand Total</b>	<b>-</b>		<b>0</b>	<b>34.000</b>		<b>0</b>		<b>6.800</b>		<b>11.910</b>		<b>11.890</b>		<b>3.400</b>

## 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	160-165	160	
2	Ground water structures repaired/ rejuvenated	No.	4	8	
3	Quality of drinking water	Description	salty	Potable	
4	Availability of drinking water	Description	4 month	7 month	
5	Change in irrigated Area	Ha	125	200	
6	Change in cropping/ land use pattern	Description	-	-	
7	Area under agricultural crop	Ha	-		
	I Area under single crop	Ha	4450	4700	
	li Area under double crop	Ha	125	200	
	lii Area under multiple crop	Ha	0	5	
8	Change in cultivated Area	Ha	4450	4700	
9.yield of major crops of area	Yield of Bajra	q/ha	8	12	
	Yield of Wheat	q/ha	0	0	
	Yield of Green Gram	q/ha	4	6	
	Yield of Mustard	q/ha	0	0	
10 production of major crops of area	Production of Bajra	ton	1840	2250	
	Production of Wheat	ton	0	0	
	Yield of Green Gram	ton	2	3	
	Production of Mustard	ton	0	0	
11	Area under vegetation	Ha	4	10	
12	Area under horticulture	Ha	-	2	
13	Area under fuel	Ha	65	150	
14	Area under Fodder	Ha	90	130	
15	Fodder production	Ton	6985	10800	
16	Milk production	Litres/day	1630	3000	
17	SHGs Active	No.	-	30	
18	No. of livelihoods	No.	2300	40000	
19	Income	Rs.in la	0.16	0.20	
20	Migration	No.	830	0	
21	SHG Federations formed	No.	-	1	

### **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.
- The execution of the Women's Empowerment Pedagogy is regularly monitored by the District and State level Implementing Agencies

### **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 TECHNICAL DESIGNS AND ESTIMATES**

Technical designs and estimates for proposed activities.

For Estimates GKN of the districts should be used. For Production System activities, rates of Agriculture/Horticulture/Animal Husbandry should be used.

## ESTIMATE OF VEGETATIVE BUND IN ARABLE LAND

Estimate of One ha.

Length per ha. = 80 mtr

S. no	Name of work	Item no.	No	Length	width (TW+BW) /2	Hight	Qty	Unit	Rate	Amount
1	Earth work Excavation for making of bund, laying in layers of 15 cm, breaking of clods, sorting of grass pebbles, disposal of excavated material up to 1.5 mt Hight and lead up to 50 m including dressing and compaction	135 ब	1	80	1.85	1	148.00	Cum	82.00	12136.00
2	Sowing of seeds on the constructed bund in three rows	114	3	80			240	meter	0.60	144.00
3	Supply of Stylo/Dhaman seed @ 4 gm / m in three rows	CAZRI Rate	3	80			0.96	Kg	200.00	192.00
										12472.0
										Add 3% contingency
										374.16
										Total
										12846.2
										Say
										12800.0

1853 Ha. @ 12800/Ha. = 23717000.00
Beneficiary Contributaion 1778000.00

## DESIGN OF VEGETATIVE BUND IN ARABLE LAND

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

$$0.305(0.8 \times 2+1.0)$$

$$V.I = 0.549$$

V.I	Vertical interval	
X=	Rain Fall Factor	0.8
Y=	Factor due to soil infiltration & Crop cover	1
S=	Percent slope	1
He=	$\frac{(Re \times VI)^{1/2}}{(50)^{1/2}}$	
He=	0.6199                      Say              0.60 m	
He	Depth of impounding	
Re	24Hour rainfall excess in Cms. for 10 year recurrence interval	35
V.I	Vertical interval	0.549

Total Height of Bund	=	0.6	+	0.4	1.00	m
Top width of Bund	=				0.6	m
Bottom width of Bund	=				3.1	m

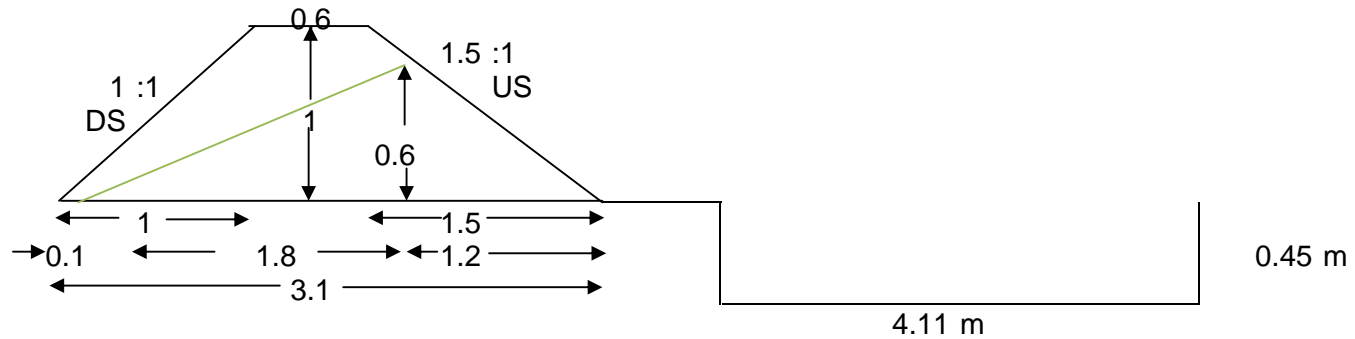
$$\text{Cross section of bund} = \frac{(\text{Top width of Bund} + \text{Bottom width of Bund}) \times \text{Height}}{2}$$

$$\text{X Section} = \frac{(0.60+3.1) \times 1.00}{2}$$

$$\text{X Section} = 1.85 \text{ Sq.m.}$$

## CROSS-SECTION OF VEGETATIVE BUND IN ARABLE LAND

Top width Based on seepage line check  
Slope of seepage line 3:1



$$CS = \frac{(Tw+Bw) \cdot Ht}{2}$$

$$CS = 1.85 \text{ Sq.m.}$$

Average Cross section	1.85 Sq.m.
Length	1.00 m.
Quantity	1.85 Cu.m.

**Construction of Waste Weir**  
**DETAILS OF WORK AND ABSTRACT OF COST**

S. No.	Item	No.	Detail			Quantity		Unit	Rate		Amount		
			L	B	D/H	Feet	Metre		Lab	Total	Lab	Total	
1	Excavation in hard soil ordinary muram or earth mixed with bajri and kankar or boulder dry or moist & disposal of excavated material within initial lead of 30 m and lift of 1.5 m including dressing etc. complete.	2	9.5	2	2	76							
		2	2	2	2	16							
		1	8	2.5	2	40							
							0						
							0						
					132	3.7356	cum.	82.00	82.00	306.319	306.319		
2	Cement concrete well mixed in cement mortar ( 1 : 4 : 8 ) laid in position complete including curing. Aggregate size upto 50 mm, HB	2	9.5	2	0.5	19							
		2	2	2	0.5	4							
		1	8	2.5	0.5	10							
							0						
							0						
					33	0.9339	cum.	260.05	1960.00	242.861	1830.44		
3	Random rubble stone masonry in cement sand mortar ( 1 : 6 ) For foundation	2	9.5	1.75	1.5	49.875							
		2	2	1.75	1.5	10.5							
		1	8	2.5	1.5	30							
							0						
							90.375	2.55761	cum.	473.00	1805.00	1209.75	4616.49
4	Random rubble stone masonry in cement sand mortar ( 1 : 6 ) For superstructure  9                      3	2	6	1.5	3.25	58.5							
		4	2	1.5	2	24							
		1	8.5	2	1	17							
							99.5	2.81585	cum.	628.25	1966.00	1769.06	5535.96
5	Dry Stone kharanja (15 to 30 cm) Item 140	1	8.5	3	0.3	7.65							
							0						
							7.65	0.71069	cum.	199.50	1045.00	141.782	742.666

6	Cement plaster including smooth finishing in cement mortar (1:6) 25 mm thick.	2	13	1.5	1	39						
		4	2	1.5	1	12						
		1	8.5	1.5	1	12.75						
		1	8.5	1	1	8.5						
						72.25	6.71203	sqm.	77.65	140.00	521.189	939.684
7	Ruled pointing in cement mortar (1:3)	2	6	3.25	1	39						
		4	2	2	1	16	1.4864	sqm.				
		1	8.5	1.25	1	10.625						
						65.625	6.09656	sqm.	45.80	57.20	279.223	348.723

4470.18 14320.3

	Quantity	Rate	Amount
Skilled labour	5.96	325	1937
Unskilled labour	14.64	135	1976
Water			557
			4470

Cement 2  
Cement 2

Amount		
Labour	A	4470.18
Material	B	9850.11
Total	C	14320.3
Add contingency		390
Total (C+D)		14710.3

Say 14700

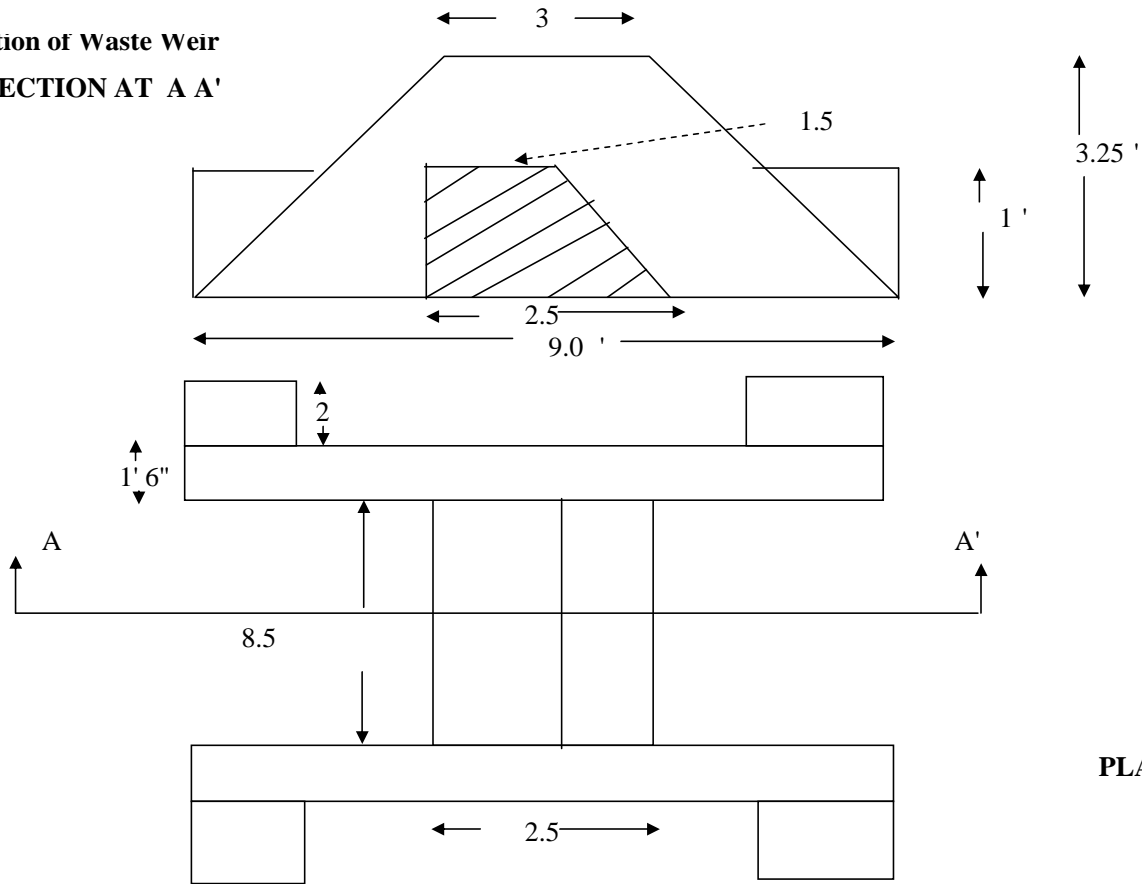
**10 No.@14700/No.=147000.00**

**Beneficiary Contributaion 11000.00**

S. No	Material	Unit	Quantity	Rate	Amount
1	Sand	Cu.m.	2.272080	380	863.39
2	Stone Agg of 40 mm nominal size	Cu.m.	0.8	350	294.179
3	Stone	Cu.m.	5.4	575	3089.74
4	Cement	Kg	635.58	220	2796.56
					7248.55
	Other				2601.55
		Total			9850.11

12.712 Bag

**Construction of Waste Weir**  
**CROSS SECTION AT A A'**



**PLAN**

**Construction of Waste Weir Non Arable Land**  
DETAILS OF WORK AND ABSTRACT OF COST

S. No.	Item	No.	Detail			Quantity		Unit	Rate		Amount		
			L	B	D/H	Feet	Metre		Lab	Total	Lab	Total	
1	Excavation in hard soil ordinary muram or earth mixed with bajri and kankar or boulder dry or moist & disposal of excavated material within initial lead of 30 m and lift of 1.5 m including dressing etc. complete.	2	9.5	2	2	76							
		2	2	2	2	16							
		1	8	2.5	2	40							
							0						
							0						
					132	3.7356	cum.	82.00	82.00	306.32	306.32		
2	Cement concrete well mixed in cement mortar ( 1 : 4 : 8 ) laid in position complete including curing. Aggregate size upto 50 mm, HB	2	9.5	2	0.5	19							
		2	2	2	0.5	4							
		1	8	2.5	0.5	10							
							0						
							0						
					33	0.9339	cum.	260.05	1960.00	242.86	1830.4		
3	Random rubble stone masonry in cement sand mortar ( 1 : 6 ) For foundation	2	9.5	1.75	1.5	49.875							
		2	2	1.75	1.5	10.5							
		1	8	2.5	1.5	30							
							0						
					90.375	2.5576	cum.	473.00	1805.00	1209.8	4616.5		
4	Random rubble stone masonry in cement sand mortar ( 1 : 6 ) For superstructure  9 #REF!	2	6	1.5	3.25	58.5							
		4	2	1.5	2	24							
		1	8.5	2	1	17							
							0						
					99.5	2.8159	cum.	628.25	1966.00	1769.1	5536		
5	Dry Stone kharanja (15 to 30 cm) Item 140	1	8.5	3	0.3	7.65							
							0						
							7.65	0.7107	cum.	199.50	1045.00	141.78	742.67
6	Cement plaster including smooth finishing in cement mortar (1:6) 25 mm thick.	2	13	1.5	1	39							
		4	2	1.5	1	12							
		1	8.5	1.5	1	12.75							
		1	8.5	1	1	8.5							
							72.25	6.712	sqm.	77.65	140.00	521.19	939.68
7	Ruled pointing in cement mortar (1:3)	2	6	3.25	1	39							
		4	2	2	1	16	1.4864	sqm.					

