

BUNDI - IWMP - I

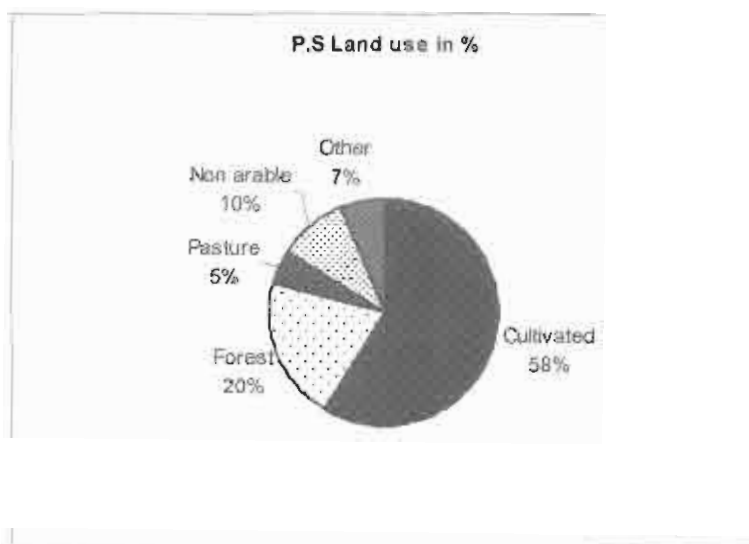


DETAIL PROJECT REPORT

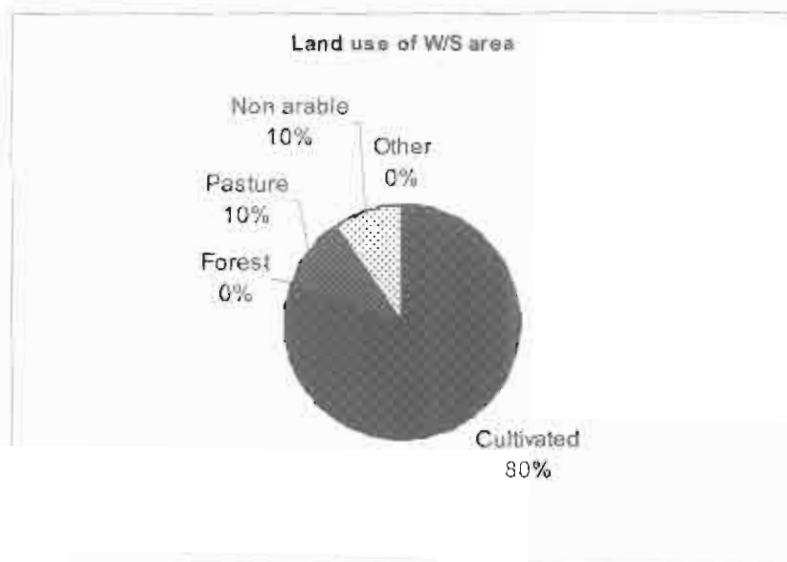
NAME OF WATERSHED	: KHOLAHERA
MACRO	: 3 & 4
MICRO	: 3/1 , 3/3 , 4/2
GEOGRAPHICAL AREA	: 5050 Ha.
PRAPOSED AREA FOR TREATMENT	: 5050 Ha.
TOTAL AMOUNT FROM W-S	: 718.47 LAC.
OTHER SCHEME	: 606.00 LAC.
	: 112.47 LAC
PANCHAYAT SAMITI	: NAINWA (BUNDI)

ASSISTANT ENGINEER
PANCHAYAT SAMITI NAINWA
BUNDI (RAJ.)

Land Use pattern in the P.S. Nainwa : The total area of the tehsil is 1154 Sq.Km out of this forest lands constitute 20.4%, Cultivated land 58.6 % , Pastures land 4.8 % . Non arable land 9.7 % , Others lend 6.5 %.



Land Use pattern in the W/S Kholahera Of the area of 5050 ha forest lands 0 ha., Cultivated land 4054 ha., Pastures land 506 ha, Non arable land 490 ha., Others lend 0 ha.

