INTEGRATED WATERSHED MANAGEMENT PROGRAMME

2011 - 12

DETAILED PROJECT REPORT

NAME OF WATERSHED	:	BAWERLI (IWMP JODHPUR-51)
MACRO/MICRO WATERSHED No.	:	22/2,3,4
GRAM PANCHAYAT	:	BAWERLI, AGOLAI
PROJECT AREA	:	5500 Ha.
PROJECT COST	:	825.00 Lakh

-: SUBMITTED BY :-

ASSISTANT ENGINEER

PROJECT IMPLEMENTING AGENCY

PANCHAYAT SAMITI - BALESAR (JODHPUR)

Detail of Project

a. Name of Project : IWMP Jodhpur 51

b. Sanction No. & date of Project : 4800-5087 Dated 05.08.11

c. Macro & Micro Nos : 22/2,3 4

d. Deviation from Project Sanctioned :

Items	As per Project Sanctioned	As proposed in DPR
Project Area	5500	5500
Macro/Micro No	22/2,3,4	22/2,3,4
Name of Gram Panchayats	Bawerli,Agolai	Bawerli,Agolai
Name of Villages	Bawerli,Gajnawas,Lunavpura,Ajitnagar And Agolai,Udaisar,Konari,Haryana	Bawerli,Gajnawas,Lunavpura,Ajitnagar And Agolai,Udaisar,Konari,Haryana
Project Cost (Rs in Lakhs)	825.00	825.00

Index

S.No **Topics** **Page no.**

6 Chapter Project outcomes

7 Technical designs and estimates for proposed activities

8 Enclosures

8 .1 Maps

8.1 Location –District, block, village, watershed location map

8.2 Map of Project with Watershed Boundary demarcation in cadastral map

8.3 Land Use Land Cover map

8.4 Existing water bodies, DLT

8.5 PRA Map (along with photos & paper drawing)

8.6 GIS based intervention map

8.7 Treatment map ie proposed works on revenue map

8.2 Documents of Agreements:

8.8 Proceedings of gram sabha for EPA approval

8.9 Proceedings of gram sabha Resolution for committee constitution

8.10 Documents related to PRA exercise

8.11 Proceedings of gram sabha for DPR approval

8.12 Proceedings of Panchayat Samiti General body for DPR approval

8.13 Proceedings of Zila Parishad Standing Committee for DPR approval

CHAPTER :- 1

INTRODUCTION

Introduction

In India, where a lot of water goes waste, it is important to apply the technology of watershed management to solve its annual problems of droughts and floods. The demand for water exceeds its supply. Conflicts sharing water resources are on the rise. Planning and development of watersheds calls for a rigorous understanding of the occurrence and movement of water in the surface and sub-surface systems along with soil and nutrient losses in a watershed as the need arises for a proper watershed management of that area. In a country like India, where a lot of running water goes waste, it becomes very important to apply the technology of watershed management to solve its annual problems of droughts and floods.

Watershed management basically involves harmonizing the use of soil and water resources between upstream and downstream areas within a watershed toward the objectives of natural resource conservation, increased agricultural productivity and a better standard of living for its inhabitants. Identifying and addressing the significant externalities associated with watershed is critical for these objectives to be achieved in a sustainable manner.

In the 1980s and 1990s, agricultural scientists and planners aimed to promote rain-fed agriculture through watershed development. A watershed is an area from which all water drains to a common point, making it an interesting unit for managing water and soil resources to enhance agricultural production through water conservation

Philosophy of Integrated watershed management Programme

IWM planning is a comprehensive multi-resource management planning process, involving all stakeholders within the watershed, who together as a group, cooperatively work towards identifying the resource issues and concerns of the watershed, as well as develop and implement a watershed plan with solutions that are environmentally, socially and economically sustainable.

In India, the IWM efforts go back to 1970. There have been many changes in the implementation strategies during the following years. Until 1995, watershed development projects were officially coordinated by multi-sectoral programmes (with differing

objectives) launched by the Government of India. After review in 1999 by the Ministry of Rural Development and the Ministry of Agriculture, a common set of operational guidelines, objectives, strategies and expenditure norms were established for watershed development programmes in 2001. These are implemented through programmes such as DPAP (Drought-Prone Area Programme), DDP (Desert Development Programme) and IWDP (Integrated Watershed Development Programme).

The guidelines encourage the active involvement of non-governmental organizations, semi-governmental institutions and private enterprises, universities and training institutions. However, concerns are being raised that emphasis in watershed development programmes is still firmly based on the belief that water is an infinite resource, through development of groundwater abstraction and water harvesting techniques. IWM does not merely imply the amalgamation of different activities to be undertaken within a hydrological unit. It also requires the collation of relevant information so as to evaluate the cause and effect of all the proposed actions. The watershed is the smallest unit where the evaluation of human-induced impacts upon natural resources becomes possible. Therefore, although the 'Panchayat' remains the preferred implementation unit, the watershed should be the evaluation unit used in assessing impacts

Objectives of the IWMP

The main objectives of the IWMP are to restore the ecological balance by harnessing, conserving and developing degraded natural resources such as soil, vegetative cover and water. The outcomes are prevention of soil run-off, regeneration of natural vegetation, rain water harvesting and recharging of the ground water table. This enables multi-cropping and the introduction of diverse agro-based activities, which help to provide sustainable livelihoods to the people residing in the watershed area.

Need of Watershed Development Programme

Watershed Development Programme is prioritized on the basis of thirteen parameters namely Poverty Index, Percentage of SC/ST, Actual wages, Percentage of small and marginal farmers, Ground water status, Moisture Index, Area under rain-fed

agriculture, Drinking water situation in the area, Percentage of the degraded land, Productivity potential of the land, Contiguity of another watershed that has already developed/treated, Cluster approach for plain or for hilly terrain

Criteria and weightage for selection of Watershed

State Remote Sensing Application Center, Jodhpur (SRSAC) has prepared "Watershed Atlas of Rajasthan ". Watersheds have been delineated into macro / micro in each block. These have been prioritized on the basis of two important parameters i) extent of availability of cultivable arable lands and ii) Drainage Density. Besides this priority watershed with preponderance of resource poor, SC/ST population is given importance. Willingness of community to participate, contribute in the programme and to take up responsibility of post project maintenance of the created assets. Weightage given to these criteria for selection is as follows:

Criteria and weightage for selection of watershed

S. No.	Criteria	Maximum score	Ranges & scores			
i	Poverty index (% of poor to population)	10	Above 80 % (10)	80 to 50 % (7.5)	50 to 20 % (5)	Below 20 % (2.5)
ii	% of SC/ ST population	10	More than 40 % (10)	20 to 40 % (5)	Less than 20 % (3)	
iii	Actual wages	5	Actual wages are significantly lower than minimum wages (5)	Actual wages are equal to or higher than minimum wages (0)		
iv	% of small and marginal farmers	10	More than 80 % (10)	50 to 80 % (5)	Less than 50 % (3)	
v	Ground water status	5	Over exploited (5)	Critical (3)	Sub critical (2)	Safe (0)
vi	Moisture index/ DPAP/ DDP Block	15	-66.7 & below (15) DDP Block	-33.3 to -66.6 (10) DPAP Block	0 to -33.2 (0) Non DPAP/ DDP Block	
vii	Area under rain-fed	15	More than 90 % (15)	80 to 90 % (10)	70 to 80% (5)	Above 70 %

	agriculture					(Reject)
viii	Drinking water	10	No source (10)	Problematic village (7.5)	Partially covered (5)	Fully covered (0)
ix	Degraded land	15	High – above 20 % (15)	Medium – 10 to 20 % (10)	Low- less than 10 % of TGA (5)	
x	Productivity potential of the land	15	Lands with low production & where productivity can be significantly enhanced with reasonable efforts (15)	Lands with moderate production & where productivity can be enhanced with reasonable efforts (10)	Lands with high production & where productivity can be marginally enhanced with reasonable efforts (5)	
xi	Contiguity to another watershed that has already been developed/ treated	10	Contiguous to previously treated watershed & contiguity within the micro-watersheds in the project (10)	Contiguity within the micro-watersheds in the project but non contiguous to previously treated watershed (5)	Neither contiguous to previously treated watershed nor contiguity within the micro-watersheds in the project (0)	
xii	Cluster approach in the plains (more than one contiguous micro-watersheds in the project)	15	Above 6 micro-watersheds in cluster (15)	4 to 6 micro-watersheds in cluster (10)	2 to 4 micro-watersheds in cluster (5)	
xiii	Cluster approach in the hills (more than one contiguous micro-watersheds in the project)	15	Above 5 micro-watersheds in cluster (15)	3 to 5 micro-watersheds in cluster (10)	2 to 3 micro-watersheds in cluster (5)	
	Total	**150**	**150**	**90**	**41**	**2.5**

Location.

IWMP Jodhpur 51 Project is located in Balesar Block, of Jodhpur district. The project area is between the latitudes 26^0 20' TO 26^o 24' N & 72^o 42' TO 72^o 45' E longitudes. It is at a distance of 37 km from its Block head quarters and 33 Kms from the district head quarters. There are 8 no. of habitations(Revenue Villages) in the Project area and other details are given below.

General features of watershed

S.No.	Name of Project (as per GOI)	IWMP Jodhpur 51/2011-12
(a)	Name of Catchment	Bawerli
(b)	Name of watershed area(local name)	Bawerli
(c)	Project Area	5500 Ha.
(d)	Net treatable Area	5500 Ha.
(e)	Cost of Project	825 Lakh
(f)	Cost/hectare	15000/-
(g)	Year of Sanction	2011-12
(h)	Watershed Code	22/ 2,3,4
(i)	No. of Gram Panchayats in project area	2
j)	No. of villages in project area	8
k)	Type of Project	Desertic
l)	Elevation (metres)	255 m.wrt MSL
m)	Major streams	Local Nallah
n)	Slope range (%)	0-10%

Macro/micro	Name of Gram Panchayat	Name of Villages Covered	Census code of villages	Area Ha
	Bawerli	Bawerli		3500
		Gajnawas		
		Lunavpura		
		Ajit Nagar		
	Agolai	Agolai		2000
		Udaisar		
		Konari		
		Hariyana		

The watershed falls in Agro climatic Zone IA. The soil texture is hard & sandy loam. The average rainfall is 300 mm .The temperatures in the area are in the range between 26°to 45° centigrade during summer and 15° to 27.5° centigrade during winter. The major crops in the area are Bajra, onion, chilly, mong etc.75% land is under cultivation 15% land fallow, 10% land is wasteland. 5% land is irrigated through Tube well

272 No of households are BPL.51 are landless households and 1028 household are small and marginal farmers .Average land holding in the area is 5 ha. 97 % area is single cropped area and 3% is double cropped. The main source of irrigation is tube well. The average annual rainfall (5 years) in the area is 255 mm. The Major streams in the Watershed are Local Nallah. The major festivals in the village are Diwali, Holi, Rakhabandhan etc At present this village is having 8276 population with Communities like Hindu, Jat, soni, meghwal, bheel etc

Climatic and Hydrological information

1	**Average Annual Rainfall(mm)**			
	Year	Average Annual Rainfall(mm)		
1	2012	554		
2	2011	423		
3	2010	603		
4	2009	73		
5	2008	357		
6	2007	188		
7	2006	39		
8	2005	197		
9	2004	267		
10	2003	511		
2	**Average Monthly rainfall (last ten years)**			
	Month	Rainfall(mm)		
i)	June	31.05		
ii)	July	100.25		
iii)	August	122.70		
iv)	September	8.30		
3	**Maximum rainfall intensity (mm)**			
	Duration	rainfall intensity(mm)		
	i) 15 minute duration	42		
	ii) 30 minute duration	60		
	iii) 60 minute duration	70		
4	**Temperature (Degree C)**			
	Season		Max	Min
	i) Summer Season		45	32

	ii) Winter Season		28	4
	iii) Rainy Season		38	18
5	**Potential Evaporation Transpiration (PET) (mm/day)**			
	Season		PET	
	i) Summer		3200mm	
	ii) Winter		1600mm	
	iii) Rainy		1800mm	
6	Runoff			
	i) Peak Rate (cum/hr)		95.25 Cum/hr	
	ii) Total run off volume of rainy season (ha.m.)		50.76 Hac.m	
	iii) Time of return of maximum flood	15 years	10 years	In-Year
	iv)Periodicity of Drought in village area	3	7	

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	IAY	Rural Dev.	Residence	BPL	Construction of house
2	CMGY	Rural Dev.	Residence	BPL	Construction of house
3	MGNREGA	Rural Dev.	Employment	All section	Basic infrastructure
4	TFC, SFC	Rural Dev.	Employment	All section	Drinking water & Basic infrastructure

Details of infrastructure in the project areas

Parameters		Status			
(i)	No. of villages connected to the main road by an all-weather road	8			
(ii)	No. of villages provided with electricity	8			
(iii)	No. of households without access to drinking water	0			
(iv)	No. of educational institutions :	(P)	(S)	(HS)	(VI)
	Primary(P)/ Secondary(S)/ Higher Secondary(HS)/ vocational institution(VI)	8	1	1	0
(v)	No. of villages with access to Primary Health Centre	2			
(vi)	No. of villages with access to Veterinary Dispensary	1			
(vii)	No. of villages with access to Post Office	1			
(viii)	No. of villages with access to Banks	1			
(ix)	No. of villages with access to Markets/ mandis	1			
(x)	No. of villages with access to Agro-industries	NIL			
(xi)	Total quantity of surplus milk	100 litre			
(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	8			
(xiv)	Any other facilities with no. of villages (please specify)				
(xv)	Nearest KVK	CAZRI,JODHPUR			
(xvi)	cooperative society	2			
(xvii)	NGOs	0			
(xviii)	Credit institutions	0			

	(i) Bank	1
	(ii) Cooperative Society	2
(xix)	Agro Service Centre's	0

WCDC Details:-

1	2	3
S.No	**Particulars**	**Details of WCDC**
1.	PM ,WCDC	Mr.Gajesh chawla
2.	Address with contact no., website	PM,WCDC near R.T.O Jodhpur
3.	Telephone	0291-2544171
4.	Fax	0291-2544171
5.	E-mail	Dwdu.jodhpur@gmail.com

PIA particulars:-

1	2	3
S.No	**Particulars**	**Details of PIA**
6.	Name of PIA	Mr. Sunil Dutt Sharma
7.	Designation	Assistant Engineer(P.I.A)
8.	Address with contact no., website	P.S Balesar,
9.	Telephone	2929-242040
10.	Fax	
11.	E-mail	Iwmp.balesar@gmail.com

WDT DETAILS:-

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	Ramniwas Choudhary	M	24	B Tech (E.E.)	1 year		Technical support
2	Mahipal Manjhu	M	23	Diploma in veterinary	1 year		A.H

Details of Watershed Committees (WC) Bawarli

s.no	Name	Age	Cast(category)	Sex	Post	Qualification
1	Sh. Ganpat Singh / Sh. Anop Singh			m	President	litrate
2	Sh. Bhiya Ram / Sh.Kishna Ram			m	Secretary	litrate
3	Sh. Sukha Ram / Sh. Ratna Ram			m	member	litrate
4	Sh. Ganga Ram / Sh. Moda Ram Jat			m	member	litrate
5	Sh. Moola Ram / Sh. Bhura Ram Megwal			m	member	litrate
6	Sh. Gewar Ram / Sh. Badar Ram			m	member	litrate
7	Smt. Bharti / Sh. Sukha Ram			f	member	illetrate
8	Sh. Fussa Ram Sh. Dunger Ram			m	member	litrate
9	Sh. Chena Ram / Sh. Hira Ram			m	member	Illetrate
10	Sh. Mohan Ram/ Sh. Bhagta Ram			f	member	litrate
11	Sh. Oma Ram / Sh. Natha Ram			m	member	litrate
12	Sh. Jhamu Singh / Sh. Ratan Singh			m	member	litrate
13	Sh. Nisar Khan / Sh. Mehar din Khan			m	member	litrate
14	Sh. Karan Singh / Sh. Dhud Singh			m	member	illetrate
15	Sh. Laxman Ram / Sh. Bhaira Ram			m	member	litrate
16	Smt. Samad Kanwar / Sh. Misra Singh Singh			f	member	litrate
17	Sh. Dalpat Singh / Sh. Hadmat Singh			m	member	litrate
18	Sh. Laxman Ram / Sh. Pokar Ram			m	member	litrate
19	Smt. Sayar / Sh. Bhiya Ram			f	member	litrate

Details of Watershed Committees (WC) Agolai

s.no	Name	Age	Cast(category)	Sex	Post	Qualification
1	Sh. Labu Ram / Sh. Rama Ram		OBC	m	President	litrate
2	Sh. Gautam Chand / Sh. Surta Ram		OBC	m	Secretary	litrate
3	Smt. Tijjo / Sh. Kisna Ram		OBC	f	member	litrate
4	Sh. Babu Ram / Sh. Bala Ram		OBC	m	member	litrate
5	Sh. Sona Ram / Sh. Kesha Ram		OBC	m	member	litrate
6	Sh. Poona Ram/ Sh. Aaidan Ram		OBC	m	member	litrate
7	Sh. Teja Ram / Sh. Tulcha Ram		OBC	m	member	litrate
8	Sh. Amaa Ram Sh. Mohan Ram		OBC	m	member	litrate
9	Sh. Pema Ram / Sh. Lala Ram		OBC	m	member	litrate
10	Smt. Bhawari / Sh. Purkha Ram		OBC	f	member	litrate
11	Sh. Dama Ram / Sh. Jassa Ram		SC	m	member	litrate
12	Sh. Rewat Ram / Sh. Surja Ram		OBC	m	member	litrate
13	Sh. Bhakar Ram / Sh. Salu Ram		OBC	m	member	litrate
14	Sh. Bhaga Ram / Sh. Deva Ram		OBC	m	member	litrate
15	Smt. Jani / Sh. Pappu Ram		OBC	f	member	litrate
16	Smt. Veero / Sh. Babu Ram		OBC	f	member	litrate
17	Sh. Bija Ram / Sh. Fussa Ram		OBC	m	member	litrate
18	Smt. Jammu/ Sh. Mohan Ram		SC	f	member	litrate
19	Sh. Himmta Ram / Sh. Pokar Ram		OBC	m	member	litrate

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. 690 ha land is arable wasteland and 870 ha is fallow can be brought under cultivation. 213 ha is only irrigated and with efforts this can be increased to 550 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)

250 Quintal fodder scarcity can be met out through Pasture development .Improved animal Husbandry practices can increase the productivity of livestock. 125 no of persons migrate due to poverty & unemployment this migration can be checked through creation of employment opportunities in the project area through increase in production and diversification in agriculture and Livelihoods as mentioned above.

Base Line Survey Format for IWMP MIS website

Project Name :- IWMP Jodhpur 51

Total Geographical Area of Project (Lakh Hectares) = 0.055

Treatable Area

Wasteland (Lakh Hectares)	**0.027 lacs**	**Rainfed Agricultural Land (Lakh Hectares)**	**0.028**
Total Cropped Area (Lakh Hectares)	**0.027lacs**	**Net Sown Area (Lakh Hactares)**	**0.022**
Total no. of Water Storage Structure	**226**	**Total no. of Water Extracting Units**	**39**
Total storage capacity of water storage structures (cubic meters)	**145900**		

No. of Household

SC	**323**	**ST**	**3**
Others	**1384**		
Total Population of the project Area	**8046**	**No. of Household of Landless people**	**74**
Total no. of BPL Household	**265**		
No. of person-days of Seasonal Migration	**12500**	**No. of Marginal Farmer's Household**	**125**

Depth of Ground Water (meters) below Ground level

Pre- monsoon	**400 ft**	**Post-monsoon**	**385 ft**
No. of person-days of Seasonal Migration	**12500**		

CHAPTER :-2

Socio economic Features, Problems and Scope

CHAPTER – II Socio economic Features, Problems and Scope

Table 2.1 Population & Household Details:

	Total Population				
	Male	**Female**	**Total**	**SC**	**ST**
BAWARLI	2260	2078	4338	572	191
AGOLAI	2085	1853	3938	840	260

	Household Details						
	BPL household	**L. Less**	**Small Farmer**	**M. Farmer**	**Total household**	**SC household**	**ST household**
BAWARLI	132	13	275	259	609	81	27
AGOLAI	140	38	279	215	592	120	37

Table 2.2 Development indicators

S. No.	Development Indicators	State	Project Area
1	Per capita income (Rs.)	16260	8240
2	Poverty ratio	0.22	0.38
3	Literacy (%)	0.85	0.78
4	Sex Ratio	927	913
5	infant mortality rate	NA	0.024
6	Maternal mortality ratio	NA	0.018

The above table indicates average socio economic conditions.

Table 2.3 Land Use

Land Use	Total area in Ha.				
	Private	Panchayat	Government	Community	Total
Agriculture Land	4450	0	0	0	4450
Temporary fallow	390	0	0	0	390
Permanent Fallow	0	0	0	0	0
Cultivated Rainfed	3200	0	0	0	3200
Cultivated irrigated	0	0	0	0	0
Net Sown Area	2595	0	0	0	2595
Net Area sown more than once	110	0	0	0	110
Forest Land	0	0	0	0	0
Waste Land	0	0	150	800	950
Pastures	0	60	0	140	200
Others	0	0	0	0	0
Total					**5500**

Watershed Detail

S.NO	MACRO/MICRO	GRAM PACHAYAT	AREA(HA.)	CULTIVATED LAND(HA.)	PASTURE LAND(HA.)	NON-ARABLE LAND(HA.)
1	22/2	Bawerli	122	70		52
2	22/3		185	113		72
3	22/4		210	153	20	37

The project area has 800 ha of cultivable wasteland . 850ha of fallow land (total 1650ha) 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 rain fed varieties of crops. Construction of WHS can also increase.

950 ha. (17.27 % 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 (Anicut,Khadins) Afforestation of wastelands and Pasture development will be taken up on these lands.

Pasture development

The land use table shows that there is 375 hectare pasture land (6.8 %). 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.

Table 2.4.b Abstract of cropped Area(ha)	
Area under Single crop	4450
Area under Double crop	0
Area under Multiple crop	0

The farmers are using HSB67,166, varieties of Bajra, whereas varieties like 1717 can increase the production.

Crop Rotation will vary from project to project

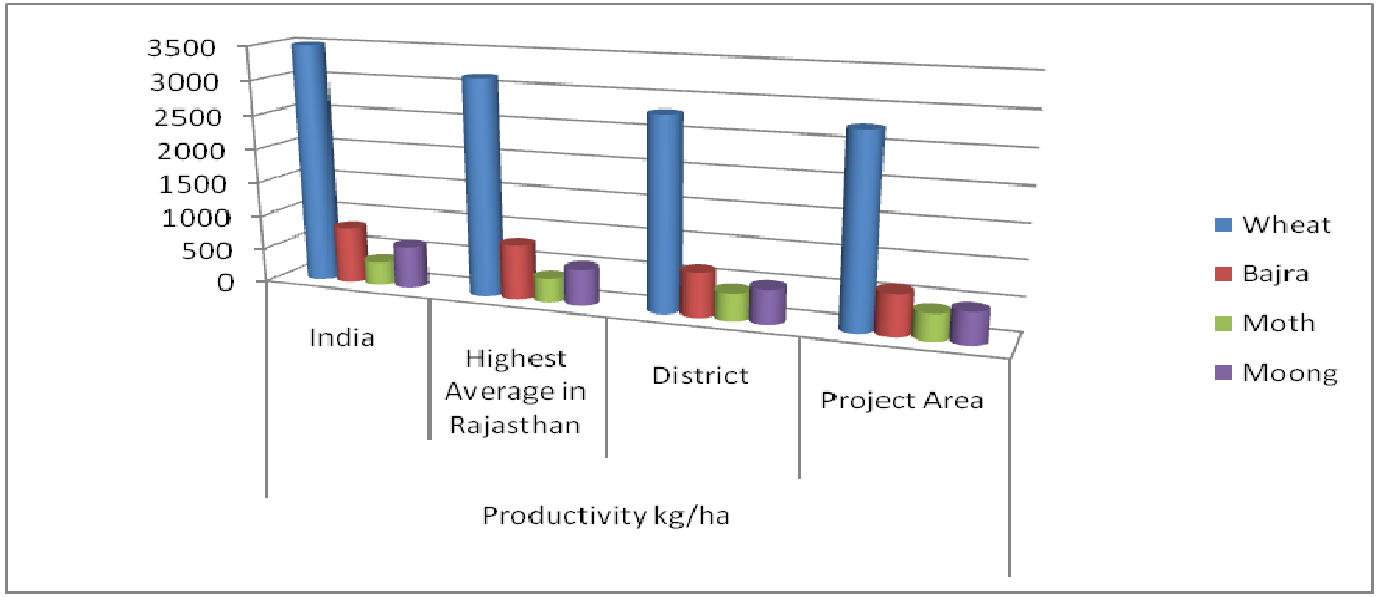
Bajra	-	Wheat
Bajra	-	Fallow
Moong	-	Mustered
Moong	-	Fallow
Fallow	-	Jeera
Fallow	-	Isabgoal
Fallow	-	Lucern
Cluster Bean	-	Fallow
Fallow	-	Tarameera
Til	-	Fallow
Caster	-	Caster
Moth	-	Fallow

The table shows that only 4450 ha is 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	District	Project Area	Deficiency in productivity in

					comparison with district
Bajara	825	800	600	450	315
Guar	610	610	550	400	360
Moong	625	530	350	240	210
Month	350	350	300	240	195
Til	450	325	200	150	125



Analysis of the above table indicate that besides national gap there is wide gap in productivity within state and.

The reasons for this variation are

- The farmers are using Ganga Kaveri varieties of Bajra whereas the recommended varieties like MH-169, HSB67 provide more yield
- 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(5.45% is irrigated)

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.

Table 2.5 Existing area under horticulture/Vegetables/Floriculture (ha)

Activity	Area	Species	Varieties	Recommended varieties	Production
Horticulture	**0**	**--**	**--**	**Ber (Gola, Sev)**	**300**
	0			**Aonwla**	**160**
Vegetables	**0**	**--**	**--**	**----**	**---**
Floriculture	**0**	**--**	**--**	**----**	**---**
Medicinal Plants	**0**	**--**	**--**	**Sonamukhi, Aloevera,**	**80** **95**

Table 2.6 Land holding Pattern in project area

Type of Farmer	Total Households	Land holding (ha) irrigation source wise			Land holding (ha)Social group wise				
		Irrigated (source)	Rainfed	Total	General	SC	ST	OBC	BPL
(i)Large farmer	132	0	1650	1650	1180	0	0	430	0
(ii) Small farmer	554	26	765	791	250	235	25	161	120

(iii) Marginal farmer	474	0	94	94	20	35	25	9	5
(iv) Landless person	51	0	0	0	0	0	0	0	0
(V)No. of BPL households	272	0	100	100	14	30	10	38	8
Total	1483	26	2609	2635	1464	300	60	638	133

70.3% land holdings belong to small and marginal farmers who own 32% 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, Khus, Mehandi etc.

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

Setting of Vermi Compost Units - Keeping in view the side effect of residues of chemicals and fertilizers on human health the emphasis would be on cultivation of organic produce through motivating farmers and providing assistance for production 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 can be promoted in the area.

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

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

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

S.No.	Description of animals	Population in No.	Yield(milk/mutton/Wool)	Equ. cow units ltr/anum	Dry matter requirement per year (7Kg per animal.)	Total requirement in M.T.
1	Cows					
	Indigenous	324	975 ltr/Day	162000	827820	827.82
	Crossbreed	17	90 ltr/Day	15000	43435	43.435
2	Buffaloes	202	385 ltr/Day	151500	516110	516.11
3	Goat	2676	840 ltr/Day	945000	2930220	2930.22
4	Sheep	1928	Wool 800 kg/Anum	204	2111160	2111.16
5	Camel	21		70	61320	61.32
6	Poultry	0	0	NA	0	0
7	Piggery	0	0	NA	0	0
	Total					**6490.06**

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

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

Table 2.8 Existing area under fodder (ha)

S.No	Item	Unit	Area/Quantity
1	Existing Cultivable area under Fodder	Ha	654
2	Production of Green fodder	Tonns/year	2343
3	Production of Dry fodder	Tonns/ Year	1641
4	Area under Pastures	Ha	312
5	Production of fodder	Tonns/year	1129
6	Existing area under Fuel wood	Ha	125
7	Supplementary feed	Kgs/ day	0
8	Silage Pits	No	0
9	Availability of fodder	Ton	5113
10	Defficiency/Excess of fodder	Ton	1377.06

The table above shows there is fodder deficiency (Requirement is6490.06 MTand availability 5113 MT)

To minimize the large and expanding gap between feed and fodder resource availability and demand there is need for

- Increase in area under fodder crops
- Increase in productivity of fodder crops
- Development of pastures And reduction in large number of livestock production through replacement by few but productive animals

Table 2.9 Agriculture implements

S. No	Implements	Nos.
1	Tractor	32
2	Sprayers-manual/ power	0
3	Cultivators/Harrows	17
4	Seed drill	2
5	Any Other(thrasher,drip)	7

Farm mechanization and seed banks:

As discussed earlier 70.3% land holdings belong to small and marginal farmers who own only 32% of total cultivated area sowing 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	Bawarli	1083	997	Excav of Nadi, Gravel Road, Tanka
2	Agolai	749	653	Excav of Nadi, Gravel Road, Tanka

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)
Bawarli	50-100	100-130	Better Earning	40-50 km	Mason & labor	0.18-.02/person 5
Agolai	20-120	120-150	Better Earning	40-50	Masonary work	0.18-.02/person 5

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 livelihood.

The existing livelihood Village are given below

Table 2.12 (a) Major activities (On Farm)

Name of activity	No of House holds	Average annual income from the
Cultivators	764	27000
Dairying	19	26000
Poultry	0	0
Piggery	0	0
Landless Agri. Labourers	87	23000

Table 2.12(b) Major activities (Off Farm)		
Name of activity	Households/individuals	Average annual income from the
Artisans	9	29000
Carpenter	13	34000
Blacksmith	2	26000
Leather Craft	-	-
Porter	4	25000
Mason	56	47000
Others specify (Cycle Repair ,STD,Craft etc)	3	15000-20000

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 (Kasti)

S.No	Name of SHG	Members	Activity involved	Monthly income	Fund available	Assistance available	Source of assistance	Training received

1	Jai guru dev	10	Packing	1000	7000	training	Wdt,ngo,institutes	2
2	Radha rukman	10	Dairy	1000	8000		Wdt,ngo,institutes	2
3	Gaytri	10	Stitching	1000	8000		Wdt,ngo,institutes	2

Status of Existing SHG (Birai)

S.No	Name of SHG	Members	Activity involved	Monthly income	Fund available	Assistance available	Source of assistance	Training received
1	Jai ganesh	10		1000	6000	CDPO	Wdt,ngo,institutes	
2	mahadev	10		1000	6000	CDPO	Wdt,ngo,institutes	
3	Baba Ramdev	5		500	4000	CDPO	Wdt,ngo,institutes	
4.	Dhanlaxmi	5		500	4000	CDPO	Wdt,ngo,institutes	

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	Dry	Area irrigated	Water availability(days)
i)	Dug wells	7	370 ft	4	35	90
ii)	Shallow tube wells	11	380 ft	4	100	250
iii)	Pumping sets	11	450 ft		18	300
iv)	Deep Tube Wells	39	500 ft	07	80	365
	Total	68			180	

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	Bawerli	46000/ ltr	23400	9	8	1	2
2	Agolai	21500/ltr	9000	7	6	1	1

Table 2.16 Water Use efficiency

Name of major crop	Area (Hectare)			
	through water saving devices(Drip/Sprinklers)	through water conserving agronomic practices#	Any other (pl. specify)	Total
Bajra				
mustard				
wheat				
onion				
mong				
Til				
Moth				

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

Table 2.17 Slope details.

Slope of Watershed		
S.No.	Slope percentage	Area in hectares
1	0 to 3%	2530
2	3 to 8%	1030
3	8 to 25%	740
4	> 25%	1200

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

Good Catchment – Normally a funnel shaped catchment in hilly terrain with less vegetation.
Average Catchment – Catchment in the plains where there is no dense growth of vegetation.
Bad Catchment – Catchment with dense growth of vegetation & highly permeable top soil & sub soil.
Total available runoff(cum) use Stranges table

Yield from 1 hectare of Natural (Untreated) catchment

Strange's Table

Total Monsoon rainfall in mm	Good Catchment		Average Catchment		Bad Catchment	
	% of utilisable rain water	Utilisable rain water (Cum)	% of utilisable rain water	Utilisable rain water (Cum)	% of utilisable rain water	Utilisable rain water (Cum)
20	0.08	0.16	0.06	0.12	0.04	0.08
40	0.13	0.52	0.0975	0.39	0.065	0.26
60	0.245	1.47	0.1735	1.041	0.1225	0.735
80	0.41	3.28	0.3075	2.46	0.205	1.64
100	0.7	7	0.525	5.25	0.35	3.5
120	0.9	10.8	0.675	8.1	0.45	5.4
140	1.1225	15.715	0.91875	12.8625	0.6125	8.575
160	1.625	26	1.21875	19.5	0.8125	13
180	2.12	38.16	1.59	28.62	1.06	19.08
200	2.7	54	2.025	40.5	1.35	27
220	3.26	71.72	2.445	53.79	1.63	35.86
240	3.81	91.44	2.8575	68.58	1.905	45.72

260	4.45	115.7	3.3375	86.775	2.225	57.85
280	5.19	145.32	3.3925	94.99	2.595	72.66
300	5.9	177	4.425	132.75	2.95	88.5
320	6.72	215.04	5.04	161.28	3.36	107.52
340	7.75	263.5	5.6775	193.035	3.785	128.69
360	8.55	307.8	6.4125	230.85	4.275	153.9
380	9.45	359.1	7.0876	269.329	4.725	179.55
400	10.25	410	7.6875	307.5	5.125	205
420	11.05	464.1	8.2875	348.075	5.525	232.05
440	12	528	9	396	6	264
460	12.95	595.7	7.7125	354.775	6.475	297.85
480	13.9	667.2	10.425	500.4	6.95	333.6
500	14.7	735	11.025	551.25	7.35	367.5
520	15.5	806	11.625	604.5	7.75	403
540	16.36	883.44	12.2625	662.175	8.175	441.45
560	17.2	963.2	12.9	722.4	8.6	481.6
580	18	1044	13.5	783	9	522
600	19	1140	14.25	855	9.5	570

Rain fall 300 mm

Type of Catchment	Area in ha.	Yield of runoff from catchment per ha.(cum.) use Stranges table	Total Runoff in cum
Good			
Average	5500	132.75	730125

Bad			
Total			

Runoff trapped in existing structures

S.No.	Name	No.	Storage Capacity (cum)
i)	WHS(earthen)		
ii)	Khadin/Talab		
iii)	Farm Ponds	140	2800
iv)	Tanka/farm ponds		
v)	Anicuts/Nadi	9	27000
	Total	149	29800

Runoff to be trapped in proposed structures:

S.No.	Name	No.	Storage Capacity (cum)	Total water to be harvested (cum.)
i)	WHS(earthen)			
ii)	Khadin/Talab	4	450	1800
iii)	Dug out Ponds	15	150	2250
iv)	Tanka	191	20	3820
v)	Masonry check dam	3	2400	7200
	Total			15070

Runoff trapped in existing & proposed structures =29800+15070=44870cum.
% Runoff trapped = total runoff trapped x100/Total available runoff=5.54%.