			1	8.5	1.25	1	10.625						
							65.625	6.0966	sqm.	45.80	57.20	279.22	348.72
												4470.2	14320

	Quantity	Rate	Amount
Skilled labour	5.96	325	1937
Unskilled labour	14.64	135	1976
Water			557
			4470

Cement 2  
Cement 2

Amount		
Labour	A	4470.2
Material	B	9850.1
Total	C	14320

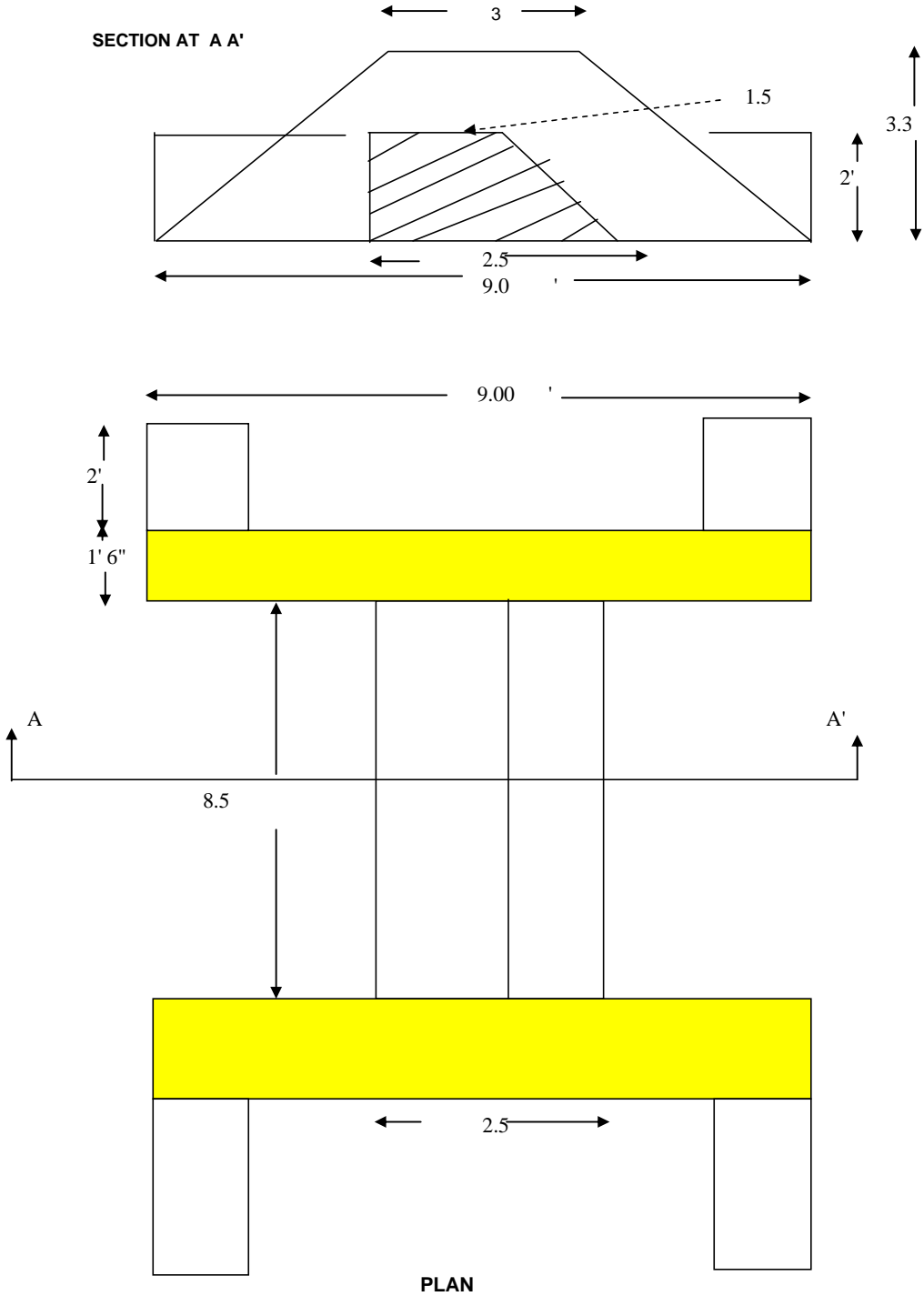
Add contingency		390
Total (C+D)		14710
	Say	14700

**40 No.@14700/No.=588000.00**

S. No.	Material	Unit	Quantity	Rate	Amount
1	Sand	Cu.m.	2.272080	380	863.39
2	Stone Agg of 40 mm nominal size	Cu.m.	0.8	350	294
3	Stone	Cu.m.	5.4	575	3087.8
4	Cement	Kg	635.58	220	2796.6
					7248.6
	Other				2601.6
		Total			9850.1

12.712 Bag

# Drawing of Waste Weir



Construction of Waste Weir

## MODEL ESTIMATE

नाम जल ग्रहण क्षेत्र— जालोर X (I.W.M.P)

कार्य का नाम— अर्दन बण्ड कृषि भूमि

औसत लम्बाई 80 मीटर

क्र.सं.	विवरण	मात्रा	इकाई	दर		राशि	
				श्रम	कुल	श्रम	कुल
1	डाग बेलिंग 2.5 से 5 सेमी गहराई तक (जि.स्त.दर. अनु.2010पृ.सं025 क्र.सं. 182)	160.00	मीटर	0.47	0.47	75.20	75.20
2	मिट्टी का कार्य बन्ध में (सूखी या गीली) 15 सेमी परत में डालना, ढेलों को तोडना, घास-पात तथा कंकर बीनकर अलग करना तथा मिट्टी की दरेसी करना 1.5 मी0 उठाना तथा 50 मीटर दूरी के लिए। कठोर मिट्टी में मिट्टी की कुटाई मानव द्वारा या प्लेन रोलर द्वारा ।(जि.स्त.दर	387.20	घ.मी.	84.80	84.80	32834.56	32834.56
3	बीज बुवाई बनाये गये रिज पर (जि.स्त.दर.अनु.2010पृ.सं0 20 क्र.सं.129)	160.00	मीटर	0.60	0.60	96.00	96.00
4	डिवलिंग विधि से वानिकी बीच बुवाई कार्य (जि.स्त.दर.अनु.2010पृ.सं0 25क्र.सं.184)	540.00	नग/100	9.90	9.90	53.46	53.46
5	बीजो की मात्रा 1. घामण घास बीज	2.00	कि.ग्रा	-	50.00	-	100.00
6	वानिकी बीज	2.00	कि.ग्रा	-	40.00	-	80.00
7	15 से 30 सेमी मोटे, हथौडे से तरासे हुऐ एकल पत्थर की पिचिंग समस्त उठान के साथ, आपूर्ति सहित	18.40	घ.मी.	199.50	1045.00	3670.80	19228.00
	<b>योग</b>					<b>36730.02</b>	<b>52467.22</b>
	<b>जोडा 3% कन्टोजेन्सी</b>						<b>1574.02</b>
	<b>योग</b>						<b>54041.24</b>
	<b>लागत श्रम भाग</b>						<b>36730.02</b>
	<b>लागत सामग्री भाग</b>						<b>17311.22</b>
	<b>कुल योग</b>						<b>54041.24</b>

Say **54000.00**

100 no.@54000/No. 540000.00

Beneficiary Contributaion 405000.00

## MODEL ESTIMATE

नाम जल ग्रहण क्षेत्र— जालोर 10 (I.W.M.P)

कार्य का नाम— अर्दन बण्ड

औसत लम्बाई 80 मीटर

क्र.सं.	विवरण	ल.खौ.खग. = कुल मात्रा
1	डाग बेलिंग 2.5 से 5 सेमी गहराई तक	2x 80 = 160 मीटर
2	मिट्टी का कार्य बन्ध में (सूखी या गीली) 15 सेमी परत में डालना, ढेलों को तोडना, घास-पात तथा कंकर बीनकर अलग करना तथा मिट्टी की दरेसी करना 1.5 मी० उठाना तथा 50 मीटर दूरी के लिए। कठोर मिट्टी में मिट्टी की कुटाई मानव द्वारा या प्लेन रोलर द्वारा ।	$80 \times \frac{(0.60 + 5.85)}{2} \times 1.50$ $= 387.20 \text{ घ.मी.}$
3	धामन/घास बीज बुवाई बनाये गये रिज पर दो लाईनों में	2 x 80 = 160 मी.
4	डिवलिंग विधि से वानिकी बीच बुवाई कार्य	$= \frac{80 \times 100}{15} = 533.50 \text{ say } 540$
5	बीजो की मात्रा 1. घामण घास बीज	160 मीटर @ 1 किलो / 100 मीटर = 1.60 किलो say 2 कि.ग्रा.
6	वानिकी बीज	160 मीटर @ 1 किलो / 100 मीटर = 1.60 किलो say 2 कि.ग्रा.
7	15 से 30 सेमी मोटे, हथौडे से तरासे हुऐ एकल पत्थर की पिचिंग समस्त उठान के साथ, आपूर्ति सहित	$80 \times 0.23 \times 1.0 = 18.40 \text{ घ.मी.}$

## MODEL ESTIMATE

नाम जल ग्रहण क्षेत्र- जालोर X (I.W.M.P)  
औसत लम्बाई 80 मीटर

कार्य का नाम- अर्दन बण्ड अकृषि भूमि

क्र.सं.	विवरण	मात्रा	इकाई	दर		राशि	
				श्रम	कुल	श्रम	कुल
1	डाग बेलिंग 2.5 से 5 सेमी गहराई तक (जि.स्त. दर.अनु.2010पृ.सं025 क.सं. 182)	160.00	मीटर	0.47	0.47	75.20	75.20
2	मिट्टी का कार्य बन्ध में (सूखी या गीली) 15 सेमी परत में डालना, ढेलों को तोड़ना, घास-पात तथा कंकर बीनकर अलग करना तथा मिट्टी की दरेसी करना 1.5 मी० उठाना तथा 50 मीटर दूरी के लिए। कठोर मिट्टी में मिट्टी की कुटाई मानव द्वारा या प्लेन रोलर द्वारा।(जि.स्त.दर	387.20	घ.मी.	84.80	84.80	32834.56	32834.56
3	बीज बुवाई बनाये गये रिज पर (जि.स्त.दर.अनु.2010पृ.सं0 20 क.सं.129)	160.00	मीटर	0.60	0.60	96.00	96.00
4	डिवलिंग विधि से वानिकी बीच बुवाई कार्य (जि.स्त.दर.अनु.2010पृ.सं0 25क.सं.184)	540.00	नग/100	9.90	9.90	53.46	53.46
5	बीजो की मात्रा 1. घामण घास बीज	2.00	कि.ग्रा	-	50.00	-	100.00
6	वानिकी बीज	2.00	कि.ग्रा	-	40.00	-	80.00
7	15 से 30 सेमी मोटे, हथौडे से तरासे हुऐ एकल पत्थर की पिचिंग समस्त उठान के साथ, आपूर्ति सहित	18.40	घ.मी.	199.50	1045.00	3670.80	19228.00
	<b>योग</b>					<b>36730.02</b>	<b>52467.22</b>
	<b>जोडा 3% कन्टोजेन्सी</b>						<b>1574.02</b>
	<b>योग</b>						<b>54041.24</b>
	<b>लागत श्रम भाग</b>						<b>36730.02</b>
	<b>लागत सामग्री भाग</b>						<b>17311.22</b>
	<b>कुल योग</b>						<b>54041.24</b>

Say

54000.00

50 no.@54000/No. 270000.00

## MODEL ESTIMATE

नाम जल ग्रहण क्षेत्र- जालोर 10(I.W.M.P)