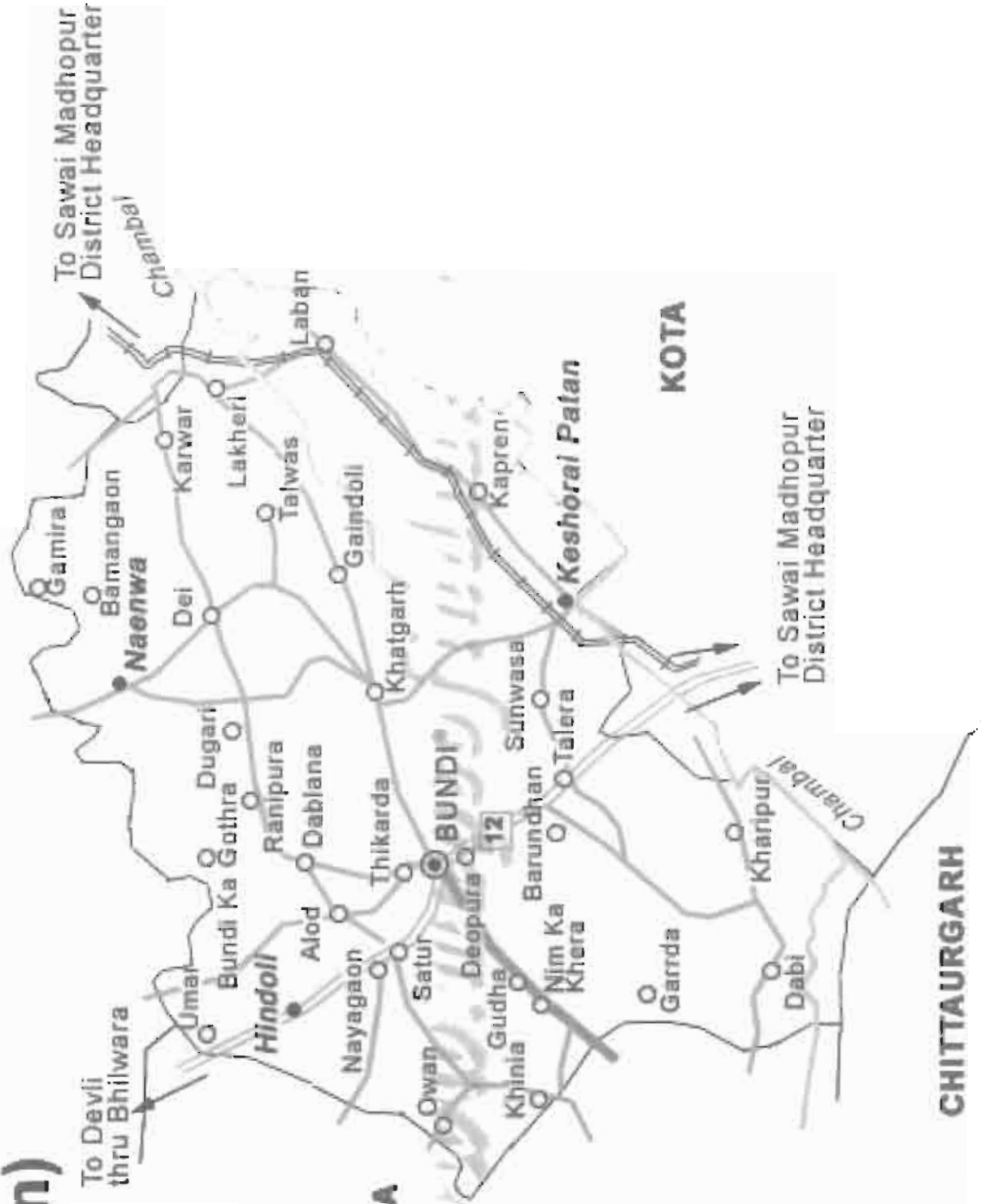




BUNDI (Rajasthan)



TONK



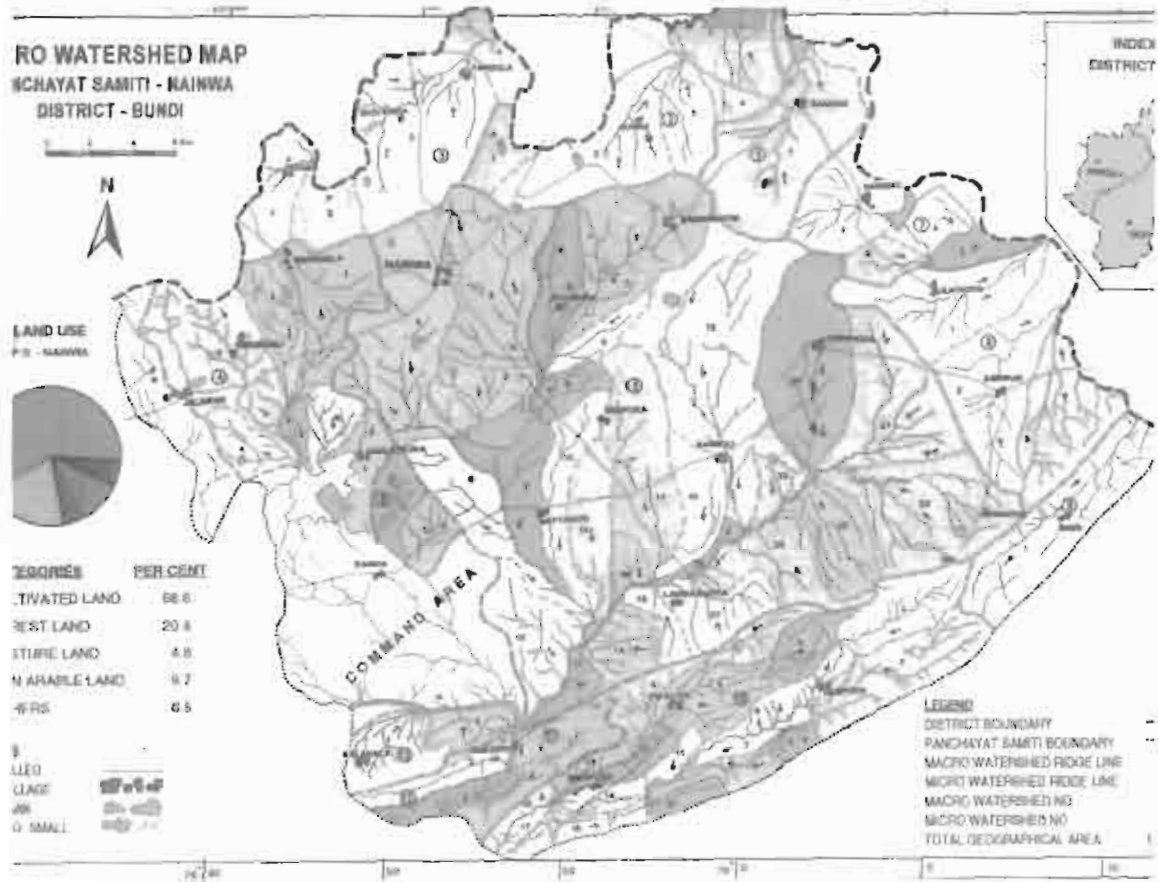
Map not to Scale

	District Boundary
	Major Road
	Road
	Railway Track
	District Headquarter
	Taluk Headquarter
	Town
	Tourist Place
	National Highway
	River

INTRODUCTION

1. P.S. Nainwa At A Glance

P.S. Nainwa is situated between 25° 35' and 25°50' North latitude and 75° 45' and 76°10' East longitude. Located in North of Bundi, the town of P.S. Nainwa is the P.S. headquarters.



The Tehsil is bounded on the eastern by Talera P.S., on the south by Talera-K Patan P.S. and on the west by Bhilwara district & in north by Tonk district . The total length of the tehsil from west to east is 50 km while the breadth from north to south is 40 km approximately.

Total geographical area of Nainwa tehsil is 1154 square km i.e. 115400 Ha. The P.S. is divided for administrative purposes in 33 Gram Panchayat.

परियोजना कियान्वयन एजेन्सी
आई० डब्ल्यू० एम०पी०
पंचायत समिति नैनवा
जिला बून्दी (राज०)

For stable and growing economy of nation, proper and optimum utilization of the natural land and water resources is essential particularly in the field of Agriculture. The national economy is mainly dependent on Agriculture, as 70 % of population depends on Agriculture or are linked with agriculture based industries, In the Bundi district of Raj. state, where 80 % population is dependent on agriculture mainly rain fed, as only 7.14 % area is covered under irrigation. As a result most of the people are below poverty line.

Increase in population and family size which has resulted in reduction in land holding and in exploitation of natural resources has led to present state of degradation and deforestation. Degraded soil and forest can not full fill the requirement of food and fodder for survival of human and animals of this area. To meet the increasing demand of food and fodder of farmers with limited irrigation opportunity the optimum utilization of local resources with integration of technology and participatory approach is importance.

Experiences throughout the world has shown that land and water resources can most effectively be treated on a watershed basis as they are interdependent resources and such treatment will have a significant effect on other areas also. We also know that in the field of a Agriculture there is close inter action between land and water for obtaining maximum production of food and fodder.

Releasing the importance of adopting an integrated approach and recognizing the mutual inter dependencies of natural resources, Govt. of India and Govt. of Raj. has taken up a major programme of watershed development but more players are required to meet the present situation. IWMP has got involved in the field of agriculture based development after studying the various problems of rural people. They have adopted participatory approach with people participation and involvement of Zila Parisad BUNDI which the important component of this programmed is.