Height of all the structures proposed is between 0.6 metre to 1.8 metre. There is no structure whose water impounding height is more than 2 metre.

Table 2.19 Soil details

	Soil Profile	
S.No.	Major Soil Classes	Area in hectares
1	Sandy Loam	5000
2	Hilly	500
	Soil Depth :	
B	Depth (Cms.)	Area in hectares
1	0.00 to 7.50	750
2	7.50 to 45.00	1250
3	> 45.00	3550

C	Soil fertility Status	Kg/ha	Recommended
	N	L	
	P	L	
	K	M	
	Micronutrients	LLSS	

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

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	3000	300	4110

b	Rill	1000	300	4224
c	Gully	0	300	8842
Sub-Total		4000		17207
Wind erosion		1500	940	223
Total for project		5500		

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 :-3

Proposed Development Plan

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 Micro Watershed. A series of meetings were conducted with GP members, community and discussed about the implementation of IWMP programme. User groups were also formed.

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

S.no	Name of the Gram Panchayat	Date on which Grama Sabha approved EPA
1	Bawerli	21-1-2011
2	Agolai	27-2-2011

S. No.	Names of village	Amount earmarked for EPA	Entry Point Activities planned	Estimated cost (lakhs)	Expenditure incurred	Balance	Expected outcome	Actual outcome
1	Bawerli	9.00	Construction of tanka, Street solar lights	9.00	7.25	1.75		
	Ajitnagar	3.00	Construction of tanka, Street solar lights	3.00	1.75	1.25		
	Lunawpura	3.00	Construction of tanka, Street solar lights	3.00	1.95	1.05		
	Gajnawas	6.00	Construction of tanka, Street solar lights	6.00	1.00	5.00		
	Agolai	3.00	Construction of tanka, Street solar lights	3.00	2.25	0.75		
	Udaisar	3.00	Construction of tanka,	3.00	1.00	2.00		

			Street solar lights					
	Konari	3.00	Construction of tanka, Street solar lights	3.00	-	3.00		
	Haryana	3.00	Construction of tanka, Street solar lights	3.00	-	3.00		

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

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 02-07-2012 to 03-02-2013 (dates) period covering all the households and primary data on demography, Land holdings, Employment status, Community activities etc. .

. CAPACITY BUILDING

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

1	2	3	4	5	6	7	8
S. No.	Name of Stakeholders	Name of the Training Institute	Full Address with contact no., website & e-mail	Name & Designation of the Head of Institute	Type of Institute[#]	Area(s) of speciali-zation[$]	Accredita-tion details
1	PIAs	SRSAC,KAZRI					
2	WDTs	AAFRI					
3	UGs	KVK, GTC					
4	SHGs	KVK, GTC					
5	WCs	KVK, GTC					
6	GPs	I T Centre					
7	Community	I T Centre					

Table- Capacity Building activities in the project (PHYSICAL & FINANCIAL**) *4% OF TOTAL PROJECT COST.**

1	2	3	5					
S. No.	Project Stakeholders	Total no. of persons	No. of persons to be trained during project period					
			I year	II year	III year	IV year	V year	Total

1	PIAs	275	55	55	55	55	55	275
2	WDTs	4	4	0	0	0	0	4
3	UGs	1075	215	215	215	215	215	1075
4	SHGs	150	30	30	30	30	30	150
5	WCs	22	22	0	0	0	0	22
6	GPs	2500	500	500	500	500	500	2500
7	Community	10	10	0	0	0	0	10
8	EXPOSURE TOUR (INTER STATE)	100	100	0	0	0	0	100
9	EXPOSURE TOUR (INTRA STATE)	25	0	0	25	0	0	25
10	PM/SLNA	22	0	22	0	0	0	22
11	TOTAL PHYSICAL	4161	721	767	770	800	800	4161
12	TOTAL FINANCIAL	27	10	10	3	3	1	27

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

S. No.	Activity	Executing agency	Allocation out of 1% of total Project cost	Allocation Amt	Allocation in lacs					
					I year	II year	III year	IV year	V year	Total
1	मॉडल रुफटॉप वाटर हार्वेटिग स्ट्रक्चर्स (पंचायत समितिए राजीव गॉधी सेवा केन्द्र या अन्य पंचायत समिति स्तरीय नजदीकी सरकारी भवन)।	PIA	0.2	1.65	0.495	0.495	0.33	0.165	0.165	1.65
2	जलग्रहण क्षेत्र गतिविधियों को दर्षाता हुआ POP / CLAY / WOOD / PLASTIC से बना हुआ मॉडल।	PIA								
3	डीस्पले बोर्डे / प्लेगक्सी बोर्ड /		0.1	0.825	0.2475	0.2475	0.165	0.0825	0.0825	0.825
4	वॉल पेन्टिंग–जलग्रहण गतिविधियों, लक्ष्यो व प्राप्ति आदि को दर्षाती हुई ।	PIA								
5	जलग्रहण विकास संबंधी मुद्रित पम्पलेटस / लिफ लेटस / चार्ट / पोस्टर / आदि।									
6	नारा लेखन		0.25	2.0625	0.61875	0.61875	0.4125	0.2063	0.20625	2.0625

7	सफलता की कहानीयों की वीडियोंग्राफी/फोटोग्राफी/ लघुफिल्म एवं कृषको से साक्षरातकार / वार्ता ।	PIA								
8	निबन्ध व वाद–विवाद प्रतियोगिता									
9	रेडियों/दूरदर्षन पर वार्ता व विज्ञापन		0.15	1.2375	0.37125	0.37125	0.2475	0.1238	0.12375	1.2375
10	सांस्कृतिक त्यौहार / मेले आदि के अवसर पर प्रर्दषनी	PIA								
11	नुक्कड़ नाटक									
12	कटपुतली प्रदर्षन		0.1	0.825	0.2475	0.2475	0.165	0.0825	0.0825	0.825
13	रात्रि गोष्ठी	PIA								
14	भू संरक्षण सप्ताह									
15	चेतना रैली									
16	जलग्रहण विकास का संदेष देने वाले सांस्कृतिक कार्यक्रम									
17	कृषक दिवस का आयोजन एवं क्षेत्र भ्रमण दिवस का आयोजन इत्यादि		0.2	1.65	0.495	0.495	0.33	0.165	0.165	1.65
	कुल		1%	8.25	2.475	2.475	1.65	0.825	0.825	8.25

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

Various thematic layers provided by PDCOR are :

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

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 1).The GIS based intervention map, PRA based intervention map are annexed as 2

B)Livelihood Action Plan (LAP):

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

(i) Total project cost Rs.825 Lacs.

(ii) Funds available under livelihood component is 9% of total project cost= Rs.74.25Lacs.

(a) Seed money for SHGs as revolving fund = Rs.44.55 Lacs.

(minimum 60% of livelihood component)

No. Of SHG to be formed 180 Nos.

- No of persons (members) in SHGs 1200 Nos.

(b) Seed money for enterprising individuals = Rs.7.425 Lacs

(minimum 10% of livelihood component)

-- No of persons is to be identified as enterprising individuals 31Nos.

No. of persons & Proposed Activities.

S.No	Watershed	No. of Person	Activity Proposed
1	Jodhpur-51	5	Dari udyog,
2		4	General Store
3		4	Cycle Repairing shop
4		2	M/C Repairing shop
5		2	Motor winding shop
6		2	Tractor repairing shop
7		8	Tea stall
8		4	Dairy

(c) Funds for Enterprising SHG/Federations of SHG

(Maximum 30 % of livelihood activities)= Rs.22.275-Lacs

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

Details of enterprising SHG/federation is given below :

S.No.	Name of SHG/ SHG federation	Project Name	Project Cost in lacs	Grant in aid 50% of project cost or 2 lacs whichever is less	Bank loan
1					
2					
	Total				

* Details of project activities can be prepared in coming years after formation of SHG federation or as the case may be.

C) Production Plan:

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

(iii) Total project cost Rs 825Lacs.

(iv) Funds available under Production System & Micro enterprises component is 10% of total project cost= Rs.82.5Lacs.

Proposed Activities for production system

S.No	No. of Person	Activities Proposed
1	23	Compost Pit / Manger
2	11	Vermi Compost

(viii) Funds for Animal Husbandary activities 7.25 lacs.

Details of is Animal Husbandary activities given below :

S.No.	Name of Activity	Quantity	Unit cost	Cost of Activity in lacs
1	Animal Health Camp	26	25000	6.50
2	Vaccination			0.50
3	Purchase of Bull / Pada	3	25000	0.75
4	A I			0.50
	Total			8.25

Awareness Programme

-Slogan Wall Painting,

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

Broadcasting / Telecasting Film Show

Visit- intra/ inter/ out of State/ Abroad

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

Creation Of Disease Free Zone: Livestock's health coverage

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

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

Distribution of mineral mixture. (Convergence with peer department)

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

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

Construction of Animal Sheds with Manger and Portable Manger With accessories

Provision of Cattle Water Troughs.

Infertility Management: To ensure Livestock's Productivity

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

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

Breed Improvment: To ensure Livestock's Productivity enhancement

A.I. (Convergence with peer department)

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

Registration of bulls (Convergence with peer department)

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

Financial Incentive to the Inseminator for Calf Borns.

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

An Assistance to control Malnutrition: Protein Supplementation

Feed & fodder production enhancement.

PROPOSED DEVELOPMENT PLAN
IWMP JODHPUR 51

S. N.	NAME OF ACTIVITY			Gram Panchayat BAWARLI					Gram Panchayat AAGOLAI					TOTAL JODHPUR 51				
		Unit	RATE	QTY.	Amt from project fund	Convergence fund	Total Cost	Beneficiary contribution	QTY.	Amt from project fund	Convergence fund	Total Cost	Beneficiary contribution	QTY.	Amt from project fund	Convergence fund	Total Cost	Beneficiary contribution
I.	**ADMINISTRATIVE COST**			**10%**					**10%**					**10%**				
1	WDT MANDEYA																	
2	W C SEC MANDEYA																	
3	OFFICE EXPENSES (JEEP/STATIONARY & OTHER)																	
	SUB TOTAL				52.50	0.00	52.50			30.000	0.000	30.00			82.50	0.00	82.50	0.00
II	**MONITORING**			**1%**	5.25	0.00	5.25		**1%**	3.000	0.000	3.00		**1%**	8.25	0.00	8.25	0.00
III	**EVALUATION**			**1%**	5.25	0.00	5.25		**1%**	3.000	0.000	3.00		**1%**	8.25	0.00	8.25	0.00
TOTAL					63.00	0.00	63.00			36.000	0.000	36.00			99.00	0.00	99.00	0.00
	W/S PREPARATORY PHASE																	
IV	**ENTRY POINT ACTIVITY**			**4%**	21.00	21.00	42.00		**4%**	12.000	12.000	24.00		**4%**	33.00	33.00	66.00	0.00
TOTAL					21.00	0.00	21.00			12.000	0.000	12.00			33.00	0.00	33.00	0.00
V	**TRAININGS & CAPACITY BUILDING**			**5%**					**5%**					**5%**				
1	**USERS GROUP**																	
TOTAL					26.25	0.00	26.25			15.000	0.000	15.00			41.25	0.00	41.25	0.00
VI	**DETAILED PROJECT REPORT**			**1%**	5.25	0.00	5.25		**1%**	3.000	0.000	3.00		**1%**	8.25	0.00	8.25	0.00
TOTAL					5.25	0.00	5.25			3.000	0.000	3.00			8.25	0.00	8.25	0.00
	TOTAL				52.50	0.00	52.50			30.000	0.000	30.00			82.50	0.00	82.50	0.00

	W/S WORK PHASE																	
VII	**NRM**			**56%**					**56%**					**56%**				
1	**ARABLE CONSERVATION WORK**																	
(i)	Earthen Bund	Ha.	14400	650	93.60	57.60	151.20	12.10	400.00	57.600	72.000	129.60	10.37	1050.00	151.20	129.60	280.80	22.46
(ii)	WHS (Tanka)	No.	100000	124	124.00	36.00	160.00	12.80	50.00	50.000	36.000	86.00	6.88	174.00	174.00	72.00	246.00	19.68
(iii)	Waste weir	No.	15100	30	4.53	3.02	7.55	0.60	30.00	4.530	3.020	7.55	0.60	60.00	9.06	6.04	15.10	1.21
(iv)	Gulley Control Structure Nallah Bunding	No.	20000	20	4.00	1.00	5.00	0.40	15.00	3.000	1.000	4.00	0.32	35.00	7.00	2.00	9.00	0.72
(v)	Khadin	No.	455000	2	9.10	4.55	13.65	1.09	2.00	8.700	4.550	13.25	1.06	4.00	17.80	9.10	26.90	2.15
(vi)	Khet Talai	No.	100000	14	14.00	14.00	28.00	2.24	7.00	7.000	14.000	21.00	1.68	14.00	21.00	28.00	49.00	3.92
2	**NON ARABLE CONSERVATION WORK**																	
(i)	V Ditch for PD	Ha.	17050	20	3.41	1.70	5.11	0.41	10.00	1.705	1.700	3.41	0.27	30.00	5.12	3.40	8.52	0.68
(ii)	Staggered Contour Trenches for PD	Ha.	0	0	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(iii)	Dug out Pond	No.	100000	8	8.00	10.00	18.00	1.44	7.00	7.000	10.000	17.00	1.36	15.00	15.00	20.00	35.00	2.80
(iv)	WHS (Tanka)	No.	100000	10	10.00	9.00	19.00		7.00	7.000	9.000	16.00	1.28	17.00	17.00	18.00	35.00	1.28
(v)	Nallah Bunding with ww	No.	35100	20	7.02	3.51	10.53	0.00	20.00	7.020	3.510	10.53	0.84	40.00	14.04	7.02	21.06	0.84
3	**DRAINAGE LINE TREATMENT**																	
(i)	LSCD 'A'	No.	25000	15	3.75	1.25	5.00	0.00	6.00	1.500	0.000	1.50	0.12	21.00	5.25	1.25	6.50	0.12
(ii)	LSCD 'B'	No.	23000	10	2.30	1.15	3.45	0.00	10.00	2.300	0.000	2.30	0.18	20.00	4.60	1.15	5.75	0.18
(iii)	LSCD 'C'	No.	21000	10	2.10	1.05	3.15	0.00	11.00	2.310	0.000	2.31	0.18	21.00	4.41	1.05	5.46	0.18
(iv)	LSCD 'D'	No.	19200	10	1.92	0.96	2.88		10.00	1.920	0.000	1.92	0.15	20.00	3.84	0.96	4.80	0.15
(v)	LSCD 'E'	No.	17300	10	1.73	0.87	2.60	0.00	8.00	1.384	0.000	1.38	0.11	18.00	3.11	0.87	3.98	0.11
(vi)	Masonry Check Dam	No.	5	1	4.54	4.23	8.77	0.00	1.00	5.031	4.230	9.26	0.74	2.00	9.57	8.46	18.03	0.74
	TOTAL				**294.00**	**149.89**	**443.89**	**31.08**		**168.000**	**159.010**	**327.01**	**26.16**		**462.000**	**308.90**	**770.90**	**57.24**
VIII	**PRODUCTION MEASURES**			10%					10%					**10%**				
	For Arable Land																	
1	Compost Pit	No.	10000	31	3.10	2.00	5.10	0.77	21	2.100	2.000	4.10	0.62	52.00	5.20	4.00	9.20	1.38
2	Agro Forestry	No.	25	7295	1.82	0.00	1.82	0.27	4148	1.037	0.000	1.04	0.16	11443.00	2.86	0.00	2.86	0.43
3	Horticulture Plantation with fencing & Tanka	No.	27700	20	5.54	0.00	5.54	0.83	15	4.155	0.000	4.16	0.62	35.00	9.70	0.00	9.70	1.45
4	Horticulture Plantation without fencing (Orchard)	No.	10000	20	2.00	0.00	2.00	0.30	15	1.500	0.000	1.50	0.23	35.00	3.50	0.00	3.50	0.53
5	Vermi Compost	No.	30000	13	3.90	0.00	3.90	0.59	8	2.400	0.000	2.40	0.36	21.00	6.30	0.00	6.30	0.95
6	Crop Demonstration	No.	500	800	4.00	0.00	4.00	0.60	500	2.500	0.000	2.50	0.38	1300.00	6.50	0.00	6.50	0.98
7	Homested Kitchen Gerden	No.	500	200	1.00	0.00	1.00	0.15	100	0.500	0.000	0.50	0.08	300.00	1.50	0.00	1.50	0.23
8	Medicinal Plants	No.	500	100	0.50	0.00	0.50	0.08	100	0.500	0.000	0.50	0.08	200.00	1.00	0.00	1.00	0.15
	For Non-arable Land																	
1	V Ditch for PD	Ha.	3080	20	0.62	0.31	0.92	0.00	10	0.308	0.308	0.62	0.000	30.00	0.92	0.62	1.54	0.00
2	Plantation in PD	Ha.	64700	20	12.94	6.47	19.41	0.00	10	6.470	6.470	12.94	0.000	30.00	19.41	12.94	32.35	0.00

3	Fencing of PD (by SW)	Ha.	0	10	4.05	0.00	4.05	0.00	0	0.000	0.000	0.00	0.000	10.00	4.05	0.00	4.05	0.00
4	Fencing of PD (by DCB)	Ha.	0	10	2.53	2.53	5.06	0.00	10	2.530	2.530	5.06	0.000	20.00	5.06	5.06	10.12	0.00
2	**LIVESTOCK MANAGEMENT**																	
(i.)	**LIVESTOCK MANAGEMENT**	No.	0	0	10.50	0.00	10.50	0.00	0	6.000	2.500	8.50	0.000	0.00	16.50	2.50	19.00	0.00
TOTAL					**52.50**	**11.31**	**63.81**	**3.58**		**30.000**	**13.808**	**43.81**	**2.50**		**82.50**	**25.12**	**107.62**	**6.08**
1	**LIVELIHOOD**			**9%**	47.25	0.00	47.25	0.00	**9%**	27.000	0.000	27.00	0.000	**9%**	74.25	0.00	74.25	0.00
i	Revolving fund to SHG's (5 to 20 person per SHG) 60%				28.35	0.00	28.35	0.00	66.00	16.200	0.000	16.20	0.000		44.55	0.00	44.55	0.00
ii	Revolving fund to individual entrepreneurs 10%				4.73	0.00	4.73	0.00	12.00	2.700	0.000	2.70	0.000		7.43	0.00	7.43	0.00
iii	Grant in aid to entrepreneurs SHG/SHG's federation 30%				14.18	0.00	14.18	0.00	5.00	8.100	0.000	8.10	0.000		22.28	0.00	22.28	0.00
TOTAL					**47.25**	**0.00**	**47.25**	**0.00**		**27.000**	**0.000**	**27.00**	**0.000**		**74.25**	**0.00**	**74.25**	**0.00**
IX	**CONSOLIDATION PHASE**			**3%**	**15.75**	**0.00**	**15.75**	**0.00**	**3%**	**9.000**	**0.000**	**9.00**	**0.000**	**3%**	**24.75**	**0.00**	**24.75**	**0.00**
	GRAND TOTAL				**525.00**	**161.19**	**686.19**	**34.66**		**300.000**	**172.818**	**472.82**	**28.66**		**825.00**	**334.01**	**1159.01**	**63.32**

CHAPT1ER :-4

Activity wise Total Abstract of cost

ACTIVITY WISE TOTAL ABSTRACT OF COST
JODHPUR 51
WATERSHED COMMITTEE - BAWARLI

S. N.	NAME OF ACTIVITY	TOTAL						
		Unit	RATE	QTY.	Amt from project fund	Convergence fund	Total Cost	Beneficiary contribution
I.	ADMINISTRATIVE COST			10%	0.000	0.000	0.000	
1	WDT MANDEYA				0.000	0.000	0.000	
2	W C SEC MANDEYA				0.000	0.000	0.000	
3	OFFICE EXPENSES (JEEP/STATIONARY & OTHER)				0.000	0.000	0.000	
	SUB TOTAL				52.500	0.000	52.500	
II	MONITORING			1%	5.250	0.000	5.250	
III	EVALUATION			1%	5.250	0.000	5.250	
TOTAL					63.000	0.000	63.000	
	W/S PREPARATORY PHASE				0.000	0.000	0.000	
IV	ENTRY POINT ACTIVITY			4%	21.000	21.000	42.000	
TOTAL					21.000	0.000	21.000	
V	TRAININGS & CAPACITY BUILDING			5%	0.000	0.000	0.000	
1	USERS GROUP				0.000	0.000	0.000	
TOTAL					26.250	0.000	26.250	
VI	DETAILED PROJECT REPORT			1%	5.250	0.000	5.250	
TOTAL					5.250	0.000	5.250	
	TOTAL				52.500	0.000	52.500	
	W/S WORK PHASE							

VII	**NRM**			**56%**				
1	**ARABLE CONSERVATION WORK**							
(i)	Earthen Bund	Ha.	14400	**650**	93.600	57.600	151.200	12.096
(ii)	WHS (Tanka)	No.	90000	**124**	124.000	36.000	160.000	12.800
(iii)	Waste weir	No.	15100	**30**	4.530	3.020	7.550	0.604
(iv)	Gulley Control Structure Nallah Bunding	No.	20000	**20**	4.000	1.000	5.000	0.400
(v)	Khadin	No.	455000	**2**	9.100	4.550	13.650	1.092
(vi)	Khet Talai	No.	100000	**14**	14.000	14.000	28.000	2.240
2	**NON ARABLE CONSERVATION WORK**							
(i)	V Ditch for PD	Ha.	17050	**20**	3.410	1.700	5.110	0.409
(ii)	Staggered Contour Trenches for PD	Ha.	0	**0**	0.000	0.000	0.000	0.000
(iii)	Dug out Pond	No.	100000	**8**	8.000	10.000	18.000	1.440
(iv)	WHS (Tanka)	No.	100000	**10**	10.000	9.000	19.000	0.000
(v)	Nallah Bunding with ww	No.	35100	**20**	7.020	3.510	10.530	0.000
3	**DRAINAGE LINE TREATMENT**			**0**	0.000	0.000	0.000	0.000
(i)	LSCD 'A'	No.	25000	**15**	3.750	1.250	5.000	0.000
(ii)	LSCD 'B'	No.	23000	**10**	2.300	1.150	3.450	0.000
(iii)	LSCD 'C'	No.	21000	**10**	2.100	1.050	3.150	0.000
(iv)	LSCD 'D'	No.	19200	**10**	1.920	0.960	2.880	0.000
(v)	LSCD 'E'	No.	17300	**10**	1.730	0.865	2.595	0.000
(vi)	Masonry Check Dam	No.	0	**1**	4.540	4.230	8.770	0.000
TOTAL			**0**	**0**	294.000	149.885	443.885	31.081
VIII	**PRODUCTION MEASURES**		**37.500**	**10%**				
	For Arable Land			**0**				
1	Compost Pit	No.	10000	**31**	3.100	2.000	5.100	0.663
2	Agro Forestry	No.	25	**7295**	1.824	0.000	1.824	0.237
3	Horticulture Plantation with fencing & Tanka	No.	27700	**20**	5.540	0.000	5.540	0.720
4	Horticulture Plantation without fencing (Orchard)	No.	10000	**20**	2.000	0.000	2.000	0.260
5	Vermi Compost	No.	30000	**13**	3.900	0.000	3.900	0.507

6	Crop Demonstration	No.	500	**800**	4.000	0.000	4.000	0.520
7	Homested Kitchen Gerden	No.	500	**200**	1.000	0.000	1.000	0.130
8	Medicinal Plants	No.	500	**100**	0.500	0.000	0.500	0.065
	For Non-arable Land			**0**	0.000	0.000	0.000	0.000
1	V Ditch for PD	Ha.	3080.000	**20**	0.616	0.308	0.924	0.000
2	Plantation in PD	Ha.	64700.000	**20**	12.940	6.470	19.410	0.000
3	Fencing of PD (by SW)	Ha.		**10**	4.050	0.000	4.050	0.000
4	Fencing of PD (by DCB)	Ha.		**10**	2.530	2.530	5.060	0.000
2	**LIVESTOCK MANAGEMENT**			**2%**	0.000	0.000	0.000	0.000
(i.)	**LIVESTOCK MANAGEMENT**	No.	25000	**0**	10.500	0.000	10.500	0.000
TOTAL					52.500	11.308	63.808	**3.102**
					0.000	0.000	0.000	0.000
1	**LIVELIHOOD**			**9%**	47.250	0.000	47.250	0.000
i	Revolving fund to SHG's (5 to 20 person per SHG) 60%				28.350	0.000	28.350	0.000
ii	Revolving fund to individual entrepreneurs 10%				4.725	0.000	4.725	0.000
iii	Grant in aid to entrepreneurs SHG/SHG's federation 30%				14.175	0.000	14.175	0.000
TOTAL					47.250	0.000	47.250	0.000
IX	**CONSOLIDATION PHASE**			**3%**	15.750	0.000	15.750	0.000
	GRAND TOTAL				525.000	161.193	686.193	34.183

ACTIVITY WISE TOTAL ABSTRACT OF COST
JODHPUR 51
WATERSHED COMMITTEE - AAGOLAI

S. N.	NAME OF ACTIVITY	TOTAL						
		Unit	RATE	QTY.	Amt from project fund	Convergence fund	Total Cost	Beneficiary contribution
I.	ADMINISTRATIVE COST			10%	0.000	0.000	0.000	
1	WDT MANDEYA				0.000	0.000	0.000	
2	W C SEC MANDEYA				0.000	0.000	0.000	
3	OFFICE EXPENSES (JEEP/STATIONARY & OTHER)				0.000	0.000	0.000	
	SUB TOTAL				30.000	0.000	30.000	
II	MONITORING			1%	3.000	0.000	3.000	
III	EVALUATION			1%	3.000	0.000	3.000	
TOTAL					36.000	0.000	36.000	
	W/S PREPARATORY PHASE				0.000	0.000	0.000	
IV	ENTRY POINT ACTIVITY			4%	12.000	12.000	24.000	
TOTAL					12.000	0.000	12.000	
V	TRAININGS & CAPACITY BUILDING			5%	0.000	0.000	0.000	
1	USERS GROUP				0.000	0.000	0.000	
TOTAL					15.000	0.000	15.000	
VI	DETAILED PROJECT REPORT			1%	3.000	0.000	3.000	
TOTAL					3.000	0.000	3.000	
	TOTAL				30.000	0.000	30.000	

	W/S WORK PHASE				0.000	0.000	0.000	
VII	**NRM**			**56%**	0.000	0.000	0.000	
1	**ARABLE CONSERVATION WORK**				0.000	0.000	0.000	
(i)	Earthen Bund	Ha.	14400	400	57.600	72.000	129.600	10.368
(ii)	WHS (Tanka)	No.	90000	50	50.000	36.000	86.000	6.880
(iii)	Waste weir	No.	15100	30	4.530	3.020	7.550	0.604
(iv)	Gulley Control Structure Nallah Bunding	No.	20000	15	3.000	1.000	4.000	0.320
(v)	Khadin	No.	455000	2	8.700	4.550	13.250	1.060
(vi)	Khet Talai	No.	100000	7	7.000	14.000	21.000	1.680
2	**NON ARABLE CONSERVATION WORK**							
(i)	V Ditch for PD	Ha.	17000	10	1.705	1.700	3.405	0.000
(ii)	Staggered Contour Trenches for PD	Ha.	0	0	0.000	0.000	0.000	0.000
(iii)	Dug out Pond	No.	100000	7	7.000	10.000	17.000	0.000
(iv)	WHS (Tanka)	No.	90000	7	7.000	9.000	16.000	0.000
(v)	Nallah Bunding with ww	No.	35100	20	7.020	3.510	10.530	0.000
3	**DRAINAGE LINE TREATMENT**			0	0.000	0.000	0.000	0.000
(i)	LSCD 'A'	No.	25000	6	1.500	0.000	1.500	0.000
(ii)	LSCD 'B'	No.	23000	10	2.300	0.000	2.300	0.000
(iii)	LSCD 'C'	No.	21000	11	2.310	0.000	2.310	0.000
(iv)	LSCD 'D'	No.	19200	10	1.920	0.000	1.920	0.000
(v)	LSCD 'E'	No.	17300	8	1.384	0.000	1.384	0.000
(vi)	Masonry Check Dam	No.	0	1	5.031	4.230	9.261	0.000
TOTAL			**0**	0	168.000	159.010	327.010	20.912
VIII	**PRODUCTION MEASURES**		**37.500**	**10%**	0.000	0.000	0.000	0.000
	For Arable Land			0	30.000	0.000	30.000	0.000
1	Compost Pit	No.	10000	21	2.100	2.000	4.100	0.000
2	Agro Forestry	No.	25	4148	1.037	0.000	1.037	0.000
3	Horticulture Plantation with fencing & Tanka	No.	27700	15	4.155	0.000	4.155	1.247
4	Horticulture Plantation without fencing (Orchard)	No.	10000	15	1.500	0.000	1.500	0.450

5	Vermi Compost	No.	50000	8	2.400	0.000	2.400	0.720
6	Crop Demonstration	No.	1000	500	2.500	0.000	2.500	0.750
7	Homested Kitchen Gerden	No.	1000	100	0.500	0.000	0.500	0.150
8	Medicinal Plants	No.	1000	100	0.500	0.000	0.500	0.150
	For Non-arable Land							
1	V Ditch for PD	Ha.	3100.000	10	0.308	0.308	0.616	0.000
2	Plantation in PD	Ha.	75100.000	10	6.470	6.470	12.940	0.000
3	Fencing of PD (by SW)	Ha.	0.000	0	0.000	0.000	0.000	0.000
4	Fencing of PD (by DCB)	Ha.	0.000	10	2.530	2.530	5.060	0.000
2	**LIVESTOCK MANAGEMENT**			2%	0.000	0.000	0.000	0.000
(i.)	**LIVESTOCK MANAGEMENT**	No.	25000	0	6.000	2.500	8.500	0.000
TOTAL					**30.000**	**13.808**	**43.808**	**3.467**
					0.000	0.000	0.000	0.000
1	**LIVELIHOOD**			**9%**	27.000	0.000	27.000	0.000
i	Revolving fund to SHG's (5 to 20 person per SHG) 60%				16.200	0.000	16.200	0.000
ii	Revolving fund to individual entrepreneurs 10%				2.700	0.000	2.700	0.000
iii	Grant in aid to entrepreneurs SHG/SHG's federation 30%				8.100	0.000	8.100	0.000
TOTAL					**27.000**	**0.000**	**27.000**	**0.000**
IX	**CONSOLIDATION PHASE**			**3%**	**9.000**	**0.000**	**9.000**	**0.000**
	GRAND TOTAL				**300.000**	**172.818**	**472.818**	**24.379**

ACTIVITY WISE TOTAL ABSTRACT OF COST
JODHPUR 51

S. N.	NAME OF ACTIVITY	TOTAL						
		Unit	RATE	QTY.	Amt from project fund	Convergence fund	Total Cost	Beneficiary contribution
I.	ADMINISTRATIVE COST			10%				
1	WDT MANDEYA							
2	W C SEC MANDEYA							
3	OFFICE EXPENSES (JEEP/STATIONARY & OTHER)							
	SUB TOTAL				82.500	0.000	82.500	0.000
II	MONITORING			1%	8.250	0.000	8.250	0.000
III	EVALUATION			1%	8.250	0.000	8.250	0.000
	TOTAL				99.000	0.000	99.000	0.000
	W/S PREPARATORY PHASE							
IV	ENTRY POINT ACTIVITY			4%	33.000	33.000	66.000	0.000
	TOTAL				33.000	0.000	33.000	0.000
V	TRAININGS & CAPACITY BUILDING			5%	0.000	0.000	0.000	0.000
1	USERS GROUP				0.000	0.000	0.000	0.000
	TOTAL				41.250	0.000	41.250	0.000
VI	DETAILED PROJECT REPORT			1%	8.250	0.000	8.250	0.000
	TOTAL				8.250	0.000	8.250	0.000
	TOTAL				82.500	0.000	82.500	0.000

	W/S WORK PHASE							
VII	**NRM**			**56%**				
1	**ARABLE CONSERVATION WORK**				0.000	0.000	0.000	0.000
(i)	Earthen Bund	Ha.	14400	1050	151.200	129.600	280.800	22.464
(ii)	WHS (Tanka)	No.	100000	174	174.000	72.000	246.000	19.680
(iii)	Waste weir	No.	15100	60	9.060	6.040	15.100	1.208
(iv)	Gulley Control Structure Nallah Bunding	No.	20000	35	7.000	2.000	9.000	0.720
(v)	Khadin	No.	455000	4	17.800	9.100	26.900	2.152
(vi)	Khet Talai	No.	100000	21	21.000	28.000	49.000	3.920
2	**NON ARABLE CONSERVATION WORK**							
(i)	V Ditch for PD	Ha.	17050	30	5.115	3.400	8.515	0.409
(ii)	Staggered Contour Trenches for PD	Ha.	0	0	0.000	0.000	0.000	0.000
(iii)	Dug out Pond	No.	100000	15	15.000	20.000	35.000	1.440
(iv)	WHS (Tanka)	No.	100000	17	17.000	18.000	35.000	0.000
(v)	Nallah Bunding with ww	No.	35100	40	14.040	7.020	21.060	0.000
3	**DRAINAGE LINE TREATMENT**							
(i)	LSCD 'A'	No.	25000	21	5.250	1.250	6.500	0.000
(ii)	LSCD 'B'	No.	23000	20	4.600	1.150	5.750	0.000
(iii)	LSCD 'C'	No.	21000	21	4.410	1.050	5.460	0.000
(iv)	LSCD 'D'	No.	19200	20	3.840	0.960	4.800	0.000
(v)	LSCD 'E'	No.	17300	18	3.114	0.865	3.979	0.000
(vi)	Masonry Check Dam	No.	5	2	9.571	8.460	18.031	0.000
TOTAL			0		**462.000**	**308.895**	**770.895**	**51.993**
VIII	**PRODUCTION MEASURES**			**10%**				
	For Arable Land							
1	Compost Pit	No.	10000	52	5.200	4.000	9.200	0.663
2	Agro Forestry	No.	25	11443	2.861	0.000	2.861	0.237
3	Horticulture Plantation with fencing & Tanka	No.	27700	35	9.695	0.000	9.695	1.967
4	Horticulture Plantation without fencing (Orchard)	No.	10000	35	3.500	0.000	3.500	0.710