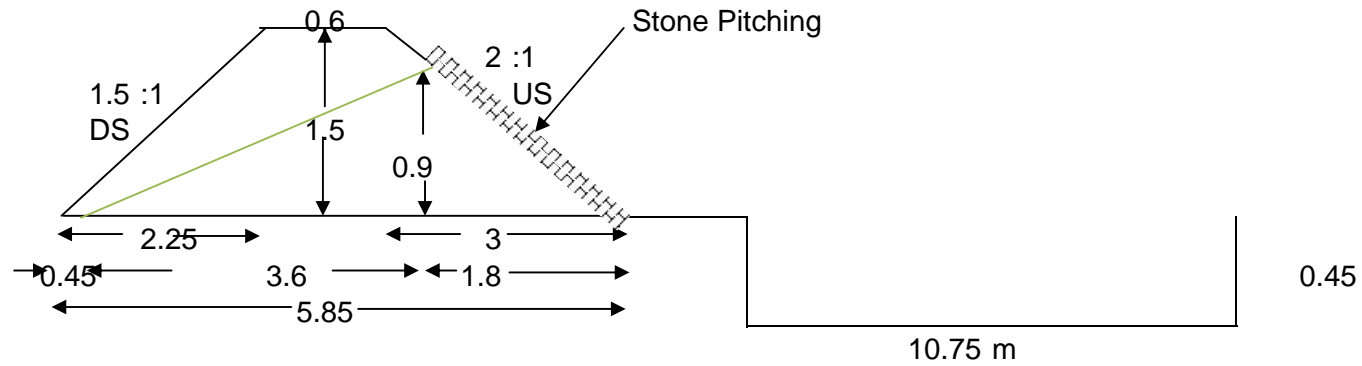
कार्य का नाम- अर्दन बण्ड

औसत लम्बाई 80 मीटर

क्र.सं.	विवरण	ल.Χचौ.Χग. = कुल मात्रा
1	डाग बेलिंग 2.5 से 5 सेमी गहराई तक	2x 80 = 160 मीटर
2	मिट्टी का कार्य बन्ध में (सूखी या गीली) 15 सेमी परत में डालना, ढेलों को तोडना, घास-पात तथा कंकर बीनकर अलग करना तथा मिट्टी की दरेसी करना 1.5 मी० उठाना तथा 50 मीटर दूरी के लिए। कठोर मिट्टी में मिट्टी की कुटाई मानव द्वारा या प्लेन रोलर द्वारा।	$\frac{80 \times (0.60 + 5.85)}{2} \times 1.50$ = 387.20 घ.मी.
3	धामन/घास बीज बुवाई बनाये गये रिज पर दो लाईनों में	2 x 80 = 160 मी.
4	डिवलिंग विधि से वानिकी बीच बुवाई कार्य	$= \frac{80 \times 100}{15} = 533.50 \text{ say } 540$
5	बीजो की मात्रा 1. घामण घास बीज	160 मीटर @ 1 किलो / 100 मीटर = 1.60 किलो say 2 कि.ग्रा.
6	वानिकी बीज	160 मीटर @ 1 किलो / 100 मीटर = 1.60 किलो say 2 कि.ग्रा.
7	15 से 30 सेमी मोटे, हथौडे से तरासे हुऐ एकल पत्थर की पिचिंग समस्त उठान के साथ, आपूर्ति सहित	80x0.23 x1.0=18.40 घ.मी.

## CROSS-SECTION OF NALLAH BUNDING

Top width Based on seepage line check  
Slope of seepage line 4:1



$$CS = \frac{(Tw+Bw) \cdot Ht}{2}$$

$$CS = 4.8375 \text{ Sq.m.}$$

Average Cross section

4.84 Sq.m.





					2.25	0.2	sqm.	0.00	LS	100	500.00	
13	अन्य आवश्यकता अनुसार कार्य Silt Trap, Jali, Hand Pump etc				0							
					0							
					0					200	5000	
										24824.44	70748.71	
												70749.00

	Quantity	Rate	Amount
Skilled labour	32.51	400	13003
Unskilled labour	67.60	135	9126
Water			2695
			24824

राशि		
श्रम	A	24824.44
सामग्री	B	45924.27
कुल	C	70748.71
Add for contingency		220
कुल योग (C+D)		70968.71

71000

80 No.@71000/No.=5680000.00

Beneficiary Contributaion 426000.00

क्र.सं.	कुल सामग्री आवश्यकता	ईकाई	मात्रा	दर	राशि
1	रेत/बजरी	घ.मी.	9.14	390	3565.754
2	गिट्टी पत्थर की 40 मि.मी. नामीय माप की	घ.मी.	1.68	507	853.281
3	गिट्टी पत्थर की 20 मि.मी. नामीय माप की	घ.मी.	1.56	700	1090.705
4	पत्थर	घ.मी.	17.24	650	11204.05
5	सीमेन्ट	कि.ग्रा.	2359.3	285	13448.16
6	पत्थर के सिरदल 15 से.मी. मोटाई तक	व.मी.	1.67	825	1377.75
7	पत्थर की पट्टियां	व.मी.	13.32	450	5994.45
8	फेक्ट्री में बने दरवाजे	व.मी.	0.200	2000.00	400
9	xkjk&feêh	घ.मी.	0.000	150.00	0
					37934.15
	अन्य	Silt Trap, Jali, Hand Pump etc			7990.117
			कुल योग		45924.27

47.1865





## Model estimate Barbed wire fencing

Area 0.17 Ha      Length 164.9 mtr.      Spacing 4 m  
 Say 165 mtr.  
 No of post As per length= Length/spacing 41.00  
 Additional post require after every 10 Posts 4  
45.00  
  
 Length of Post 7.5 Feet 2.286 m  
 Width of post 1 Feet 0.3 m  
 Quantity of one post 0.6858 Sq.m

S.No	Description	Item no.	No	Length of single wire	Total length	Kg/mtr	Quantity	Unit	Rate	Amount
1	Supply of barbed wire fencing 14 gauge		5	165	825	0.08	66	Kg	46.00	3036
2	Supply of Jodhpur stone slab for post		45				30.86	Sq.m	450.00	13887.45
3	Rehandling of posts to pit	LS	45				45.00	No	15.00	675.00
4	fixing of post in 45 cm. deep pit	2B	45	0.45	0.3	0.45	2.73	Cum	82.00	224.17
5	Cost of binding wire						6	Kg	45.00	270.00
6	Stretching of barbed wire and fixing it with the post with thin wire	5.5/forest					825	mtr	0.92	759
7	interlacing the barbed wire with locally available bushy material at a spacing of 15 cms	5.6/forest			45		45	mtr	5.48	246.6
										18851.62

Add 3% contingency 565.55  
 19417.17  
 Say 19400.0

**80No.@19400/No.=1552000.00**  
**Beneficiary Contribution 116000.00**

## Model estimate of Horticulture Plantation in Arable land

Area- 1 Ha

No. of Plants -

Mortality 8%

S. No	Description	Item No.	Total		Length	Width	Height	Qty	Unit	Rate	Amount	
			Year	No./Year								
1	Earth work Excavation in hard soil dry or moist and disposal of excavated material within initial lift of 1.5 mt height and lead of 50 metre. Digging of pit	2(B)		1	0.6	0.6	0.6	1.00	No.	82.00	82.00	
2	Apply of manure											
	(A) Compost Khad							20.00	kg.	0.40	8.00	
	(B) S.S.P. (16%)							1.00	kg.	4.00	4.00	
	(C) Endosulphan (4%)				100 gm			0.10	kg.	30.00	3.00	
3	Plant cost	LS		1				1.00	No	20.00	20.00	
4	Planting of plant	129(B)						1.00	No.	3.00	3.00	
5	Watering of plants (15 litre)	131	3	21				63.00	No.	1.80	113.40	
6	Making of Thawla atleast 50 cm radius	133(B)	2	1				2.00	No.	1.80	3.60	
7	Weeding & hoeing of plants 45 cm radius and 15 cm deep	132	3	1				3.00	No.	1.20	3.60	

S. No	Description	Item No.	Total		Length	Width	Height	Qty	Unit	Rate	Amount	
			Year	No./Year								
8	Spray											
	(A) Endosulphan (35 ec)		3	0.01	Ltr			0.03	Ltr.	262.00	7.86	
	(B) Sulpher		3	0.02	Kg			0.06		200.00	12.00	
9	Transportation of Plant from km including loading and unloading	LS						1.00	no	2.00	2.00	
10	Protection of plants from frost / loo using grass or other locally available material by making jhonpa of 0.6 m dia. Of plant height and covering the plant.	Forest bsr						1.00	no	5	5.00	
	<b>TOTAL</b>										<b>267.46</b>	

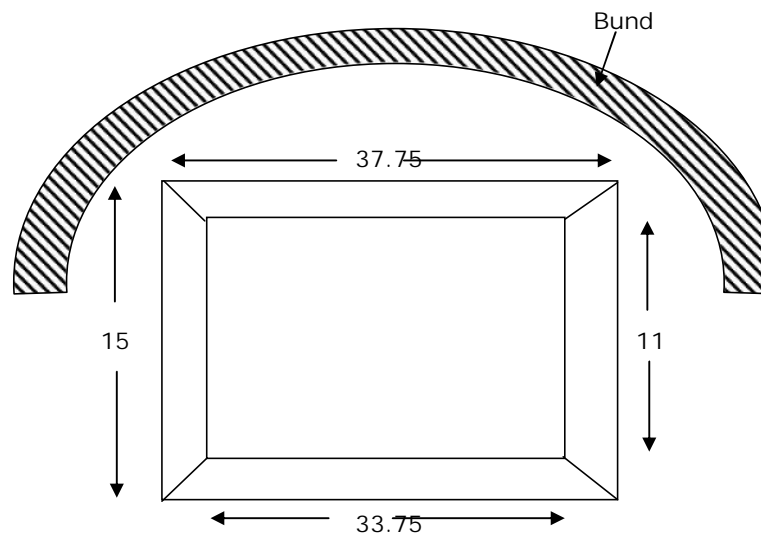
Add 3% contingenc: 8.02  
Total 275.48  
say 275.00/plant

277 Plant@275/Plant = 76175/Ha.  
10 Ha.@76175/Ha.=762000.00  
Beneficiary Contributaion 228000.00

## Estimate of Dug out Pond

Outer Length	37.75	mtr
Inner Length	33.75	mtr
Outer Width	15	mtr
Inner Width	11	mtr
Depth	1	mtr

Upper Area            566.25  
Lower Area            371.25



S. no.	Name of work	Item no.	No	Upper Area	Lower Area	Depth	Qty	Unit	Rate	Amount
1	Layout for Pond		2	97.5	1	1	195.00	Cu.m.	1.00	195.00
2	Excavation of earth in dry or moist and disposal of excavated material within initial lead of 50 m and lift 1.5 m									
2.1	In hard soil	2(अ)	1	566.25	371.25	1	468.75	Cu.m.	82.00	38437.50
3	Stone Pitching 15-23 cm thick including supply of stones	140	1	52	1	0.2	10.40	Cu.m.	1045.00	10868.00
										49500.50

Add 3% contingency            1485.0

Total            50985.5

Say            **50000.0**

10 No. @ 50000/No.=500000

## Model estimate of Plantation Work in Pasture land

<b>Plant to pant Spacing</b>	4 m	<b>No of plant</b>	4167
<b>Row to row Spacing</b>	6 m	<b>Gap filling 20%</b>	833
<b>Available Area</b>	10 Ha	<b>Total no of Plants</b>	5000

S.No	Description	Item no	Total		Length	Width	Height	Qty	Unit	Rate	Amount	(Amount for 10 ha.)
			Year	No./Year								
1	Digging of pit( kankar boulder soil)	128 (C)		1	0.45	0.45	0.45	1	No	13.40	13.40	67000
2	Cost of Plant	As per forest						1	No.	5.00	5.00	25000
3	Planting of plant	129(B)						1	No.	3.60	3.60	18000
4	Making thavla	133(A)	2	1				1	No.	2.40	4.80	24000
5	Weeding & Hoeing	132	3	1				3	No.	1.20	3.60	18000
6	Insecticide treatment	Market rate	3		0.03 ml			0	Ltr	300.00	2.70	13500
7	Watering of plants	131	3	5				15	no	1.80	27.00	135000
8	Transportation of water 5 Km	124	3	5				225	/1000Ltr	32.75	7.37	36843.75
9	Watch & ward	Minimum wages	3	12				36	Month	3528.00	25	127008
10	Transportation of plants from nursery to planting site	LS	1	1				1		1.00	1.00	5000
11	Pruning of plants	forest bsr	1	1				1.00	/ plants	0.89	0.89	4450
12	Protection of plants from frost / loo using grass or other locally available material by making jhonpa of 0.6 m	forest bsr	1	1				1.00	/ plants	3.56	3.56	17800
	<b>TOTAL</b>											<b>491602</b>

	Contingency 3%	14748
	Grand total	<b>506350</b>
	<b>Say</b>	<b>506300</b>
	<b>506300/Ha.</b>	

**50 Ha. @506300/Ha.=2531000.00**



4	Sowing of balls of grass seed by dibbling method at 30 cm spacing	3/2/9 forest	133				133	Per 6 kg material	109	2416.2
5	Cost of seed		CAZARI Jodhpur				133	Kg	200	26600