Through this approach their major thrust is to involve the people right from beginning of programme so that they can address their own problems of the rural area.

परियोजना निदेशक
आई० डब्ल्यू० एम० सी०
पंचायत समिति कैलाश
जिला बुन्दी (राज.)

Keeping in view the need for sustainable development, augmenting of family income there by improving quality of life, main themes considered are :-

Human Resource Development

(I) Training and Awareness camps

- ❖ Awareness and capacity building of - Programmed partners
- ❖ Exposure visits of
 - Self help groups
 - Village watershed committee
 - Staff members
 - Village association members.
- ❖ Soil and land management.

(I) Erosion control structure for agriculture land

- ❖ Contour bunding
- ❖ Gully plugging (with loose boulder or earthen)
- ❖ Waste weir Masonry


➤ Runoff water management

(I) Erosion control structure for non agricultural land

- ❖ Peripheral bunds
- ❖ Masonry stone check dam
- ❖ Staggered contour Trenches
- ❖ Continuous Contour Trench
- ❖ Gully plug

(II) Water Conservation Structure

- ❖ Construction of farm ponds or percolation tank.
- ❖ Water harvesting structure (Earthen / Masonry)


परियोजना क्रियान्वयन एजेंसी
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जिला बन्दी (राज०)

➤ Increase vegetative cover by aforestation, Pasture Development and Agriculture development.

(I) Agriculture Development

- ❖ Rain fed land farming with tree component
- ❖ Agro Horticulture
- ❖ Introducing new crop variety
- ❖ Improved agriculture practices
- ❖ Change in cropping pattern
- ❖ Demonstration

(II) Non Agriculture Land Development

- ❖ Silvi Pasture
- ❖ Afforestation


➤ Animal husbandry.

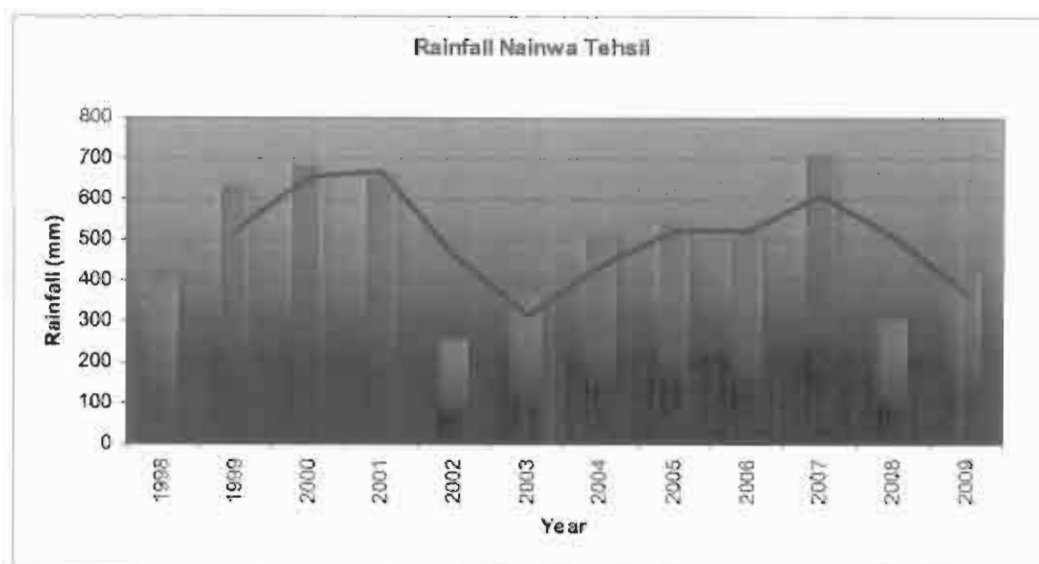
(I) Livestock Development

- ❖ Vaccination
- ❖ De-worming
- ❖ Infertility Camp
- ❖ Urea Treatment
- ❖ Castration
- ❖ Introduce cross bred cow, buffaloes and goat.

➤ Economic development by creating income generation opportunities.

➤ Rural energy management.


परिपालना विद्यालय परिसर
आई. डब्ल्यू. एम.पी.
विद्यार्थी मण्डल नैसर्ग
जिला बन्नी (उज्जैन)



The climate of this area is influenced by the rain bearing South West wind and North East wind from Himalayan Mountains. The distribution of rain fall is uneven and erratic. Monsoon normally breaks in the middle of June and lasts till mid of September. July and August months account for the major share of annual rainfall. Winter rains are generally intermittent and mild runoff is produced mostly by showers. Winter showers being mild do not cause any runoff.


Summers are extremely hot May and June being hottest months recorded average maximum temperature is 42-46° C. December and January month account for lowest temperature Average minimum temperature is 4-7° C.

HUMIDITY:

During summer month of April, May and June humidity is least. During rainy season it may be as high as 100 %. During winter it falls down to 25%. Critical period for crop and natural vegetation are the summer months. Evaporation and evapotranspiration losses in general are the highest during summer month.

SOIL:

Soil in this area varies in their fertility from place to place. The area is characterized by shallow hills having kankar, Murrum & Sandy Loam. The soil is conducive to cultivation of Maize, Urad, Moog, Till and wheat. Soil on slopes is subjected to


 परियोजक
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 जिला बुन्देलखण्ड

continuous fertility erosion. Soils are low in nitrogen and phosphorus and medium in respect of potash.

TOPOGRAPHY AND DRAINAGE:

The topography of this region is gently undulating to rolling, Slopes range from 0.40% to 1.5%. Due to steep slopes deep gully and presence of many water courses, there is no drainage problem. The runoff is drained through rivulets and all the runoff goes waste from the area. Soil being gravely, sub-surface drainage is also very good and there is no problem of water logging in any season during the year. The watershed forms parts of Bisalpur MIP Catchments.

NATURAL VEGETATION:

The vegetation is sparse due to various biotic factors i.e. deforestation, overgrazing etc. Which have destroyed the economic species and left with only little to account for.

HUMAN POPULATION:

Population is rather sparse and is chiefly distributed around agricultural fields cultivated for main crop of maize during Kharif season.