5	Vermi Compost	No.	30000	21	6.300	0.000	6.300	1.227
6	Crop Demonstration	No.	500	1300	6.500	0.000	6.500	1.270
7	Homested Kitchen Gerden	No.	500	300	1.500	0.000	1.500	0.280
8	Medicinal Plants	No.	500	200	1.000	0.000	1.000	0.215
	For Non-arable Land							
1	V Ditch for PD	Ha.	3080	30	0.924	0.616	1.540	0.000
2	Plantation in PD	Ha.	64700	30	19.410	12.940	32.350	0.000
3	Fencing of PD (by SW)	Ha.	0	10	4.050	0.000	4.050	0.000
4	Fencing of PD (by DCB)	Ha.	0	20	5.060	5.060	10.120	0.000
2	**LIVESTOCK MANAGEMENT**							
(i.)	**LIVESTOCK MANAGEMENT**	No.	0	0	16.500	2.500	19.000	0.000
(iv)	A I		0	0	0.000	0.000	0.000	0.000
TOTAL					**82.500**	**25.116**	**107.616**	**6.569**
					0.000	0.000	0.000	0.000
1	**LIVELIHOOD**			**9%**				
i	Revolving fund to SHG's (5 to 20 person per SHG) 60%				44.550	0.000	44.550	0.000
ii	Revolving fund to individual entrepreneurs 10%				7.425	0.000	7.425	0.000
iii	Grant in aid to entrepreneurs SHG/SHG's federation 30%				22.275	0.000	22.275	0.000
TOTAL					**74.250**	**0.000**	**74.250**	**0.000**
IX	**CONSOLIDATION PHASE**			**3%**	**24.750**	**0.000**	**24.750**	**0.000**
	GRAND TOTAL				**825.000**	**334.011**	**1159.011**	**58.562**

CHAPTER :-5

Annual Action Plan

CHAPTER-V (YEAR WISE BREAK UP)

Name of the Project	IWMP 51		Macro/Micro		Geographical Area	3650	Ha
G.P.	Bawarli		W C	Bawarli	Effective Area	3500	Ha
Block	Balesar		Scheme/Batch	IWMP	Total Arable land		Ha
District.	Jodhpur		Date of Sanction		1. Irrigated	318	Ha
Village Covered	4	NO.	Date of Approval of the work plan		2. Unirrigated	2600	Ha
Project outlay	525	LAC			Total Nonarable land		Ha
Total Area	3500	Hectare	No. of SHG's formed	8	1. Pasture	144	Ha
No. of WC's formed	1		No. of UG's formed	12	2. Govt. / waste /OTHER LAN	438	Ha

YEAR WISE WORK PLAN OF WATERSHED COMMITTEE - Bawarli

S. N.	NAME OF ACTIVITY	TARGET			FIRST YEAR		SECOND YEAR		THIRD YEAR		FOURTH YEAR		FIFTH YEAR		TOTAL	
		QTY.	RATE	AMOUNT	PHY	FIN	PHY	FIN	PHY	FIN	PHY	FIN	PHY	FIN	PHY	FIN
I.	ADMINISTRATIVE COST	10%	52.5													
1	WDT MANDEYA															
2	W C SEC MANDEYA															
3	OFFICE EXPENSES (JEEP/STATIONARY & OTHER)															
	SUB TOTAL			52.500												52.500
II	MONITORING	1%	5.250	5.250												5.250
III	EVALUATION	1%	5.250	5.250												5.250
	TOTAL			63.000		12.600		12.600		12.600		12.600		12.600		63.000
	W/S PREPARATORY PHASE															
IV	ENTRY POINT ACTIVITY	4%	21.000			21.000										
	TOTAL			21.000		21.000		0.000		0.000		0.000		0.000		21.000
V	TRAININGS & CAPACITY BUILDING	5%	26.250													
1	USERS GROUP															
	TOTAL			26.250		2.625		5.250		7.875		5.250		5.250		26.250

S. N.	NAME OF ACTIVITY	TARGET			FIRST YEAR		SECOND YEAR		THIRD YEAR		FOURTH YEAR		FIFTH YEAR		TOTAL	
		QTY.	RATE	AMOUNT	PHY	FIN	PHY	FIN	PHY	FIN	PHY	FIN	PHY	FIN	PHY	FIN
VI	DETAILED PROJECT REPORT	1%	5.250	5.250			1	5.250								5.250
TOTAL			5.250	5.250			1	5.250								5.250
	TOTAL			52.500				10.500								52.500

S. N.	NAME OF ACTIVITY	TARGET			FIRST YEAR		SECOND YEAR		THIRD YEAR		FOURTH YEAR		FIFTH YEAR		TOTAL	
		QTY.	RATE	AMOUNT	PHY	FIN	PHY	FIN	PHY	FIN	PHY	FIN	PHY	FIN	PHY	FIN
	W/S WORK PHASE															
VII	**NRM**	**56%**	**294.00**					**31.500**		**78.750**		**78.750**		**105.000**		**294.000**
1	**ARABLE CONSERVATION WORK**															
(i)	Earthen Bund	650	14400	93.600			9	1.259	100	14.449	200	28.860	341	49.032	650	93.600
(ii)	WHS (Tanka)	124	100000	124.000			25	25.000	34	34.000	30	30.000	35	35.000	124	124.000
(iii)	Waste weir	30	15100	4.530			1	0.151	10	1.510	5	0.755	14	2.114	30	4.530
(iv)	Gulley Control Structure Nallah Bunding	20	20000	4.000			2	0.400	10	2.000	3	0.600	5	1.000	20	4.000
(v)	Khadin	2	455000	9.100			0	0.000	1	4.000	1	4.550	0	0.550	2	9.100
(vi)	Khet Talai	14	100000	14.000			0	0.000	8	8.000	5	5.000	1	1.000	14	14.000
2	**NON ARABLE CONSERVATION WORK**															
(i)	V Ditch for PD	20	17050	3.410				0.000	20	3.410	0	0.000		0.000	20	3.410
(ii)	Staggered Contour Trenches for PD	0	0	0.000					0	0.000	0	0.000		0.000	0	0.000
(iii)	Dug out Pond	8	100000	8.000			2	2.000	2	2.000	2	2.000	2	2.000	8	8.000
(iv)	WHS (Tanka)	10	100000	10.000			2	2.000	2	2.000	2	2.000	4	4.000	10	10.000
(v)	Nallah Bunding with ww	20	35100	7.020			0	0.000	6	2.106	10	3.510	4	1.404	20	7.020
3	**DRAINAGE LINE TREATMENT**															
(i)	LSCD 'A'	15	25000	3.750			0	0.000	5	1.250	1	0.250	9	2.250	15	3.750
(ii)	LSCD 'B'	10	23000	2.300			3	0.690	5	1.150	1	0.230	1	0.230	10	2.300
(iii)	LSCD 'C'	10	21000	2.100			0	0.000	5	1.050	3	0.630	2	0.420	10	2.100
(iv)	LSCD 'D'	10	19200	1.920			0	0.000	5	0.960	1	0.192	4	0.768	10	1.920
(v)	LSCD 'E'	10	17300	1.730			0	0.000	5	0.865	1	0.173	4	0.692	10	1.730
(vi)	Masonry Check Dam	1	4.540	4.540			0	0.000	0	0.000	0	0.000	1	4.540	1	4.540
TOTAL				**294.000**				**31.500**		**78.750**		**78.750**		**105.000**		**294.000**

S. N.	NAME OF ACTIVITY	TARGET			FIRST YEAR		SECOND YEAR		THIRD YEAR		FOURTH YEAR		FIFTH YEAR		TOTAL	
		QTY.	RATE	AMOUNT	PHY	FIN	PHY	FIN	PHY	FIN	PHY	FIN	PHY	FIN	PHY	FIN
VIII	**PRODUCTION MEASURES**	**10%**	**52.500**													
	For Arable Land		52.500													
1	Compost Pit	31	10000	3.100				0.000	3	0.300	4	0.400	37	3.700	44	3.100
2	Agro Forestry	7295	25	1.824			0	0.000	500	0.125	1000	0.250	5795	1.449	7295	1.824
3	Horticulture Plantation with fencing & Tanka	20	27700	5.540			0	0.000	5	1.385	5	1.385	10	2.770	20	5.540
4	Horticulture Plantation without fencing (Orchard)	20	10000	2.000				0.000	2	0.200	8	0.800	20	2.000	30	2.000
5	Vermi Compost	13	30000	3.900			0	0.000	1	0.300	7	2.100	7	2.100	15	3.900
6	Crop Demonstration	800	500	4.000			0	0.000	100	0.500	200	1.000	500	2.500	800	4.000
7	Homested Kitchen Gerden	200	500	1.000			0	0.000	50	0.250	50	0.250	100	0.500	200	1.000
8	Medicinal Plants	100	500	0.500			0	0.000	25	0.125	25	0.125	50	0.250	100	0.500
	For Non-arable Land															
1	V Ditch for PD	20	3080.0	0.616				0.000	20	0.616		0.000		0.000	20	0.616
2	Plantation in PD	20	64700	12.940				0.000	20	12.940		0.000		0.000	20	12.940
3	Fencing of PD (by SW)	10		4.050				0.000	10	4.050		0.000		0.000	10	4.050
4	Fencing of PD (by DCB)	10		2.530				0.000	10	2.530		0.000		0.000	10	2.530
2	**LIVESTOCK MANAGEMENT**	*2%*														
(i.)	**LIVESTOCK MANAGEMENT**			10.500				3.000		3.000		3.000		1.500	0	10.500
TOTAL				**52.500**				**3.000**		**26.321**		**9.310**		**16.769**		**52.500**

S. N.	NAME OF ACTIVITY	TARGET			FIRST YEAR		SECOND YEAR		THIRD YEAR		FOURTH YEAR		FIFTH YEAR		TOTAL	
		QTY.	RATE	AMOUNT	PHY	FIN	PHY	FIN	PHY	FIN	PHY	FIN	PHY	FIN	PHY	FIN
1	**LIVELIHOOD SYATEM**	**9%**		**47.250**												
	Revolving fund to SHG's (5 to 20 person per SHG) 60%	**114**	**0.250**	**28.350**			10	2.500	17	4.250	20	5.000	67	16.600	114	28.350
	Revolving fund to individual entrepreneurs 10%	**19**	**0.250**	**4.725**			1	0.250	2	0.500	3	0.750	13	3.225	19	4.725
	Grant in aid to entrepreneurs SHG/SHG's federation 30%	**8**	**2.000**	**14.175**			1	2.000	1	2.000	1	2.000	5	8.175	8	14.175
TOTAL				**47.250**				**4.750**		**6.750**		**7.750**		**28.000**		**47.250**
IX	**CONSOLIDATION PHASE**	**3%**	**15.750**	**15.750**										**15.750**		**15.750**
	GRAND TOTAL			**525.000**		**36.225**		**62.350**		**132.296**		**113.660**		**183.369**		**525.000**

CHAPTER-V (YEAR WISE BREAK UP)

Name of the Project	IWMP 51				Macro/Micro			Geographical Area		Ha
G.P.	Aagolai				W C	Aagolai		Effective Area	2000	Ha
Block	Balesar				Scheme/Batch	IWMP		Total Arable land		Ha
District.	Jodhpur				Date of Sanction			1. Irrigated	108	Ha
Village Covered	1	NO.			Date of Approval of the work plan			2. Unirrigated	1310	Ha
Project outlay	300	LAC						Total Nonarable land		Ha
Total Area	2000	Hectare			No. of SHG's formed	8		1. Pasture	144	Ha
No. of WC's formed	1				No. of UG's formed	12		2. Govt. / waste /OTH	438	Ha

YEAR WISE WORK PLAN OF WATERSHED COMMITTEE - AAGOLAI

S. N.	NAME OF ACTIVITY	TARGET			FIRST YEAR		SECOND YEAR		THIRD YEAR		FOURTH YEAR		FIFTH YEAR		TOTAL	
		QTY.	RATE	AMOUNT	PHY	FIN	PHY	FIN	PHY	FIN	PHY	FIN	PHY	FIN	PHY	FIN
I.	ADMINISTRATIVE COST	10%	30													
1	WDT MANDEYA															
2	W C SEC MANDEYA															
3	OFFICE EXPENSES (JEEP/STATIONARY & OTHER)															
	SUB TOTAL			30.000												30.000
II	MONITORING	1%	3.000	3.000												3.000
III	EVALUATION	1%	3.000	3.000												3.000
TOTAL				36.000		7.200		7.200		7.200		7.200		7.200		36.000
	W/S PREPARATORY PHASE															
IV	ENTRY POINT ACTIVITY	4%	12.000			12.000										
TOTAL				12.000		12.000		0.000		0.000		0.000		0.000		12.000
V	TRAININGS & CAPACITY BUILDING	5%	15.000													
1	USERS GROUP															
TOTAL				15.000		1.500		3.000		4.500		3.000		3.000		15.000
VI	DETAILED PROJECT REPORT	1%	3.000	3.000			1	3.000								3.000

S. N.	NAME OF ACTIVITY	TARGET			FIRST YEAR		SECOND YEAR		THIRD YEAR		FOURTH YEAR		FIFTH YEAR		TOTAL	
		QTY.	RATE	AMOUNT	PHY	FIN	PHY	FIN	PHY	FIN	PHY	FIN	PHY	FIN	PHY	FIN
TOTAL			**3.000**	**3.000**			**1**	**3.000**								**3.000**
	TOTAL			**30.000**				**6.000**								**30.000**
	W/S WORK PHASE															
VII	**NRM**	**56%**	**168.000**					**18.000**		**45.000**		**45.000**		**60.000**		**168.000**
1	**ARABLE CONSERVATION WORK**															
(i)	Earthen Bund	400	14400	57.600			10	1.440	70	10.080	100	14.400	220	31.680	400	57.600
(ii)	WHS (Tanka)	50	100000	50.000			7	7.000	14	14.000	15	15.000	14	14.000	50	50.000
(iii)	Waste weir	30	15100	4.530			1	0.151	10	1.510	5	0.755	14	2.114	30	4.530
(iv)	Gulley Control Structure Nallah Bunding	15	20000	3.000			2	0.400	10	2.000	3	0.600	0	0.000	15	3.000
(v)	Khadin	2	455000	8.700			0	0.000	1	4.000	1	4.550	0	0.150	2	8.700
(vi)	Khet Talai	7	100000	7.000			2	2.000	2	2.000	1	1.000	2	2.000	7	7.000
2	**NON ARABLE CONSERVATION WORK**															
(i)	V Ditch for PD	10	17050	1.705				0.000	10	1.705	0	0.000		0.000	10	1.705
(ii)	Staggered Contour Trenches for PD	0	0	0.000					0	0.000	0	0.000		0.000	0	0.000
(iii)	Dug out Pond	7	100000	7.000			2	2.000	2	2.000	2	2.000	1	1.000	7	7.000
(iv)	WHS (Tanka)	7	100000	7.000			2	2.000	2	2.000	2	2.000	1	1.000	7	7.000
(v)	Nallah Bunding with ww	20	35100	7.020			0	0.000	6	2.106	10	3.510	4	1.404	20	7.020
3	**DRAINAGE LINE TREATMENT**															
(i)	LSCD 'A'	6	25000	1.500			2	0.500	3	0.750	1	0.250	0	0.000	6	1.500
(ii)	LSCD 'B'	10	23000	2.300			2	0.460	3	0.690	0	0.000	5	1.150	10	2.300
(iii)	LSCD 'C'	11	21000	2.310			2	0.420	3	0.630	1	0.210	5	1.050	11	2.310
(iv)	LSCD 'D'	10	19200	1.920			2	0.384	3	0.576	1	0.192	4	0.768	10	1.920

S. N.	NAME OF ACTIVITY	TARGET			FIRST YEAR		SECOND YEAR		THIRD YEAR		FOURTH YEAR		FIFTH YEAR		TOTAL	
		QTY.	RATE	AMOUNT	PHY	FIN	PHY	FIN	PHY	FIN	PHY	FIN	PHY	FIN	PHY	FIN
(v)	LSCD 'E'	8	17300	1.384			2	0.346	3	0.519	1	0.173	2	0.346	8	1.384
(vi)	Masonry Check Dam	1	5	5.031			1	0.899	0	0.434	0	0.360	0	3.338	1	5.031
TOTAL				**168.000**				**18.000**		**45.000**		**45.000**		**60.000**		**168.000**
VIII	**PRODUCTION MEASURES**	**10%**	**30.000**													
	For Arable Land		30.000													
1	Compost Pit	21	10000	2.100				0.000	2	0.200	6	0.600	17	1.700	25	2.100
2	Agro Forestry	4148	25	1.037			0	0.000	500	0.125	1000	0.250	2971	0.743	4471	1.037
3	Horticulture Plantation with fencing & Tanka	15	27700	4.155			0	0.000	1	0.277	5	1.385	6	1.662	12	4.155
4	Horticulture Plantation without fencing (Orchard)	15	10000	1.500				0.000	2	0.200	5	0.500	9	0.900	16	1.500
5	Vermi Compost	8	30000	2.400			0	0.000	1	0.300	3	0.900	6	1.800	10	2.400
6	Crop Demonstration	500	500	2.500			0	0.000	50	0.250	50	0.250	400	2.000	500	2.500
7	Homested Kitchen Gerden	100	500	0.500			0	0.000	20	0.100	50	0.250	30	0.150	100	0.500
8	Medicinal Plants	100	500	0.500			0	0.000	20	0.100	25	0.125	55	0.275	100	0.500
	For Non-arable Land															0.000
1	V Ditch for PD	10	3080.000	0.308				0.000	10	0.308		0.000		0.000	10	0.308
2	Plantation in PD	10	64700.00	6.470				0.000	10	6.470		0.000		0.000	10	6.470
3	Fencing of PD (by SW)	0		0.000				0.000	0	0.000		0.000		0.000	0	0.000
4	Fencing of PD (by DCB)	10		2.530				0.000	10	2.530		0.000		0.000	10	2.530
2	**LIVESTOCK MANAGEMENT**	2%														
(i.)	**LIVESTOCK MANAGEMENT**			6.000				2.000		2.000		2.000		0.000	0	6.000
TOTAL				**30.000**				**2.000**		**12.860**		**6.310**		**9.230**		**30.000**

S. N.	NAME OF ACTIVITY	TARGET			FIRST YEAR		SECOND YEAR		THIRD YEAR		FOURTH YEAR		FIFTH YEAR		TOTAL	
		QTY.	RATE	AMOUNT	PHY	FIN	PHY	FIN	PHY	FIN	PHY	FIN	PHY	FIN	PHY	FIN
1	**LIVELIHOOD**	**9%**		**27.000**												
	Revolving fund to SHG's (5 to 20 person per SHG) 60%	**66**	**0.250**	**16.200**			8	2.000	12	3.000	15	3.750	31	7.450	66	16.200
	Revolving fund to individual entrepreneurs 10%	**12**	**0.250**	**2.700**			1	0.250	2	0.500	3	0.750	6	1.200	12	2.700
	Grant in aid to entrepreneurs SHG/SHG's federation 30%	**5**	**2.000**	**8.100**			1	2.000	1	2.000	1	2.000	2	2.100	5	8.100
TOTAL				**27.000**				**4.250**		**5.500**		**6.500**		**10.750**		**27.000**
IX	**CONSOLIDATION PHASE**	**3%**	**9.000**	**9.000**										**9.000**		**9.000**
	GRAND TOTAL			**300.000**		**20.700**		**37.450**		**75.060**		**68.010**		**99.180**		**300.000**

CHAPTER-V (YEAR WISE BREAK UP)

	Name of the Project	IWMP 51			Macro/Micro	22/2,3,4+Cluster		Geographical Area	3650	Ha
	G.P.	Bawarli, Aagolai			W C	Bawarli, Aagolai		Effective Area	5500	Ha
	Block	Balesar			Scheme/Batch	IWMP		Total Arable land	0	Ha
	District.	Jodhpur			Date of Sanction			1. Irrigated	426	Ha
	Village Covered	4	NO.		Date of Approval of the work plan			2. Unirrigated	3910	Ha
	Project outlay	825	LAC					Total Nonarable land	0	Ha
	Total Area	5500	Hectare		No. of SHG's formed	16		1. Pasture	288	Ha
	No. of WC's formed	1			No. of UG's formed	24		2. Govt. / waste /OTHER LAND	876	Ha

YEAR WISE WORK PLAN OF WATERSHED JODHPUR 51

S. N.	NAME OF ACTIVITY	TARGET			FIRST YEAR		SECOND YEAR		THIRD YEAR		FOURTH YEAR		FIFTH YEAR		TOTAL	
		QTY.	RATE	AMOUNT	PHY	FIN	PHY	FIN	PHY	FIN	PHY	FIN	PHY	FIN	PHY	FIN
I.	**ADMINISTRATIVE COST**	**10%**	**82.5**													
1	WDT MANDEYA															
2	W C SEC MANDEYA															
3	OFFICE EXPENSES (JEEP/STATIONARY & OTHER)															
	SUB TOTAL			**82.500**												**82.500**
II	**MONITORING**	**1%**	**8.250**	8.250												**8.250**
III	**EVALUATION**	**1%**	**8.250**	8.250												**8.250**
	TOTAL			**99.000**		**19.800**		**19.800**		**19.800**		**19.800**		**19.800**		**99.000**
	W/S PREPARATORY PHASE															
IV	**ENTRY POINT ACTIVITY**	**4%**	**33.000**			**33.000**										
	TOTAL			**33.000**		**33.000**		**0.000**		**0.000**		**0.000**		**0.000**		**33.000**
V	**TRAININGS & CAPACITY BUILDING**	**5%**	**41.250**													
1	**USERS GROUP**															
	TOTAL			**41.250**		**4.125**		**8.250**		**12.375**		**8.250**		**8.250**		**41.250**
VI	**DETAILED PROJECT REPORT**	**1%**	**8.250**	**8.250**			**1**	**8.250**								**8.250**
	TOTAL		**8.250**	**8.250**			**1**	**8.250**								**8.250**
	TOTAL			**82.500**				**16.500**								**82.500**

S. N.	NAME OF ACTIVITY	TARGET			FIRST YEAR		SECOND YEAR		THIRD YEAR		FOURTH YEAR		FIFTH YEAR		TOTAL	
		QTY.	RATE	AMOUNT	PHY	FIN	PHY	FIN	PHY	FIN	PHY	FIN	PHY	FIN	PHY	FIN
	W/S WORK PHASE															
VII	**NRM**	**56%**	**462.000**					**49.500**		**123.750**		**123.750**		**165.000**		**462.000**
1	**ARABLE CONSERVATION WORK**															
(i)	Earthen Bund	1050	14400	151.200			19	2.699	170	24.529	300	43.260	561	80.712	1050	151.200
(ii)	WHS (Tanka)	174	100000	174.000			32	32.000	48	48.000	45	45.000	49	49.000	174	174.000
(iii)	Waste weir	60	15100	9.060			2	0.302	20	3.020	10	1.510	28	4.228	60	9.060
(iv)	Gulley Control Structure Nallah Bunding	35	20000	7.000			4	0.800	20	4.000	6	1.200	5	1.000	35	7.000
(v)	Khadin	4	455000	17.800			0	0.000	2	8.000	2	9.100	0	0.700	4	17.800
(vi)	Khet Talai	21	100000	21.000			2	2.000	10	10.000	6	6.000	3	3.000	21	21.000
2	**NON ARABLE CONSERVATION WORK**	0					0	0.000	0	0.000	0	0.000	0	0.000	0	0.000
(i)	V Ditch for PD	30	17050	5.115			0	0.000	30	5.115	0	0.000	0	0.000	30	5.115
(ii)	Staggered Contour Trenches for PD	0	0	0.000			0	0.000	0	0.000	0	0.000	0	0.000	0	0.000
(iii)	Dug out Pond	15	100000	15.000			4	4.000	4	4.000	4	4.000	3	3.000	15	15.000
(iv)	WHS (Tanka)	17	100000	17.000			4	4.000	4	4.000	4	4.000	5	5.000	17	17.000
(v)	Nallah Bunding with ww	40	35100	14.040			0	0.000	12	4.212	20	7.020	8	2.808	40	14.040
3	**DRAINAGE LINE TREATMENT**	0					0	0.000	0	0.000	0	0.000	0	0.000	0	0.000
(i)	LSCD 'A'	21	25000	5.250			2	0.500	8	2.000	2	0.500	9	2.250	21	5.250
(ii)	LSCD 'B'	20	23000	4.600			5	1.150	8	1.840	1	0.230	6	1.380	20	4.600
(iii)	LSCD 'C'	21	21000	4.410			2	0.420	8	1.680	4	0.840	7	1.470	21	4.410
(iv)	LSCD 'D'	20	19200	3.840			2	0.384	8	1.536	2	0.384	8	1.536	20	3.840
(v)	LSCD 'E'	18	17300	3.114			2	0.346	8	1.384	2	0.346	6	1.038	18	3.114
(vi)	Masonry Check Dam	2	5	9.571			1	0.899	0	0.434	0	0.360	1	7.878	2	9.571
	TOTAL			**462.000**				**49.500**		**123.750**		**123.750**		**165.000**		**462.000**
VIII	**PRODUCTION MEASURES**	**10%**	**82.500**													
	For Arable Land															
1	Compost Pit	52	10000	5.200			0	0.000	5	0.500	10	1.000	54	5.400	69	5.200
2	Agro Forestry	11443	25	2.861			0	0.000	1000	0.250	2000	0.500	8766	2.192	11766	2.861
3	Horticulture Plantation with fencing & Tanka	35	27700	9.695			0	0.000	6	1.662	10	2.770	16	4.432	32	9.695
4	Horticulture Plantation without fencing (Orchard)	35	10000	3.500			0	0.000	4	0.400	13	1.300	29	2.900	46	3.500
5	Vermi Compost	21	50000	6.300			0	0.000	2	0.600	10	3.000	13	3.900	25	6.300
6	Crop Demonstration	1300	500	6.500			0	0.000	150	0.750	250	1.250	900	4.500	1300	6.500
7	Homested Kitchen Gerden	300	500	1.500			0	0.000	70	0.350	100	0.500	130	0.650	300	1.500
8	Medicinal Plants	200	500	1.000			0	0.000	45	0.225	50	0.250	105	0.525	200	1.000

S. N.	NAME OF ACTIVITY	TARGET			FIRST YEAR		SECOND YEAR		THIRD YEAR		FOURTH YEAR		FIFTH YEAR		TOTAL	
		QTY.	RATE	AMOUNT	PHY	FIN	PHY	FIN	PHY	FIN	PHY	FIN	PHY	FIN	PHY	FIN
	For Non-arable Land						0	0.000	0	0.000	0	0.000	0	0.000	0	0.000
1	V Ditch for PD	30	3080.000	0.924			0	0.000	30	0.924	0	0.000	0	0.000	30	0.924
2	Plantation in PD	30	64700.000	19.410			0	0.000	30	19.410	0	0.000	0	0.000	30	19.410
3	Fencing of PD (by SW)	10		4.050			0	0.000	10	4.050	0	0.000	0	0.000	10	4.050
4	Fencing of PD (by DCB)	20		5.060			0	0.000	20	5.060	0	0.000	0	0.000	20	5.060
2	**LIVESTOCK MANAGEMENT**	2%	16.500				0	0.000	0	0.000	0	0.000	0	0.000	0	0.000
(i.)	**LIVESTOCK MANAGEMENT**	0	25000	16.500			0	5.000	0	5.000	0	5.000	0	1.500	0	16.500
TOTAL				**82.500**				**5.000**		**39.181**		**15.620**		**25.999**		**82.500**
1	**LIVELIHOOD**	**9%**	**74.250**													
i	Revolving fund to SHG's (5 to 20 person per SHG) 60%	180	**0.250**	44.550			18	4.500	29	7.250	35	8.750	98	24.050	180	44.550
ii	Revolving fund to individual entrepreneurs 10%	31	**0.250**	7.425			2	0.500	4	1.000	6	1.500	19	4.425	31	7.425
iii	Grant in aid to entrepreneurs SHG/SHG's federation 30%	13	**2.000**	22.275			2	4.000	2	4.000	2	4.000	7	10.275	13	22.275
TOTAL				**74.250**				**9.000**		**12.250**		**14.250**		**38.750**		**74.250**
IX	**CONSOLIDATION PHASE**	**3%**	**24.750**	**24.750**										**24.750**		**24.750**
	GRAND TOTAL			**825.000**		**56.925**		**99.800**		**207.356**		**181.670**		**282.549**		**825.000**

74.250

CHAPTER-V (YEAR WISE BREAK UP) (Through Convergence)

Name of the Project	IWMP 51				Macro/Micro			Geographical Area	3650	Ha
G.P.	Bawarli				W C	Bawarli		Effective Area	3500	Ha
Block	Balesar				Scheme/Batch	IWMP		Total Arable land		Ha
District.	Jodhpur				Date of Sanction			1. Irrigated	318	Ha
Village Covered	4	NO.			Date of Approval of the work plan			2. Unirrigated	2600	Ha
Project outlay	525	LAC						Total Nonarable land		Ha
Total Area	3500	Hectare			No. of SHG's formed	8		1. Pasture	144	Ha
No. of WC's formed	1				No. of UG's formed	12		2. Govt. / waste /OTHER LANE	438	Ha

YEAR WISE WORK PLAN OF WATERSHED COMMITTEE - BAWARLI (Through Convergence)

S. N.	NAME OF ACTIVITY	TARGET			FIRST YEAR		SECOND YEAR		THIRD YEAR		FOURTH YEAR		FIFTH YEAR		TOTAL	
		QTY.	RATE	AMOUNT	PHY	FIN	PHY	FIN	PHY	FIN	PHY	FIN	PHY	FIN	PHY	FIN
I.	ADMINISTRATIVE COST	10%	0													
1	WDT MANDEYA															
2	W C SEC MANDEYA															
3	OFFICE EXPENSES (JEEP/STATIONARY & OTHER)															
	SUB TOTAL			0.000												0.000
II	MONITORING	1%	0.000	0.000												0.000
III	EVALUATION	1%	0.000	0.000												0.000
	TOTAL			0.000				0.000		0.000		0.000		0.000		0.000
	W/S PREPARATORY PHASE															
IV	ENTRY POINT ACTIVITY	4%	0.000			0.000										
	TOTAL			0.000		0.000		0.000		0.000		0.000		0.000		0.000
V	TRAININGS & CAPACITY BUILDING	5%	0.000													
1	USERS GROUP															
	TOTAL			0.000												0.000
VI	DETAILED PROJECT REPORT	1%	0.000	0.000			1	0.000								0.000
	TOTAL		0.000	0.000			1	0.000								0.000
	TOTAL			0.000				0.000								0.000

S. N.	NAME OF ACTIVITY	TARGET			FIRST YEAR		SECOND YEAR		THIRD YEAR		FOURTH YEAR		FIFTH YEAR		TOTAL	
		QTY.	RATE	AMOUNT	PHY	FIN	PHY	FIN	PHY	FIN	PHY	FIN	PHY	FIN	PHY	FIN
	W/S WORK PHASE															
VII	**NRM**							**31.500**		**78.750**		**78.750**		**105.000**		**294.000**
1	**ARABLE CONSERVATION WORK**															
(i)	Earthen Bund	400	14400	57.600			0	0.000	10	1.440	50	7.200	340	48.960	400	57.600
(ii)	WHS (Tanka)	40	90000	36.000			0	0.000	10	9.000	17	15.300	13	11.700	40	36.000
(iii)	Waste weir	20	15100	3.020			0	0.000	6	0.906	5	0.755	9	1.359	20	3.020
(iv)	Gulley Control Structure Nallah Bunding	5	20000	1.000			0	0.000	2	0.400	0	0.000	3	0.600	5	1.000
(v)	Khadin	1	455000	4.550			0	0.000	0	0.000	1	4.550	0	0.000	1	4.550
(vi)	Khet Talai	14	100000	14.000			0	0.000	8	8.000	5	5.000	1	1.000	14	14.000
2	**NON ARABLE CONSERVATION WORK**															
(i)	V Ditch for PD	10	17000	1.700				0.000	10	1.700	0	0.000		0.000	10	1.700
(ii)	Staggered Contour Trenches for PD	0	0	0.000					0	0.000	0	0.000		0.000	0	0.000
(iii)	Dug out Pond	10	100000	10.000			0	0.000	2	2.000	2	2.000	6	6.000	10	10.000
(iv)	WHS (Tanka)	10	90000	9.000			0	0.000	2	1.800	2	1.800	6	5.400	10	9.000
(v)	Nallah Bunding with ww	10	35100	3.510			0	0.000	3	1.053	3	1.053	4	1.404	10	3.510
3	**DRAINAGE LINE TREATMENT**															
(i)	LSCD 'A'	5	25000	1.250			0	0.000	0	0.000	0	0.000	5	1.250	5	1.250
(ii)	LSCD 'B'	5	23000	1.150			0	0.000	0	0.000	0	0.000	5	1.150	5	1.150
(iii)	LSCD 'C'	5	21000	1.050			0	0.000	0	0.000	0	0.000	5	1.050	5	1.050
(iv)	LSCD 'D'	5	19200	0.960			0	0.000	0	0.000	0	0.000	5	0.960	5	0.960
(v)	LSCD 'E'	5	17300	0.865			0	0.000	0	0.000	0	0.000	5	0.865	5	0.865
(vi)	Masonry Check Dam	1	0	4.230			0	0.000	0	0.000	0	0.000	0	4.230	0	4.230
	TOTAL			**149.885**				**0.000**		**26.299**		**37.658**		**85.928**		**149.885**
VIII	**PRODUCTION MEASURES**															
	For Arable Land															
1	Compost Pit	20	10000	2.000				0.000	0	0.000	0	0.000	20	2.000	20	2.000
2	Agro Forestry	0	25	0.000			0	0.000	0	0.000	0	0.000	0	0.000	0	0.000
3	Horticulture Plantation with fencing & Tanka	0	27700	0.000			0	0.000	0	0.000	0	0.000	0	0.000	0	0.000
4	Horticulture Plantation without fencing (Orchard)	0	10000	0.000				0.000	0	0.000	0	0.000	0	0.000	0	0.000
5	Vermi Compost	0	50000	0.000			0	0.000	0	0.000	0	0.000	0	0.000	0	0.000
6	Crop Demonstration	0	500	0.000			0	0.000	0	0.000	0	0.000	0	0.000	0	0.000
7	Homested Kitchen Gerden	0	500	0.000			0	0.000	0	0.000	0	0.000	0	0.000	0	0.000
8	Medicinal Plants	0	500	0.000			0	0.000	0	0.000	0	0.000	0	0.000	0	0.000

S. N.	NAME OF ACTIVITY	TARGET			FIRST YEAR		SECOND YEAR		THIRD YEAR		FOURTH YEAR		FIFTH YEAR		TOTAL	
		QTY.	RATE	AMOUNT	PHY	FIN	PHY	FIN	PHY	FIN	PHY	FIN	PHY	FIN	PHY	FIN
	For Non-arable Land							0.000		0.000		0.000		0.000	0	0.000
1	V Ditch for PD	10	3080.000	0.308				0.000	10	0.308		0.000		0.000	10	0.308
2	Plantation in PD	10	64700.000	6.470				0.000	10	6.470		0.000		0.000	10	6.470
3	Fencing of PD (by SW)	0		0.000				0.000	0	0.000		0.000		0.000	0	0.000
4	Fencing of PD (by DCB)	10		2.530				0.000	10	2.530		0.000		0.000	10	2.530
2	**LIVESTOCK MANAGEMENT**															
(i.)	**LIVESTOCK MANAGEMENT**			0.000			0	0.000		0.000		0.000		0.000	0	0.000
TOTAL				**11.308**				**0.000**		**9.308**		**0.000**		**2.000**		**11.308**
1	**LIVELIHOOD**															
i	Revolving fund to SHG's (5 to 20 person per SHG) 60%															
ii	Revolving fund to individual entrepreneurs 10%															
iii	Grant in aid to entrepreneurs SHG/SHG's federation 30%			**0.000**			0	0.000		0.000		0.000		0.000	0	0.000
TOTAL				**0.000**				**0.000**		**0.000**		**0.000**		**0.000**		**0.000**
IX	**CONSOLIDATION PHASE**			**0.000**										**0.000**		**0.000**
	GRAND TOTAL			**161.193**				**0.000**		**35.607**		**37.658**		**87.928**		**161.193**