167393.0

Add 3% contingency 5021.8

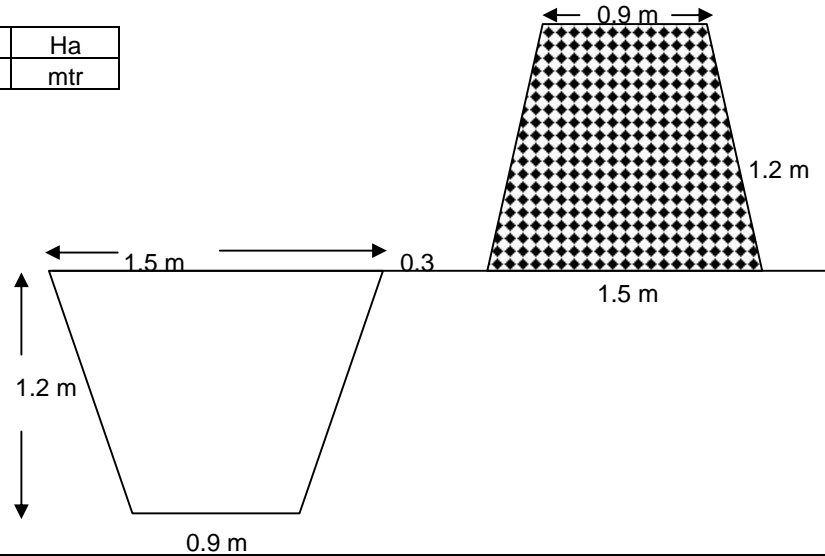
Total 172414.8

Say 172400.0

50 Ha.@17240/Ha.=862000.00

## Estimate of Ditch Cum Bund Fencing

	Area	#REF!	Ha
	Length	#REF!	mtr



S. no.	Name of work	Item no.	No	Length	Width	Hight	Qty	Unit	Rate	Amount
1	Layout for DCB		2	1580	1	1	3160.00	Cu.m.	1.00	3160.00
2	Excavation of earth in dry or moist and disposal of excavated material within initial lead of 50 m and lift 1.5 m									
2.1	In hard soil 50%	2(2)	1	790	1.2	1.2	1137.60	Cu.m.	82.00	93283.20
2.2	In Disintegrated rock 50%	2(3)	1	790	1.2	1.2	1137.60	Cu.m.	130.00	147888.00
3	Sowing of seed on ridge	130	1	790	1	1	790.00	Rm	0.60	474.00
	Cost of seeds	LS					5.00	Kg	200.00	1000.00

245805.20

Add 3% contingency

7374.2

Total

254179.4

Say

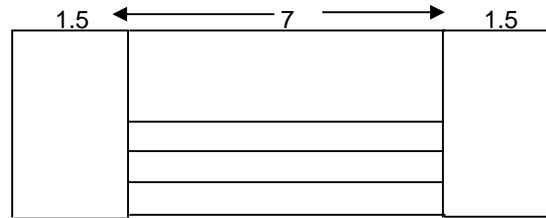
**254200.0**

**25420/Ha.**

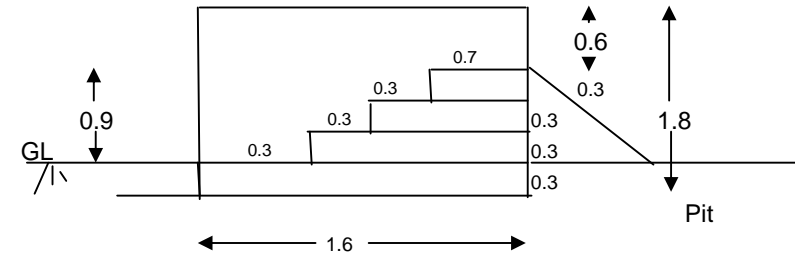
**50Ha. @25420/Ha.=1271000.00**

# ESTIMATE OF LOOSE STONE CHECK DAM (LSCD)

Head Wall Length = 7 m  
Plan



Elevation



S. no.	Name of work	Item no.	No	Length	Width	Height	Qty	rate	amount
1	Earth work Excavation in hard soil up to 1.5 mt Height and deposited excavated material lead op to 150	2B	1	7.0	1.6	0.3	3.4	82.0	275.5
		2B	2	1.5	1.6	0.3	1.4	82.0	118.1
2	Dry stone masonry	21B	1	7.0	1.6	0.3	3.4		
			1	7.0	1.3	0.3	2.7		
			1	7.0	1.0	0.3	2.1		
			1	7.0	0.7	0.3	1.5		
			1	1.5	1.6	1.8	4.3		
			1	1.5	1.6	1.8	4.3		
									18.3

**20450.4**

Add 3% Contingency

**613.5**

**Total**

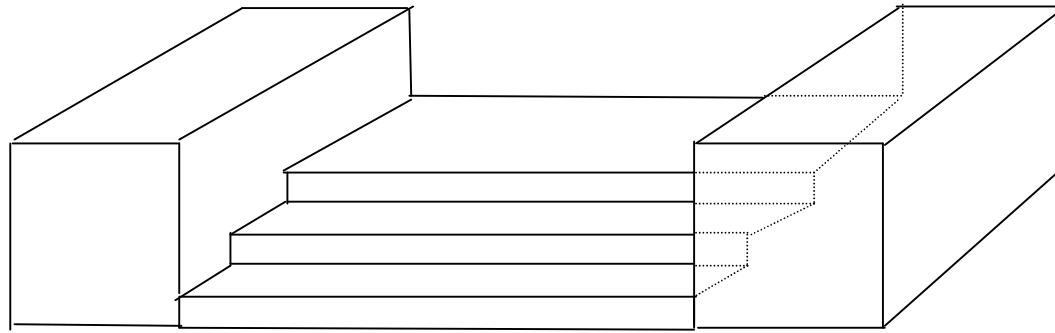
**21063.9**

**Say**

21100.0

**50 No. @21000/No. =1055000.00**

## DESIGN OF LOOSE STONE CHECK DAM (LSCD)



Name of Work	Masonry Check Dam	5.68
Watershed	Jalore X	
Scheme	IWMP	
Panchayat Samiti	Sayla	
District	Jalore	
Micro w/s No.	2/5	
Catchment Area	640	Ha.
Non Arable Land	340	Ha.
Arable Land	300	Ha.
Forest Land	0	Ha.
% Slope of Nallah	1.32	1.32258
Max. Length of travel of water	3100	mt.
Diff. Of Elev. Bet. Most remote pt.& outlet	41	mt.
Maximum rainfall intensity	7	cm/hr
Length of Anicut (Mt)	19	mt.
Top Width of Anicut = 0.8	1	mt.
Length of HWE(Calculated) = 4.02		
Length of HWE (LEFT)	5	mt.(As per site condition)
Length of HWE (RIGHT)	5	mt.(As per site condition)
Height of Head Wall	2	

OVER TURNING  
SLIDING

It is more than 1.5, hence the structure is safe against overturning.

It is more than 1.0, so the structure is safe against sliding.

This value is more than 1/3 and less than 2/3 of the base width, it means resultant is passing through the middle third, so there is no chances of developing any tension in the masonry, hence the structure is safe from rupture in tension.

RUPTURE

Depth of Foundation(As per Site Condition)

1.2 m

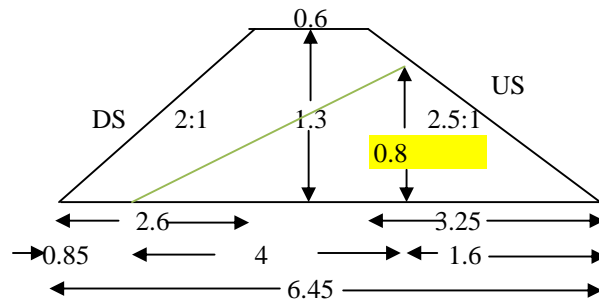
	Depth	Loose Soil	hard soil	Disint rock	Soft rock	Kanti
H. W.	1.2	0.2	0.2	0.5	0.3	
H.W.E. (left)	3.7	0	0.2	0.5	3	
H.W.E. (right)	3.7	0	0.2	0.5	3	
S.W.	>>>	0	0.2	0.5	0.5	
Wing wall	>>>	0	0.2	0.5	0.5	
Toe wall	>>>	0.2	0.2	0.2	0.6	
Apron 50 cm	>>>	0.2	0.2	0.1		
Cut off wall	>>>	0	0			
Berm	>>>	0				

# Earthen bund

Name of work : Masonry Check Dam      Watershed : Jalore X

Maximum cross section

Top width = Based on seepage line check  
Slope of seepage line 5:1

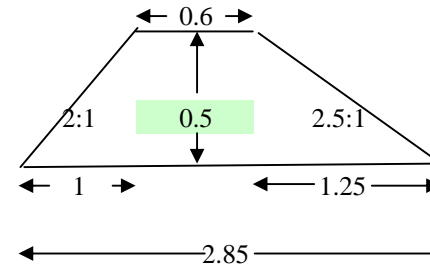


$$CS = \frac{(Tw+Bw) *Ht}{2}$$

$$CS = 3.525 \text{ Sq.m.}$$

Average Cross section  
Length  
Quantity

Left      15  
Right      15  
Minimum cross section



$$CS = \frac{(Tw+Bw) *Ht}{2}$$

$$CS = 1.725 \text{ Sq.m.}$$

2.625 Sq.m.  
30 m.  
78.75 Cu.m.

## TECHNICAL NOTE

**Name of work : Masonry Check Dam      Watershed : Jalore X**

**Tehsil : Sayla                      District : Jalore**

### **A. Basic data :-**

1. Catchment area	=	640	ha.
2. Maximum rainfall intensity	=	7	cm/hr.
3. General nature of catchment area :			
a. Agriculture land	=	300	ha.
b. Non arable land	=	340	ha.
c. Forest land	=	0	ha.
4. Height of crest above G. L.	=	2	m
5. Flood lift	=	0.87	m
6. Free board	=	0.15	m
7. Top width of head wall	=	0.8	m
8. Bottom width of head wall	=	2.6	m
9. Length of crest	=	19	m
10. Percentage slope	=	1.32	%
11. Submerged area of Anicut	=	2.54	ha.
12. Storage capacity of Anicut	=		ha.
13. Wells benefited	=	6	Nos.
14. Farmers benefited	=	8	Nos.

15. Area to be benefitted = 34 ha.

Catchment area is less than 1300 ha., so Rational formula is applicable.

$$Q = 0.0276 * C * I * A$$

Where -

Q = Peak rate of runoff in Cu.m./sec

C = Weighted coefficient of runoff

I = Intensity of runoff in cm/hr. for a duration equal to time of concentration and for a given frequency.

A = Catchment area in ha.

$$\text{Time of concentration } T_c = 0.0195 * (K)^{0.77}$$

Where -

$$K = (L_t)^{1.5} / (H_e)^{0.5}$$

$L_t$  = maximum length of travel by runoff water in m.

$H_e$  = Difference in elevation between most remote point and outlet point in m.

$$K = 26955.7$$

$$T_c = 0.0195 * 26955.7^{0.77}$$

$$= 50.31 \text{ minute}$$

$$I \text{ (for } T_c = 50.31 \text{ min)} = 7.9 \text{ cm/hr.}$$

$$Q = 0.0276 * 0.19 * 7.9 * 640$$

$$= 26.51 \text{ Cumec.}$$

### B. DEPTH OF FLOW OR FLOOD LIFT :-

$$Q = 1.71 * L * h^{1.5}$$

Therefore  $h^{1.5} = Q/(1.71*L)$

$$h^{1.5} = 26.51/(1.71*19)$$

$$h = 0.87 \text{ m.}$$

Taking free board as 0.15 m.

Total (d) = 1.02 m

### C. LENGTH OF OVER FLOW REQUIRED :-

$$L = 4.75*Q^{0.5}$$

$$= 4.75*^{0.5}$$

$$L = 24.46 \text{ m}$$

But as per site condition consider length of head wall = 19 m

Height of head wall taken as per site plan = 2 m

Depth of Foundation from G. L. = 1.2 m

Total height of the structure, H = 4.22 m

### D. HEAD WALL

The up stream face is vertical and down stream face is slanted 0.8 : 1

$$\text{Top width of head wall} = h/\{(p-1)\}^{0.5}$$

$$= 0.76$$

$$\text{(As per departmental practices)} = ((H+d)^{0.5})/2$$

$$= 0.87$$

Therefore min. top width is considered = 1 m

$$\text{Base width of Head wall (b)} = \text{Top width} + 0.8 * H$$

$$= 1+0.8*2$$

$$= 2.6 \text{ m}$$

### E. HEAD WALL EXTENSION

Length	=	H+d+1
	=	2+1.02+1
	=	4.02 m
As per site condition left HWE	=	5 m
Right HWE	=	5 m
Width of HWE	=	0.6 m
Height of HWE	= H + d	= 2+1.02
	=	3.02 m

### F. SIDE WALL

Length	=	b + H + d + Tw - Th. of HWE
	=	2.6+3.02+0.45-0.6
	=	5.5 m
Width	= 0.6+0.4*(H+h) =	0.6+0.4*(2+0.87)
	=	1.75 m
Width at junction of w.w.	= 0.6+0.4*0.87	0.95 m
Height	= H+d	= 2+1.02
	=	3.02 m

### G. WING WALL

Length	= 2.25*d	= 2.25*1.02
--------	----------	-------------

		=	2.3 m
Width		=	0.6 m
Height	= 1.5*d	=	1.5*1.02
		=	1.53 m

#### H. APRON

Length		=	19 m
Width	$0.75*(H+d)+H$	=	$0.75*(2+1.02)+2$
		=	3.02 m
Thickness		=	0.6 m
(0.3 m concrete bed with 0.3 m stone kharanja in cement mortar (1 : 6))			

#### I. TOE WALL

Length		=	19 m
Width (tw)		=	0.45 m
Height		=	0.3 m

#### J. CUT OFF WALL

Length		=	19 m
Width		=	0.6 m
Depth		=	1 m

#### K. DEPTH OF FOUNDATION

As per site condition Depth		=	1.2 m
-----------------------------	--	---	-------



S. No.	Force	Vertical Forces (V)	Horizontal Forces (F)	Force acting at a distance from B.	Moment at B
1	2	3	4	5	6
1	$W1 = a * H * L * S$ $= 1 * 2 * 2300$ $= 4600$	4600		2.1	9660
2	$W2 = 0.5 * (b - a) * H * L * S$ $= 0.5 * (2.6 - 1) * 2 * 19 * 2300$ $= 1840$	1840		1.07	1968.8
3	$Fa = w * a * h$ $= 1000 * 1 * 0.87$ $= 870$	870		2.1	1827
4	$P1 = w * h * H$ $= 1000 * 0.87 * 2$ $= 1740$		1740	1	-1740
5	$P2 = 0.5 * w * H^2$ $= 0.5 * 1000 * (2)^2$ $= 2000$		2000	0.67	-1340
6	$P3 = (C * w * b * (H + h)) / 2$ $= (0.5 * 1000 * 2.6 * (2 + 0.87)) / 2$ $= 1865.5$	-1865.5		1.73	-3227.315
TOTAL		8305.5	3740		

Restoring Moment (Mr) = 13455.8  
Over turning Moment (Mo) = 6307.32  
Resultant Moment (EM) = 7148.49

Where -

L = Length of Anicut (m)  
S = Specific weight of masonry = 2300 Kg/Cu.m.  
w = Specific weight of water = 1000 Kg/Cu.m.