क.स.	गाँव का नाम	ग्राम पंचायत	कुल परिवारों का विवरण				
			S.T.	S.C.	OBC.	OTH.	TOTAL
1	पाण्डुला	सुवानिया	0	8	97	3	108
2	कोलाडा		63	39	31	0	133
3	पीपरवाला		0	0	14	24	38
4	सन्थली		86	92	3	4	185
5	धीरपूर		0	31	25	20	76
6	विजलवा		121	19	12	0	152
7	धानूगाँव		80	90	30	14	214
8	भावपुरा		5	12	84	3	104
9	सुवानिया		0	25	102	0	127
10	बाछोला	बाछोला	16	91	105	28	240
11	सुरगली		0	32	40	0	72
12	उगेन		0	24	47	0	71
13	भीमगंज	सीसोला	0	22	60	0	82
14	सीसोला		22	72	113	14	221
15	महावीरपुरा		53	0	17	2	72
Total			446	557	780	112	1895

27
 तहसील
 जे.डी. अग्रवाल
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 जिला बुन्देलखण्ड

S. No.	Description	Required quantity kg/day	Required quantity tone/year	Remarks
1.	Food	2.71	1874.44	
2	Fodder (a)	9 (Big)	14164.92	
3	(b)	4 (Small)	7237.22	
	TOTAL	(a+b)	21402.14	

AGRICULTURE, HORTICULTURE AND FARM FORESTRY:

Crops raised in the watershed area 5050 ha.

KHARIF- Maize, urad , moong gawar til etc.

RABI- Wheat, chana , sarson etc.

HORTICULTURE:

Common fruit trees in watershed area are Papaya, Santra, Anwala. In very small area & Human being no interest to grow Horticulture Plants in Watershed Area.

FARM FORESTRY:

Khejri, Neem, Khankra, Babul etc. are the common species in farm forestry in Watershed Area.

SOCIO ECONOMIC CONDITION:

The socio economic condition of the people is very poor Land holding per capita is nearly 2.14 hac. Arable land. The population depends upon agriculture for their survival. Mostly the agricultural lands are rain fed and there are either occasionally cropped or single cropped. Due to that crop yield is low and they have poor live stock, the socio economic condition of people is very poor due to which distress migration is a common phenomenon.

PRESENT LAND USE:

In 1st phase of watershed development programmed we have taken only 5050 ha. Area for treatment in which land used in following pattern:

Handwritten signature and official stamp of the Watershed Development Office.

Sr. No.	Type of land	Using pattern	Area (Ha.)	Remarks
1.	Arable			
		Single cropping	3515	
		Double cropping	524	
		Horticulture & vegetable	15	
		TOTAL(A)	4054	
2.	Non arable			
		Pasture	506	
		Panchayat / Govt. waste land	490	
		Forest Land	0	
		TOTAL(B)	996	
		GRAND TOTAL (A+B)	5050	

AGRICULTURE:

Owing to steep slopes and lack of irrigation facilities 80% area of watershed is cultivated for agriculture crops and it is under rain fed condition.

A. RAINFED AREA:

The project area receives sufficient amount of rainfall during Kharif season but during Rabi season crops suffer from moisture stresses. Some farmers use diesel pump set for assured irrigation during Rabi.

Sr. No.	Cropping pattern	Area (Ha.)
1.	Rainfed area	
	Horticulture & vegetable	15
	Single cropping	3515
	Double cropping	524
	Total cultivated area	4054

परियोजना प्रिजाब्यायन एलेवले
आई. डब्ल्यू. एम. एल. ए.
पंजाब नॉयलि मैन्वा
जिला बुन्दी (संज०)

Crops raised and their production :

The main crops in Kharif and Rabi along with average yield (q./ha.) are as follows.

Sr. No.	KHARIF		RABI	
	Crops	Yield (q/ha.)	Crops	Yield (q/ha.)
1	Bazara	15.00	Wheat	30.00
2	Urd	6.00	Gram	8.00
3	Moong	5.00	Mustard	12.00
4	Til	6.00	Masoor	6.00

Infrastructure

Electricity:

In the tribal area the farmers live near their fields due to which they are very scattered and electrification becomes a problem.

Bank and agriculture societies:

A bank branch of State Bank of India is situated near by watershed area at Nainwa Tehsil. For seed and fertilizer farmers generally prefer to purchase from G.S.S. Nainwa, Which is 6-18 Km. from watershed area.

Approch road:

All the villages of the proposed watershed have links with Paccka & kaccha road with tehsil H.Q. and district H.Q. In the villages there are approachable Kacha road which are in poor condition.

Schools:

In the watershed, 16 primary schools, 4 Upper primary school and 0 Secondary school are functioning in the village. for further studies students have to go to near by town Nainwa .

परिचालना अधिकारी के लिये
आर. डी. ए. ए.
प्रमाणित अधिकारी के लिये
दिनांक १०/०३/२०१९

PROBLEMS IN WATERSHED AREA

Degradation:

- ❖ The watershed area has gently undulating to rolling topography, Low to Medium slopes with denuded land due to which it has caused soil erosion problem in cultivated land. Productivity of land has decreased and most land have been transferred in to non productive land.
- ❖ Degraded land can not meet the food and fuel requirements of the community. In order to full fill their requirements they cut down the forest leading to soil erosions and degradation further in forest area through various form of erosion.

Rain Water Management:

- ❖ The agriculture lands in proposed watershed are rain fed. Farmers are dependent on rains, which are erratic in nature. By Geomorphic survey, ground water quality of this terrain has impartial and in he rent problems. Status of ground water of watershed is moderate to poor. There is the possibility of adequate water recharging. The surface water drains through the nallas. There is no one structure present for water harvesting during the rainy season which can be utilized for drinking and irrigation purposes later.

Management:

- ❖ The farmers practice traditional agriculture. They use implements like country plough and are hardly aware of new improved equipment, hybrid variety of seeds, fertilizer and plant protection measures. Hence they are using local varieties of seed which gives low crop yield in long duration.
- ❖ Farmers are generally small or marginal land holders and lack resources for investment.
- ❖ Extension system is not equipped to promote multi disciplinary land use systems.
- ❖ Farmers are generally unaware of the already available improved crop production technology.

परियोजना निदेशक/सहायक निदेशक
आई. डी. डी. एन. एन. एन.
पंचायत समिति भैरवा
जिला बुन्देलखण्ड (सब. ०)

Migration:

- ❖ Due to undulating topography very limited area comes under irrigation so that people depend on rainfed agriculture in highly degraded land where yield is poor. Villagers are unable to manage one square meal a day so that they have to migrate to other place to search job for their survival. Migration rate of this area is very high. From each house people migrate to other towns in the month of October or November except the elderly and come back in month of June or July.

Grazing land and grass land :

- ❖ The area is earmarked for land use, but either it has been overgrazed or is brought under cultivation. The carrying capacity at present state is almost zero. Consequently it affects the afforestation work.
- ❖ Predominantly live stock center farming systems reduce productivity and increase grazing pressures on eroded and deforested land.

36
श्रीमान् श्री. राजेश्वर प्रसाद
असि. अ. व. नं. १५५
जयपुर जिला अ. अ. अ.
जयपुर जिला अ. अ. अ.