CHAPTER-VII (YEAR WISE BREAK UP) (Through Convergence)

Name of the Project	IWMP 51				Macro/Micro			Geographical Area		Ha
G.P.	Aagolai				W C	Aagolai		Effective Area	2000	Ha
Block	Balesar				Scheme/Batch	IWMP		Total Arable land		Ha
District.	Jodhpur				Date of Sanction			1. Irrigated	108	Ha
Village Covered	1	NO.			Date of Approval of the work plan			2. Unirrigated	1310	Ha
Project outlay	300	LAC						Total Nonarable land		Ha
Total Area	2000	Hectare			No. of SHG's formed	8		1. Pasture	144	Ha
No. of WC's formed	1				No. of UG's formed	12		2. Govt. / waste /OTHER LAND	438	Ha

YEAR WISE WORK PLAN OF WATERSHED COMMITTEE - AAGOLAI (Through Convergence)

S. N.	NAME OF ACTIVITY	TARGET			FIRST YEAR		SECOND YEAR		THIRD YEAR		FOURTH YEAR		FIFTH YEAR		TOTAL	
		QTY.	RATE	AMOUNT	PHY	FIN	PHY	FIN	PHY	FIN	PHY	FIN	PHY	FIN	PHY	FIN
I.	ADMINISTRATIVE COST	10%	0													
1	WDT MANDEYA															
2	W C SEC MANDEYA															
3	OFFICE EXPENSES (JEEP/STATIONARY & OTHER)															
	SUB TOTAL			0.000												0.000
II	MONITORING	1%	0.000	0.000												0.000
III	EVALUATION	1%	0.000	0.000												0.000
	TOTAL			0.000				0.000		0.000		0.000		0.000		0.000
	W/S PREPARATORY PHASE															
IV	ENTRY POINT ACTIVITY	4%	0.000			0.000										
	TOTAL			0.000		0.000		0.000		0.000		0.000		0.000		0.000
V	TRAININGS & CAPACITY BUILDING	5%	0.000													
1	USERS GROUP															
	TOTAL			0.000												0.000
VI	DETAILED PROJECT REPORT	1%	0.000	0.000			1	0.000								0.000
	TOTAL		0.000	0.000			1	0.000								0.000
	TOTAL			0.000				0.000								0.000

S. N.	NAME OF ACTIVITY	TARGET			FIRST YEAR		SECOND YEAR		THIRD YEAR		FOURTH YEAR		FIFTH YEAR		TOTAL	
		QTY.	RATE	AMOUNT	PHY	FIN	PHY	FIN	PHY	FIN	PHY	FIN	PHY	FIN	PHY	FIN
	W/S WORK PHASE															
VII	**NRM**															
1	**ARABLE CONSERVATION WORK**															
(i)	Earthen Bund	500	14400	72.000			0	0.000	10	1.440	50	7.200	440	63.360	500	72.000
(ii)	WHS (Tanka)	40	90000	36.000			0	0.000	10	9.000	17	15.300	13	11.700	40	36.000
(iii)	Waste weir	20	15100	3.020			0	0.000	6	0.906	5	0.755	9	1.359	20	3.020
(iv)	Gulley Control Structure Nallah Bunding	5	20000	1.000			0	0.000	2	0.400	0	0.000	3	0.600	5	1.000
(v)	Khadin	1	455000	4.550			0	0.000	0	0.000	1	4.550	0	0.000	1	4.550
(vi)	Khet Talai	14	100000	14.000			0	0.000	8	8.000	5	5.000	1	1.000	14	14.000
2	**NON ARABLE CONSERVATION WORK**															
(i)	V Ditch for PD	10	17000	1.700				0.000	10	1.700	0	0.000		0.000	10	1.700
(ii)	Staggered Contour Trenches for PD	0	0	0.000					0	0.000	0	0.000		0.000	0	0.000
(iii)	Dug out Pond	10	100000	10.000			0	0.000	2	2.000	2	2.000	6	6.000	10	10.000
(iv)	WHS (Tanka)	10	90000	9.000			0	0.000	2	1.800	2	1.800	6	5.400	10	9.000
(v)	Nallah Bunding with ww	10	35100	3.510			0	0.000	3	1.053	3	1.053	4	1.404	10	3.510
3	**DRAINAGE LINE TREATMENT**															
(i)	LSCD 'A'	0	25000	0.000			0	0.000	0	0.000	0	0.000	0	0.000	0	0.000
(ii)	LSCD 'B'	0	23000	0.000			0	0.000	0	0.000	0	0.000	0	0.000	0	0.000
(iii)	LSCD 'C'	0	21000	0.000			0	0.000	0	0.000	0	0.000	0	0.000	0	0.000
(iv)	LSCD 'D'	0	19200	0.000			0	0.000	0	0.000	0	0.000	0	0.000	0	0.000
(v)	LSCD 'E'	0	17300	0.000			0	0.000	0	0.000	0	0.000	0	0.000	0	0.000
(vi)	Masonry Check Dam	1	0	4.230			0	0.000	0	0.000	0	0.000	0	4.230	0	4.230
	TOTAL			**159.010**				**0.000**		**26.299**		**37.658**		**95.053**		**159.010**
VIII	**PRODUCTION MEASURES**													45.000		
	For Arable Land															
1	Compost Pit	20	10000	2.000				0.000	0	0.000	0	0.000	20	2.000	20	2.000
2	Agro Forestry	0	25	0.000			0	0.000	0	0.000	0	0.000	0	0.000	0	0.000
3	Horticulture Plantation with fencing & Tanka	0	27700	0.000			0	0.000	0	0.000	0	0.000	0	0.000	0	0.000
4	Horticulture Plantation without fencing (Orchard)	0	10000	0.000				0.000	0	0.000	0	0.000	0	0.000	0	0.000
5	Vermi Compost	0	50000	0.000			0	0.000	0	0.000	0	0.000	0	0.000	0	0.000
6	Crop Demonstration	0	500	0.000			0	0.000	0	0.000	0	0.000	0	0.000	0	0.000
7	Homested Kitchen Gerden	0	500	0.000			0	0.000	0	0.000	0	0.000	0	0.000	0	0.000
8	Medicinal Plants	0	500	0.000			0	0.000	0	0.000	0	0.000	0	0.000	0	0.000

S. N.	NAME OF ACTIVITY	TARGET			FIRST YEAR		SECOND YEAR		THIRD YEAR		FOURTH YEAR		FIFTH YEAR		TOTAL	
		QTY.	RATE	AMOUNT	PHY	FIN	PHY	FIN	PHY	FIN	PHY	FIN	PHY	FIN	PHY	FIN
	For Non-arable Land							0.000		0.000		0.000		0.000	0	0.000
1	V Ditch for PD	10	3080.000	0.308				0.000	10	0.308		0.000		0.000	10	0.308
2	Plantation in PD	10	64700.000	6.470				0.000	10	6.470		0.000		0.000	10	6.470
3	Fencing of PD (by SW)	0		0.000				0.000	0	0.000		0.000		0.000	0	0.000
4	Fencing of PD (by DCB)	10		2.530				0.000	10	2.530		0.000		0.000	10	2.530
2	**LIVESTOCK MANAGEMENT**															
(i.)	**LIVESTOCK MANAGEMENT**	10	25000	2.500			0	0.000	2	0.500	3	0.750	5	1.250	10	2.500
TOTAL				**13.808**				**0.000**		**9.808**		**0.750**		**3.250**		**13.808**
1	**LIVELIHOOD**															
i	Revolving fund to SHG's (5 to 20 person per SHG) 60%															
ii	Revolving fund to individual entrepreneurs 10%															
iii	Grant in aid to entrepreneurs SHG/SHG's federation 30%			**0.000**			0	0.000		0.000		0.000		0.000	0	0.000
TOTAL				**0.000**				**0.000**		**0.000**		**0.000**		**0.000**		**0.000**
IX	**CONSOLIDATION PHASE**			**0.000**										**0.000**		**0.000**
	GRAND TOTAL			**172.818**				**0.000**		**36.107**		**38.408**		**98.303**		**172.818**

CHAPTER-VII (YEAR WISE BREAK UP) (Through Convergence)

Name of the Project	IWMP 51		Macro/Micro	22/2,3,4+Cluster		Geographical Area	3650	Ha
G.P.	Bawarli, Aagolai		W C	Bawarli, Aagolai		Effective Area	5500	Ha
Block	Balesar		Scheme/Batch	IWMP		Total Arable land	0	Ha
District.	Jodhpur		Date of Sanction			1. Irrigated	426	Ha
Village Covered	4	NO.	Date of Approval of the work plan			2. Unirrigated	3910	Ha
Project outlay	525	LAC				Total Nonarable land	0	Ha
Total Area	3500	Hectare	No. of SHG's formed	16		1. Pasture	288	Ha
No. of WC's formed	1		No. of UG's formed	24		2. Govt. / waste /OTHER LAND	876	Ha

YEAR WISE WORK PLAN OF WATERSHED JODHPUR 51 (Through Convergence)

S. N.	NAME OF ACTIVITY	TARGET			FIRST YEAR		SECOND YEAR		THIRD YEAR		FOURTH YEAR		FIFTH YEAR		TOTAL	
		QTY.	RATE	AMOUNT	PHY	FIN	PHY	FIN	PHY	FIN	PHY	FIN	PHY	FIN	PHY	FIN
I.	ADMINISTRATIVE COST	10%	0													
1	WDT MANDEYA															
2	W C SEC MANDEYA															
3	OFFICE EXPENSES (JEEP/STATIONARY & OTHER)															
	SUB TOTAL			0.000												0.000
II	MONITORING	1%	0.000	0.000												0.000
III	EVALUATION	1%	0.000	0.000												0.000
TOTAL				0.000				0.000		0.000		0.000		0.000		0.000
	W/S PREPARATORY PHASE															
IV	ENTRY POINT ACTIVITY	4%	0.000			0.000										
TOTAL				0.000		0.000		0.000		0.000		0.000		0.000		0.000
V	TRAININGS & CAPACITY BUILDING	5%	0.000													
1	USERS GROUP															
TOTAL				0.000												0.000
VI	DETAILED PROJECT REPORT	1%	0.000	0.000			1	0.000								0.000
TOTAL			0.000	0.000			1	0.000								0.000
	TOTAL			0.000				0.000								0.000

S. N.	NAME OF ACTIVITY	TARGET			FIRST YEAR		SECOND YEAR		THIRD YEAR		FOURTH YEAR		FIFTH YEAR		TOTAL	
		QTY.	RATE	AMOUNT	PHY	FIN	PHY	FIN	PHY	FIN	PHY	FIN	PHY	FIN	PHY	FIN
	W/S WORK PHASE															
VII	**NRM**															
1	**ARABLE CONSERVATION WORK**															
(i)	Earthen Bund	900	14400	129.600			0	0.000	20	2.880	100	14.400	780	112.320	900	129.600
(ii)	WHS (Tanka)	80	90000	72.000			0	0.000	20	18.000	34	30.600	26	23.400	80	72.000
(iii)	Waste weir	40	15100	6.040			0	0.000	12	1.812	10	1.510	18	2.718	40	6.040
(iv)	Gulley Control Structure Nallah Bunding	10	20000	2.000			0	0.000	4	0.800	0	0.000	6	1.200	10	2.000
(v)	Khadin	2	455000	9.100			0	0.000	0	0.000	2	9.100	0	0.000	2	9.100
(vi)	Khet Talai	28	100000	28.000			0	0.000	16	16.000	10	10.000	2	2.000	28	28.000
2	**NON ARABLE CONSERVATION WORK**															
(i)	V Ditch for PD	20	17000	3.400			0	0.000	20	3.400	0	0.000	0	0.000	20	3.400
(ii)	Staggered Contour Trenches for PD	0	0	0.000			0	0.000	0	0.000	0	0.000	0	0.000	0	0.000
(iii)	Dug out Pond	20	100000	20.000			0	0.000	4	4.000	4	4.000	12	12.000	20	20.000
(iv)	WHS (Tanka)	20	90000	18.000			0	0.000	4	3.600	4	3.600	12	10.800	20	18.000
(v)	Nallah Bunding with ww	20	35100	7.020			0	0.000	6	2.106	6	2.106	8	2.808	20	7.020
3	**DRAINAGE LINE TREATMENT**						0	0.000	0	0.000	0	0.000	0	0.000	0	0.000
(i)	LSCD 'A'	5	25000	1.250			0	0.000	0	0.000	0	0.000	5	1.250	5	1.250
(ii)	LSCD 'B'	5	23000	1.150			0	0.000	0	0.000	0	0.000	5	1.150	5	1.150
(iii)	LSCD 'C'	5	21000	1.050			0	0.000	0	0.000	0	0.000	5	1.050	5	1.050
(iv)	LSCD 'D'	5	19200	0.960			0	0.000	0	0.000	0	0.000	5	0.960	5	0.960
(v)	LSCD 'E'	5	17300	0.865			0	0.000	0	0.000	0	0.000	5	0.865	5	0.865
(vi)	Masonry Check Dam	2	0	8.460			0	0.000	0	0.000	0	0.000	0	8.460	0	8.460
	TOTAL			**308.895**			**0**	**0.000**	**0**	**52.598**	**0**	**75.316**	**0**	**180.981**	**0**	**308.895**
VIII	**PRODUCTION MEASURES**						0	0.000	0	0.000	0	0.000	0	45.000	0	0.000
	For Arable Land						0	0.000	0	0.000	0	0.000	0	0.000	0	0.000
1	Compost Pit	40	10000	4.000			0	0.000	0	0.000	0	0.000	40	4.000	40	4.000
2	Agro Forestry	0	25	0.000			0	0.000	0	0.000	0	0.000	0	0.000	0	0.000
3	Horticulture Plantation with fencing & Tanka	0	27700	0.000			0	0.000	0	0.000	0	0.000	0	0.000	0	0.000
4	Horticulture Plantation without fencing (Orchard)	0	10000	0.000			0	0.000	0	0.000	0	0.000	0	0.000	0	0.000
5	Vermi Compost	0	30000	0.000			0	0.000	0	0.000	0	0.000	0	0.000	0	0.000
6	Crop Demonstration	0	500	0.000			0	0.000	0	0.000	0	0.000	0	0.000	0	0.000
7	Homested Kitchen Gerden	0	500	0.000			0	0.000	0	0.000	0	0.000	0	0.000	0	0.000
8	Medicinal Plants	0	500	0.000			0	0.000	0	0.000	0	0.000	0	0.000	0	0.000

S. N.	NAME OF ACTIVITY	TARGET			FIRST YEAR		SECOND YEAR		THIRD YEAR		FOURTH YEAR		FIFTH YEAR		TOTAL	
		QTY.	RATE	AMOUNT	PHY	FIN	PHY	FIN	PHY	FIN	PHY	FIN	PHY	FIN	PHY	FIN
	For Non-arable Land						0	0.000	0	0.000	0	0.000	0	0.000	0	0.000
1	V Ditch for PD	20	3100.000	0.616			0	0.000	20	0.616	0	0.000	0	0.000	20	0.616
2	Plantation in PD	20	75100.000	12.940			0	0.000	20	12.940	0	0.000	0	0.000	20	12.940
3	Fencing of PD (by SW)	0		0.000			0	0.000	0	0.000	0	0.000	0	0.000	0	0.000
4	Fencing of PD (by DCB)	20		5.060			0	0.000	20	5.060	0	0.000	0	0.000	20	5.060
2	**LIVESTOCK MANAGEMENT**			0.000			0	0.000	0	0.000	0	0.000	0	0.000	0	0.000
(i.)	**LIVESTOCK MANAGEMENT**	10	25000	2.500			0	0.000	2	0.500	3	0.750	5	1.250	10	2.500
(ii)	Vaccination						0	0.000	0	0.000	0	0.000	0	0.000	0	0.000
(iii)	Purchase of Bull / Pada						0	0.000	0	0.000	0	0.000	0	0.000	0	0.000
(iv)	A I						0	0.000	0	0.000	0	0.000	0	0.000	0	0.000
	TOTAL			**25.116**				**0.000**		**19.116**		**0.750**		**5.250**		**25.116**
1	**LIVELIHOOD**															
i	Revolving fund to SHG's (5 to 20 person per SHG) 60%															
ii	Revolving fund to individual entrepreneurs 10%															
iii	Grant in aid to entrepreneurs SHG/SHG's federation 30%			**0.000**			0	0.000		0.000		0.000		0.000	0	0.000
	TOTAL			**0.000**				**0.000**		**0.000**		**0.000**		**0.000**		**0.000**
IX	**CONSOLIDATION PHASE**			**0.000**										**0.000**		**0.000**
	GRAND TOTAL			**334.011**				**0.000**		**71.714**		**76.066**		**186.231**		**334.011**

CHAPTER :-6

1. EXPECTED OUTCOMES

Project Outcome :

By the end of the project, in the project area, it is expected that the water level in the tube-wells increases considerably and sufficient water for man and productivity should be increased after the completion of the project. Few parameters which are expected to be increased after the completion of completion as the project are as follow :

S. No.	Parameters	Before Execution of Project	Expected Increase after the Completion of the Project
1	**Availability of water**		
a.	Average Water Table in the Wells	650 ft	300-350 ft.
b.	Available Water in the	Wells/Tube Wells	Wells/Tube Wells/Ponds
2.	**Agriculture/ Horticulture**		
a.	Total Sowing Area	2210 ha	
b.	(Net) Sown Area (ha)		
c.	Production of Major Crops: • Wheat • Bajara • Moong	 26-29 quintal/ ha. 15-18 quintal/ ha. 3.5-4 quintal/ ha.	 35-40 quintal/ ha. 20-25 quintal/ ha. 5-6 quintal/ ha.
d.	Production of Rajka	600-700 quintal	800-1000 quintal

e.	Average Production of Horticulture Plants	50-100 quintal	350-500 quintal (Different types of fruits plants Mango, Guava, Ber, Papaya, etc)
3.	**Live Stock**		
a.	Milk Production	5-7 kg/ animal	7-12 kg/ animal
b.	Animal Diseases	By regular camps, the various diseases will be reduced	
4.	**Livelihood**		
a.	Average income of family by introduction of other micro enterprises	Rs.2500-3000 per month	Rs.4000-5000 per month
b.	SHG Groups	10	60 The various homogenous groups will be constituted and the training of different activities will be given, especially for land less families.

During the project period (5-7 years), the various activities will be done. The natural resource management activities will be done in between the project phase. The proposed NRM works in arable, non arable land and drainage line treatment will increase the water table, production of agriculture/horticulture crops. Similarly the livestock will increase the milk production. the year wise various outcomes of the project are as follows :

S. No.	Activity	Unit	Before Project	During the Project Period						
				I Yr	II Yr	III Yr	IV Yr	V Yr	VI Yr	VII Yr
1.	**Engineering Structure**									
a.	Contour Bund, CVH, Restoration of Old structures, Gully Control Structure	Hect.	Nil		100	300	400	300	300	
b.	Earth Bunds, WHS, Anicut	No.	Nil		30	45	40	40	20	
2.	**Increase of Agriculture Production due to construction of above Engineering Structure**									
a.	Rabi Season (Main Crops)									
	• Wheat • Mustard	Qtl / ha	29 12	29 12	29 12	35 14	37 15	39 16	40 18	40-50 18-20
b.	Kharif Season (Main Crops)									
	• Bajra • Guar	Qtl/ ha	12.5 5.50	12.5 5.5	12.5 5.5	14 6.0	15 8	18 9	20 10	20-25 10-12

3.	**Increase of Area of Agriculture Production of Engineering Structure**									
a.	Rain fed Area	Ha.	1350			3%	5%	7%	8%	10%
b.	Irrigated Area	Ha.	385			3%	5%	7%	8%	10%
c.	Vegetable Area	Ha.	20			3%	5%	7%	8%	10%
d.	Pasture Development	Ha.	Nil			10	20			
4.	**Water Table Depth**									
	• May	m.	190			160	150	140	130	120
	• September	m.	170			155	145	135	125	115
	• December	m.	180			158	148	138	128	118
5.	**Availability of Drinking Water**		**Dec.**	**Dec.**	**Dec.**	**Dec.**	**Jan.**	**Jan.**	**March**	**May**
6.	**Survival of Plants**									
	• Horticulture Plants	Nos.	20	30	500	2500	5000	8000	10000	10000
	• Forestry Plants	Nos.	100	50	450	1000	2500	4000	6000	8000
7.	**Milk Production per animal**									
	• Cow	Kg.	4.5	4.5	4.5	5.5	5.5	6	7	7
	• Buffalo	Kg.	7.5	7.5	7.5	8	8	8	9	9

	• Goat	Kg.	2.00	2.0	2.0	2.0	2.5	3	3	3
8.	**Control on Migration**	**No.**	**Nil**			**10%**	**30%**	**40%**	**70%**	**80%**

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

Project outcomes

Watershed - Jodhpur **60**

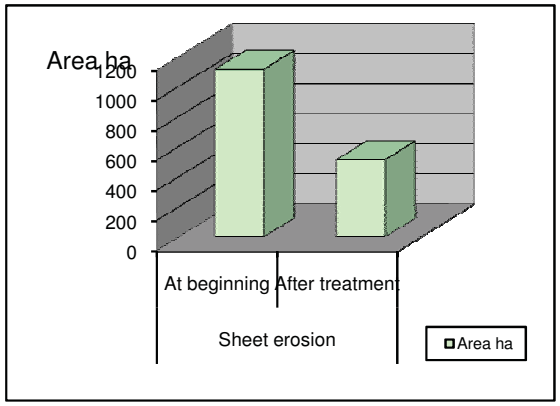
(a) Natural resource management

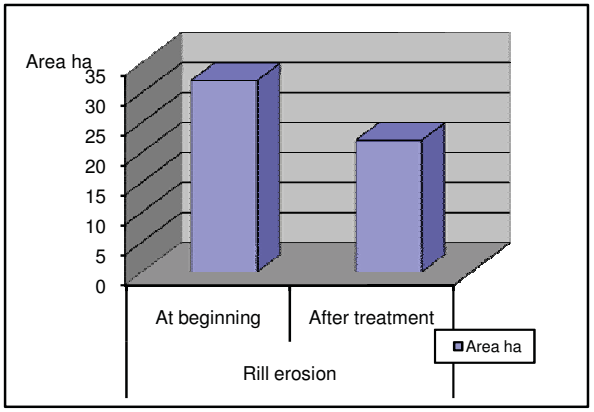
1 Erosion

	Sheet erosion	
	At beginning	After treatment
Area ha	1114	512

	Rill erosion	
	At beginning	After treatment
Area ha	32	22

	Gully erosion	
	At beginning	After treatment
Area ha	17	6



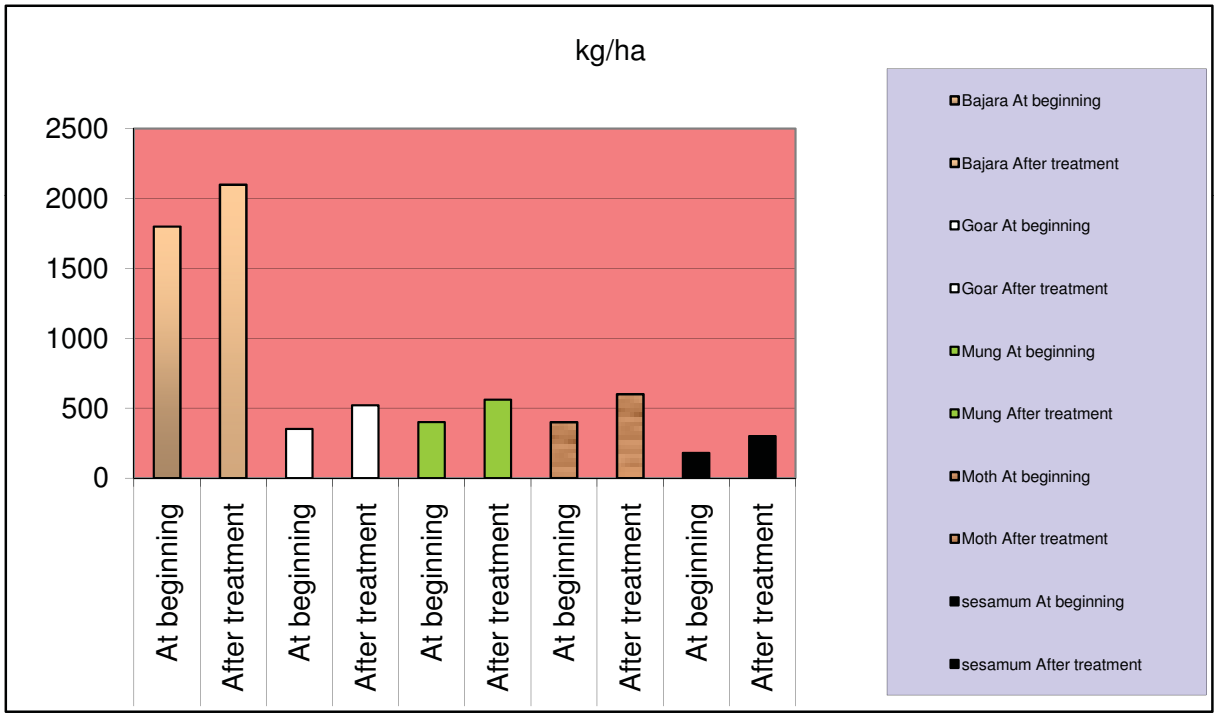


Project outcomes

(b) Productivity

Watershed - Jodhpur **60**

	Bajara		Goar		Mung		Moth		sesamum	
	At beginning	After treatment	At beginnin	After treatment	At beginnin	After treatment	At beginning	After treatment	At beginning	After treatment
kg/ha	1800	2100	350	520	400	560	400	600	180	300

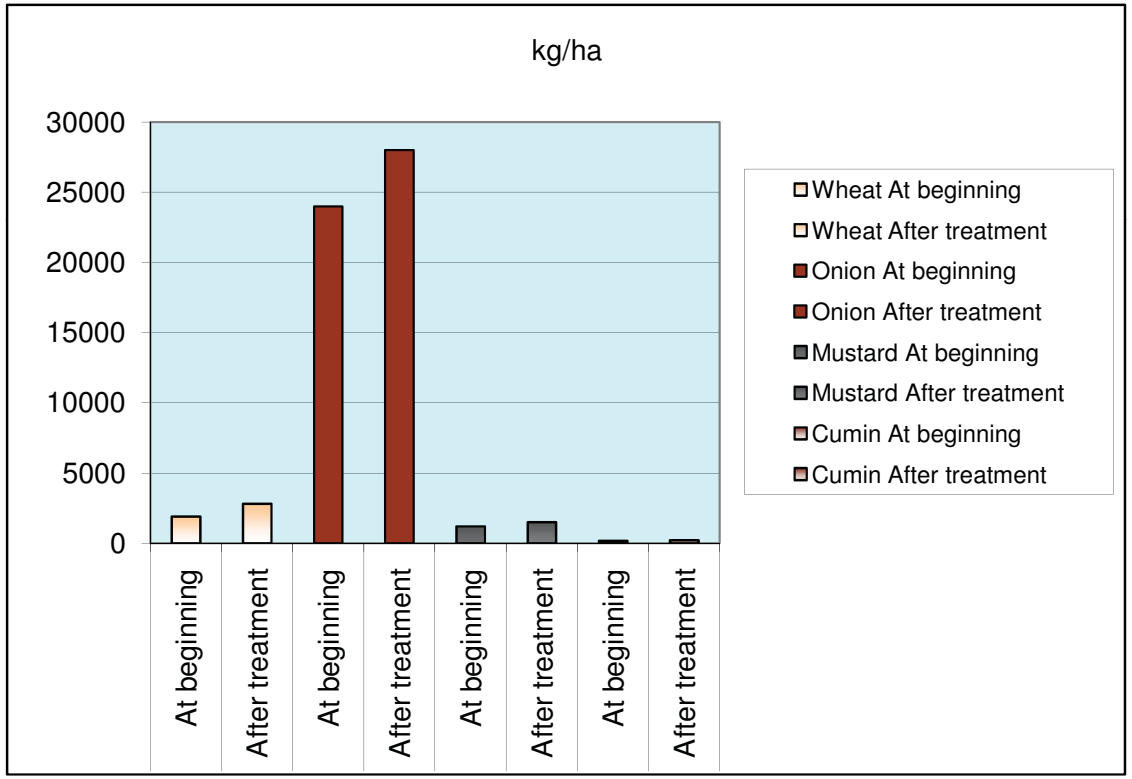


Project outcomes

(b) Productivity

Watershed - Jodhpur **60**

	Wheat		Onion		Mustard		Cumin	
	At beginning	After treatment	At beginning	After treatment	At beginning	After treatment	At beginning	After treatment
kg/ha	1900	2800	24000	28000	1200	1500	165	205



Project outcomes

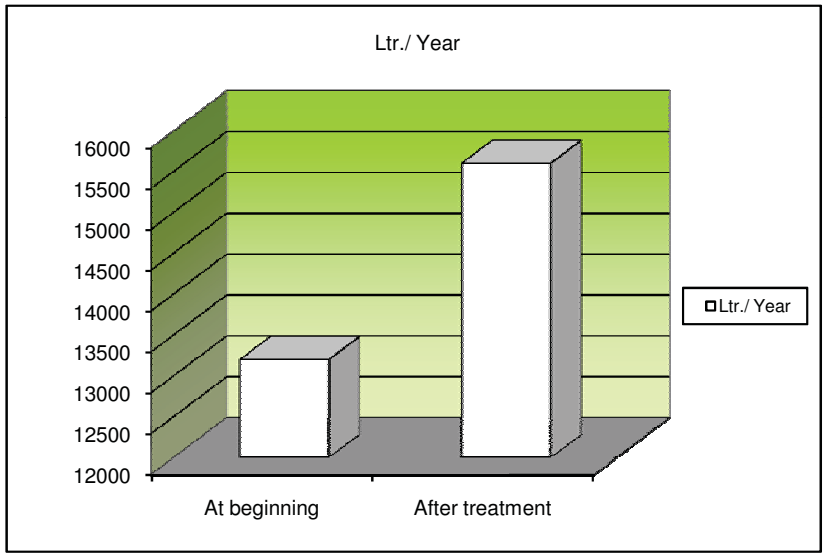
(C) Milk Production

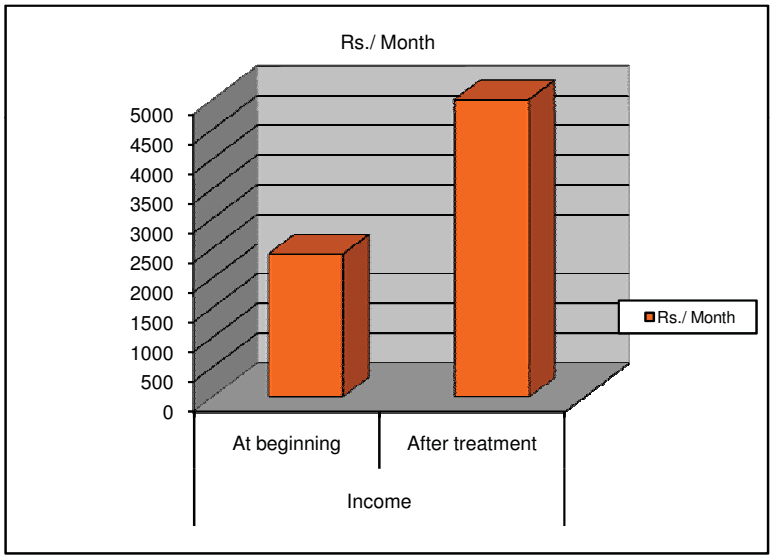
(C) Average Income Per Family

Watershed - Jodhpur **60**

	Milk	
	At beginning	After treatment
Ltr./ Year	13200	15600

	Income	
	At beginning	After treatment
Rs./ Month	2400	5000





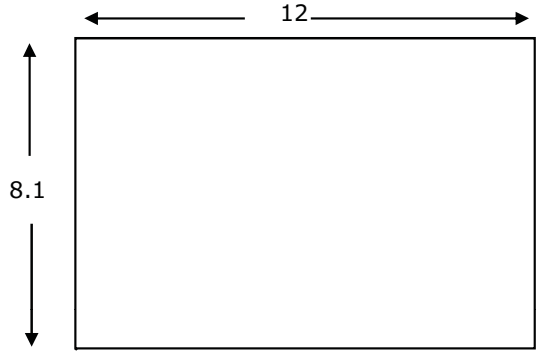
CHAPTER :-7

TECHNICAL DESIGNS AND ESTIMATES

Estimate of Compost Pit

Outer Length	12	mtr
Inner Length	12	mtr
Outer Width	8.1	mtr
Inner Width	8.1	mtr
Depth	1	mtr

Upper Area 97.2
Lower Area 97.2

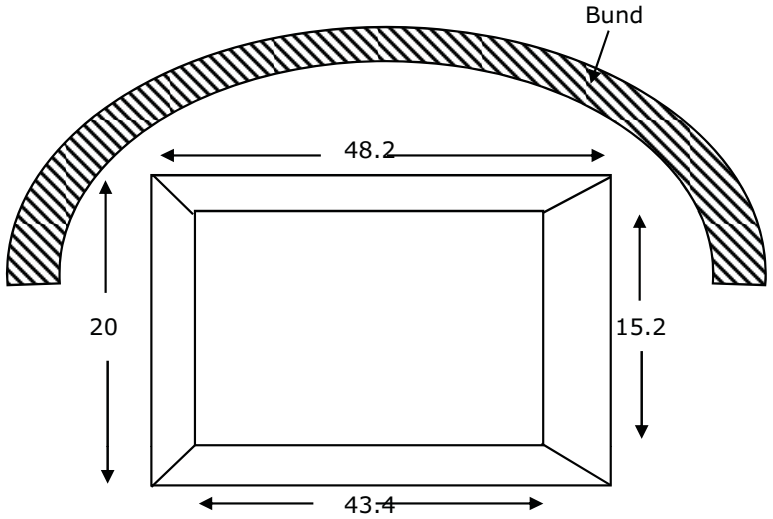


S. no.	Name of work	Item no.	No	Upper Area	Lower Area	Depth	Qty	Unit	Rate	Amount
1	Dag belling for Pond		2	40.2	1	1	80.40	m	0.88	70.75
2	Excavation of earth in dry or moist and disposal of excavated material within initial lead of 50 m and lift 1.5 m									
2.1	In hard soil	2(b)	1	97.2	97.2	1	97.20	Cu.m.	100.00	9720.00
										9790.75
							Add 3% contingency			293.7
								Total		10084.5
								Say		**10000.0**

Estimate of Dug out Pond

Outer Length	48.2	mtr
Inner Length	43.4	mtr
Outer Width	20	mtr
Inner Width	15.2	mtr
Depth	1.2	mtr

Upper Area 964
Lower Area 659.68



S. no.	Name of work	Item no.	No	Upper Area	Lower Area	Depth	Qty	Unit	Rate	Amount
1	Dag belling for Pond		2	126.8	1	1	253.60	m	0.88	223.17
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	119(b)	1	964	659.68	1.2	974.21	Cu.m.	92.00	89627.14
3	Stone Pitching 15-23 cm thick including supply of stones	124	1	50	1	0.2	10.00	Cu.m.	721.00	7210.00
										97060.30
								Add 3% contingency		2911.8
								Total		99972.1
								Say		**100000.0**

VEGETATIVE EARTHEN BUND IN ARABLE LAND

Abstract of Cost

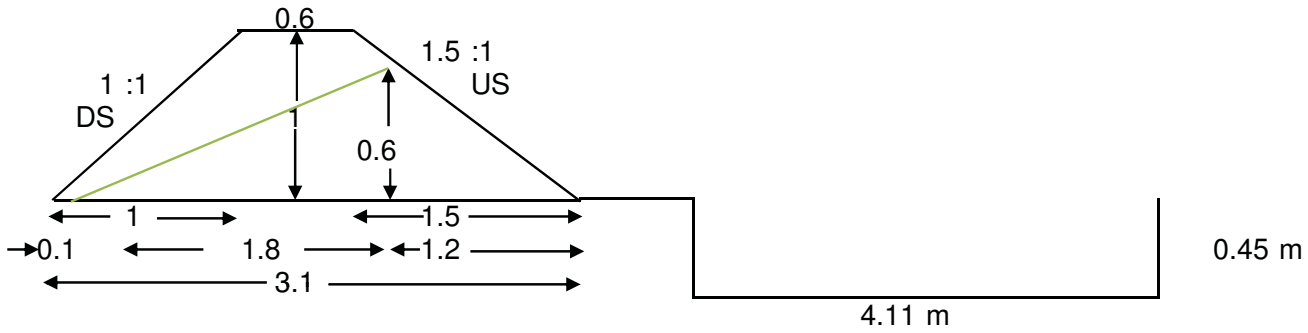
Total Area 1 ha
No. of Waste Weir 1

Name of work	Conservation Measure	Production Measure	Total Cost
Earthen Bund	14400	0	14400
Waste Weir	15100	0	15100.00
	29500	0	**29500.00**
Say			0.30 Lakh

Conservation Measure			29500.00
Production Measure			0.00

CROSS-SECTION OF VEGETATIVE BUND IN ARABLE LAND

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



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

CS = 1.85 Sq.m.