## CHECKS :-

### (1.) OVERTURNING

Factor of safety against overturning

$$= \text{Restoring Moment (Mr)} / \text{Overturning Moment (Mo)}$$

$$= 13455.8/6307.32$$

$$= 2.133362506$$

It is more than 1.5, hence the structure is safe against overturning.

### (2.) SLIDING :-

Factor of safety against sliding =  $U \cdot \Sigma V / \Sigma F$

Where U is coefficient of sliding = 0.70

$$= 0.70 \cdot 8305.5 / 3740$$

$$= 1.55$$

It is more than 1.0, so the structure is safe against sliding.

### (3.) RUPTURE :-

Position of resultant  $X = \Sigma M / \Sigma V$

$$= 7148.49 / 8305.5$$

$$= 0.861 \text{ meter from B.}$$

This value is more than 1/3 and less than 2/3 of the base width, it means resultant is passing through the middle third, so there is no chances of developing any tension in the masonry, hence the structure is safe from rupture in tension.

### (4.) SAFETY AGAINST COMPRESSION (CRUSHING)

Eccentricity  $e = b/2 - X$

Compressive stress at toe & heel respectively

$$P = \frac{\Sigma V \cdot [1 + 6 \cdot e/b]}{b}$$

b

$$P_{\max} = 8305.5 \cdot [1 + 6 \cdot 0.439/2.6] / 2.6 = 6430.62 \text{ Kg/Sq.m.}$$

$$P_{\min} = 8305.5 \cdot [1 - 6 \cdot 0.439/2.6] / 2.6 = -41.77 \text{ Kg/Sq.m.}$$

## DETAILS OF WORK

Name of work : Masonry Check Dam  
P. S. : Sayla

Village : Sayla

S.No.	Particular	Quantity	
☆	Dag belling ( 5 to 7.5 cm deep)	= 4*19 + 2*5 + 2*5 + 2*5.5 + 4*2.3=	<b>116.2</b> m.
☆	E /W for bund / embankment in dry or moist soil including laying in layers of 15 cm. Breaking of clods, sorting of grass, pabbles etc and dressing in required profile when compacted manually or by plain roller with initial lead of 30 Mt. And lift of 1.5 Mt(excluding charges of watering and compaction ) hard soil 55%(i.e.25.06)		<b>78.75</b> Cu.m.
☆	Excavation in Loose soil dry or moist & disposal of excavated material within initial lead of 30 m and lift of 1.5 m including dressing etc. complete		
	H. W.	= 19*2.6*0.2	9.88
	H.W.E. (lleft)	= 5*0.75*0	0.75
	H.W.E. (right)	= 5*0.75*0	0.75
	S.W.	= 5.5*(1.75+0.95)*0.5*0	1.49
	Wing wall	= 2.3*0.75*0	0.35
	Toe wall	= 19*0.45*0.2	1.71
	Apron	= 19*3.02*0.2	11.476
	Cut off wall	= 20*0.75*0	3
			<b>29.406</b> Cu.m.
☆	Excavation in hard soil ordinary muram or earth mixed with bajri and kankar or boulder dry or moist & disposal of excavated material within initial lead of 30 m and lift of 1.5 m including dressing etc. complete.		

H. W.	=	19*2.6*0.2	938.6
H.W.E. (lleft)	=	5*0.75*0.2	0.75
H.W.E. (right)	=	5*0.75*0.2	0.75
S.W.	=	5.5*(1.75+0.95)*0.5*0.2	1.49
Wing wall	=	2.3*0.75*0.2	0.35
Toe wall	=	19*0.45*0.2	1.71
Apron	=	19*3.02*0.2	11.476
Cut off wall	=	20*0.75*0	0
			<b>955.13</b> Cu.m.

☆ Excavation in disintegrated rock and or soft rock or hard kankar or compacted murrum, dry or moist including dressing & disposal of excavated material with initial lead of 30 m and lift of 1.5 m

H. W.	=	19*2.6*0.5	24.7
H.W.E. (lleft)	=	5*0.75*0.5	1.875
H.W.E. (right)	=	5*0.75*0.5	1.875
S.W.	=	5.5*(1.75+0.95)*0.5*0.5	3.7125
Wing wall	=	2.3*0.75*0.5	0.8625
Toe wall	=	19*0.45*0.2	1.71
Apron	=	19*3.02*0.1	5.738
Cut off wall	=	20*0.75*0	0
			<b>40.473</b> Cu.m.

☆ Excavation in compacted kanti, or jhagia and or hard rock, dry or moist not requiring blasting including dressing & disposal of excavated material and stacking of useable stones with initial lead of 30 m & lift of 1.5 m

H. W.	=	19*2.6*0.3	14.82
H.W.E. (lleft)	=	5*0.75*3	11.25
H.W.E. (right)	=	5*0.75*3	11.25
S.W.	=	5.5*(1.75+0.95)*0.5*0.5	3.7125
Wing wall	=	2.3*0.75*0.5	0.8625
Toe wall	=	19*0.45*0.6	5.13
Apron	=	19*3.02*0	0

Cut off wall	=	19*3.02*0	0
			<b>47.025</b> Cu.m.

- ☆ Excavation in hard rock blasted (dry or moist) including dressing & disposal of excavated material and stacking of useable stones with initial lead of 30 m & lift of 1.5 m

H. W.	=		
H.W.E. (lleft)	=		
H.W.E. (right)	=		
S.W.	=		
Wing wall	=		
Toe wall	=		
Apron	=		
Cut off wall	=		
			Cu.m.

- ☆ Cement concrete well mixed in cement mortar ( 1 : 4 : 8 ) laid in position complete including curing. Aggregate size upto 50 mm, HB

H. W.	=	19*2.6*0.2	9.88
H.W.E. (lleft)	=	5*0.75*0.2	0.75
H.W.E. (right)	=	5*0.75*0.2	0.75
S.W.	=	5.5*(1.75+0.95)*0.5*0.2	1.49
Wing wall	=	2.3*0.75*0.2	0.35
Toe wall	=	19*0.45*0.2	1.71
Apron	=	19*3.02*0.2	11.48
Cut off wall	=		
			<b>26.41</b> Cu.m.

- ☆ Random rubble stone masonry in cement sand mortar ( 1 : 6 ) For foundation

H. W.	=	19*2.6*1	49.4
H.W.E. (lleft)	=	5*0.75*1	3.75
H.W.E. (right)	=	5*0.75*1	3.75
S.W.	=	5.5*(1.75+0.95)*0.5*1	14.85
Wing wall	=	2*2.3*0.75*1	3.45

Toe wall	=	$19*0.45*1$	8.55
Cut off wall	=	$20*0.75*1$	15
			<b>98.75</b> Cu.m.
☆ Random rubble stone masonry in cement sand mortar ( 1 : 6 ) For superstructure			
H. W.	=	$19*(2.6+1)*0.5*2$	68.4
H.W.E. (left)	=	$5*0.6*3.02$	9.06
H.W.E. (right)	=	$5*0.6*3.02$	9.06
S.W.	=	$5.5*[\{(1.75+0.6)/2+(0.95+0.6)/2\}/2]*(3.02+1.53)/2$	12.2
Wing wall	=	$2.3*0.6*1.53$	2.11
Toe wall	=	$19*0.45*0.3$	2.57
			<b>103.4</b> Cu.m.
☆ Stone kharanja in cement mortar (1 : 6) for bed floor including curring etc. complete			
			$19*3.02*0.3$
			<b>17.21</b> Cu.m.
☆ Cement plaster including smooth finishing in cement mortar (1:4) 25 mm thick.			
H. W.	=	$19*2$	38
H.W.E. (left)	=	$5*3.02$	15.1
H.W.E. (right)	=	$5*3.02$	15.1
S.W.	=	$2 * \{(1 * 1.02) + (1.02 + 2 + 1.02)/2*(2.6 - 1) + (2 + 1.02 + 1.53)/2*(3.02 + 0.45)\}$	24.29
Wing wall	=	$2.3*1.53$	3.52
Toe wall	=	$19*0.3$	5.7
			<b>101.71</b> Sq.m.
☆ Ruled pointing in cement mortar (1:3)			
H. W.	=	$19*2.56$	48.64
			<b>48.64</b> Sq.m.

☆ Cement concrete coping in cement mortar 1 : 2 : 4 , 75 mm thick.

H. W.	=	19*1	19.00
H.W.E. (left)		5*0.6	3
H.W.E. (right)		5*0.6	3
S.W.		2 * {( 0.6*(2.6 + 3.02 + 0.45) }	7.28
Wing wall		2.3*0.60	1.38
Toe wall		19*0.45	8.55
			<b>42.21</b> Sq.m.

**ABSTRACT OF COST**

S.No.	Item	Quantity	Rate	Amount
1	Dag belling ( 5 to 7.5 cm deep)	116.2	0.25 / R m.	29.05
	E /W for bund / embankment in dry or moist soil including laying in layers of 15 cm. Breaking of clods,sort ing of grass,pabbles etc and dressing in required profile when compacted manually or by plain roller with initial lead of 30 Mt. And lift of 1.5 Mt(excluding charges of .watering and compaction ) hard soil	78.75	74 / Cu.m.	5827.5
	Compaction of earth work on embankment by manual ramming or plain roller	0	0 / Cu.m.	0
	Excavation in Loose soil dry or moist & disposal of excavated material within initial lead of 30 m and lift of 1.5 m including dressing etc. complete	29.406	71 / Cu.m.	2087.83
	Excavation in hard soil ordinary muram or earth mixed with bajri and kankar or boulder dry or moist & disposal of excavated material within initial lead of 30 m and lift of 1.5 m including dressing etc. complete.	955.13	82 / Cu.m.	78320.66
	Excavation in disintegrated rock and or soft rock or hard kankar or compacted murrum, dry or moist including dressing & disposal of excavated material with initial lead of 30 m and lift of 1.5 m	40.473	130 / Cu.m.	5261.49

Excavation in compacted kanti, or jhagia and or hard rock, dry or moist not requiring blasting including dressing & disposal of excavated material and stacking of useable stones with initial lead of 30 m & lift of 1.5 m	47.025	178 / Cu.m.	8370.45
Excavation in hard rock blasted (dry or moist) including dressing & disposal of excavated material and stacking of useable stones with initial lead of 30 m & lift of 1.5 m	0	160 / Cu.m.	0
Preparation of foundation of structure including removal of all loose stones and silt and final washing by manual labour.	0	/ Cu.m.	0
Cement concrete well mixed in cement mortar ( 1 : 4 : 8 ) laid in position complete including curing. Aggregate size upto 50 mm, HB	26.41	1835 / Cu.m.	48462.35
Random rubble stone masonry in cement sand mortar ( 1 : 6 ) For foundation	98.75	1702 / Cu.m.	168072.5
Random rubble stone masonry in cement sand mortar ( 1 : 6 ) For superstructure	103.4	1850 / Cu.m.	191290
Stone kharanja in cement mortar ( 1 : 6 ) for bed floor including curring etc. complete	17.21	968 / Cu.m.	16659.28
Cement plaster including smooth finishing in cement mortar ( 1 : 4 ) 25 mm thick.	101.71	152 / Sq.m.	15459.92

Ruled pointing in cement mortar (1 : 3)	48.64	53 / Sq.m.	2577.92
Cement concrete coping in cement mortar 1 : 2 : 4 , 50 mm thick.	42.21	218 / Sq.m.	9201.78
		<b>Total Rs.</b>	<b>551620.73</b>