ACTION PLAN

Based on the various problems, the development plan has been prepared for agricultural and non-agricultural land in which soil and water conservation measures, water conservation and cultivation of agricultural crops and tree crops can be undertaken.

(I) Training and Awareness camps

- Awareness and capacity building of - Programmed partners
- Exposure visits of - Self help groups
- Village watershed committee
- Staff members
- Village association members.

(I) Erosion control structure for agriculture land

- Contour bunding
- Farm bund
- Gully plugging (with loose boulder or earthen)
- Waste weir Masonry

(I) Erosion control structure for non agricultural land

- Peripheral bunds
- Masonry stone check dam
- Staggered contour Trenches
- Continuous Contour Trench
- Gully plug

(II) Water Conservation Structure

- Farm ponds & percolation tank construction
- Well recharging /deepening
- Water harvesting structure (Earthen / Masonry)

(I) Agriculture Development

Rainfed land farming with tree component

- Agro Horticulture
- Introducing new crop variety
- Improved agriculture practices
- Change in cropping pattern
- Demonstration

परियोजना क्रियान्वयन
आई० डब्ल्यू० एम०
पंचायत समिति
जिला बुन्देलखण्ड

(II) Non Agriculture Land Development

- Silvi Pasture
- Afforestation

(I) Livestock Development

- Vaccination
- De-worming
- Infertility Camp
- Castration
- Introduce cross bred cow, buffaloes and goat
- Artificial Insemination

Proposed Erosion Control Measures

The different engineering measures are recommended in the area according to the need of watershed. Following are the proposed measures are in watershed.

For Arable land

- ☞ Contour bunding
- ☞ Farm bunding
- ☞ Stone outlet
- ☞ Farm Pond


For Non arable land

- ☞ Continues Contour Trench
- ☞ LSCD
- ☞ Stone Masonry Wall
- ☞ Pasture Land Development


परिचालक अधिकारी
आर.एस.एस.ओ. के.
प्रशासनिक अधिकारी केन्द्र,
जिला मुख्यालय (राजपुर)

जलग्रहण क्षेत्र की सामान्य जानकारी

जलग्रहण क्षेत्र का नाम -	खोलाहेडा
पंचायत समिति : नैनवा	जिला : बुन्दी
कुल क्षेत्रफल	5050 हैक्टर
आबादी क्षेत्रफल	15 हैक्टर
उपचारित क्षेत्रफल	5050 हैक्टर
कृषि योग्य भूमि	4054 हैक्टर
सिंचित क्षेत्रफल	1138 हैक्टर
असिंचित क्षेत्रफल	2916 हैक्टर
अकृषि योग्य भूमि	490 हैक्टर
घरागाह भूमि	506 हैक्टर
वन भूमि	0 हैक्टर
खनन क्षेत्र	0 हैक्टर
कुल क्षेत्रफल	5050 हैक्टर
परियोजना की लागत	606.00 लाख रुपये
परियोजना लागत/ हैक्टर	12000 रुपये प्रति हैक्टर
लाभान्वित ग्राम	<ol style="list-style-type: none"> 1. पाण्डुला ग्र.पं. सुवानिया 2. कोलाडा ग्र.पं. सुवानिया 3. मीपरवाला ग्र.पं. सुवानिया 4. सुन्धली ग्र.पं. सुवानिया 5. धीरपुर ग्र.पं. सुवानिया 6. विजलवा ग्र.पं. सुवानिया 7. धानूगोंव ग्र.पं. सुवानिया 8. भावपुरा ग्र.पं. सुवानिया 9. सुवानिया ग्र.पं. सुवानिया 10. बाछोला ग्र.पं. बाछोला 11. सुरगली ग्र.पं. बाछोला 12. उगेन ग्र.पं. बाछोला 13. सीसौला ग्र.पं. बाछोला 14. सीसौला ग्र.पं. सीसौला 15. महावीरपुरा ग्र.पं. सीसौला
कुल परिवारों की संख्या	- 1895 No
अनुसूचित जाति	- 557
अनुसूचित जनजाति	- 446
ओ. बी. सी.	- 780
सामान्य जाति	- 112
बी.पी.एल. परिवारों की संख्या	- 562


 परियोजना निदेशक
 आर्द्रक हस्त
 संयोजक
 जिला मुख्यालय

Climatic and Hydrological information

Name of Agroclimatic Zone

1	Average Annual Rainfall(mm)			
	Year	Average		
1	1998	409.90		
2	1999	631.60		
3	2000	681.60		
4	2001	655.60		
5	2002	259.40		
6	2003	371.00		
7	2004	503.00		
8	2005	540.00		
9	2006	508.00		
10	2007	708.00		
11	2008	311.00		
12	2009	415.00		
	Total	5994.10	Average	499.51


 अधिकारी,
 जल संसाधन विभाग,
 प्रजापत संसदीय क्षेत्र,
 जिला मुख्यालय, राजस्थान

C. Soil Profile		
S.No.	Major Soil Classes	Area in hectares
1	Fine Loam	4060
2	Silt Loam	860
3	Degraded	130
4		
Total		5050

D. Soil Depth :		
	Depth (Cms.)	Area in hectares
1	0.00 to 7.50	320 Ha
2	7.50 to 45.00	676 Ha
3	> 45.00	4054 Ha
E	Soil fertility Status	Kg/ha
	N	127
	P	17.9
	K	182


 भारतीय कृषि विज्ञान संस्थान
 आर. ए. ए. ए. ए.
 दिल्ली-110 016
 जिला सुल्तानपुर (उ.प्र.)

Details of infrastructure in the project areas

Parameters		Status			
(i)	No. of villages connected to the main road by an all-weather road	15 No			
(ii)	No. of villages provided with electricity	10 No			
(iii)	No. of household without access to drinking water				
(iv)	No. of educational institutions:				
	Primary(p)/ Secondary (S)/ Higher Secondary(HS) Vocational institution(VI)	(P) 16 No	(S) 3No	(HS) 0	(VI) 0
(v)	No. of villages with access to Primary Health center	3 No			
(vi)	No. of villages with access to Veterinary Dispensary	3 No			
(vii)	No. of villages with access to Post Office	3 No			
(viii)	No. of villages with access to Banks	0			
(ix)	No. of villages with access to Markets / mandis	0			
(x)	No. of villages with access to Agro-industries	0			
(xi)	Total quantity of surplus milk				
(xii)	No. of milk collection centers (e.g. union (u)/Society (S)/ Private agency(PA)/ others(O).	2			
		(U)	(S) 2No	(PA)	(O)
(xiii)	No. of villages with access to Anganwadi center	3 No			
(xiv)	Any other facilities with no. of village (please specify)	0			
(xv)	Nearest KVK	Bundi			
(xvi)	Coperative society	4 No			
(xvii)	NGOS	0			
(xviii)	Credit institutions	0			
	(i)Bank	0			
(xix)	Agro Service center's	0			