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

DESIGN OF VEGETATIVE BUND IN ARABLE LAND

V.I = 0.305 (XS+Y)

0.305(0.8 x 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

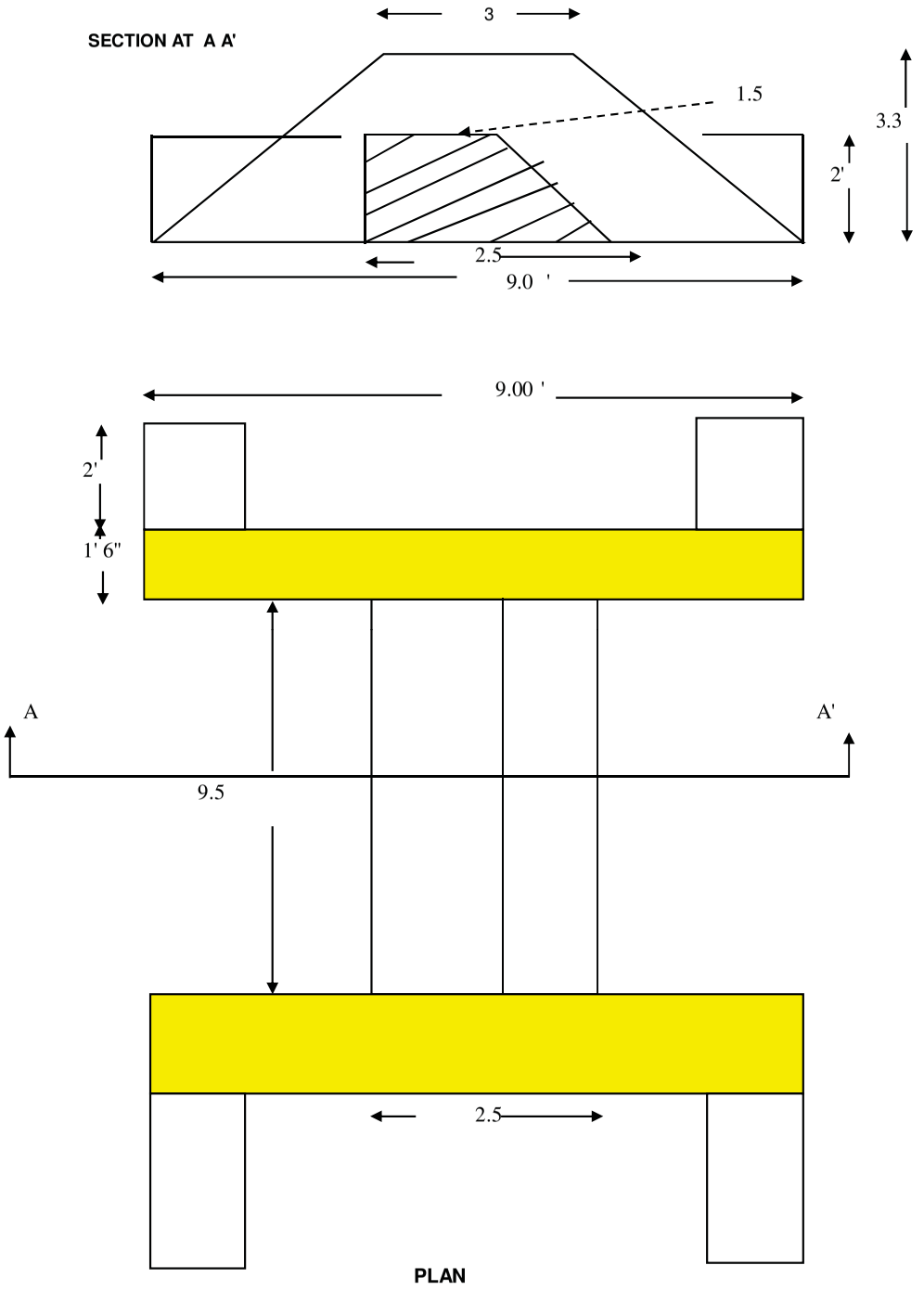
Total Height of Bund	=	0.6	+ 0.4	1.00	m
Top width of Bund	=			0.6	m
Bottom width of Bund	=			3.1	m

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

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

X Section= 1.85 Sq.m.

Drawing of Waste Weir



Construction of Waste Weir

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 dry or moist & disposal of excavated material within initial lead of 30 m and lift of 1.5 m including dressing etc. complete. (2 B)	2	9.5	2	2	76						
		4	2	2	2	32						
		1	8.75	2.5	2	43.75						
						0						
						0						
						151.75	4.29453	cum.	100.00	100.00	429.453	429.453
2	Cement concrete well mixed in cement mortar (1 : 5 : 10) laid in position complete including curing.Aggregate size upto 50 mm, HB (11 B)	2	9.5	2	0.5	19						
		4	2	2	0.5	8						
		1	8.75	2.5	0.5	10.938						
						0						
						0						
						37.938	1.07363	cum.	358.10	1704.00	384.467	1829.47
3	Random rubble stone masonary in cement sand mortar (1 : 6)For foundation	2	9.5	1.5	1.5	42.75						
		4	2	1.5	1.5	18						
		1	9.25	2.5	1.5	34.688						
						0						
						95.438	2.70088	cum.	525.30	2019.00	1418.77	5453.08
4	Random rubble stone masonary in cement sand mortar (1 : 6) For superstructure	2	6	1.25	3.25	48.75						
		4	2	1.25	2	20						
		1	9.5	2	1	19						
	9 3											
						87.75	2.48333	cum.	698.30	2195.00	1734.11	5450.9
5	Dry Stone kharanja (15 to 23 cm) Item 100(A)	1	9.5	3	1	28.5						
						0						
						28.5	2.64765	Sq.m	134.10	351.00	355.05	929.325

6	Cement plaster including smooth finishing in cement mortar (1:6) 20 mm thick.	2	13	1.25	1	32.5						
		4	2	1.25	1	10						
		1	9.5	1.5	1	14.25						
		1	9.5	1	1	9.5						
						66.25	6.15463	sqm.	50.50	97.00	310.809	596.999
7	Ruled pointing in cement mortar (1:3)	2	6	3.25	1	39						
		4	2	2	1	16	1.4864	sqm.				
		1	9.5	1.25	1	11.875						
						66.875	6.21269	sqm.	51.10	62.00	317.468	385.187
											4950.13	15074.4

	Quantity	Rate	Amount
Skilled labour	6.30	400	2521
Unskilled labour	15.29	135	2064
Water			366
			4950

Cement 2

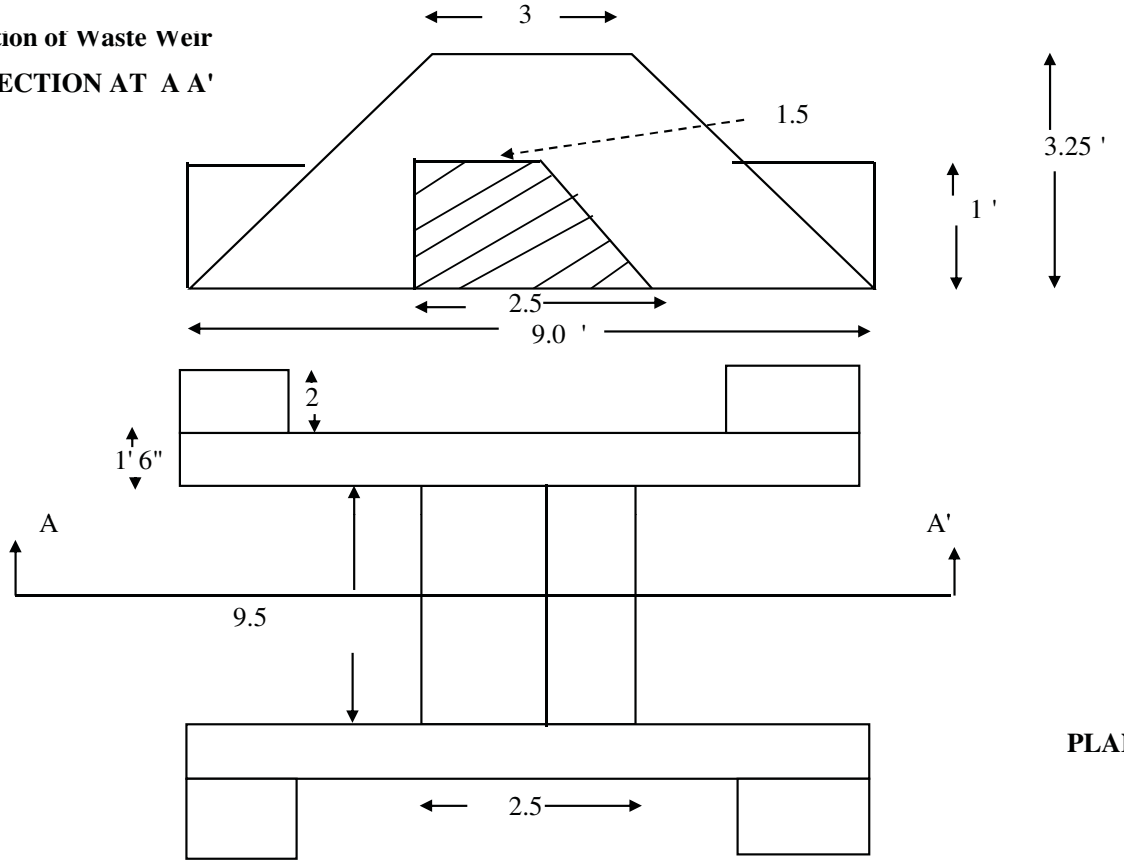
Cement 2

Amount		
Labour	A	4950.13
Material	B	10124.3
Total	C	15074.4
Add contingency		26
Total (C+D)		15100.4
	Say	**15100**

S. No	Material	Unit	Quantity	Rate	Amount		
1	Sand	Cu.m.	2.260137	475	1073.56		
2	Stone Agg of 40 mm nominal size	Cu.m.	1.0	465	449.315		
3	Stone	Cu.m.	5.7	850	4847.23		
4	Cement	Kg	591.33	270	3193.19	11.827	Bag
					9709.46		
	Other (Water)				414.827		
			Total		10124.3		

Construction of Waste Weir

CROSS SECTION AT A A'



PLAN

ESTIMATE OF VEGETATIVE BUND IN ARABLE LAND

Estimate of One ha.

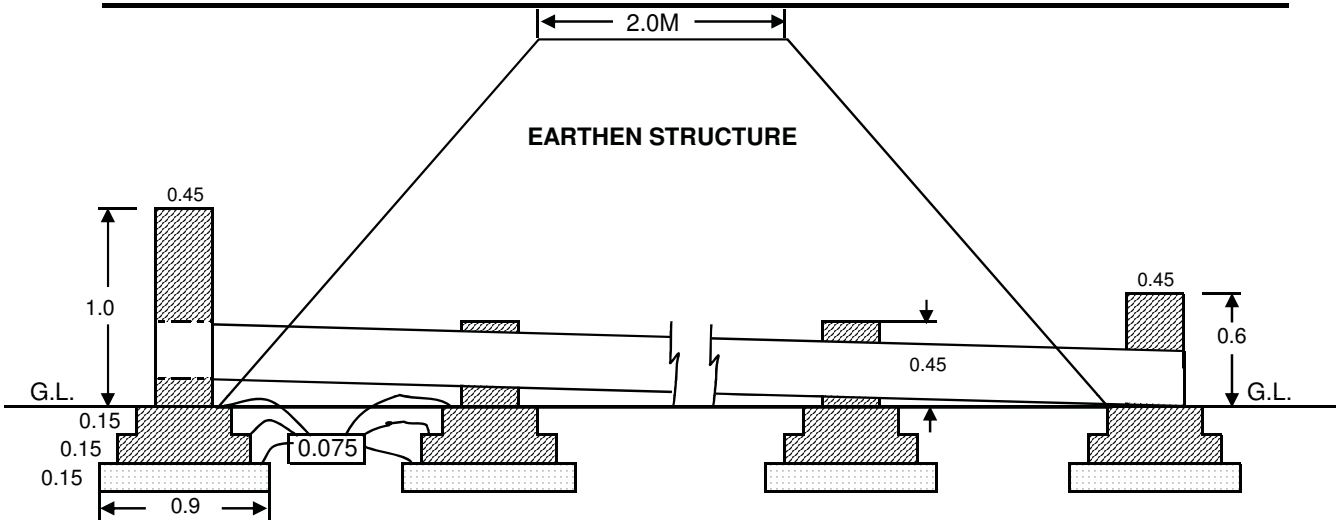
Length per ha. = 80 mtr

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	119 B	1	80	1.85	1	148.00	Cum	92	13616.0
2	Sowing of seeds on the constructed bund in three rows	114	3	80			240	meter	0.6	144
3	Supply of Stylo/Dhaman seed @ 4 gm / m in three rows	CAZRI Rate	3	80			0.96	Kg	210	201.6
										13961.6
								Add 3% contingency		418.8
								Total		14380.4
								Say		**14400.0**

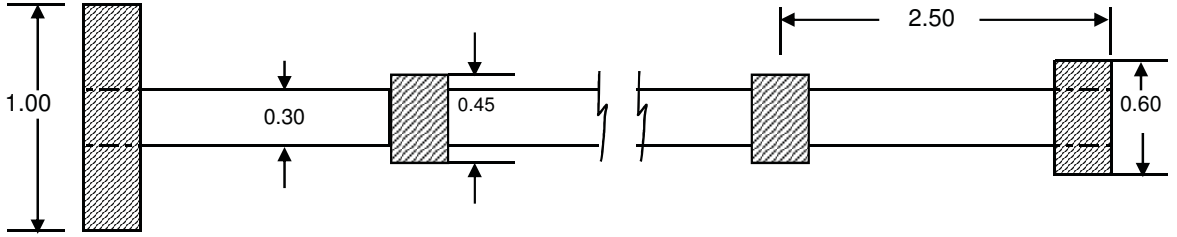
Conservation Measure	14400.0
Production Measure	0

Name of Watershed :- Jodhpur-51Panchayat Samiti :-Balesar

DRAWING OF PIPE OUTLET AT THE LOWEST POINT OF KHADIN



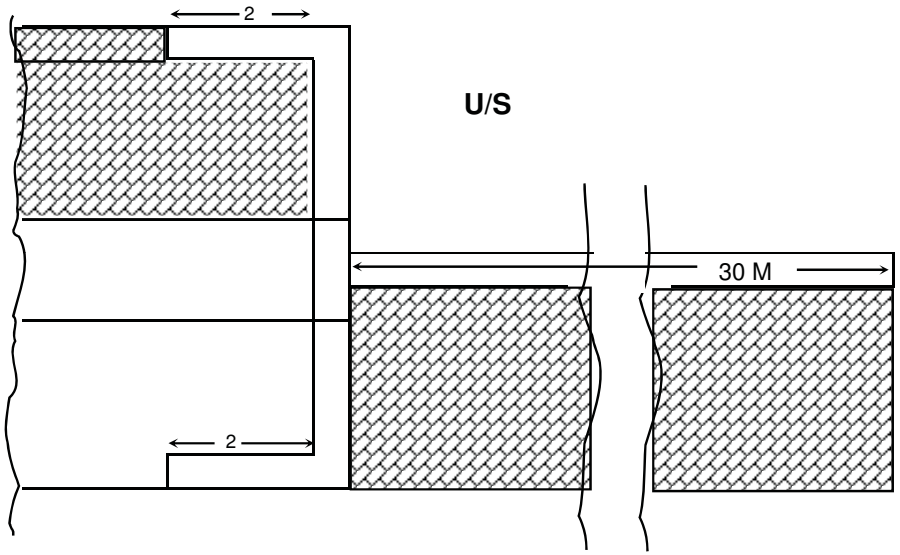
ELEVATION



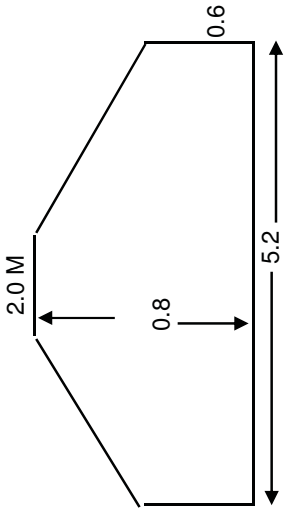
PLAN

Name of Watershed :- Jodhpur-51Panchayat Samiti :-Balesar

DRAWING OF SIDE WASTE-WEIR FOR LOW COSTING KHADINS



PLAN



SIDE VIEW

TECHNICAL REPORT

Name of Work :- **Khadin - I**

INTRODUCTION :

In arid and semi arid region rainfall is erratic, scanty and insuffcient for crops. In this region frequent famine conditions prevalls which causses mass migration of humen and cattle population in search of food, fodder and water for servival.

The problem can be solved upto certain extent by constructing different structures for harvesting the runoff water which will increase the production. Construction of different structure will reduce the siol erosion and conserve the moisture in the soil. The rabi crop can be taken by conserving the moisture in the soil. KHADIN is one of the water harvesting structure which will reduce the soil erosion , provide labour employment in the area and increases the production by conserving the moisture in the soil profile.

OBJECT :

To conserve the moisture in the soil profile KHADIN's are constructed as a bund across the slop on flater lands so that runoff is spread over a larger cultivable area, this will improve soil fertility, check soil erosion. While selecting the site preference is given to the fields owned by the weaker sections of the society.

The adventage of constructing such structure is:-

1. When rainfall is inadequate kharif can be taken
2. When rainfall is sufficient both kharif and rabi crop can be raised.

3. If the rainfall is in the latter end of the monsoon the water can be used for rabi crops.

GENERAL FEATURES :

The KHADIN area is having gentle slop of 0.2% average with slop direction towards South–East to North – West. The cimate of the area is hot and dry. The maximum temperature recorded in summer is 43℃ to 47℃ and in winter 20℃ to 40℃. In summer hot dusty winds blows in the area with high velocity. The annual rainfall is about 300mm which is low and erratic. The ground water in the area is very deep having depth 100m to 150m.

The catchment area is 78 ha.which can be clasified 78 ha. average – catchment. The area do not have any problem of salinity / alknity.

SOIL DESCREPTION :

The soils of this area are deep to very deep coarse to medium textured and are moderately to well drained. This KHADIN area soil type is loamy - sand. After water impounding in the KHADIN area soils are likely to be converted to sandy -loam type.

JUSTIFICATION :

The KHADIN work has been sanctioned in Jodhpur-51. An amount of Rs 4.55lacs as per enclosed abstract estimate is required for this work. The estimates of KHADIN work are prepared on the basis of Gramin Kariya Nirdeshika 2012. The proposed submergence area of the KHADIN is 10 Hact. The maximum height of the KHADIN bund as per design plan is 1.35 m.with storage capacity of 1.18 X 10^4 Cum. The mandays to be generated are 6500 no.

CROPING PATTERN :

The crop can be taken in the submerged area kharif / rabi season depending on monsoon which is going to benefit the cultivators.The major crops growing in the area are Bajra, Moong, Moth and Til etc. in kharif season. The present cropping pattern is followed by cultivators as they have to depend upon rains. But the cropping pattern will be changed after harvesting the runoff water in

the KHADIN.

D E S I G N O F K H A D I N

Name of Watershed :- Jodhpur-51Panchayat Samiti :-Balesar

KHADIN

1 Total catchment area 78 Hect.

2 Submergence area 10.00 Hect.

3 Average Rainfall 12”

4 Rainfall intensity 5 cm / hr

5 Side slope U/s 2.5 : 1 D/s 1.5 : 1

6 Seepage line slope 5 :1

7 Expected runoff from the catchment area Q from strang table at 12” rainfall where catchment is = 1.296 mcft / Sqm

Q = (1.296 X 10000 X0.039 X 78) / 2.589

= 15330 Cum

Lowest level of the filed boundry = 8.30

8 Capacity of the khadin upto F.T.L. it is calculated by following formula

A) $V0 = H/3 (A0+A1+\sqrt{A0 \times A1})$ Where V1 = Capicity of the area covered by the lowest level of the boundry & First contour

= $0.30 / 3 (0.00 + 2.40 + \sqrt{0.00 \times 2.40})$

= 0.24×10^4

H= Vertical hight (Difference between two contour) = 0.30

A0= Area of lower leevel of the boundry = 0.00 Hact

A1= Area of 1st contour = 2.40 Hact

B) $V1 = H/3 (A1+A2+\sqrt{A1 \times A2})$ Where V1 = Capicity of the area covered by the First contour level & Second contour level

= $0.25 / 3 (2.40 + 5.30 + \sqrt{2.40 \times 5.30})$

= 0.94×10^4

H= Vertical hight (Difference between two contour) = 0.25

A1= Area of the First contour = 2.40 Hact

A2= Area of the Second contour = 5.30 Hact

C) $V2 = H/3\ (A2+A3+\sqrt{A2 \times A3})$ Where V2 = Capicity of the area covered by the Second contour

$= 0.00 / 3\ (\ 5.30 + 10.00 + \sqrt{5.30 \times 10.00}\ )$ level & Third contour level

$= 0.00 \times 10^{4}$ H = Vertical hight (Difference between two contour) = 0.00

A2= Area of the Second contour = 5.30 Hact

A3= Area of the Third contour = 10.0 Hact

Therefore V = V0+V1+V2

$V = (0.24 + 0.94 + 0.00) \times 10^{4}$

$V = 1.18 \times 10^{4}$

Crossection of the Khadin bund at maximum depth of submergence

Depth of the submergence = 0.55 m Depth of flow over the crest = 0.30 m

Free board = 1.5 X Hw in meter Where $Hw = 0.014\ (df)^{1/2}$

FB = 1.5 X Hw = 1.5X 0.300 $df = \dfrac{\text{Depth of submergence}}{\%\text{ of slop of basin in meter}}$

FB = 0.450

But proposed is 0.50 m $df = (\ 0.55 / 0.12\ ) \times 100$

$= 458.33$ m

Total height of Khadin bund = 1.35 m $Hw = 0.014\ (\ 458.33\ )^{1/2}$

Hw = 0.300

Top width of bund = h /5 +1.5 or 1.35 / 5 +1.5 = 1.77 But proposed is 2.00 m

Side slop U/S 2.5 :1 D/S 1.5 :1 Base width = (1.35 X5) + 2.00 = 7.40 m

Seepage line check –

Seepage line Width = Maximum impounding depth (up to F.T.L.)X (Seepage line slope + up stream side slop)

$= 0.55 \times (\ 5.00 + 3.0\ ) = 4.40$

Base width > Seepage line width i.e. 7.40 > 4.40

Hence design is safe

Length of pipe

The pipe (RCC) is placed at lowest level of the bund , length of pipe is required = 10.00 m

W A S T E W E I R

For the design of the crest lenth of the weste weir following formula is used

Q = 0.0276 C.I.A

Q = Peak rate of discharge

C = Runoff cofficient of the catchment area = 0.30

I = More intensity of rain fall during 10 years recuring interval

= 5 cm / hour

A= Catchment area = 78 Hact.

Therefor Q = 0.0276 X C.I.A.

= 0.0276 X 0.30 X 5) 78

= 3.23

Hence $L = Q / (1.71 \times h^{3/2})$

Q = Peak rate of discharge in Cum /mt. /sec

h = Depth of flow over the crest in mt.

L = Lenth of crest in meter

= 3.23 / (1.71 X (0.30)3/2)

= 3.23 / 0.28

= 11.52

But Proposed is 30.00mt

S U M M A R Y 0 F KHADIN

1	Name of Village	Bawerli
2	Panchayat Samiti	Balesar
3	District	Jodhpur
4	Name of work	Khadin
5	No of beneficiries	6
6	Submerged area (Hect.)	10.00 Hect.
7	Total capicity of W.H.S.	11789 Cum
8	Soil texture	Sandy – Loam
9	Imperevious layer at depth	10 m
10	Average rainfall (mm)	12”
11	Maximum rainfall (mm)	5 cm/hr
12	Flood lift	0.30 m
13	Cost of W.H.S.	455000.00
14	Labour component	386750.00
15	Material component	68250.00
16	Per hect. Cost of W.H.S.	45500.00
17	Employment Man days	6446

ABSTRACT OF COST (KHADIN)

Name of Watershed :- Jodhpur-51Panchayat Samiti :-Balesar

KHADIN

S. No.	ITEM	Qty	Rate	Unit	Amount
1	Dag belling	1820.00	0.81	M.	1474.20
2	Clearance of Jungle	5195.20	4.00	Sq.M.	20780.80
3	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	3662.39	92.00	Cu.M.	336940.06
4	P/F ISI mark RCC pipe in C:M 1:3 (300 mm dia)	10.00	900.00	M.	9000.00
5	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.	32.83	100.00	Cu.M.	3283.20
6	Cement concrete well mixed in cement mortar (1 : 4 : 8) laid in position complete including curing.Aggregate size upto 50 mm, HB	8.21	1891.00	Cu.M.	15521.33
7	Random rubble stone masonary in cement sand mortar (1 : 6)For foundation	18.12	2019.00	Cu.M.	36578.22
8	Random rubble stone masonary in cement sand mortar (1 : 6) For superstructure	3.00	2195.00	Cu.M.	6575.45
9	Cement concrete coping in 1:2:4	19.40	230.00	Sq.M.	4460.85
10	Ruled pointing in cement mortar (1:3)	10.65	62.00	Sq.M.	660.15
11	Dry stone pitching (20-23 cm)	27.26	721.00	Cu.M.	19650.86
				TOTAL	454925.12

Say Rs. 455000.00

DETAILS OF WORK (KHADIN)

Name of Watershed :- Jodhpur-51Panchayat Samiti :-Balesar

KHADIN

S. No.	ITEM	Measurement		Qty.
1	Dag belling	910 X 2 =	1820.0	1820.0 M.
2	Clearance of Jungle	880 X 5.90 =	5195.2	5195.2 Sq.M.
3	Earth work Excavation for making of bund, laying in layers of 15 cm,	3662.39		3662.39 Cu.M.
4	P/F ISI mark RCC pipe in C:M 1:3 (300 mm dia)	10M.		10 M.
5	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.	1 X 1.00 X 0.90 X 0.80 =	0.72	
		4 X 0.90 X 0.90 X 0.80 =	2.592	
		1 X 7.00 X 0.90 X 0.80 =	5.04	
		2 X 2.00 X 0.90 X 0.80 =	2.88	
		1 X 30.0 X 0.90 X 0.80 =	21.6	
			32.832	32.832 Cu.M.
6	Cement concrete well mixed in cement mortar (1 : 4 : 8) laid in position complete including curing.Aggregate size upto 50 mm, HB	1 X 1.00 X 0.90 X 0.20 =	0.18	
		4 X 0.90 X 0.90 X 0.20 =	0.648	
		1 X 7.00 X 0.90 X 0.20 =	1.26	
		2 X 2.00 X 0.90 X 0.20 =	0.72	
		1 X 30.0 X 0.90 X 0.20 =	5.4	
			8.208	8.208 Cu.M.
7	Random rubble stone masonary in cement sand mortar (1 : 6)For foundation	1 X 1.00 X 0.75 X 0.30 =	0.225	
		4 X 0.75 X 0.75 X 0.30 =	0.675	
		1 X 1.00 X 0.60 X 0.30 =	0.180	
		4 X 0.60 X 0.60 X 0.30 =	0.432	
		1 X 7.00 X 0.75 X 0.30 =	1.575	
		2 X 2.00 X 0.75 X 0.30 =	0.900	
		1 X 30.0 X 0.75 X 0.30 =	6.750	

S. No.	ITEM	Measurement		Qty.
		1 X 7.00 X 0.60 X 0.30 =	1.260	
		2 X 2.00 X 0.60 X 0.30 =	0.720	
		1 X 30.0 X 0.60 X 0.30 =	5.400	
			18.117	18.117 Cu.M.
8	Random rubble stone masonary in cement sand mortar (1 : 6) For superstructure	1 X 1.00 X 0.45 X 1.00 =	0.450	
		3 X 0.45 X 0.45 X 0.30 =	0.182	
		1 X 0.45 X 0.60 X 0.30 =	0.081	
		2 X 2.00 X 0.45 X 0.30 =	0.540	
		(7 + 2) / 2 X 0.45 X 1 =	2.025	
			3.278	
		4 X 3.14 / 4.00 X 0.3^2 =	0.283	
			2.996	2.996 Cu.M.
9	Cement concrete coping in 1:2:4	1 X 1.00 X 0.45 =	0.450	
		1 X 0.60 X 0.45 =	0.270	
		1 X 30.0 X 0.45 =	13.500	
		1 X 7.50 X 0.45 =	3.375	
		2 X 2.00 X 0.45 =	1.800	
			19.395	19.395 Sq.M.
10	Ruled pointing in cement mortar (1:3)	2 X(1.00 + 0.45)X 1.00 =	2.900	
		3 X(4.00 + 0.45)X 0.45 =	2.430	
		2 X(0.60 + 0.45)X 0.60 =	1.260	
		2 X(2.00 + 0.45)X 0.30 =	0.540	
		1 X 7.00 X 0.30 =	2.100	
		(7 + 2) / 2 X 0.45 X 0.7 =	1.418	
			10.648	10.648 Sq.M.
11	Dry stone pitching (20-23 cm)	1 X 30.0 X 2.00 X 0.23 =	13.80	
		1 X 10.0 X 1.80 X 0.23 =	4.14	

S. No.	ITEM	Measurement		Qty.
		1 X 15.0 X 2.70 X 0.23 =	9.32	
			27.26	27.26 Cu.M.

Earth work chart

Name of Watershed :- Jodhpur-51Panchayat Samiti :-Balesar

KHADIN

Chainage	Ground level	Proposed T.B.L.	Height of bund	Top width	Side slop U/s	Side slop D/s	Base width	Cross-section	Average C. Sec.	Lenth in M	Earth work in Cum
0	9.75	9.75	0.00	1.80	2.5:1	1.5:1	0.00	0.00	0	0	0
40	9.70		0.05				2.00	0.10	0.05	40	1.90
80	9.62		0.13				2.32	0.27	0.18	40	7.26
120	9.40		0.35				3.20	0.87	0.57	40	22.86
160	8.96		0.79				4.96	2.67	1.77	40	70.90
200	8.70		1.05				6.00	4.10	3.38	40	135.30
240	8.64		1.11				6.24	4.46	4.28	40	171.14
280	8.60		1.15				6.40	4.72	4.59	40	183.54
320	8.62		1.13				6.32	4.59	4.65	40	186.06
360	8.50		1.25				6.80	5.38	4.98	40	199.26
400	8.50		1.25				6.80	5.38	5.38	40	215.00
440	8.50		1.25				6.80	5.38	5.38	40	215.00
480	8.40		1.35				7.20	6.08	5.73	40	229.00
520	8.50		1.25				6.80	5.38	5.73	40	229.00
560	8.40		1.35				7.20	6.08	5.73	40	229.00
600	8.40		1.35				7.20	6.08	6.08	40	243.00
640	8.30		1.45				7.60	6.81	6.45	40	257.80
680	8.42		1.33				7.12	5.93	6.37	40	254.94
720	8.70		1.05				6.00	4.10	5.01	40	200.54
760	8.70		1.05				6.00	4.10	4.10	40	163.80
800	8.68		1.07				6.08	4.22	4.16	40	166.22
840	8.84		0.91				5.44	3.29	3.76	40	150.20
880	8.85		0.90				5.40	3.24	3.27	40	130.68
							129.88				3662.39
						Average base width =	5.90				

MATERIAL CONSUMPTION STATEMENT

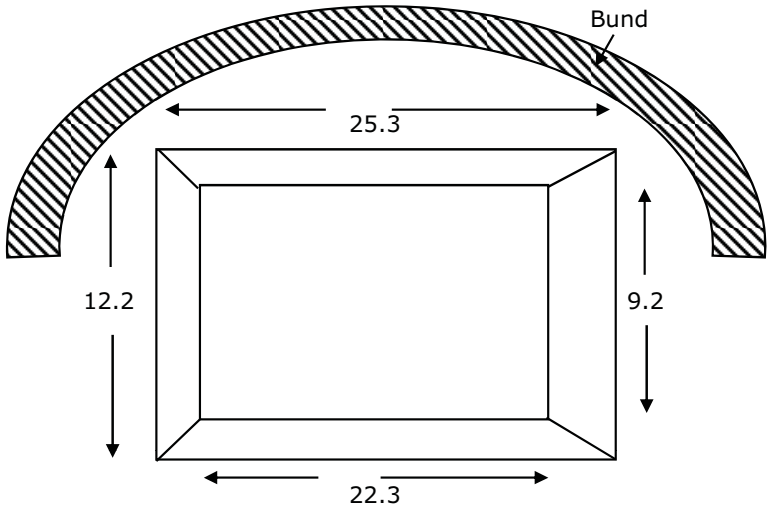
Name of Watershed :- Jodhpur-51Panchayat Samiti :-Balesar