**MATERIAL CONSUMPTION STATEMENT**

Name of work : Masonry Check Dam

Name of Village : Bakra

S.No.	Particulars	Qty.	Cement (Bags)	Sand (Cu.m)	Aggregate		Stone (Cu.m)
					50 mm	12 mm	
1	Cement concrete (1:4:8) Aggregate size upto 50 mm, HB. @ (3.2,0.45,0.9)	26.41 Cu.m	84.512	11.88	23.77		
2	R.R. Stone masonry (1:6) (Foundation / Superstructure. @ (1.395,0.3,1.10)	202.15 Cu.m	282	60.65			222.37
3	Cement plaster (1:4) 25 mm thick. @ (0.224,0.032)	101.71 Sq.m	22.78	3.25			
4	Raised & cut pointing @ (0.028,0.003)	48.64 Sq.m	1.36	0.15			
5	Stone kharanja in cement mortar (1:6) @ (1.07,0.3,1.1)	17.21 Cu.m	18.41	5.16			18.93
6	Cement concrete coping (1:2:4) 50 mm thick @ (0.312,0.022,0.045)	19 Sq.m	5.93	0.42		0.86	
	<b>TOTAL</b>		<b>414.992</b>	<b>81.51</b>	<b>23.77</b>	<b>0.86</b>	<b>241.3</b>

Say **415 Bags**

**Material Component :-**

1 Cement	415 Bags @	285 Per Bag =	Rs	118275
2 Sand	81.51 Cu.m. @	390 Per Cu.m =	Rs	31788.9
3 Aggregate				
50 mm	23.77 Cu.m. @	507 Per Cu.m =	Rs	12051.39
12 mm	0.86 Cu.m. @	700 Per Cu.m =	Rs	602
4 Stone	241.3 Cu.m. @	650 Per Cu.m =	Rs	156845

**Total Rs = 319562.29**

**EMPLOYMENT GENERATION**

Labour Component :-

Rs. **232058.44**

Total Rs. **551620.73**

Contingency and Suoervision charges (@ 3%)

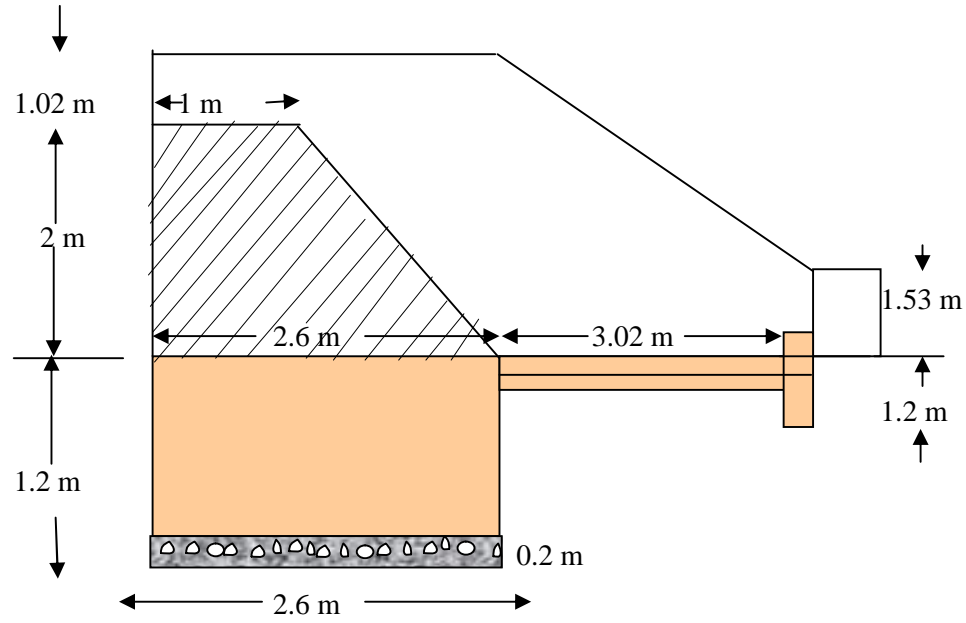
Rs. **16548.62**

**Grand Total Rs.= 568169.35**

Say Rs 5.68 Lakh

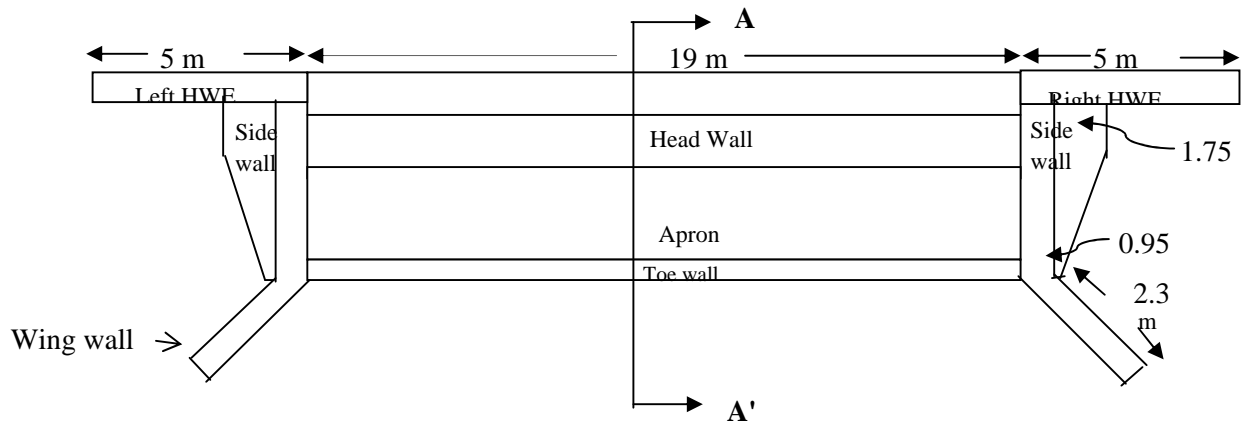
**Drawing of Anicut**      **Village :- Bakra**

**SIDE VIEW**



**Sec. at A A'**

**PLAN**



## MODAL ESTIMATE

Name of Watershed Jalore X (IWMP)

Name of Work : Crop/Fodder Demonstration

S.No.	Details	Area/ Demo. (Hec.)	Seed		D.A.P		MOP		Urea		Insectisides		Culture		Amount/ Demo
			Qty.(kg.)	Amt.	Qty.(kg.)	Amt.	Qty.(kg.)	Amt.	Qty.(M.L)	Amt.	Qty.(M.L)	Amt.	No. of Packt.	Amt.	
A	<b>Kharif Session</b> 1. Single crop (i) Moong	1	20	1100.00	50.00	1250.00	0	0	0	0	1	275.00	3	30.00	2655
	(ii) Cluster Bean (Guar)	1	20	1600.00	50.00	1250.00	0	0	0	0	1	275.00	3	30.00	3155
	2. Intercropping Moong + Bajra	1	10	630.00	50.00	1250.00	0	0	0	0.00	1	275.00	3	30.00	2185
B	<b>Rabi Session</b> (i) Mustered	1	3.00	225.00	50	1250.00			50	300.00	1	275.00	3	30.00	2080
C	<b>Fodder Demos.</b> (i) Lucern	1	8	3200.00	50.00	1250.00	0	0.00	50	30.00	0.00	0.00	3	30.00	4753

1. Crop Demonstration =  $\frac{2655+3155+2185+2080}{4}$  = 2518.75 say 2520/-Ha.

**1017 Demo.@2520/Demo.=2563000.00**  
**Beneficiary Contributaion 769000.00**

II. Fodder Demonstration =4753 say 4750/- Ha

**100 Demo.@4750/Demo.=475000.00**  
**Beneficiary Contributaion 142000.00**

## MODEL ESTIMATE

नाम जल ग्रहण क्षेत्र- जालोर X (I.W.M.P)

कार्य का नाम-कृषि भूमि पर वानिकी पौधारोपण

पौधों की संख्या : 100

क्र.सं.	विवरण	ल.खौ.खग. = कुल मात्रा
1	45x45x45 सेमी. माप के गड्डे करना कठोर मिट्टी । 400 गड्डे/हैक्टर	100 गड्डे
2	पौधे रोपण करना	100 पौधे
3	पौधों की कीमत	108 पौधे (100+8=108) 8% भराई एवं खाली कराई खराबा
4	पौधों का परिवहन पौधे भराई एवं खाली कराई सहित 5 कि०मी. दूरी तक के लिए	108 पौधे
5	पौधे रोपण के समय डीएपी डालना	100 पौधे@ 0.03 कि.ग्रा.@पौधा = 3 कि.ग्रा.
6	दीमक नियन्त्रण हेतु एन्डोसल्फान 4: चूर्ण	2x100 पौधे@ 0.05 कि.ग्रा.@पौधा = 10 कि.ग्रा. (2 वर्ष तक प्रति वर्ष 1 बार)
7	पौधों में उर्वरक एवं कीट नाशक दवाई डालना	100 पौधे

50 पौधे /हैक्टर

## MODEL ESTIMATE

नाम जल ग्रहण क्षेत्र- जालोर X (I.W.M.P)

कार्य का नाम-कृषि भूमि पर वानिकी पौधारोपण  
पौधो की संख्या: 100

क्र.सं.	विवरण	मात्रा	इकाई	दर		राशि	
				श्रम	कुल	श्रम	कुल
1	45x45x45 सेमी. माप के गड्डे करना कठोर मिट्टी 400 गड्डे/हैक्टर (जि.स्त.दर.अनु.2010पृ.सं0 20 क.सं.127ब)	100	संख्या	6.80	6.80	680.00	680.00
2	पौधे रोपण करना (जि.स्त.दर.अनु.2010पृ.सं0 20 क.सं.128ब)	100	संख्या	3.00	3.00	300.00	300.00
3	पौधों की कीमत	108	संख्या	-	5.00	-	540.00
4	पौधों का परिवहन पौधे भराई एवं खाली कराई सहित 5 कि०मी. दूरी तक के लिए	108	संख्या / 1000	-	908.21		98.09
5	पौधे रोपण के समय डीएपी डालना	3	कि.ग्रा.	-	10.00	-	30.00
6	दीमक नियन्त्रण हेतु एन्डोसल्फान 4% चूर्ण	10	कि.ग्रा.	-	12.00	-	120.00
7	पौधो में उर्वरक एवं कीट नाशक दवाई डालना	100	संख्या	0.21	0.21	21.00	21.00
	<b>योग</b>					<b>1001.00</b>	<b>1789.09</b>
	<b>जोडा 3% कन्टोजेन्सी</b>						<b>53.67</b>
	<b>योग</b>						<b>1842.76</b>
	<b>लागत श्रम भाग</b>						<b>1001.00</b>
	<b>लागत सामग्री भाग</b>						<b>841.76</b>
	<b>कुल योग</b>						<b>1842.76</b>
						<b>Say</b>	<b>1800.00</b>

Say 18 रू / पौधा

50 पौधे / हैक्टर @ 18/ पौधा = 900/हैक्टर

280 हैक्टर @ 900/ हैक्टर = 252000.00

**Beneficiary Contribution 76000.00**

## **MODAL ESTIMATE**

Name of watershed – Jalore IX (IWMP)

Name of Work– Home stead kitchen graden

<b>S.No</b>	<b>Name of Vegitable Seed</b>	<b>Quantity</b>	<b>Rate</b>	<b>Amount</b>
1	Tomato	10 gm	130/10gm	130.00
2	Brinjal	10 gm	20/10gm	20.00
3	Lady finger	100 gm	100/500gm	20.00
4	Onion	20 gm	100/100gm	20.00
5	Radish	10 gm	20/10gm	20.00
6	Chilli	10 gm	80/10gm	80.00
7	Caaliflower	10 gm	210/10gm	210.00
	<b>Total</b>			<b>500.00</b>

Rs. 500 Per No.