 परियोजना निमित्तगत एकेडी
 आई-एच-एच-एच-एच
 प्रशासन एकेडी केन्द्र
 बिना बुन्देलखण्ड

संस्थागत व्यवस्थायें :-

अ-1 डब्ल्यूडीटी के सदस्य --

1. अभियान्त्रिकी श्री
2. कृषि श्री लाडली प्रसाद
3. पशुपालन श्री भूपेन्द्र सिंह हाडा
4. सामाजिक विज्ञानी श्रीमती हिना कौशर

अ-2 ग्राम पंचायत सरपंच सचिव का विवरण

क्र. सं.	ग्राम पंचायत का नाम	सरपंच का नाम	सचिव/ग्रामसेवक का नाम	पटवारी का नाम
1	सुवसनिया	श्री गोपाल चौबदार	श्री दुर्गालाल मीणा	श्री रामकेश मीणा
2	बाछोला	श्री उम्मेद सिंह	श्री मुरलीधर नागर	श्री हेमन्त महावर
3	सीसोला	श्री देवी लाल ढोली	श्री बाबू मौहम्मद	श्री चन्द्र प्रकाश मीणा


परियोजना क्रिया-व्ययन एजेन्सी
आई० डब्ल्यू० एम०पी०
पंचायत समिति नैनाद
जिला इन्दी (राज०)

जलग्रहण समिति सीसोला

जलग्रहण समिति सीसोला का गठन दिनांक 25.06.2011 को करवाया गया है। संस्था का पंजीयन क्रमांक/बून्दी/2011-12 दिनांक है। समिति के पदाधिकारियों का विवरण निम्नानुसार है।

क्र.सं.	नाम	उम्र	व्यवसाय	पद
1	श्री देवी लाल डोली		सरपंच	अध्यक्ष
				सचिव
2	श्री बाबू लाल डोली		कृषि	
3	श्री राजेश संजर		सहायक अभियन्ता	WDT Team Leader
4	श्री मगना वैरवा		कृषि	सदस्य
5	श्री रामसिंह राजपुत		कृषि	सदस्य
6	श्री हेमराज मीणा		कृषि	सदस्य
7	श्री नाथु लाल मीणा		कृषि	सदस्य
8	श्री बाबू लाल वैरवा		कृषि	सदस्य
9	श्री सोजी लाल मीण		कृषि	सदस्य
10	श्री राम लाल मीणा		कृषि	सदस्य
11	श्री प्रकाश मीणा		कृषि	सदस्य
12	श्री देवलाल वैरवा		वार्ड पंच सीसोला	सदस्य
13	श्रीमति शान्ती बाई W/O बंशी लाल			सदस्य

जलग्रहण समिति का बचत खाता बैंक शाखा में खुलवाया गया है जिसका खाता संख्या है।


 परियोजना विमान्तक
 आई. डब्ल्यू. एम.
 पंचायत समिति के
 जिला बून्दी (राज.)

Ownership wise of land use in Watershed

S.No	Land use	Total area in Ha.			
		Govt.	Pvt.	Community	Total
1	Agriculture land	0	4054	0	4054
2	Forest land	0	0	0	0
3	Waste land	490	0	0	490
4	Pastures	506	0	0	506
5	Others	0	0	0	0
	Total	996	4054	0	5050

Water Resources

Total available runoff(cum)

a)Details of already stored runoff(Surface Water structures)


S.No.	Name	No.	Total Storage Capacity	Area irrigated (ha)
i)	Major Irrigation Project	0	0	0
ii)	Medium Irrigation	1	65000	0
iii)	Form Ponds/Tanks	7	73500	0
iv)	Anicuts	3	28000	0
	Total	16	166500	0

Water Budget

(b)

Ground Water


i)	Dug wells	No.	Functional depth (m)	Dry	Area irrigated	Water availability (days)
ii)	Shallow tube wells	65	45	15	0	240-270
iii)	Pumping sets	102	55	12	150	250-300
iv)	Deep Tube Wells	298	105	0	500	Always
	Total	465				


 परियोजना कियान्वयन एजेंसी
 आई० डब्ल्यू० एस०पी०
 पंचायत समिति नैनवा
 जिला बुंदी (राज०)

Cattle and Animal Population			
S.No.	Description of animals	Population in No	Yield (milk in lit.)
1	Cows		
A	Indegeneous	1281	6405
B	Hybrid	55	650
C	Ox	435	0
2	Buffaloes	1684	10104
3	Bull	857	0
4	Sheep	1142	0
5	Goat	3648	250
6	Others	167	0
	Total	9269	17419

Abstract of cropped Area (ha)

S.No	Gram panchayat	Village	Area under Single crop	Area under Double crop	Area under Multiple crop
1	Suwaniya	Suwaniya	346	17	10
		Pandula	174	81	25
		Kholahera	284	48	12
		Peeparwala	64	18	6
		Sunthali	391	11	5
		Dheerpur	257	13	10
		Bizlwa	341	39	22
		DhanooGau	32	18	13
		Bhayapura	94	36	21
2	Bachola	Bachola	768	71	15
		Surgali	193	5	0
		Ugen	284	18	10
3	Seesola	Seesola	133	87	32
		Bheemgang	92	51	27
		Mahaveerapura	62	26	13
		Total	3515	539	221


 पंचायत विकास विभाग
 अर्ध-सहकारी प्रणाली
 प्रमाणित प्रमाणिका
 २०११/१२

(अध्याय - 3)

रोड मैप

क्र. सं.	पैरामीटर	परियोजना क्षेत्र में (परियोजना पूर्व)		परियोजना अवधि उपरान्त वृद्धि का प्रस्तावित स्तर/आंकलन	
1	जल से सम्बन्धित (मीटर)				
(i)	कुओं में औसत जल स्तर	19.50 M.		17 M.	
2	कृषि से सम्बन्धित				
(i)	जलग्रहण में बोया गया कुल सिंचित क्षेत्रफल (हेक्टेयर)	1138		1250	
(ii)	जलग्रहण क्षेत्र में कुल कृषि क्षेत्र (हेक्टेयर)	3650		4054	
(iii)	जलग्रहण क्षेत्र में ली जाने वाली विभिन्न फसलें (प्रजातित्वार)	परियोजना पूर्व फसलवार		परियोजना अवधि उपरान्त फसलवार	
		जोत क्षेत्र (हेक्टेयर)	क्विंटल प्रति हेक्टेयर उत्पादन	जोत क्षेत्र (हेक्टेयर)	क्विंटल प्रति हेक्टेयर उत्पादन
1	Bazra	105	15-20	150	20-24
2	Udad(Black Gram)	630	6-10	650	8-10
3	Soyabin	1482	8-10	1500	10-12
4	Jwar	55	8-10	80	10-12
10	Moonge	25	5-8	50	7-8
11	Wheat	85	30-35	100	32-35
12	Chana (Gram)	60	8-10	70	10-12
13	Mustered	2833	12-15	2850	12-16
	चास उत्पादन (टन में)	वर्तमान में		परियोजना अवधि के उपरान्त	
	Wheat	4200		4620	
	Maize	2975		3273	
	Jwar	9900		10890	
	Chana (Gram)	480		528	
	Pasture Land	37950		75900	
	Total	55505		95211	
IV	जल ससाधनों में पानी की उपलब्धता (ससाधन का नाम)				
•	तालाब	8 माह		8-10माह	