S.No.	ITEM	Quantity Cum / Sqm	Cement Begs	Sand Cum	Aggrigate Cum	Stone Cum
1	Cement Concrete (1:4:8)	8.208	26.27	3.69	7.39	-
2	Copping in C.C. (1:2:4)	19.395	6.05	0.43	0.87	-
3	Massonary in Cement	21.113	22.59	6.33	-	23.22
	Mortar (1:8)					
4	Pointing in Cement	10.648	0.30	0.03	-	-
	Mortar (1:3)					
5	Dry Stone Pitching	27.255	-	-	-	29.98
6	R.C.C. Cement Pipe	2 Nos.				
		TOTAL	55.21	10.49	8.26	53.20
Say Bags 55						

Estimate of "Khet Talai"

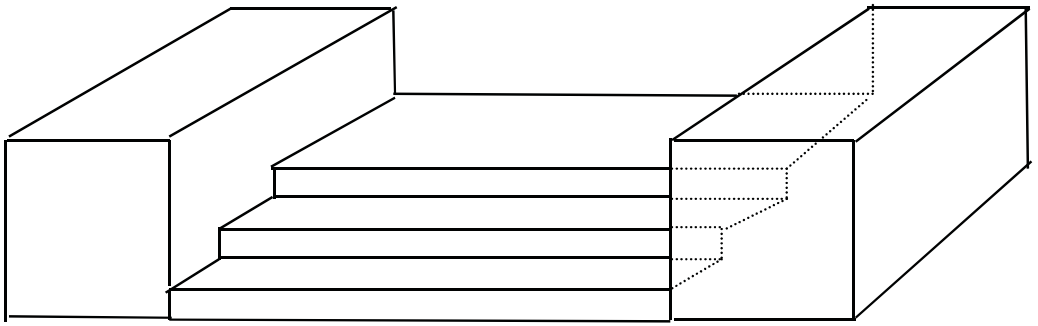
Outer Length	25.3	mtr
Inner Length	22.3	mtr
Outer Width	12.2	mtr
Inner Width	9.2	mtr
Depth	3	mtr

Upper Area 308.66
Lower Area 205.16



S. no.	Name of work	Item no.	No	Upper Area	Lower Area	Depth	Qty	Unit	Rate	Amount
1	Dag belling		2	69	1	1	138.00	m	0.88	121.44
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(b)	1	308.66	256.91	1.5	424.18	Cu.m.	100.00	42417.75
2.2	In diisintegrated rock	2(c)	1	256.91	205.16	1.5	346.55	Cu.m.	146.00	50596.67
3	Add for extra lift above initial lift	3	1	256.91	205.16	1.5	346.55	Cu.m.	11.80	4089.32
										97225.17
							Add 3% contingency			2916.8
								Total		100141.9
								Say		**100000.0**

DESIGN OF LOOSE STONE CHECK DAM (LSCD)

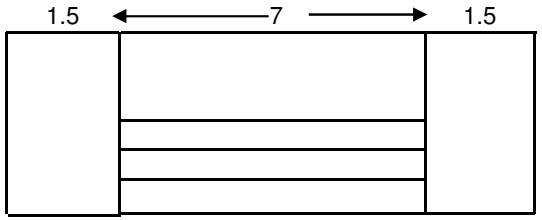


Length of Head wall	No of Lscd	Per Unit Cost	Total Cost
7	30	25000	750000
6	20	23000	460000
5	20	21000	420000
4	20	19200	384000
3	20	17300	346000
	110		2360000

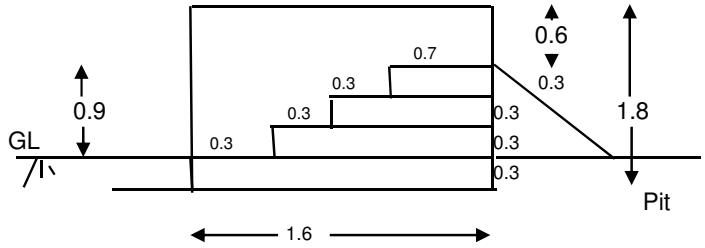
ESTIMATE OF LOOSE STONE CHECK DAM (LSCD)

Head Wall Length = 7 m

Plan



Elevation

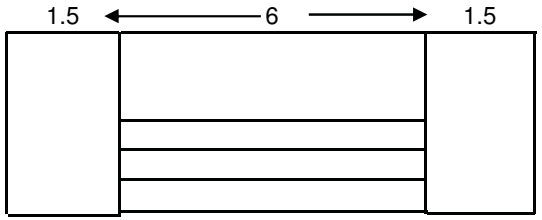


S. no.	Name of work	Item no.	No	Length	Width	Height	Qty	Labour rate	Total rate	Lab Amt	Total amount
1	Earth work Excavation in hard soil up to 1.5 mt Height and deposited excavated material lead op to 150	2B	1	7	1.6	0.3	3.4	100.0	100.0	336.0	336.0
		2B	2	1.5	1.6	0.3	1.4	100.0	100.0	144.0	144.0
2	Dry stone masonry	21B	1	7	1.6	0.3	3.4				
			1	7	1.3	0.3	2.7				
			1	7	1.0	0.3	2.1				
			1	7	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	355.6	1297.0	6507.5	23735.1
										6987.5	**24215.1**
						Add 3% Contingency					726.5
						Total					**24941.6**
						Say					**25000**

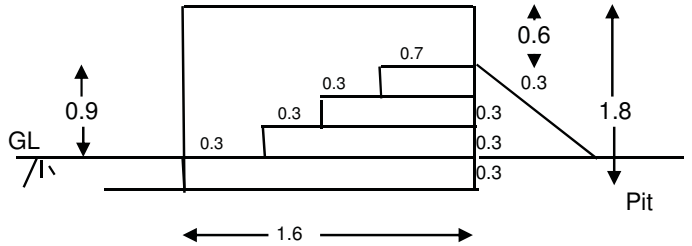
ESTIMATE OF LOOSE STONE CHECK DAM (LSCD)

Head Wall Length = 6 m

Plan



Elevation

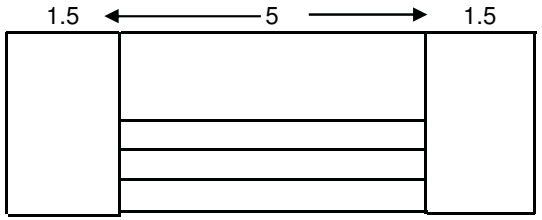


S. no.	Name of work	Item no.	No	Length	Width	Height	Qty	rate	amount
1	Earth work Excavation in hard soil up to 1.5 mt Height and deposited excavated material lead op to 150	2B	1	6.0	1.6	0.3	2.9	100.0	288.0
		2B	2	1.5	1.6	0.3	1.4	100.0	144.0
2	Dry stone masonry	21B	1	6.0	1.6	0.3	2.9		
			1	6.0	1.3	0.3	2.3		
			1	6.0	1.0	0.3	1.8		
			1	6.0	0.7	0.3	1.3		
			1	1.5	1.6	1.8	4.3		
			1	1.5	1.6	1.8	4.3		
							16.9	1297.0	21945.2
									22377.2
					Add 3% Contingency				671.3
						Total			**23048.6**
						Say			**23000**

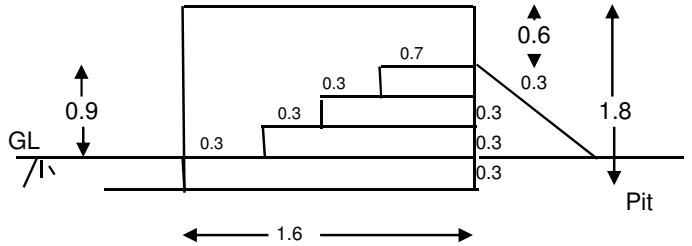
ESTIMATE OF LOOSE STONE CHECK DAM (LSCD)

Head Wall Length = 5 m

Plan



Elevation

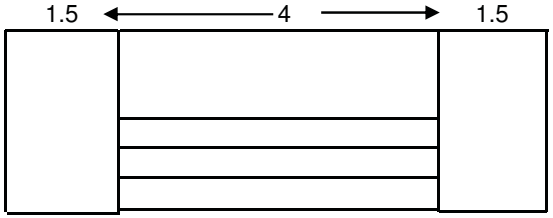


S. no.	Name of work	Item no.	No	Length	Width	Height	Qty	rate	amount
1	Earth work Excavation in hard soil up to 1.5 mt Height and deposited excavated material lead op to 150	2B	1	5.0	1.6	0.3	2.4	100.0	240.0
		2B	2	1.5	1.6	0.3	1.4	100.0	144.0
2	Dry stone masonry	21B	1	5.0	1.6	0.3	2.4		
			1	5.0	1.3	0.3	2.0		
			1	5.0	1.0	0.3	1.5		
			1	5.0	0.7	0.3	1.1		
			1	1.5	1.6	1.8	4.3		
			1	1.5	1.6	1.8	4.3		
							15.5	1297.0	20155.4
									20539.4
						Add 3% Contingency			616.2
						Total			**21155.6**
						Say			**21000**

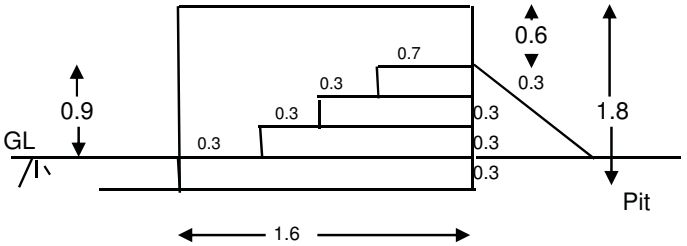
ESTIMATE OF LOOSE STONE CHECK DAM (LSCD)

Head Wall Length = 4 m

Plan



Elevation

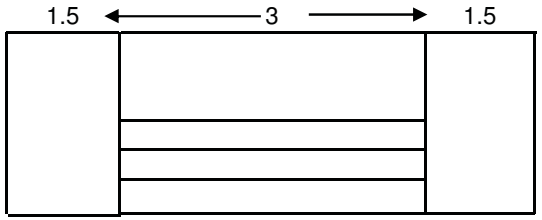


S. no.	Name of work	Item no.	No	Length	Width	Height	Qty	rate	amount
1	Earth work Excavation in hard soil up to 1.5 mt Height and deposited excavated material lead op to 150	2B	1	4.0	1.6	0.3	1.9	100.0	192.0
		2B	2	1.5	1.6	0.3	1.4	100.0	144.0
2	Dry stone masonry	21B	1	4.0	1.6	0.3	1.9		
			1	4.0	1.3	0.3	1.6		
			1	4.0	1.0	0.3	1.2		
			1	4.0	0.7	0.3	0.8		
			1	1.5	1.6	1.8	4.3		
			1	1.5	1.6	1.8	4.3		
							14.2	1297.0	18365.5
									18701.5
					Add 3% Contingency				561.0
						Total			**19262.6**
						Say			**19200**

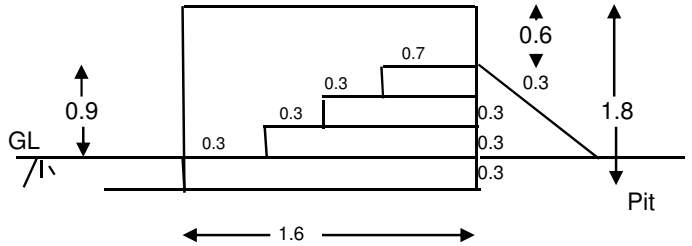
ESTIMATE OF LOOSE STONE CHECK DAM (LSCD)

Head Wall Length = 3 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	3.0	1.6	0.3	1.4	100.0	144.0
		2B	2	1.5	1.6	0.3	1.4	100.0	144.0
2	Dry stone masonry	21B	1	3.0	1.6	0.3	1.4		
			1	3.0	1.3	0.3	1.2		
			1	3.0	1.0	0.3	0.9		
			1	3.0	0.7	0.3	0.6		
			1	1.5	1.6	1.8	4.3		
			1	1.5	1.6	1.8	4.3		
							12.8	1297.0	16575.7
									16863.7
					Add 3% Contingency				505.9
						Total			**17369.6**
						Say			**17300**

TECHNICAL NOTE

Name of work : Masonry Check Dam I **Watershed : IWMP Jodhpur 51**

Tehsil : Balesar **District : Jodhpur** **Macro / Micro watershed No.** 22/3

A. Basic data :-

1. Catchment area	=	148	ha.
2. Maximum rainfall intensity	=	7	cm/hr.
3. General nature of catchment area :			
a. Agriculture land	=	100	ha.
b. Non arable land	=	48	ha.
c. Forest land	=	0	ha.
4. Height of crest above G. L.	=	1.7	m
5. Flood lift	=	0.75	m
6. Free board	=	0.15	m
7. Top width of head wall	=	0.8	m
8. Bottom width of head wall	=	2.31	m
9. Length of crest	=	11	m
10. Percentage slope	=	2.1	%
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 benifitted = 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.

Time of concentration Tc = 0.0195*(K)^0.77

Where -

K = (Lt)^1.5/(He)^0.5

Lt = maximum length of travel by runoff water in m.

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

K = 7108.71

Tc = 0.0195*7108.71^0.77

= 18.03 minute I (for Tc = 18.03 min) = 12.4 cm/hr.

Q = 0.0276*0.24*12.4*148

= 12.16 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 = 12.16/(1.71*11)

h = 0.75 m.

Taking free board as 0.15 m.

Total (d) = 0.9 m

C. LENGTH OF OVER FLOW REQUIRED :-

L = 4.75*Q^0.5

= 4.75*^0.5

L = 16.56 m

But as per site condition consider length of head wall = 11 m

Height of head wall taken as per site plan = 1.7 m

Depth of Foundation from G. L. = 1.5 m

Total height of the structure, H = 4.1 m

D. HEAD WALL

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

Top width of head wall	=	h/{(p-1)}^0.5
	=	0.66
(As per departmental practices	=	((H+d)^0.5)/2
	=	0.81

Therefore min. top width is considered = 0.95 m

Base width of Head wall (b)	=	Top width + 0.8 * H
	=	0.95+0.8*1.7

		=	2.31 m

E. HEAD WALL EXTENSION

Length		=	H+d+1
		=	1.7+0.9+1
		=	3.6 m
As per site condition left HWE		=	7 m
Right HWE		=	6 m
Width of HWE		=	0.6 m
Height of HWE	= H + d	=	1.7+0.9
		=	2.6 m

F. SIDE WALL

Length		=	b + H + d +Tw - Th. of HWE
		=	2.31+2.6+0.45-0.6
		=	4.8 m
Width	= 0.6+0.4*(H+h)	=	0.6+0.4*(1.7+0.75)
		=	1.58 m
Width at junction of w.w.	= 0.6+0.4*0.75		0.9 m
Height	= H+d	=	1.7+0.9
		=	2.6 m

G. WING WALL

Length	= 2.25*d	=	2.25*0.9

		=	2.03 m
Width		=	0.6 m
Height	= 1.5*d	=	1.5*0.9
		=	1.35 m

H. APRON

Length		=	11 m
Width	0.75*(H+d)+H	=	0.75*(1.7+0.9)+1.7
		=	2.6 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	=	11 m
Width (tw)	=	0.45 m
Height	=	0.3 m

J. CUT OFF WALL

Length	=	11 m
Width	=	0.6 m
Depth	=	1 m

K. DEPTH OF FOUNDATION

As per site condition Depth	=	1.5 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 =0.95*1.7*2300 = 3714.5	3714.5		1.84	6834.68
2	W2=0.5*(b-a)*H*L*S = 0.5*(2.31-0.95)*1.7*11*2300 = 1564	1564		0.91	1423.24
3	Fa = w*a*h = 1000*0.95*0.75 = 712.5	712.5		1.84	1311
4	P1=w*h*H = 1000*0.75*1.7 = 1275		1275	0.85	-1083.75
5	P2=0.5*w*H^2 = 0.5*1000*(1.7)^2 = 1445		1445	0.57	-823.65
6	P3=(C*w*b*(H+h))/2 =(0.5*1000*2.31*(1.7+0.75))/2 = 1414.88	-1414.88		1.54	-2178.9152
	TOTAL	6693.38	2720		

Restoring Moment (Mr) = 9568.92
Over turning Moment (Mo) = 4086.32
Resultant Moment (EM) = 5482.6

Where -

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

CHECKS :-

(1.) OVERTURNING

Factor of safety against overturning

= Restoring Moment (Mr) / Overturning Moment (Mo)

= 9568.92/4086.32

= 2.341696196

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

(2.) SLIDING :-

Factor of safety against sliding = U*Sigma V / Sigma F

Where U is coefficient of sliding = 0.70

= 0.70*6693.38/2720

= 1.72

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

(3.) RUPTURE :-

Position of resultant X = $\bar{S}$igma M / Sigma V

= 5482.6/6693.38

= 0.819 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 masonary, hence the structure is safe from rupture in tension.

(4.) SAFETY AGAINST COMPRESSION (CRUSHING)

Eccentricity e = b/2 -$\bar{X}$

Compressive stress at toe & heal respectively

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

P max = 6693.38*[1+6*0.336/2.31]/2.31 = 5426.35 Kg/Sq.m.

P min = 6693.38*[1-6*0.336/2.31]/2.31 = 368.78 Kg/Sq.m.

DETAILS OF WORK

Name of work : Masonry Check Dam I | **Project : IWMP Jodhpur 51**
P. S. : Balesar | **District : Jodhpur**

S.No.	Particular		Quantity		
☆	Dag belling (5 to 7.5 cm deep)				
			= 4*11 + 2*7 + 2*6 + 2*4.8 + 4*2.03=	**87.72**	m.
☆	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 55%(i.e.25.06)				
				202.125	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.	=	11*2.31*0.2	5.082	
	H.W.E. (lleft)	=	7*0.75*0	1.05	
	H.W.E. (right)	=	6*0.75*0	0.9	
	S.W.	=	4.8*(1.58+0.9)*0.5*0	1.19	
	Wing wall	=	2.03*0.75*0	0.3	
	Toe wall	=	11*0.45*0.2	0.99	
	Apron	=	11*2.6*0.2	5.72	
	Cut off wall	=	20*0.75*0	3	
				18.232	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.	=	11*2.31*0.2	279.51
H.W.E. (lleft)	=	7*0.75*0.2	1.05
H.W.E. (right)	=	6*0.75*0.2	0.9
S.W.	=	4.8*(1.58+0.9)*0.5*0.2	1.19
Wing wall	=	2.03*0.75*0.2	0.3
Toe wall	=	11*0.45*0.2	0.99
Apron	=	11*2.6*0.2	5.72
Cut off wall	=	20*0.75*0	0
			289.66 Cu.m.

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

H. W.	=	11*2.31*0.5	12.705
H.W.E. (lleft)	=	7*0.75*0.5	2.625
H.W.E. (right)	=	6*0.75*0.5	2.25
S.W.	=	4.8*(1.58+0.9)*0.5*0.5	2.976
Wing wall	=	2.03*0.75*0.5	0.76125
Toe wall	=	11*0.45*0.2	0.99
Apron	=	11*2.6*0.1	2.86
Cut off wall	=	20*0.75*0	0
			25.16725 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.	=	11*2.31*0.6	15.246
H.W.E. (lleft)	=	7*0.75*3	15.75
H.W.E. (right)	=	7*0.75*3	13.5
S.W.	=	4.8*(1.58+0.9)*0.5*0.8	4.7616
Wing wall	=	2.03*0.75*0.8	1.218
Toe wall	=	11*0.45*0.9	4.455
Apron	=	11*2.6*0	0

	Cut off wall	=	11*2.6*0	0
				54.9306 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.	=	11*2.31*0.2	5.08
	H.W.E. (lleft)	=	7*0.75*0.2	1.05
	H.W.E. (right)	=	6*0.75*0.2	0.9
	S.W.	=	4.8*(1.58+0.9)*0.5*0.2	1.19
	Wing wall	=	2.03*0.75*0.2	0.3
	Toe wall	=	11*0.45*0.2	0.99
	Apron	=	11*2.6*0.2	5.72
	Cut off wall	=		
				15.23 Cu.m.

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

	H. W.	=	11*2.31*1.3	33.03
	H.W.E. (lleft)	=	7*0.75*1.3	6.83
	H.W.E. (right)	=	6*0.75*1.3	5.85
	S.W.	=	4.8*(1.58+0.9)*0.5*1.3	15.48
	Wing wall	=	2*2.03*0.75*1.3	3.96

	Toe wall	=	11*0.45*1.3	6.44
	Cut off wall	=	20*0.75*1.3	19.5
				91.09 Cu.m.
☆	Random rubble stone masonary in cement sand mortar (1 : 6) For superstructure			
	H. W.	=	11*(2.31+0.95)*0.5*1.7	30.48
	H.W.E. (lleft)	=	7*0.6*2.6	10.92
	H.W.E. (right)	=	6*0.6*2.6	9.36
	S.W.	=	4.8*[{(1.58+0.6)/2+(0.9+0.6)/2}/2]*(2.6+1.35)/2	8.72
	Wing wall	=	2.03*0.6*1.35	1.64
	Toe wall	=	11*0.45*0.3	1.49
				62.61 Cu.m.
☆	Stone kharanja in cement mortar (1 : 6) for bed floor including curring etc. complete			
			11*2.6*0.3	**8.58** Cu.m.
☆	Cement plaster including smooth finishing in cement mortar (1:4) 25 mm thick.			
	H. W.	=	11*1.7	18.7
	H.W.E. (lleft)	=	7*2.6	18.2
	H.W.E. (right)	=	6*2.6	15.6
	S.W.	=	2 * {(0.95 * 0.9) + (0.9 + 1.7 + 0.9)/2*(2.31 - 0.95) + (1.7 + 0.9 + 1.35)/2*(2.6 + 0.45)}	18.52
	Wing wall	=	2.03*1.35	2.74
	Toe wall	=	11*0.3	3.3
				77.06 Sq.m.
☆	Ruled pointing in cement mortar (1:3)			
	H. W.	=	11*2.18	**23.98** Sq.m.

☆	Cement concrete coping in cement mortar 1 : 2 : 4 , 75 mm thick.			
	H. W.	=	11*0.95	10.45
	H.W.E. (lleft)		7*0.6	4.2
	H.W.E. (right)		6*0.6	3.6
	S.W.		2 * {(0.6*(2.31 + 2.6 + 0.45)}	6.43
	Wing wall		2.03*0.60	1.22
	Toe wall		11*0.45	4.95
				30.85 Sq.m.

ABSTRACT OF COST

S.No.	Item	Quantity	Rate	Amount
1	Dag belling (5 to 7.5 cm deep)	87.72	0.81 / R m.	71.05
	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	202.125	92 / Cu.m.	18595.5
	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	18.232	100 / Cu.m.	1823.2
	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.	289.66	146 / Cu.m.	42290.36
	Excavation in disintegrated rock and or soft rock or hard kankar or compacted murrum, dry or moist including dresssing & disposal of excavated material with initial lead of 30 m and lift of 1.5 m	25.16725	194 / Cu.m.	4882.45

	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	54.9306	160 / Cu.m.	8788.9
	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	15.23	2048 / Cu.m.	31191.04
	Random rubble stone masonary in cement sand mortar (1 : 6)For foundation	91.09	1939 / Cu.m.	176623.51
	Random rubble stone masonary in cement sand mortar (1 : 6) For superstructure	62.61	1939 / Cu.m.	121400.79
	Stone kharanja in cement mortar (1 : 6) for bed floor including curring etc. complete	8.58	1791 / Cu.m.	15366.78
	Cement plaster including smooth finishing in cement mortar (1 : 4) 25 mm thick.	77.06	147 / Sq.m.	11327.82

Ruled pointing in cement mortar (1 : 3)	23.98	62 / Sq.m.	1486.76
Cement concrete coping in cement mortar 1 : 2 : 4 , 50 mm thick.	30.85	230 / Sq.m.	7095.5
		Total Rs.	**440943.66**

MATERIAL CONSUMPTION STATEMENT

Name of work : Masonry Check Dam I Name of Village : IWMP Jodhpur 51

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)	15.23 Cu.m	48.736	6.85	13.71		
2	R.R. Stone masonary (1:6) (Foundation / Superstructure. @(1.395,0.3,1.10)	153.7 Cu.m	214.41	46.11			169.07
3	Cement plaster (1:4) 25 mm thick. @(0.224,0.032)	77.06 Sq.m	17.26	2.47			
4	Raised & cut pointing @(0.028,0.003)	23.98 Sq.m	0.67	0.07			
5	Stone kharanja in cement mortar (1:6) @(1.07,0.3,1.1)	8.58 Cu.m	9.18	2.57			9.44
6	Cement concrete coping (1:2:4) 50 mm thick @(0.312,0.022,0.045)	10.45 Sq.m	3.26	0.23		0.47	
	TOTAL		**293.516**	**58.3**	**13.71**	**0.47**	**178.51**

Say 294 Bags

Material Component :-

1	Cement	294	Bags @	270	Per Bag = Rs	79380
2	Sand	58.3	Cu.m. @	475	Per Cu.m = Rs	27692.5
3	Aggregate					
	50 mm	13.71	Cu.m. @	465	Per Cu.m = Rs	6375.15
	12 mm	0.47	Cu.m. @	625	Per Cu.m = Rs	293.75
4	Stone	178.51	Cu.m. @	850	Per Cu.m = Rs	151733.5

Total Rs = 265474.9

EMPLOYMENT GENERATION

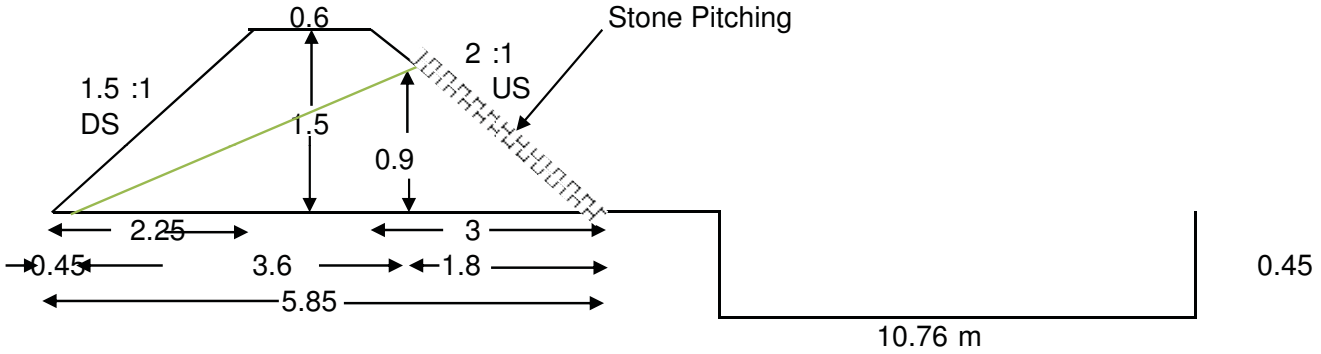
Labour Component :-	Rs.	**175468.76**
	Total Rs.	**440943.66**
Contingency and Suoervision charges (@ 3%)	Rs.	**13228.31**
	Grand Total Rs.=	**454171.97**
	Say Rs	4.54 Lakh

MODEL ESTIMATE OF NALLAH BUNDING

S. no.	Name of work	Item no.	No	X Sec	Length	Depth	Qty	Unit	Rate	Amount
1	Excavation of earth in hard soil dry or moist and disposal of excavated material within initial lead of 50 m and lift 1.5 m, laying in layers of 15 cm dressing and compaction etc. complete									
1.1	In Hard soil	119(b)	1	4.84	32	1	154.88	Cu.m.	92.00	14248.96
2	Stone Pitching 15-23 cm thick including supply of stones	124	1	1.1	32	0.2	7.04	Cu.m.	721.00	5075.84
										19324.80
								Add 3% contingency		579.7
								Total		19904.5
								Say		**20000.0**

CROSS-SECTION OF NALLAH BUNDING

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



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

CS = 4.8375 Sq.m.

Average Cross section 4.84 Sq.m.

Silvi Pasture Development

Abstract of Cost

V-Ditches

DCB Fencing

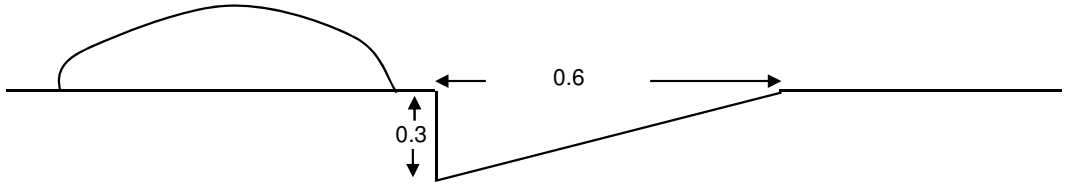
Area = 10 ha.

Name of work	Conservation Measure	Production Measure	Total Cost
V. Ditch	170500	30800	201300.00
Plantation	0	647000	647000.00
Fencing DCB	0	253000	253000.00
Total	170500	930800	**1101300.00**
Say			11.01 Lakh

Estimate for V.Ditch in Pasture

Area	Length	Width	Interval	No of row	Length
Ha	mtr	mtr	mtr		mtr
10	1000	100	6	167	16667

Dhaman require on V-ditch =0.002 kg/m 33 Kg
Spacing 5 mtr
Dhaman require between v-ditches =10 kg/ha 100 Kg



S. no.	Name of work	Item no.	No	Length	Width	Height	Qty	Unit	Rate	Amount
1	Dag belling for DCB (5 to 7.5 cm. deep)	(178 a)	1	16667	1	1	16667	Sqm	0.88	14666.96
2	Excavation in hard soil 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(B)	0.5	16667	0.60	0.3	1500.03	Cum	100	150003.0
			Kg							
3	Making of balls of grass seed(1:1:2:2) 1 grass seed :1 FYM : 2 sand : 2 clay	3/1/9 forest	133				133.00	Per 6 kg material	17	376.8
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	210	27930
										195393.0
								Add 3% contingency		5861.8
								Total		201254.7
								Say		**201300.0**

Conservation Measure	170500.0
Production Measure	30800.0

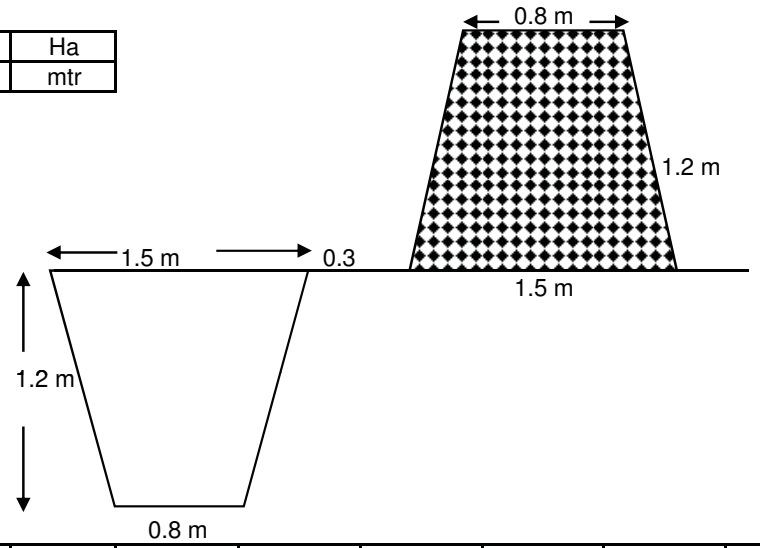
Model estimate of Plantation Work in Pasture land

Plant to pant Spacing	4 m	**No of plant**	**4500**
Row to row Spacing	6 m	**Gap filling**	**500**
Available Area	**10** Ha	**Total no of Plants**	**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)	112 ('C)		1	0.45	0.45	0.45	1	No	14.6	14.60	73000
2	Cost of Plant	As per forest						1	No.	8	8.00	40000
3	Planting of plant	113(A)						1	No.	4	4.00	20000
4	Making thavla	117(A)	2	1				1	No.	2.6	5.20	26000
5	Weeding & Hoeing	116	3	1				3	No.	1.3	3.90	19500
6	Insecticide treatment	Market rate	3		0.03 ml			0.009	Ltr	300	2.70	13500
7	Watering of plants	115	3	8				24	no	1.9	45.60	228000
8	Transportation of water 5 Km	108	3	8				360	/1000Ltr	42.2	15.19	75960
9	Watch & ward	Minimum wages	3	12				34	Month	3528	24	119952
10	Transportation of plants from nursery to planting site	LS	1	1				1		1.53	1.53	7650
11	Pruning of plants	forest bsr	1	1				1.00	/ plants	0.89	0.89	4450
	TOTAL											**628012**
									Contingency 3%			18840
									Grand total			**646852**
											Say	**647000.0**

Estimate of Ditch Cum Bund Fencing

Area	10	Ha
Length	1420	mtr



S. no.	Name of work	Item no.	No	Length	Width	Hight	Qty	Unit	Rate	Amount
1	Dag belling for DCB (5 to 7.5 cm. deep)	(178 a)	2	1420	1	1	2840.00	Cu.m.	0.88	2499.20
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	710	1.15	1.2	979.80	Cu.m.	100.00	97980.00
2.2	In Disintegrated rock 50%	2(3)	1	710	1.15	1.2	979.80	Cu.m.	146.00	143050.80
3	Sowing of seed on ridge	114	1	1420	1	1	1420.00	Rm	0.60	852.00
	Cost of seeds	LS					5.00	Kg	90.00	450.00
										244832.00
								Add 3% contingency		7345.0
								Total		252627.0
								Say		**253000.0**

Silvi Pasture Development Work

Abstract of Cost

V-Ditches Area = 10 ha.