**10 No./Ha.=@500/No=5000/Ha.  
20 Ha.@5000/Ha.=100000.00  
Beneficiary Contributaion 30000.00**

# MODAL ESTIMATE

नाम जल ग्रहण क्षेत्र— जालोर X (I.W.M.P)

कार्य का नाम – कम्पोस्ट पिट यूनिट

क्र.सं.	विवरण	मात्रा	इकाई	दर		राशि	
				श्रम	कुल	श्रम	कुल
1	नीव, खाई परनाला में 1.5 गहराई तक मिट्टी का खुदाई करना, तल को कूटना, पानी डालना, बगल को संवारना, खुदी मिट्टीको बाहर निकालना, नीव भरने के बाद खाली स्थानों को पुनः मिट्टी से भरना तथा बची हुई मिट्टी को 50 मीटर दूरी तक निस्तारण करना। सख्त, चिकनी, कंकर, मिट्टी में। (जि.स्त.दर.अनु.2010पृ.सं0 5 क.सं. 2ब) 2X3.00X2.00X0.90=10.80 घ.मी	14.40	घ.मी	82.00	82.00	1180.80	1180.80
2	सिंगल सुपर फास्फेट	150.00	कि.ग्रा.	-	3.60	-	540.00
3	यूरिया	25.00	कि.ग्रा.		5.00	-	125.00
4	कल्चर पैकिंट	3.00	संख्या	-	10.00	-	30.00
	<b>योग</b>					<b>1180.80</b>	<b>1875.80</b>
	जोडा 3% कन्टोजेन्सी						56.27
	<b>योग</b>						<b>1932.07</b>
	लागत श्रम भाग						1180.80
	लागत सामग्री भाग						751.27
	<b>कुल योग</b>						<b>1932.07</b>
						<b>Say</b>	<b>2000.00</b>

2000 / पिट

140 Pit @ 2000/ Pit =280000.00

**Beneficiary Contributaion 84000.00**

## MODEL ESTIMATE FOR A VERMI-COMPOST UNIT

S. No.	Particulars	Quantity	Unit	Rate (Rs)	Amount (Rs)
1	Wooden Ballies (3 m long)	20	No.	70	1400
2	Wooden Ballies (4 m long)	25	No.	80	2000
3	Shade mats for covering the roof	125	Sq. m.	40	5000
4	Binding wire for tying wooden ballies and mats	20	Kg	45	900
5	Labour charges for erection of shades	15	No.	135	2025
6	Shovels, spades, crowbars, iron baskets	LS			2000
7	Weighing scale (100 Kg capacity)	1	No.	2500	2500
8	Cow dung	10	Ton	1100	11000
9	Worms @ 3 kg per ton	30	Kg	100	3000
10	Formation of vermi-bed with agro-waste, cow-	20	bed	300	6000
11	Miscellaneous				175
	Total Cost				36000

10 Unit@36000/Unit=360000.00

	Beneficiary Contribution 108000.00

## PRODUCTION MEASURE THROUGH CONVERGENCE

Name of Watershed : Jalore - X (IWMP)

- CONVERGENCE From Agriculture & Horticulture Department

S.no	Name of Activity	Unit	Cost	BAKRA		REVATRA		TOTAL		Cost from Project Fund	Convergence Fund	Beneficiary contribution
				Qty.	Cost	Qty.	Cost	Qty.	Cost.			
1	Water Tank.	No.	50000	25	12.50	25	12.50	50	25.00	12.50	12.50	3.75
2	HDPE/ PVC Pipe	No.	15000	50	7.50	50	7.50	100	15.00	7.50	7.50	2.25
3	Sprinklar set	No.	18000	50	9.00	50	9.00	100	18.00	9.00	9.00	2.70
4	Seed cum fertilizer drill	No.	25000	10	2.50	10	2.50	20	5.00	2.50	2.50	0.75
5	Isopam (Threser)	No.	50000	5	2.50.	5	2.50.	10	5.00	2.50.	2.50.	0.75
	<b>Total</b>				<b>34.00</b>		<b>34.00</b>		<b>68.00</b>	<b>34.00</b>	<b>34.00</b>	<b>10.20</b>

## HOUSE HOLD PRODUCTION & MICRO ENTERPRISES PLAN

S.no	Name of Activity	Unit	Cost	BAKRA		REVATRA		Total		Cost from Project Fund	Beneficiary contribution
				Qty.	Cost	Qty.	Cost	Qty.	Cost		
	<b>Off Farm -</b>										
1	Carpenter	No.	0.04	20	0.80	20	0.80	40	1.60	1.60	-
2	Blacksmith	No.	0.06	5	0.30	5	0.30	10	0.60	0.60	-
3	Cycle Repair	No.	0.06	5	0.30	5	0.30	10	0.60	0.60	-
4	Potter	No.	0.12	5	0.60	5	0.60	10	1.20	1.20	-
5	Masson	No.	0.02	25	0.50	25	0.50	50	1.00	1.00	-
6	Tailoring	No.	0.06	5	0.30	5	0.30	10	0.60	0.60	-
7	STD & Mobile Repair	No.	0.04	2	0.08	2	0.08	4	0.16	0.16	-
8	Aata Chakki	No.	0.50	2	1.00	2	1.00	4	2.00	2.00	-
9	Brick and Block making machine	No.	1.00	-	-	-	-	-	-	-	-
10	Oil Splier	No.	0.80	1	0.80	1	0.80	2	1.60	1.60	-
	<b>On Farm-</b>				4.68	1	4.68		9.36		-
11	Sheep Rearing unit (25+1=26)	No.	0.38	30	11.40	30	11.40	60	22.80	22.80	-
12	Goat Rearing unit (10+1=11)	No.	0.28	30	8.40	30	8.40	60	16.80	16.80	-
13	Other micro enterprises	No.	0.50	-	14.20	-	14.17	-	7.73	28.37	6.96
	<b>Total</b>			-	<b>38.68</b>	-	<b>38.65</b>	-	<b>77.33</b>	<b>77.330</b>	<b>6.960</b>

## **CHAPTER - VIII Enclosures -**

- a. Location –District, block, village, watershed location map
- b. Map of Jalore IV IWMP Project (Watershed Boundary demarcation in cadastral & Topo Sheet)
- c. PRA Map (along with photos & paper drawing)
- d. Treatment map (Indicate proposed works)
- e. Cadastral Map on watershed boundary
- f. Information on Soils, Soil fertility, Land capability, Soil chemical problems like salinity, alkalinity
- g. Land Use Land Cover map
- h. Information on existing water harvesting structures & well inventory along with GPS co-ordinates.
- i. High resolution, latest Remote Sensing Satellite data

### **Documents of Agreements:**

Proceedings of gram sabha for EPA approval

Proceedings of gram sabha Resolution for committee constitution

Proceedings of gram sabha for DPR approval

DPR approval by district

Watershed Committee Registration certificate

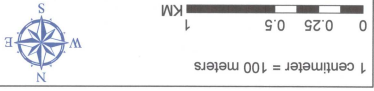
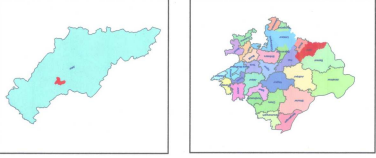
MoU – PIA – DWMA, PIA – WC(in case of NGO as PIA)



**Slope Map(Sayala)**  
**Jalore(WMP)10/2011-12**

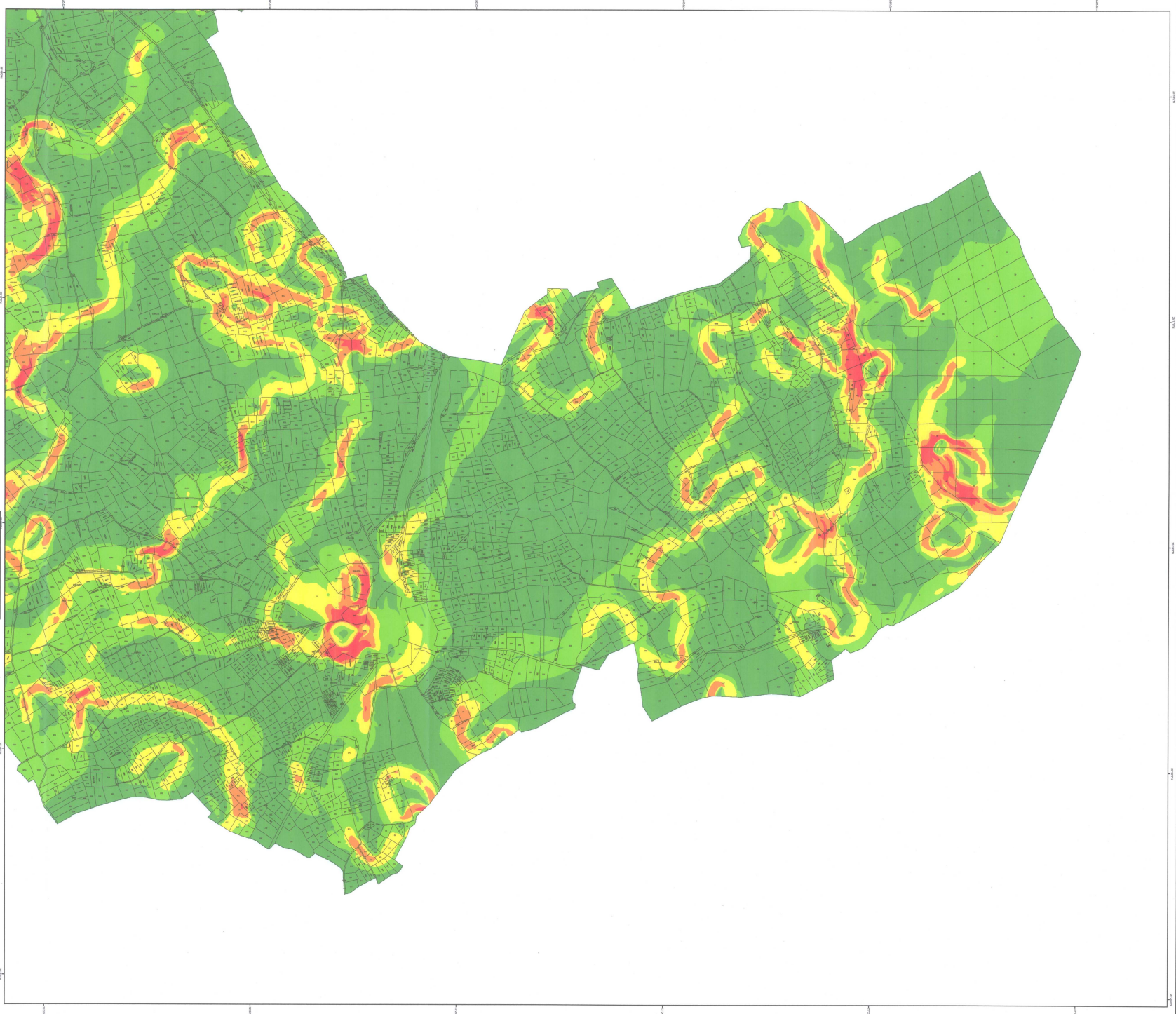
Legend	Type	Area (Ha)
[Red]	Abandoned Area	9728
[Green]	Known boundary	5823.53
[Light Green]		1262.88
[Yellow]		1467.68
[Light Yellow]		957.2943
[Orange]		445.297
[Dark Orange]		122.0028

Legend	Village Name	Gram Panchayat Name	Area (Ha)
[Red]	Barva		354.1
[Orange]	Miyama		337.9
[Yellow]	Miyama		364.34
[Green]	Miyama		917.9



Watershed Development & Soil Conservation,  
 Pant Krishi Bhawan, Jaipur

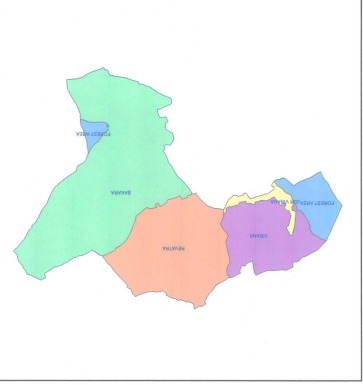
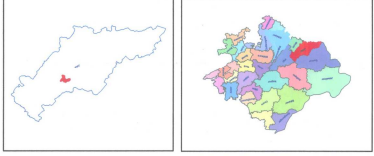
WAPCOS LIMITED  
 76-C, SECTOR-18, INSTITUTIONAL AREA,  
 GURGAON - 122015 (HARYANA)



Jalore(WMP)10/2011-12  
LULC Map(Sayala)

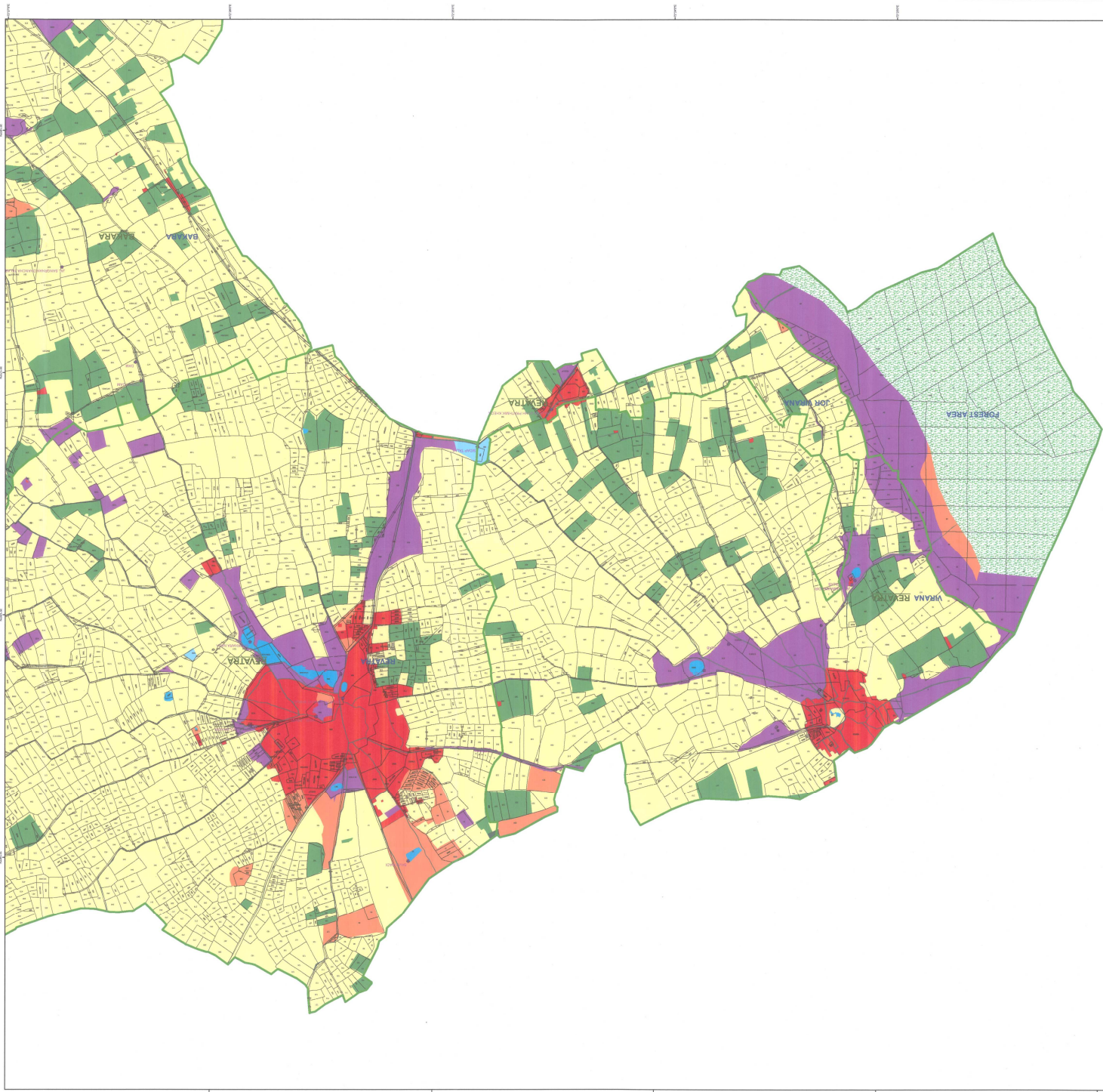
Legend	Area (Ha)
Abandoned Area	87.28
Open Waterbody Boundary	2822.55
Village Boundary	2822.55
Kharab Boundary	2822.55
Kharab Area	60.15
Kharab Land Area	53.88
First Open Change	1.41
Second Open Change	1.41
Third Open Change	1.41
Fourth Open Change	1.41
Water Body	1.31
Settlement	211.45
Land Reserve Soil	120.96
Land Reserve	488.00
Road	52.87
Road Land	4187.18
Colony Area	1.44
Location Point	27.90