परियोजना निष्पत्ति
आई. ए. ए. ए. ए. ए.
समाप्त परिशिष्ट नं. 1
जिला 2-81 (22)

	हैप्डम	8-10 माह	12 माह		
V	उन्नत बीज उपयोग की दर (एसआरआर)	वर्तमान में	परियोजना अवधि के उपरान्त		
		25%	50%		
VI	जैव उर्वरकों के उपयोग की स्थिति	वर्तमान में	परियोजना अवधि के उपरान्त		
		10%	40%		
3-	उद्यानिकी से सम्बन्धित (प्रजातिवार)	परियोजना से पूर्व प्रजातिवार	परियोजना अवधि उपरान्त प्रजातिवार		
		संख्या	उत्पादन (क्विण्टल)	संख्या	उत्पादन (क्विण्टल)
	अनार	0	0	2340	1170.00
	नींबू	35	10.50	1939	969.50
	आंवला	45	13.50	3120	1560.00
	बैर	50	7.50	2216	664.80
	अमरुद	15	2.25	2770	830.00
	करौदा	50	7.50	2770	830.00
4	पशुपालन से सम्बन्धित	वर्तमान में	परियोजना अवधि उपरान्त		
1-	संकर प्रजाति के पशुओं की संख्या (प्रजातिवार)				
	गाय	55	200		
2-	औसत दुग्ध उत्पादन प्रति पशु (प्रजातिवार)				
	कि.ग्रा. में	2-3	4-5		
	गाय	4-5	6-7		
	गैस				
3-	पशुओं में पायी जाने वाली बीमारियों के नाम (संख्या में कमी)	HS, BQ, FMD	NIL		
5	सामाजिक-आर्थिक	वर्तमान में	परियोजना अवधि उपरान्त		
1-	प्रति परिवार औसत आमदनी	20000 प्रति वर्ष	30000 प्रति वर्ष		
2-	स्वयं सहायता समूह				
	कुल स्वयं सहायता समूह की संख्या	18	75		

परियोजना/किया-समय वृत्त
आई. डब्ल्यू. एम.सी.
पंचायत समिति नैनीया
जिला बुन्डी (राज.)

	(गतिविधिवार)		
•	कुल सदस्यों की संख्या	180	750
•	कुल बचत राशि	21500	75000
•	ज.प्र. परियोजना से सहायता राशि	0	10000 प्रति समूह
•	बैंक लिफ्टेज राशि	0	75

परियोजना निदेशिका
 क्र. 2022-23
 वाषाण संख्या 10
 जिला दुधौ, राजस्थान

Water Budgeting					
S.N	ITEM	DETAILS			
1	Name of watershed	Kholahera			
2	Name of panchayat samiti	Nainwa			
3	Macro No	3 & 4			
4	Micro No	3/1,3/3,4/2			
5	Topographical area, Ha	5050			
6	Area not available for treatment, pal, habitation, rasta etc	0			
7	Effective area	5050			
8	Average annual rainfall, mm	500			
9	From strange table proposition of estimated runoff by given rainfall				
	% of runoff to rainfall				
	In good catchment	16			
	In average catchment	11.25			
	In bad catchment	7.5			
Table - 1					
	Type of watershed	Area of watershed, Ha	Factor in cum per ha	Expected yield, cum	
	Good	490	800.00	392000	
	Average	506	562.50	284625	
	Bad	4054	377.00	1528358	
	Total	5050		2204983	
	Less 40% water Evaporation Loss			881993.2	
	Net water collection of w/s			1322990	
10	Present storage of water by existing runoff structure				
Table - 2					
S.N	Name of structure	No / Area	Storage capacity in cum	Total storage, in cum	Remarks
1	Talab	1	65000	65000	
2	Earthen Nadi	7	10500	73500	
3	Anicut	8	3500	28000	
6	Local depressions	Considering 11% of total expected yield		242548.1	
				409048.1	
11	Balance runoff = Expected yield - Present storage in cum	913941.67			
12	Considering as per norms 75% of balance amount may be stored by constructing new structures in cum	685456.2525			
13	Considering Average land slope, PRA exercise, Reconaissance survey, GT sheet etc, The following proposed new measures				
Table - 3					
S.N	Type of structure / Measures	No / Area	Storage capacity per unit	Total Storage capacity in cum	Cost per cum / Per ha
1	ARABLE LANDS				
	a. Semi pucca bund with wasteweir	1500	250	375000	
	b. Farm pond	30	950	28500	
	NON ARABLE LANDS				
	Pasure land development (DCB, CVH, PITS)	300	450	135000	
	New nadi with waste weir	6	9500	57000	
	Repair of structures			0	
	Drainage Line Treatment				
	LSCD (Small)	180	50	9000	
	LSCD (Big)	20	150	3000	
	Water Harvesting Structure (Anicut)	10	3500	35000	
	Repair of structures			0	
	Total			642500	