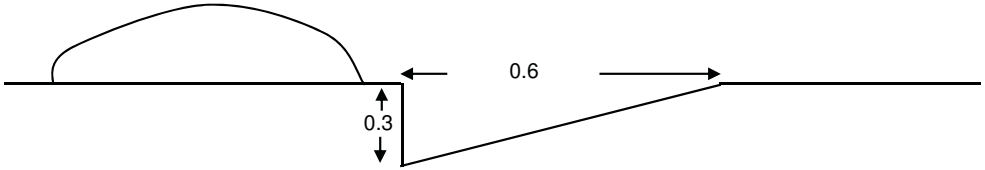
Stone wall Fencing

Name of work	Conservation Measure	Production Measure	Total Cost
V. Ditch	170500	30800	201300.00
Agro Forestry	0	647000	647000.00
Fencing of Stone wall	0	405000	405000.00
Total	170500	1082800	**1253300.00**
Say			12.53 Lakh

Estimate for V.Ditch in Pasture

Area	Length	Width	Interval	No of row	Length
Ha	mtr	mtr	mtr		mtr
10	1000	100	6	167	16667

Dhaman require on V-ditch =0.002 kg/m 33 Kg
Spacing 5 mtr
Dhaman require between v-ditches =10 kg/ha 100 Kg



S. no.	Name of work	Item no.	No	Length	Width	Height	Qty	Unit	Rate	Amount
1	Dag belling for DCB (5 to 7.5 cm. deep)	(178 a)	1	16667	1	1	16667	Sqm	0.88	14666.96
2	Excavation in hard soil 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(B)	0.5	16667	0.60	0.3	1500.03	Cum	100	150003.0
			Kg							
3	Making of balls of grass seed(1:1:2:2) 1 grass seed :1 FYM : 2 sand : 2 clay	3/1/9 forest	133				133.00	Per 6 kg material	17	376.8
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	210	27930
										195393.0
							Add 3% contingency			5861.8

Conservation Measure	170500.0
Production Measure	30800.0

Total	201254.7
Say	**201300.0**

Model estimate of Plantation Work in Pasture land

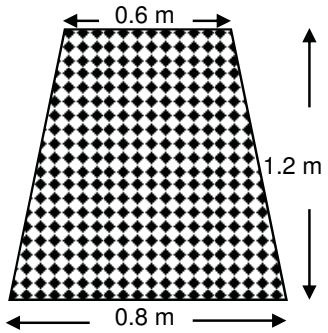
Plant to pant Spacing	4 m	**No of plant**	**4500**
Row to row Spacing	6 m	**Gap filling**	**500**
Available Area	**10** Ha	**Total no of Plants**	**5000**

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)	112 ('C)		1	0.45	0.45	0.45	1	No	14.6	14.60	73000
2	Cost of Plant	As per forest						1	No.	8	8.00	40000
3	Planting of plant	113(A)						1	No.	4	4.00	20000
4	Making thavla	117(A)	2	1				1	No.	2.6	5.20	26000
5	Weeding & Hoeing	116	3	1				3	No.	1.3	3.90	19500
6	Insecticide treatment	Market rate	3		0.03 ml			0.009	Ltr	300	2.70	13500
7	Watering of plants	115	3	8				24	no	1.9	45.60	228000
8	Transportation of water 5 Km	108	3	8				360	/1000Ltr	42.2	15.19	75960
9	Watch & ward	Minimum wages	3	12				34	Month	3528	24	119952

10	Transportation of plants from nursery to planting site	LS	1	1				1		1.53	1.53	7650
11	Pruning of plants	forest bsr	1	1				1.00	/ plants	0.89	0.89	4450
	TOTAL											**628012**
									Contingency 3%			18840
									Grand total			**646852**
											Say	**647000.0**

Estimate of Stone Wall Fencing

Area	10	Ha
Length	1420	mtr



S. no.	Name of work	Item no.	No	Length	Width	Hight	Qty	Unit	Rate	Amount
1	Stone wall fencing soling stone fencing	111	1	1420	0.7	1.2	1192.8	Cu.m.	330	393624
										393624.0
								Add 3% contingency		11808.7
								Total		405432.7
								Say		**405000**

Abstract of cost of Tanka with Plantation work

For General & OBC Category

Sr. no	Name of work	Estimated cost	Project 90%	Contribution 10%	Total	Measures
1	Cost of tanka	100000	90000	10000	100000	Conservation measure for water harvesting
			60%	**40%**		
2	Cost of Horticulture plantation	10000	6000	4000	10000	Production
3	Barbed Wire Fencing	17700	10620	7080	17700	Production
	Total 2+3	27700	16620	11080	27700	
	Total Cost of tanka unit	**127700**	**106620**	**21080**	**127700**	
	No. of Farmers 100	***12770000***	***10662000***	***2108000***	***12770000***	

For SC/ST/ BPL

Sr. no	Name of work	Estimated cost	Project 95%	Contribution 5%	Total	Measures
1	Cost of tanka	100000.00	95000	5000	100000	Conservation measure for water harvesting
			80%	**20%**		
2	Cost of Horticulture plantation	10000	8000	2000	10000	Production
3	Barbed Wire Fencing	17700	14160	3540	17700	Production
	Total 2+3	27700	22160	5540	27700	
	Total Cost of tanka unit	**127700.00**	**117160.00**	**10540.00**	**127700.00**	
	No. of Farmers 62	***7917400***	***7263920***	***653480***	***7917400***	
				Total Cost	***20687400***	

1	**Conservation Measure**	**16200000**
2	**Production Measure**	**4487400**
a	**From project**	**3035920**
b	**From Contribution**	**1451480**
3	**Total Contribution**	**2118540.00**

Model estimate Barbed wire fencing

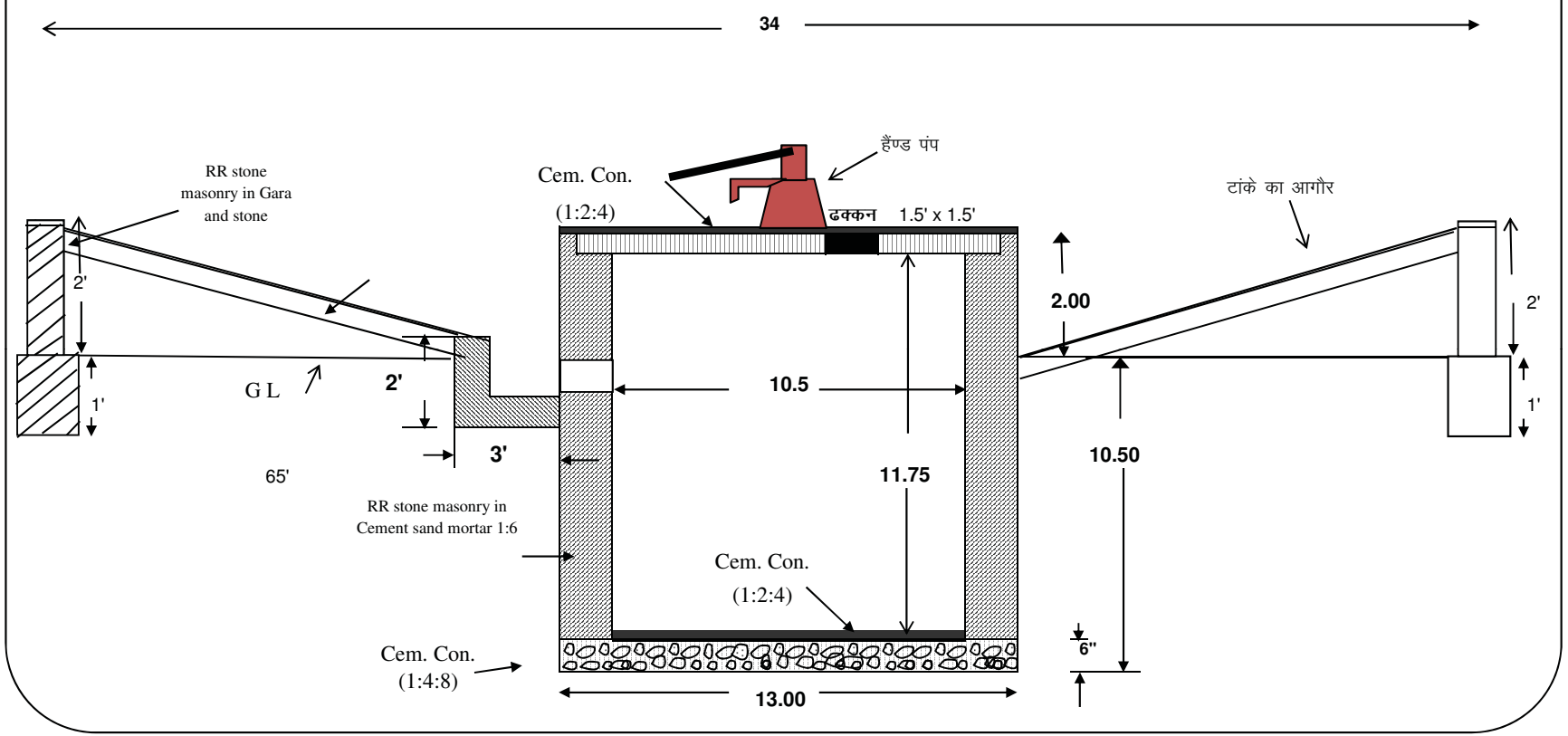
Area 0.17 Ha

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	60	3960
2	Supply of Jodhpur stone slab for post		45				30.86	Sq.m	360	11109.96
3	Rehandling of posts to pit	LS	45				45.00	No	15	675.00
4	fixing of post in 45 cm. deep pit	2B	45	0.45	0.3	0.45	2.73	Cum	100	273.38
5	Cost of binding wire						6	Kg	60	360.00
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
										17137.34
							Add 3% contingency			514.12
										17651.46
									Say	**17700.0**

टॉके की ड्राईग


34
RR stone
masonry in Gara
and stone
2'
1'
G L
2'
3'
65'
RR stone masonry in
Cement sand mortar 1:6
Cem. Con.
(1:2:4)
हैंण्ड पंप
ढक्कन 1.5' x 1.5'
10.5
11.75
Cem. Con.
(1:2:4)
Cem. Con.
(1:4:8)
13.00
2.00
10.50
6"
टांके का आगौर
2'
1'

Design of Water Harvesting Structure (tanka)

Collection of Water = Area * rainfall* 80%	Capacity as per Structural design
Catchment Area = $\frac{\pi}{4}*D^2$ D= 11.70	Cum= $\frac{\pi}{4}*D_t^2$ * Hight
= 107.46 Sqm	D_t= Inner diameter of tanka
Rainfall = 0.3 Mtr	D_t= 3.1
	Hight = 2.85
Collection of water = 25.79 Cum	
	21.49997 Cum
Capacity Cum*1000	Capacity Cum*1000
= 25790	= 21499.97

Hence rainfall on catchment area can fillup the tanka by water

Production	
Total capacity of tanka	21500 Ltr
Use of water for drinking purpose 40%	8599.99 Ltr
Available water for plantation 60%	12900 Ltr
One watering require	15 Ltr
No. of watering per Year	18 No
Total Ltr require per plant per year	270 Ltr

No of plant can survive = Available water for Plantation/ water require per plant per year

= 47.78

say 50 plant

Model estimate of Horticulture Plantation in Arable land

Area- **0.17** **Ha**

No. of Plants - **50**

S. No	Description	Item No.	Total		Length	Width	Height	Qty	Unit	Rate	Amount	Amount for 50 Plants
			Year	No./Year								
1	Earth work Excavation in hard soil dry or moist and disposal of excavated meterial 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	0.22	cum.	100	21.60	1080.00
2	Apply of manure											
	(A) Compost Khad							5.00	kg.	1	5.00	250.00
	(B) S.S.P. (16%)							1.00	kg.	6	6.00	300.00
	(C) Endosulphan (4%)				100 gm			0.10	kg.	40	4.00	200.00
3	Plant cost	LS		1				1.00	No	20	20.00	1000.00
4	Planting of plant	113(B)						1.00	No.	3.2	3.20	160.00
5	Watering of plants (15 litre)	115	3	16				48.00	No.	1.9	91.20	4560.00
6	Making of Thawla atleast 50 cm radius	117(B)	2	1				2.00	No.	1.9	3.80	190.00
7	Weeding & hoeing of plants 45 cm radius and 15 cm deep	116	3	1				3.00	No.	1.3	3.90	195.00

S. No	Description	Item No.	Total		Length	Width	Height	Qty	Unit	Rate	Amount	Amount for 50 Plants
			Year	No./Year								
8	Spray											
	(A) Endosulphan (35 ec)		3	0.01	Ltr			0.03	Ltr.	300	9.00	450.00
	(B) Sulpher		3	0.02	Kg			0.06		220	13.20	660.00
9	Transportation of Plant from Jodhpur 70 km including loading and unloading	LS						1.00	no	10	10.00	500.00
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	1				1.00	no	3.56	3.56	178.00
	TOTAL										**180.90**	**9723.00**
										Add 3% contingency		**291.69**
										Total		**10014.7**
											say	**10000.0**

Amount : 100124.48

Capacity 22777.45 Ltr.

S.No	Details of work		No.	Measurements Dia	B	H		
1	Complete O/O		1	12.75		11.50		Aagor Dia > 34 Feet
2	Hall I/I		1	10.25		10.75	2.00	साधारण/मुलायम मिट्टी में
5	E/W		1	127.652	1	9.75	3.00	सख्त, चिकनी, कंकर मिट्टी में
6	Concrete		1	127.652	1	0.50	3.00	विघटित चट्टान
7	Masonary		1	36.1215	1.25	11.00	1.75	साधारण चट्टान
8	G.L to P.L		1			1.75		
9	Aslat	Around	2.00	9.00	1	0.5		
12	Door		1	1.50	1.50	1		
13	Ventilater		-2	1	1	1		
16	Flooring	Cement	1	82.4741	1	1		
17	Flooring on top	Cement	1	127.652	1	1		
		Deduction	1	1.5	1.5	1		

DETAILS OF WORK AND ABSTRACT OF COST

0 0

0 0

S. No.	Details of work		No.	Details of measurement			Quantity		Unit	Rate		Amount	
				L	W	Ht/D	Feet	M		Labour	Total	Labour	Total
1	Earth work Excavation in hard soil dry or moist and disposal of excavated meterial within initial lift of 1.5 mt height and lead of 50 metre.						0						
							0						
							0						
							0						
							0						
							0						
							0						
	A	Loose Soil	1	127.652	1	2	255.304	7.22	cum.	82.00	82.00	592.04	592.04
	B	Hard Soil	1	127.652	1	3	382.957	10.84	cum.	100.00	100.00	1084	1084.00
	C	Compacted Murrum	1	127.652	1	3	382.957	10.84	cum.	146.00	146.00	1582.64	1582.64
	D	Soft Rock	1	127.652	1	1.75	223.391	6.32	cum.	194.00	194.00	1226.08	1226.08
	E	Loose Soil	1	106.794	1.25	1	133.493	3.77	cum.	82.00	82.00	309.14	309.14
	Extra lift over initial lift												
		First lift	1	127.652	0.0929	1.5		17.7883	cum.	11.80	11.80	209.9023	209.90235
2	P/L Cement concrete using 40 mm nominal size agg. in the ratio of Cem:Sand:Agg 1:4:8 including compaction and curing etc complete. Item 11(3)(1)		1	127.652	1	0.5	63.8261						
							0						
							0						
							63.8261	1.8	cum.	358.10	1891.00	644.58	3403.80
3	P/L Gara concrete using 40 mm nominal size agg. in the ratio of Agg:Gara 1:0.4, compaction etc complete. Item 12(1)												
			0	714.31	1	0.5	0						
			1	106.794	1.25	0.5	66.7463						
							66.7463	1.88	घन मी.	265.80	776.00	499.704	1458.88
4	RR stone masonry in Cement sand		1	36.1215	1.25	11	496.671						

	mortar 1 : 6, including curing Item 24(1)(1)											
						0						
						496.671	14.06	cum.	525.30	2019.00	7385.718	28387.14
5	RR stone masonry in Gara and stone Item (21)(1)	1	106.79	1.25	0.5	66.7463						
		1	106.79	1.16667	1.75	218.038						
						284.784	8.06	cum.	525.30	1512.00	4233.918	12186.72
6	Providing and fixing stone lintel / Pat in cement mortar 1:6 Item 31											
		2	9	1	0.5	9						
						9	0.250	cum.	1326.70	4304.00	331.675	1076.00
7	Providing and fixing Jodhpur stone slab and filling the joints with c:m 1:4, including curing Item 36(2)	1	127.652	1	1	127.652						
						0						
		-1	1.5	1.5	1	-2.25						
						125.402	11.64	sqm.	299.70	770.00	3488.508	8962.80
8	P/L stone agg. With C:M 1:4, and plaster of 25 mm thick on stone slab Item 41(1)	1	127.652	1	1	127.652						
		-1	1.5	1.5	1	-2.25						
						125.402	11.64	sqm.	129.60	328.00	1508.544	3817.92
9	P/L Cement concrete using 40 mm nominal size agg. in the ratio of Cem:Sand:Agg 1:6:12 including compaction and curing etc complete. Item 11(1)(1)	0.78525	910	1	0.25	178.644						
						178.644	5.05	cum.	358.10	1589.00	1808.405	8024.45
10	P/L Cement concrete using 12 mm nominal size agg. in the ratio of Cem:Sand:Agg 1:2:4 including compaction and curing etc complete. 50 mm thick (58) Item 58(1)	1	82.4741	1	1	82.4741						
		1	106.794	1.16667	1	124.593						
		0.78525	910	1	1	714.578						
						921.645	85.62	sqm.	101.30	230.00	8673.306	19692.60

11	Cement Plaster 1 : 6 (1 cement : 6 sand) 25 mm thick, including curing Item 68(1)	1	32.1953	1	10.75	346.099						
						346.099	32.15	sqm.	86.40	147.00	2777.76	4726.05
12	Pointing 1:3 (1 Cement : 3 Sand), including curing Item 70(1)	1	40.0478	1	2.25	90.1074						
		1	110.685	1	1.75	193.699						
		0	102.835	1	1	0						
						283.806	26.36	sqm.	51.10	62.00	1346.996	1634.32
12	Providing and fixing Ms sheet door on the tanka, including all the fittings	1	1.5	1.5	1	2.25						
						2.25	0.2	sqm.	0.00	LS	100	400.00

	Silt Trap, Jali, Hand Pump etc					0						
						0					200	1000
											38002.92	99774.48
												99774.00

	Quantity	Rate	Amount
Skilled labour	43.96	450	19784
Unskilled labour	89.88	147	13213
Water			5006
			38003

राशि		
श्रम	A	38002.916
सामग्री	B	61771.566
कुल	C	99774.482
Add for contingency		350

कुल योग	(C+D)	100124.48

क.सं.	कुल सामग्री आवश्यकता	ईकाई	मात्रा	दर	राशि	
1	रेत/बजरी	घ.मी.	9.77	475	4642.84	
2	गिट्टी पत्थर की 40 मि.मी. नामीय माप की	घ.मी.	3.50	465	1627.5	
3	गिट्टी पत्थर की 20 मि.मी. नामीय माप की	घ.मी.	4.43	625	2771.81	
4	पत्थर	घ.मी.	24.33	850	20682.2	
5	सीमेन्ट	कि.ग्रा.	3226.5	270	17422.9	64.529
6	पत्थर के सिरदल 15 से.मी. मोटाई तक	घ.मी.	0.25	2800	700	
7	पत्थर की पट्टियां	व.मी.	12.80	410	5249.64	
8	फेक्ट्री में बने दरवाजे	व.मी.	0.200	2000.00	400	
9	गारा-मिट्टी	घ.मी.	3.573	85.00	303.705	
					53800.6	
	अन्य Silt Trap, Jali, Hand Pump etc				7970.99	
			कुल योग		61771.6	

Model Estimate of Water Harvesting Structure (tanka)

Amount : 80000.00

Capacity 25740.7224 Ltr.

S.No	Details of work		No.	Measurements Dia	B	H
1	Complete O/O		1	13.00		12.25
2	Hall I/I		1	10.50		11.50
5	E/W		1	132.70725	1	10.50
6	Concrete		1	132.70725	1	0.50
7	Masonary		1	36.90675	1.25	11.75
8	G.L to P.L		1			1.75
9	Aslat	Around	2.00	9.00	1	0.5
12	Door		1	1.50	1.50	1
13	Ventilater		-2	1	1	1
16	Flooring in side	Cement	1	86.54625	1	1
17	Flooring on top	Cement	1	132.7073	1	1
		Deduction	1	1.5	1.5	1

Aagor Dia >	36	Feet		
2.50	Loose Soil		3.2	
3.00	Hard Soil		3.2004	
4.00	Compacted Murrum			25.74072
1.00	Soft Rock			

DETAILS OF WORK AND ABSTRACT OF COST

S. No.	Details of work		No.	Details of measurement			Quantity		Unit	Rate		Amount	
				L	W	Ht/D	Feet	M		Labour	Total	Labour	Total
1	Earth work Excavation in hard soil dry or moist and disposal of excavated meterial within initial lift of 1.5 mt height and lead of 50 metre.						0						
							0						
							0						
							0						
							0						
							0						
	A	Loose Soil	1	132.707	1	2.5	331.768	9.39	cum.	75.00	75.00	704.25	704.25
	B	Hard Soil	1	132.707	1	3	398.122	11.27	cum.	92.00	92.00	1036.84	1036.84
	C	Compacted Murrum	1	132.707	1	4	530.829	15.02	cum.	134.00	134.00	2012.68	2012.68
	D	Soft Rock	1	132.707	1	1	132.707	3.75	cum.	178.00	178.00	667.50	667.50
	E	Loose Soil	1	113.076	1.5	1.5	254.421	7.2	cum.	75.00	75.00	540	540
	Extra lift over initial lift												
		First lift	1	132.707	0.0929	1.5		18.4928	cum.	10.80	10.80	199.722	199.7218
		Second lift	1	132.707	0.0929	0.2		2.4657	cum.	21.60	21.60	53.2591	53.25914
2	P/L Cement concrete using 40 mm nominal size agg. in the ratio of Cem:Sand:Agg 1:4:8 including compaction and curing etc complete. Item 11(3)(1)		1	132.707	1	0.5	66.3536						
							0						
							0						
							0						
							66.3536	1.87	cum.	320.10	1586.00	598.587	2965.82
3	P/L Gara concrete using 40 mm nominal size agg. in the ratio of Agg:Gara 1:0.4, compaction etc complete. Item 12(1)												
			1	815.23	1	0.5	407.615						
			1	113.076	1.5	0.5	84.807						
							492.422	13.94	cum.	232.60	675.00	3242.44	9409.50

4	RR stone masonry in Cement sand mortar 1 : 6, including curing Item 24(1)(1)	1	36.9068	1.25	11.75	542.068						
						0						
						542.068	15.34	cum.	419.80	1503.00	6439.73	23056.02
5	RR stone masonry in Gara and stone Item (21)(1)	1	113.08	1.5	1	169.614						
		1	113.08	1.25	2	282.69						
						452.304	12.80	cum.	419.80	1096.00	5373.44	14028.80
6	Providing and fixing stone lintel / Pat in cement mortar 1:6 Item 31											
		2	9	1	0.5	9						
						9	0.250	cum.	1031.00	3598.00	257.75	899.50
7	Providing and fixing Jodhpur stone slab and filling the joints with c:m 1:4, including curing Item 36(3)	1	132.707	1	1	132.707						
						0						
		-1	1.5	1.5	1	-2.25						
						130.457	12.11	sqm.	218.50	609.00	2646.04	7374.99
8	P/L stone agg. With C:M 1:4, and plaster of 25 mm thick on stone slab Item 41(1)	1	132.707	1	1	132.707						
		-1	1.5	1.5	1	-2.25						
						130.457	12.11	sqm.	102.30	265.00	1238.85	3209.15
9	P/L Cement concrete using 12 mm nominal size agg. in the ratio of Cem:Sand:Agg 1:2:4 including compaction and curing etc complete. 50 mm thick	1	86.5463	1	1	86.5463						
		1	113.076	1.25	1	141.345						
						227.891	21.17	sqm.	79.80	186.00	1689.37	3937.62
10	Cement Plaster 1 : 6 (1 cement : 6 sand) 25 mm thick, including curing Item 68(1)	1	32.9805	1	11.5	379.276						
						379.276	35.23	sqm.	67.90	117.00	2392.12	4121.91

11	Pointing 1:3 (1 Cement : 3 Sand),	1	40.833	1	2.25	91.8743						
	including curing	1	116.965	1	2	233.93						
	Item 70(1)	1	109.115	1	2	218.23						
						544.034	50.54	sqm.	39.80	48.00	2011.49	2425.92
12	Providing and fixing Ms sheet door on the	1	1.5	1.5	1	2.25						
	tanka, including all the fittings											
						2.25	0.2	sqm.	0.00	LS	100	500.00
13	Other works as per requirement					0						
						0						
	Silt Trap, Jali, Hand Pump etc					0					200	2000
											31404.07	79143.48
												79143.00

	Quantity	Rate	Amount
Skilled labour	42.83	325	13919
Unskilled labo	105.40	135	14230
Water			3255
			31404

Amount		
Labour	A	31404.07
Material	B	47739.41
Total	C	79143.48
Add for contingency		900
G Total (C+D)		80043.48
	Say	80000

Material Consumption Statement

S. No.	Material			Unit	Quantity	Rate	Amount		
1	Sand			Cu.m.	9.00	380	3421.38		
2	Stone Agg of 40 mm nominal size			Cu.m.	15.62	400	6249.2		
3	Stone Agg of 12 mm nominal size			Cu.m.	1.56	550	856.983		
4	Stone			Cu.m.	28.14	575	16180.5		
5	Cement			Kg	2396.5	220	10544.6	210.9	Bag
6	Stone Lintel 15 Cm Thick			Cu.m.	0.25	2400	600		
7	Stone Slab			Sq.m.	14.53	300	4359.6		
8	Door			Sq.m.	0.200	2500.00	500		
9	Gara			Cu.m.	10.056	80.00	804.48		
							43516.7		
	Other	Silt Trap, Jali, Hand Pump etc					4222.67		
					TOTAL		47739.4		

MODEL ESTIMATE FOR A VERMI-COMPOST UNIT

S. No.	Particulars	Quantity	Unit	Rate (Rs)	Amount (Rs)
1	Wooden Ballies (3 m long)	8	No.	70	560
2	Wooden Ballies (4 m long)	16	No.	80	1280
3	Shade mats for covering the roof	100	Sq. m.	25	2500
4	Binding wire for tying wooden ballies and mats	10	Kg	60	600
5	Labour charges for erection of shades	15	No.	147	2205
6	Shovels, spades, crowbars, iron baskets	LS			2000
7	Weighing scale (100 Kg capacity)	1	No.	2000	2000
8	Cow dung	8	Ton	1100	8800
9	Worms @ 3 kg per ton	24	Kg	150	3600
10	Formation of vermi-bed with agro-waste, cow-	2	bed	13000	26000
11	Miscellaneous				455
	Total Cost				50000

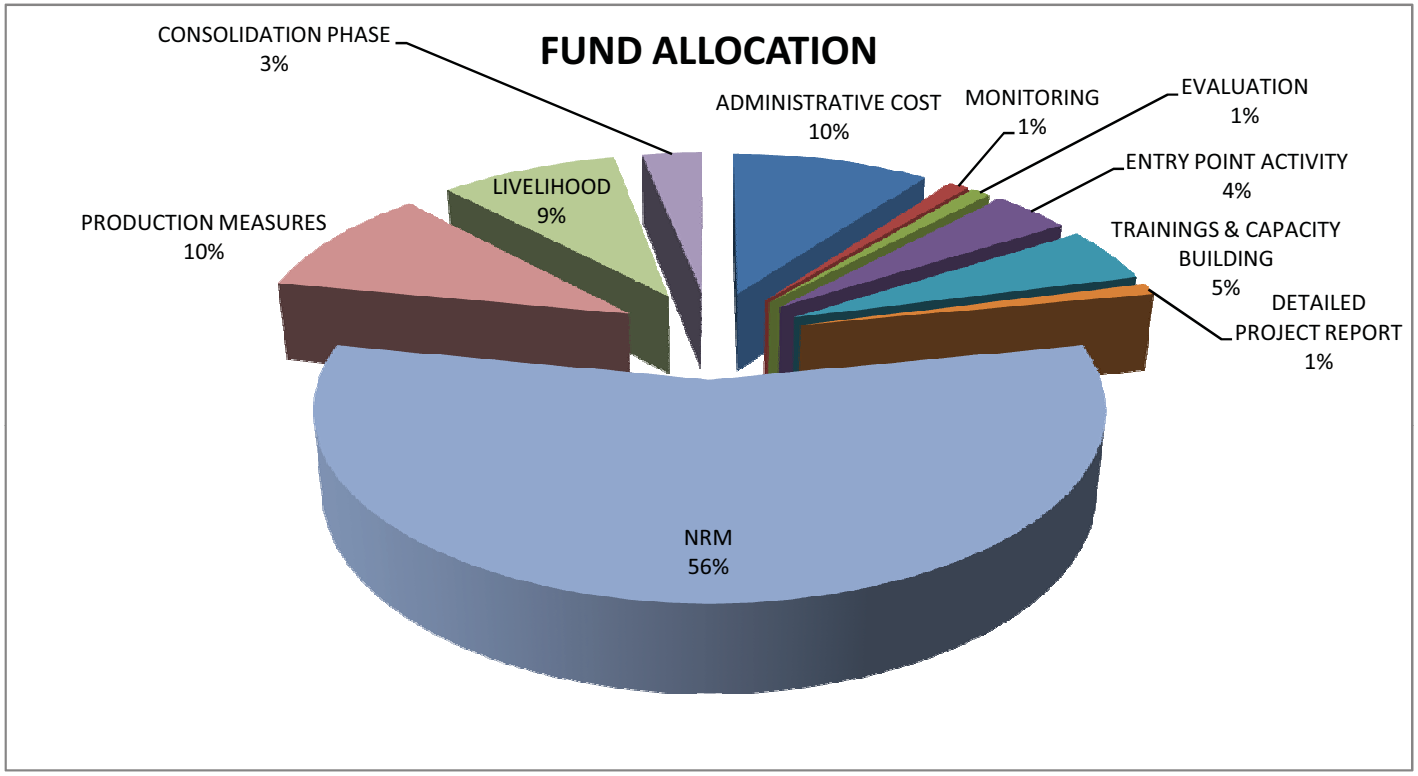
No. of Units	30
Cost for 30 Units	1500000

Category	No. of Units	Contribution	Cost from project	Cost from project (per unit)
Gen, OBC	5	100000	150000	
SC ST	2	20000	80000	
Total	7	120000	230000	32857.14286

Returns from Vermi-compost units

Benefits

1	Sale of vermi-compost	240	Ton	4000	960000
2	Sale of worms @ 5 kg per ton	1200	Kg	150	180000
	Total				1140000
	Net benefit	1140000	-	1500000	-360000


FUND ALLOCATION
CONSOLIDATION PHASE 3%
ADMINISTRATIVE COST 10%
MONITORING 1%
EVALUATION 1%
ENTRY POINT ACTIVITY 4%
TRAININGS & CAPACITY BUILDING 5%
DETAILED PROJECT REPORT 1%
LIVELIHOOD 9%
PRODUCTION MEASURES 10%
NRM 56%

Format -1

Physical Target (Watershed Works)

Name of Project : IWMP Jodhpur 51 / 11-12 Block: Balesar Distt.: Jodhpur

Name of Head	Name of Activity	Name of Subactivity	Total Target (Quantity)	Unit (ha/nos/Rmt/ Cubic meter)	Financial yearwise Physical Target				
					First Yr	Sec. Yr	Third Yr	Fourth Yr	Fifth Yr
1.Watershed Development Works	1.1 Land Development (Productive use)	1.1.1 Afforestation (on wasteland)		ha					
		1.1.2 Afforestation (on total land including wasteland)	117	ha		10	20	20	67
		1.1.3 Horticulture(on wasteland)		ha					
		1.1.4 Horticulture(on total land including wasteland)	39	ha			5	11	23
		1.1.5 Agriculture (on wasteland)		ha					
		1.1.6 Agriculture(on total land including wasteland)	1300	ha		150	250	250	650
		1.1.7 Pasture (on wasteland)		ha					
		1.1.8 Pasture(on total land including wasteland)	30	ha			30		
		1.1.9 Others (on wasteland)		ha					
		1.1.10 Others (on total land including wasteland)		ha					
	1.2 Soil & Moisture Conservation	1.2.1 Staggered trenching		ha					
		1.2.2 Countour Bunding	1050	ha		20	170	300	560
		1.2.3 Graded Bunding		ha					
		1.2.4 Bench Terracing		ha					
		1.2.5 Others		ha					
	1.3 Vegetative and Engineering Structure	1.3.1 Earthen Checks		Cubic meter					
		1.3.2 Brushwood Checks		Rmt					
		1.3.3 Gully plugs		Cubic meter					
		1.3.4 Loose bolder	100	Cubic meter		0	0	0	0
		1.3.5 Gabion structure		Cubic meter					
		1.3.6 Others	4	nos		2	2		0
	1.4 Water Harvesting Structure (New created)	1.4.1 Farm ponds	21	nos		2	10	6	3
		1.4.2 Check dams	102	nos		46	69	12	14
		1.4.3 Nallah Bunds	75	nos		4	32	26	13
		1.4.4 Percolation tanks	15	nos		4	4	4	3
		1.4.5 Ground Water recharge structure		nos					
		1.4.6 Others	191	nos		36	52	49	54
	1.5 Water Harvesting Structure (Renovated)	1.5.1 Farm ponds		nos					
		1.5.2 Check dams		nos					

Name of Head	Name of Activity	Name of Subactivity	Total Target (Quantity)	Unit (ha/nos/Rmt/ Cubic meter)	Financial yearwise Physical Target				
		1.5.3 Nallah Bunds		nos					
		1.5.4 Percolation tanks		nos					
		1.5.5 Ground Water recharge structure		nos					
		1.5.6 Others		nos					
	1.6 Water Harvesting Structure (Storage capacity of New structures)	1.6.1 Farm ponds		Cubic meter		1400	7000	4200	2100
		1.6.2 Check dams		Cubic meter		50000	138000	24000	86000
		1.6.3 Nallah Bunds		Cubic meter		400	3200	2600	1300
		1.6.4 Percolation tanks		Cubic meter		2800	2800	2800	2100
		1.6.5 Ground Water recharge structure		Cubic meter					
		1.6.6 Others		Cubic meter		720	1040	980	1080
	1.7 Water Harvesting Structure (Storage capacity of Renovated structures)	1.7.1 Farm ponds		Cubic meter					
		1.7.2 Check dams		Cubic meter					
		1.7.3 Nallah Bunds		Cubic meter					
		1.7.4 Percolation tanks		Cubic meter					
		1.7.5 Ground Water recharge structure		Cubic meter					
		1.7.6 Others		Cubic meter					
2.EPA	2.1 No. of EPA activities			nos		22			
	2.2 No. of water extracting unit created			nos					
3.Institution & Capacity Building	3.1 SHG Formation (Newly created)	3.1.1 No. of SHG		nos		13	8	8	10
		3.1.2 Total No. of SHGs members		nos		7	2	1	2
		3.2.1 No. of SHG assisted		nos		0	2	3	12
		3.2.2 Total No. of SHGs members		nos		160	50	55	70
	3.3 UG Formation	3.3.1 No. of UG	30	nos		11	10	10	
		3.3.2 Total No. of members of UGs	150	nos		55	50	50	0
	3.4 Formation of Federation	3.4.1 No. of Federation	13	nos		0		3	10
		3.4.2 Total No. of members of Federation	260	nos				60	200
	3.5 Capacity building	3.5.1 No. of Training	150	nos		76	40	15	15
		3.5.2 No. of Persons trained	3750	nos		1900	1000	375	375
4.Livelihood activities for the asset-less persons	4.1 No. of activities		31	nos			6	10	15
	4.2 No. of Beneficiaries			nos			6	10	15