Legend	Village Name	Gram Panchayat Name	Area (Ha)
	Bhakra	Bhakra	1104.1
	Devaliya	Devaliya	1172.06
	Khatra	Khatra	1044.34
	Yashwantra	Yashwantra	802.20

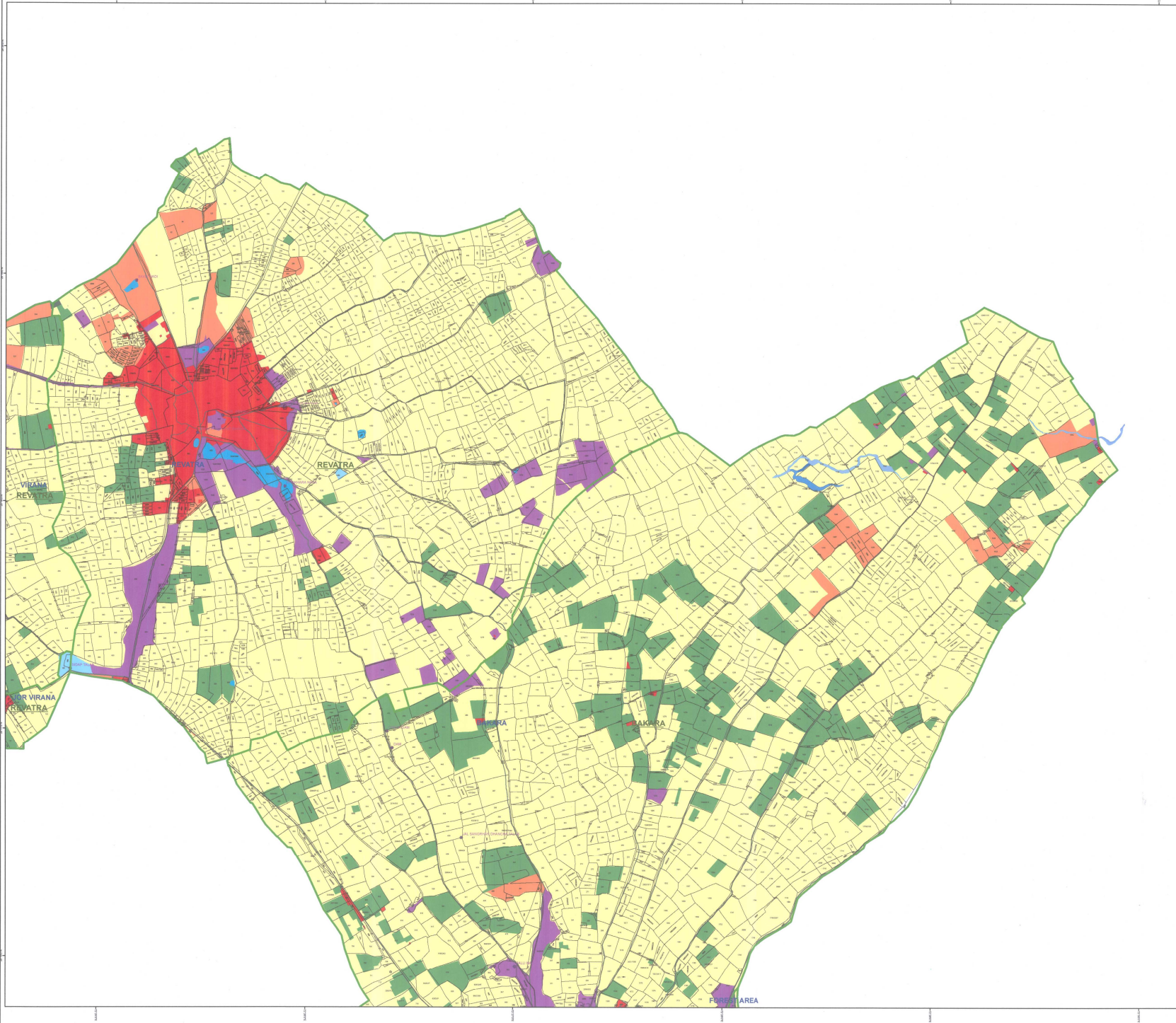


Watershed Development & Soil Conservation,  
Pant Krishi Bhawan, Jaipur

WAPCOS LIMITED  
76-C, SECTOR-18, INSTITUTIONAL AREA,  
GURGAON - 122015 (HARYANA)

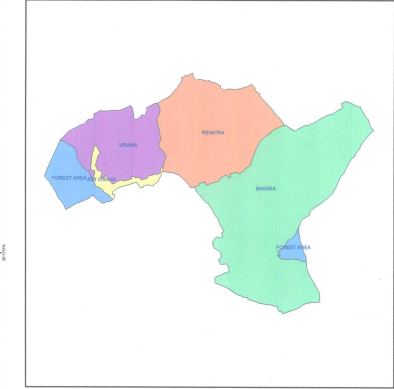
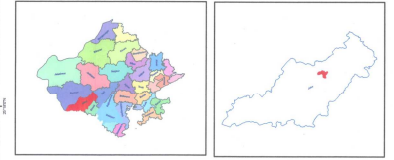


# Jalore(IWMP)10/2011-12 LULC Map(Sayala)

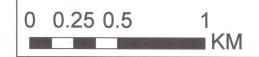


Legend	Type	Area (Ha)
	Allocated Area	5728
	Gram Panchayat Boundary	5823.53
	Village Boundary	5823.53
	Khasara Boundary	5823.53
	Municipal Area	406.35
	First Order Drainage	3.58
	Second Order Drainage	1.41
	Third Order Drainage	0.19
	First Order Drainage	(4775.15 Mtr)
	Second Order Drainage	(1133.26 Mtr)
	Third Order Drainage	(255.51 Mtr)
	Water Body	1.32
	Settlement	213.45
	Land Without Scrub	130.94
	Land With Scrub	498.06
	Road	52.97
	Fallow Land	4187.18
	Gulch/Revene	5.44
	Crop Land	804.10
	Location Point	17 nos

Legend	Village Name	Gram Panchayat Name	Area (Ha)
	Bakara	Bakara	3104.1
	Jor Virana	Revatra	137.89
	Revatra	Revatra	1644.34
	Virana	Revatra	897.09



1 centimeter = 100 meters

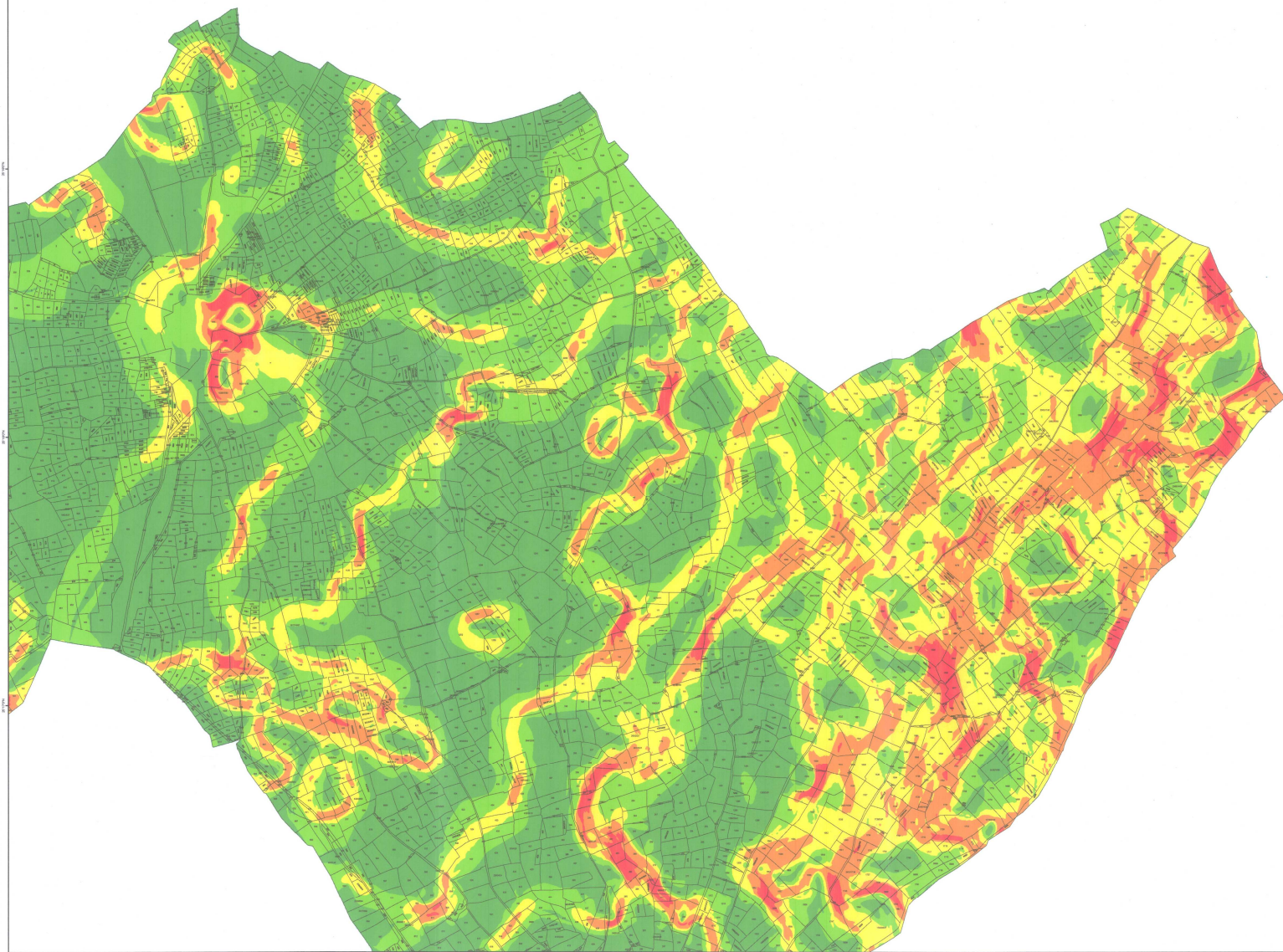


Watershed Development & Soil Conservation,  
Pant Krishi Bhawan, Jaipur



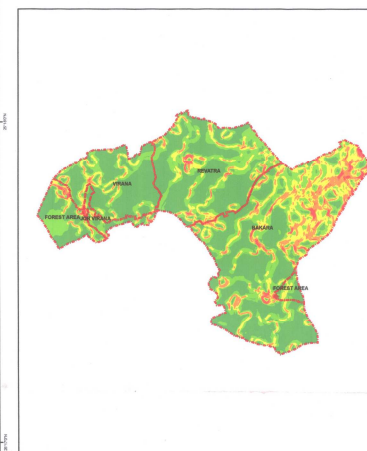
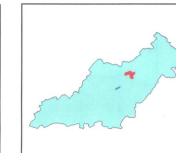
WAPCOS LIMITED  
76-C, SECTOR-18, INSTITUTIONAL AREA,  
GURGAON - 122015 (HARYANA)

# Jalore(IWMP)10/2011-12 Slope Map(Sayala)



Legend	Type	Area (Ha)
	Allocated Area	9728
	Khasara Boundary	5823.53
	0-1%	2709.491
	1-5%	1007.652
	5-10%	502.706
	10-15%	445.737
	>15%	102.828

Legend	Village Name	Gram Panchayat Name	Area (Ha)
	Bakara	Bakara	3104.1
	Jor Virana	Revatra	137.59
	Revatra	Revatra	1644.34
	Virana	Revatra	937.69



1 centimeter = 100 meters



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