Name of Head	Name of Activity	Name of Subactivity	Total Target (Quantity)	Unit (ha/nos/Rmt/ Cubic meter)	Financial yearwise Physical Target				
5.Production system &micro-enterprises	5.1 Sericulture	5.1.1 No. of activities		nos					
		5.1.2 No. of Beneficiaries		nos					
	5.2 Beekeeping	5.2.1 No. of activities		nos					
		5.2.2 No. of Beneficiaries		nos					
	5.3 Poultry	5.3.1 No. of activities		nos					
		5.3.2 No. of Beneficiaries		nos					
	5.4 Fisheries	5.4.1 No. of activities		nos					
		5.4.2 No. of Beneficiaries		nos					
	5.5 Bio-fuel Plantation	5.5.1 Area Covered		ha					
		5.5.2 No. of Beneficiaries		nos					
	5.6 Others	5.6.1 No. of activities	6	nos		2	2	2	
		5.6.2 No. of Beneficiaries	150	nos		60	60	60	

Format -2

Financial Target (Watershed works)

Name of Project : IWMP Jodhpur 51 / 11-12 Block: Balesar Distt.: Jodhpur

Name of Head	Name of Activity	Name of Subactivity	Total Target	Amount (Rs. In lakh) Financial year				
				First Yr	Sec. Yr	Third Yr	Fourth Yr	Fifth Yr
1.Watershed Development Works	1.1 Land Development (Productive use)	1.1.1 Afforestation	3.692	0	0	1.375	1.375	0.942
		1.1.2 Horticulture	13.44	0	0	1.72	3.79	7.93
		1.1.3 Agriculture	13	0	1.5	2.5	2.5	6.5
		1.1.4 Pasture	34.559			34.559		
		1.1.5 Others	0					
	1.2 Soil & Moisture Conservation	1.2.1 Staggered trenching	0					
		1.2.2 Countour Bunding	151.2	0	2.88	24.48	43.2	80.64
		1.2.3 Graded Bunding	0					
		1.2.4 Bench Terracing	0					
		1.2.5 Others	0					
	1.3 Vegetative and Engineering Structure	1.3.1 Earthen Checks	0					
		1.3.2 Brushwood Checks	0					
		1.3.3 Gully plugs	0	0	0	0	0	0
		1.3.4 Loose bolder	0					
		1.3.5 Gabion structure	0					
		1.3.6 Others	0					
	1.4 Water Harvesting Structure (New Created)	1.4.1 Farm ponds	21	0	3	10	6	2
		1.4.2 Check dams	96.785	0.000	22.660	26.720	8.348	16.276
		1.4.3 Nallah Bunds	21.04	0	0.8	8.212	8.22	3.808
		1.4.4 Percolation tanks	15	0	6	4	4	1
		1.4.5 Ground Water recharge structure	0					
		1.4.6 Others	134	0	31	24	25	54
	1.5 Water Harvesting Structure (Renovated)	1.5.1 Farm ponds	0					
		1.5.2 Check dams	0					
		1.5.3 Nallah Bunds	0					
		1.5.4 Percolation tanks	0					
		1.5.5 Ground Water recharge structure	0					
		1.5.6 Others	0					
2.Administrative Cost	2.1 Salary		82.5	16.5	16.5	16.5	16.5	16.5

				First Yr	Sec. Yr	Third Yr	Fourth Yr	Fifth Yr
	2.2 Others		0					
3.Monitoring	3.1 Monitoring of Projects		8.25	1.65	1.65	1.65	1.65	1.65
4.Entry Point Activity	4.1 Plan for EPA		33	6.6	6.6	6.6	6.6	6.6
5.Institution & Capacity Building	5.1 SHG Formation		8.25	1.65	1.65	1.65	1.65	1.65
	5.2 UG Formation		8.25	1.65	1.65	1.65	1.65	1.65
	5.3 Formation of Federation		8.25	1.65	1.65	1.65	1.65	1.65
	5.4 Capacity building		8.25	1.65	1.65	1.65	1.65	1.65
	5.5 Others		8.25	1.65	1.65	1.65	1.65	1.65
6.DPR	6.1 Preparation Of DPR		8.25	8.25				
7.Livelihood activities for the asset-less persons	7.1 Plan for Livelihood activities		74.25	14.85	14.85	14.85	14.85	14.85
8.Production system & micro-enterprises	8.1 Sericulture		0					
	8.2 Beekeeping		0					
	8.3 Poultry		0					
	8.4 Fisheries		0					
	8.5 Bio-fuel Plantation		0					
	8.6 Others		49.8	9.96	9.96	9.96	9.96	9.96

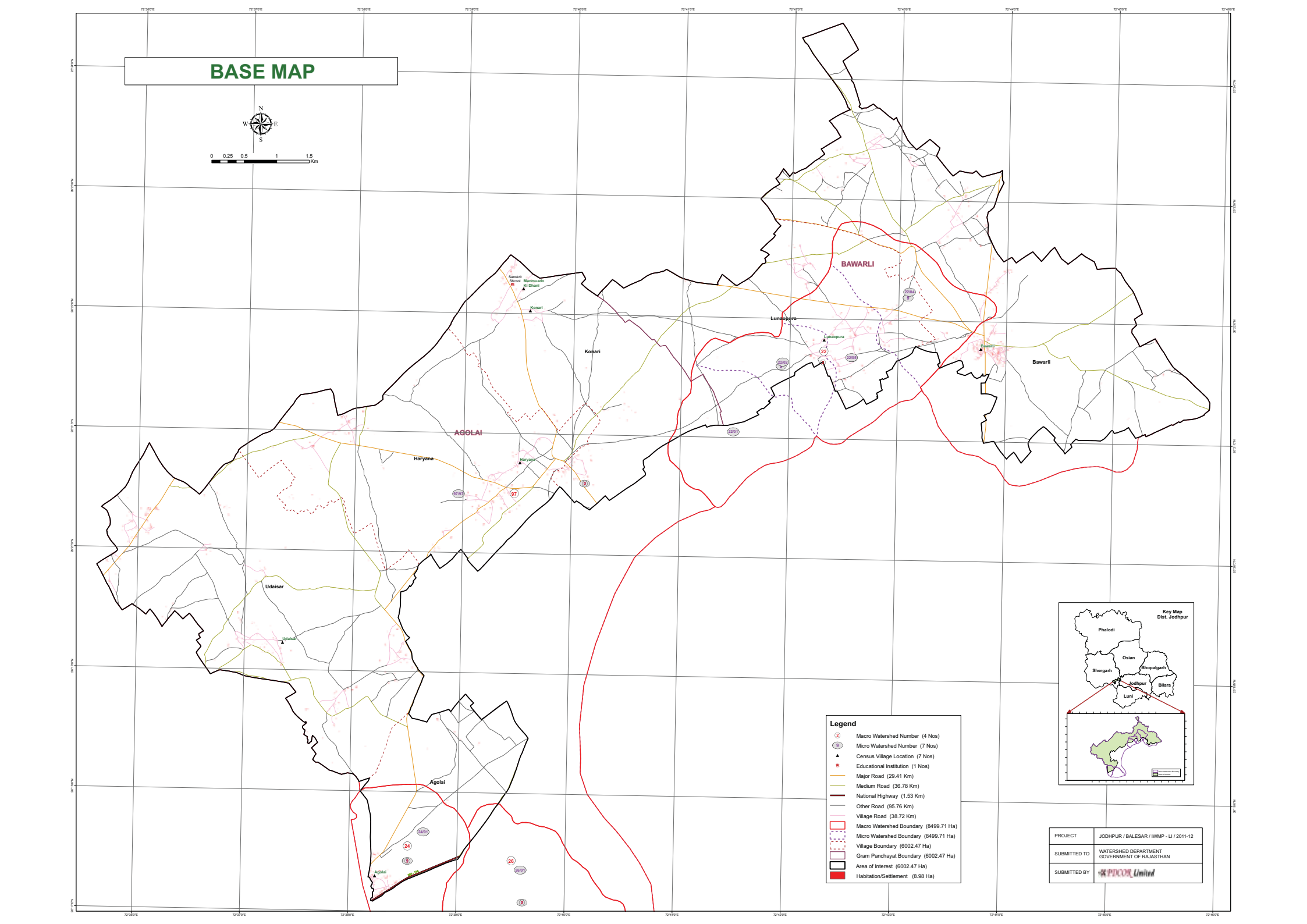
Format-3

FINANCIAL PIA

To be entered at PIA Level **Financial Target** **Projectwise**

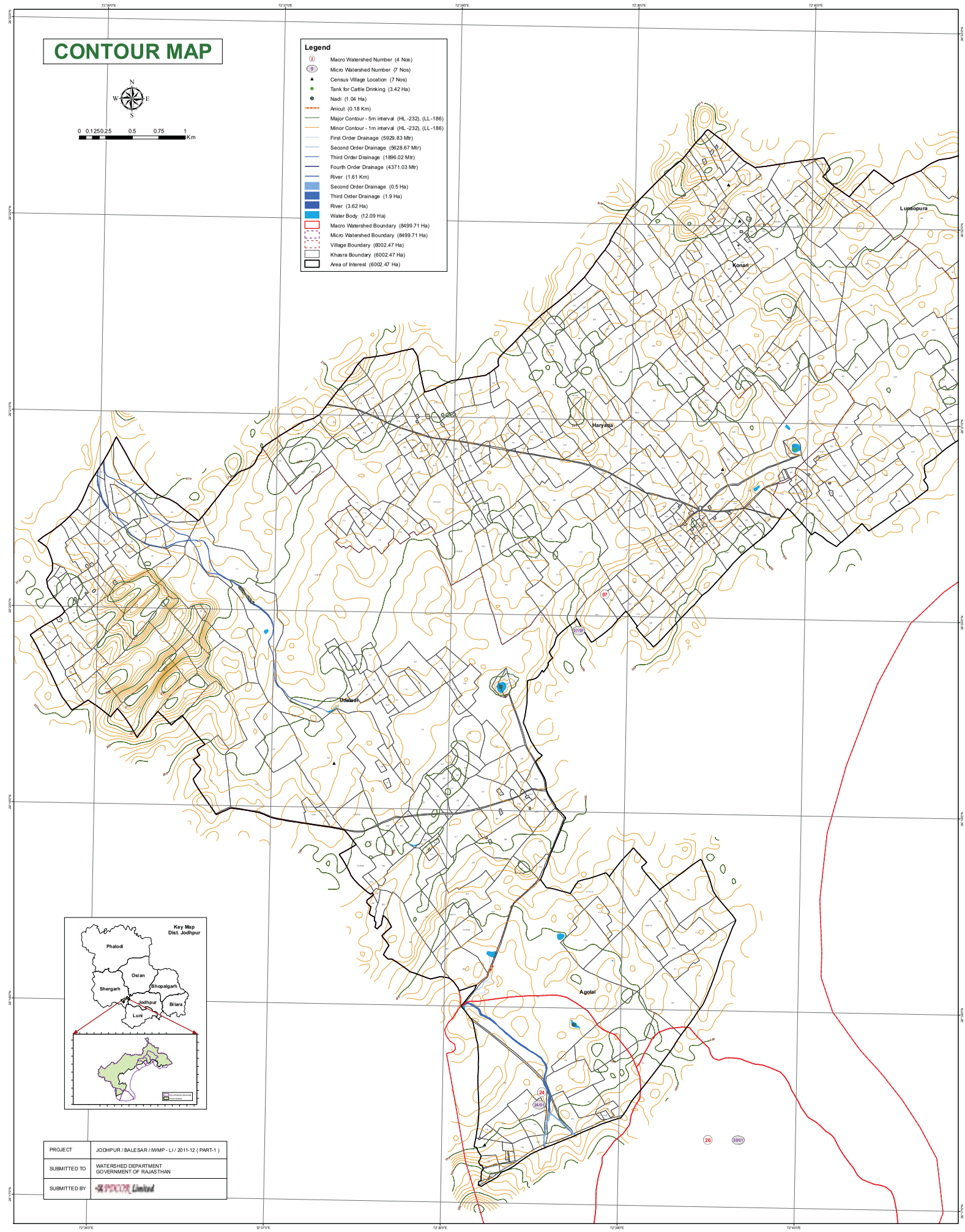
No.	Head	Amount (Rs. in Lakh)				
		Financial year				
		First Yr	Sec. Yr	Third Yr	Fourth Yr	Fifth Yr
1	Administrative	16.5	16.5	16.5	16.5	16.5
2	Capacity building	8.25	8.25	8.25	8.25	8.25
3	Monitoring	1.65	1.65	1.65	1.65	1.65
4	Preparation Of DPR	1.65	1.65	1.65	1.65	1.65
5	EPA	33	0	0	0	0
6	Any Other					24.75

BASE MAP



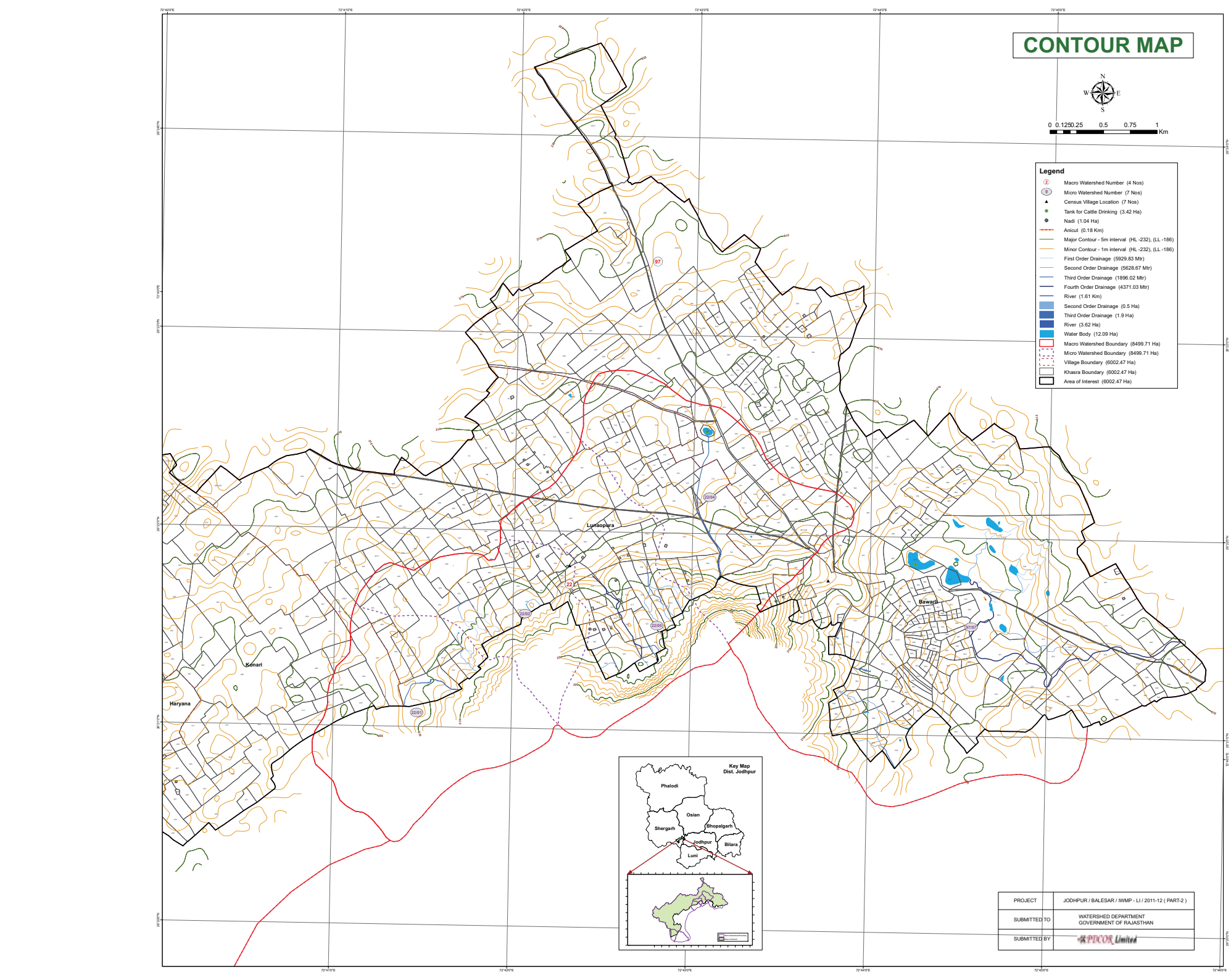
PROJECT	JODHPUR / BALESAR / IWMP - LI / 2011-12
SUBMITTED TO	WATERSHED DEPARTMENT GOVERNMENT OF RAJASTHAN
SUBMITTED BY	PINCON Limited

CONTOUR MAP



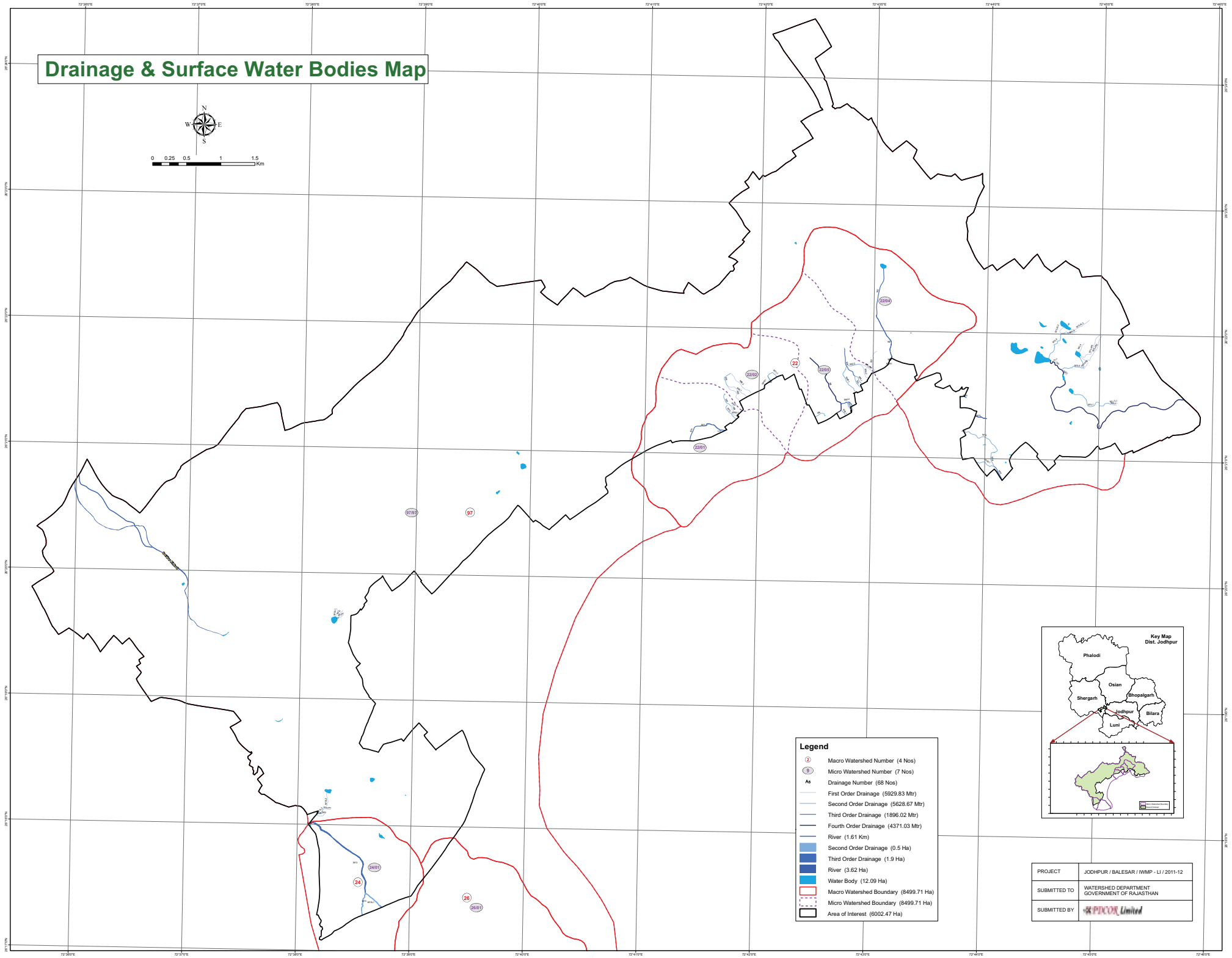
PROJECT	JODHPUR / BALESAR / IWMP - LI / 2011-12 (PART-1)
SUBMITTED TO	WATERSHED DEPARTMENT GOVERNMENT OF RAJASTHAN
SUBMITTED BY	RPDCOR Limited

CONTOUR MAP

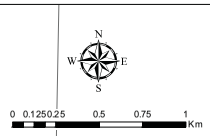


PROJECT	JODHPUR / BALESAR / IWMP - LI / 2011-12 (PART-2)
SUBMITTED TO	WATERSHED DEPARTMENT GOVERNMENT OF RAJASTHAN
SUBMITTED BY	PTCOR Limited

Drainage & Surface Water Bodies Map

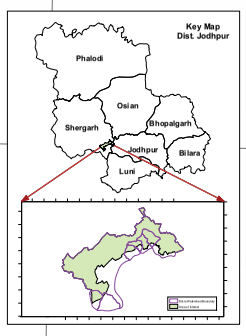


LANDUSE / LANDCOVER MAP



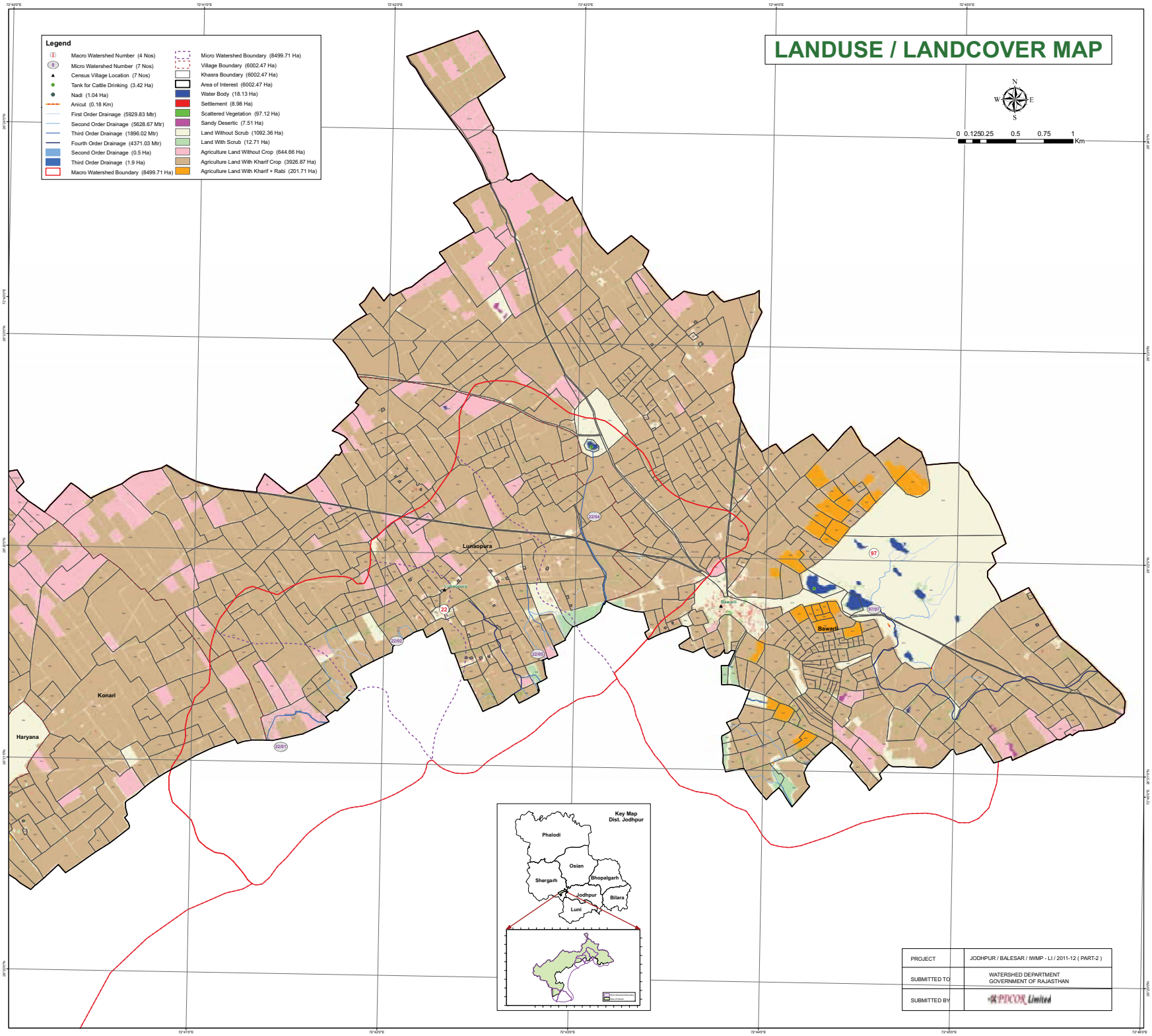
Legend

Macro Watershed Number (4 Nos)	Micro Watershed Boundary (8499.71 Ha)
Micro Watershed Number (7 Nos)	Village Boundary (6002.47 Ha)
Census Village Location (7 Nos)	Khasra Boundary (6002.47 Ha)
Tank for Cattle Drinking (3.42 Ha)	Area of Interest (6002.47 Ha)
Nadi (1.04 Ha)	Water Body (18.13 Ha)
Anicut (0.18 Km)	Settlement (8.98 Ha)
First Order Drainage (5929.83 Mtr)	Scattered Vegetation (97.12 Ha)
Second Order Drainage (5628.67 Mtr)	Sandy Desertic (7.51 Ha)
Third Order Drainage (1896.02 Mtr)	Land Without Scrub (1092.36 Ha)
Fourth Order Drainage (4371.03 Mtr)	Land With Scrub (12.71 Ha)
Second Order Drainage (0.5 Ha)	Agriculture Land Without Crop (644.66 Ha)
Third Order Drainage (1.9 Ha)	Agriculture Land With Kharif Crop (3926.87 Ha)
Macro Watershed Boundary (8499.71 Ha)	Agriculture Land With Kharif + Rabi (201.71 Ha)

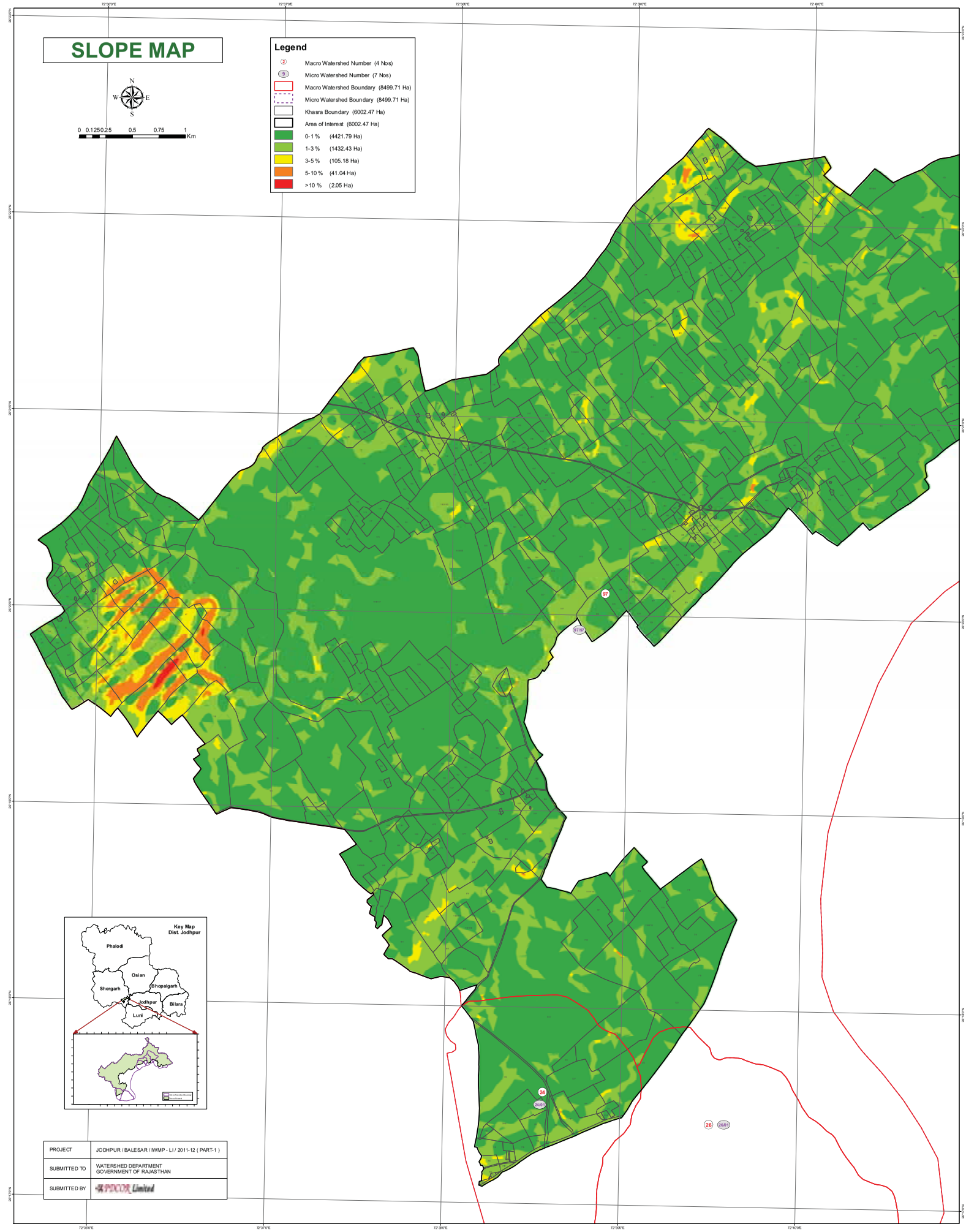


PROJECT	JODHPUR / BALESAR / IWMP - LI / 2011-12 (PART-1)
SUBMITTED TO	WATERSHED DEPARTMENT GOVERNMENT OF RAJASTHAN
SUBMITTED BY	RSAC Limited

LANDUSE / LANDCOVER MAP

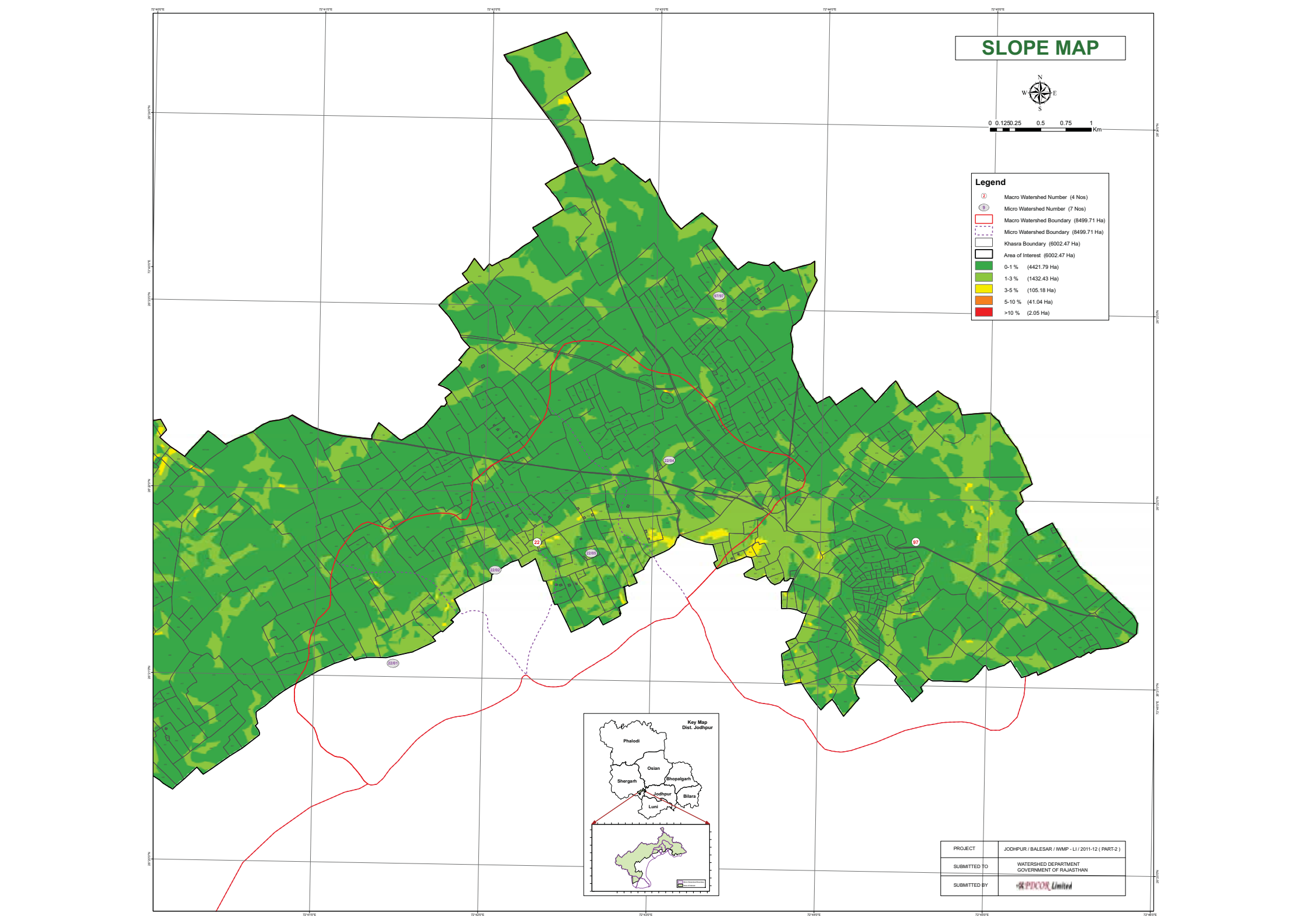


SLOPE MAP



PROJECT	JODHPUR / BALESAR / IWMP - LI / 2011-12 (PART-1)
SUBMITTED TO	WATERSHED DEPARTMENT GOVERNMENT OF RAJASTHAN
SUBMITTED BY	RPDCOL Limited

SLOPE MAP


N
W
E
S
0 0.125 0.25 0.5 0.75 1
Km
Legend
Macro Watershed Number (4 Nos)
Micro Watershed Number (7 Nos)
Macro Watershed Boundary (8499.71 Ha)
Micro Watershed Boundary (8499.71 Ha)
Khasra Boundary (6002.47 Ha)
Area of Interest (6002.47 Ha)
0-1 % (4421.79 Ha)
1-3 % (1432.43 Ha)
3-5 % (105.18 Ha)
5-10 % (41.04 Ha)
>10 % (2.05 Ha)
Key Map
Dist. Jodhpur
Phalodi
Osian
Shergarh
Bhopalgarh
Jodhpur
Bilara
Luni
PROJECT
JODHPUR / BALESAR / IWMP - LI / 2011-12 (PART-2)
SUBMITTED TO
WATERSHED DEPARTMENT
GOVERNMENT OF RAJASTHAN
SUBMITTED BY
PTCOR Limited