72

Total Monsoon Rainfall	Good Catchment		Average Catchment		Bad Catchment	
	% of Rainfall	Yield of runoff from catchment per ha (cum)	% of Rainfall	Yield of runoff from catchment per ha (cum)	% of Rainfall	Yield of runoff from catchment per ha (cum)
25	0.1	0.25	0.1	0.25	0.05	0.13
50	0.2	1	0.15	0.75	0.1	0.5
75	0.4	3	0.3	2.25	0.2	1.5
100	0.7	7	0.5	5	0.3	3
125	1	12.5	0.7	8.75	0.5	6.25
150	1.5	22.5	1.1	16.5	0.7	10.5
175	2.1	36.75	1.5	26.25	1	17.5
200	2.8	56	2.1	42	1.4	28
225	3.5	78.75	2.6	53.5	1.7	38.25
250	4.3	107.75	3.2	80	2.1	52.5
275	5.2	143	3.9	107.25	2.6	71.5
300	6.2	136	4.6	138	3.1	93
325	7.2	234	5.4	175	3.6	117
350	8.3	290	6.2	217	4.1	143.5
375	9.4	325.5	7	262.5	4.7	176.25
400	10.5	420	7.8	312	5.2	208
425	11.6	493	8.7	369.75	5.8	232
450	12.8	576	9.6	432	6.4	288
475	13.9	660.25	10.4	494	6.9	327.75
500	16	800	11.25	562.5	7.5	377
525	16.1	845.25	12	630	8	420
550	17.3	951.5	12.9	709.5	8.6	473
575	18.4	1058	13.8	793.5	9.2	529
600	19.5	1170	14.6	878	9.7	582
625	20.6	1287.5	15.4	962.5	10.3	643.75
650	21.8	1417	16.3	1059.5	10.9	708.5
675	22.9	1545.75	17.1	1154.5	11.4	769.5
700	24	1618	18	1260	12	840
725	25.1	1819.75	18.8	1363	12.5	906.25
750	26.3	1972.5	19.7	1477.5	13.1	982.5
775	27.4	2123.5	20.5	1580	13.7	1061.75
800	28.5	2218.5	21.3	1704	14.2	1136
825	29.6	2442	22.2	1831.5	14.8	1221
850	30.8	2618	23.1	1963.5	15.4	1309
875	31.9	2791.25	23.9	2090.25	15.9	1391
900	33	2917	24.7	2223	16.7	1485
925	34.1	3154.25	25.5	2358.75	17	1572
975	36.4	3549	27.3	2661.75	18.2	1774
1000	37.5	3750	28.1	2810	18.7	1870
1125	43.1	4348	32.3	3633.75	21.5	2418
1250	48	6100	36.6	4575	24.4	3050
1375	54.4	7480	40.8	5610	27.7	3740
1500	60	9000	45	6750	30	4500

परियोजना क्रियात्मक एजेन्सी
आई० डब्ल्यू० एस०पी०
पंचायत समिति नैसर्ग
जिला बुन्दी (राज०)

**IWMP I WATERSHED NAINWA
P.S. - NAINWA DISTT. BUNDI**

जलग्रहण क्षेत्र में आने वाले गाँव की भूमि वितरण

क्र.स.	ग्राम पंचायत	गाँव का नाम	कृषि भूमि		अकृषि भूमि			योग
			सिंचित	असिंचित	वन भूमि	चराहगाह	विलासनाम	
1	बाछोला	बाछोला	71	768	0	0	91	930
2		सुरगली	5	193	0	0	0	198
3		उगेन	18	284	0	32	98	432
4	सीसोला	सीसोला	87	133	0	0	0	220
5		मठावीरपुरा	26	62	0	0	0	88
6		भीमगंज	51	92	0	120	79	342
7	सुवानिया	पापडुला	81	174	0	6	0	261
8		कोलाडा	48	284	0	140	65	537
9		पीपरवाला	18	64	0	34	0	116
10		सन्थली	11	391	0	88	103	593
11		धीरपुर	13	257	0	29	0	299
12		विजलवा	39	341	0	41	34	465
13		धानूगांव	18	32	0	0	0	50
14		भावपुरा	36	94	0	0	0	130
15		सुवानिया	17	346	0	16	20	399
योग			539	3515	0	506	490	5050

767
परियोजना
अर्द्ध शताब्दी
कृषि विकास
2011-12-13

IWMP I WATERSHED NAINWA
P.S.NAINWA DISTT. BUNDI

क्र.स.	गाँव का नाम	ग्राम पंचायत	कुल परिवारों का विवरण					TOTAL
			S.T.	S.C.	OBC.	OTH.		
1	पाण्डुला	सुवानिया	0	8	97	3	108	
2	कोलाडा		63	39	31	0	133	
3	पीपरवाला		0	0	14	24	38	
4	सन्धली		86	92	3	4	185	
5	धीरपुर		0	31	25	20	76	
6	विजलवा		121	19	12	0	152	
7	धानूगांव		80	90	30	14	214	
8	भावपुरा		5	12	84	3	104	
9	सुवानिया		0	25	102	0	127	
10	बाछेला	बाछेला	16	91	105	28	240	
11	सुरगली		0	32	40	0	72	
12	उगेब		0	24	47	0	71	
13	भीमगंज	सीसोला	0	22	60	0	82	
14	सीसोला		22	72	113	14	221	
15	महावीरपुरा		53	0	17	2	72	
	Total		446	557	780	112	1895	

परियोजना निष्पादन प्र.
आई. डी. डी. डी. डी. डी.
11/11/11

IWMP I WATERSHED NAINWA
P.S. -Nainwa DISTT. BUNDI

क्र.स.	गाँव का नाम	ग्राम पंचायत	बी. पी. एल. परिवारी की जनसंख्या				
			S.C.	S.T.	OBC.	OTH.	TOTAL
1	पाण्डुला	सुवानिया	3	0	45	1	49
2	कोलाडा		13	16	3	0	32
3	पीपरवाला		0	0	7	8	15
4	सन्वली		26	16	31	3	76
5	धीरपूर		8	1	3	4	16
6	विजलवा		13	42	9	0	64
7	द्यानूगाँव		33	25	23	2	83
8	भावपुरा		11	5	22	1	39
9	सुवानिया		9	0	9	1	19
10	बाछेला	बाछेला	17	6	43	9	75
11	सुरगली		8	2	9	0	19
12	उगेन		4	6	0	0	10
13	भीमगंज	सीसोला	1	0	10	0	11
14	सीसोला		12	11	20	4	47
15	महावीरपुरा		1	3	2	1	7
Total			159	133	236	34	562


 प्रभारिता (सी.डी.ओ.)
 प्रभारिता (सी.डी.ओ.)
 प्रभारिता (सी.डी.ओ.)
 प्रभारिता (सी.डी.ओ.)
 प्रभारिता (सी.डी.ओ.)

**IWMP I WATERSHED NAINWA
P.S.--NAINWA DISTT. BUNDI**

क्र.स.	गाँव का नाम	ग्राम पंचायत	पशुधन विवरण										योग
			बड़े पशु					छोटे पशु					
			गाय	भैस	बैल	पाडा	भैड	बकरी	अन्य				
1	पाण्डुहा	सुवानिया	45	165	19	166	61	239	2	697			
2	कोलाडा		89	52	35	27	19	264	1	487			
3	पीपरवाला		13	21	9	6	0	69	3	121			
4	सन्थली		125	77	46	65	16	233	2	564			
5	धीरपूर		50	55	25	19	0	132	0	281			
6	विजलवा		146	200	46	101	0	568	14	1075			
7	धानूगाँव		42	129	30	57	67	317	4	646			
8	भावपुरा		88	91	6	76	0	87	5	353			
9	सुवानिया		96	165	17	12	0	99	0	389			
10	बाछोला	बाछोला	246	317	34	3	580	681	4	1865			
11	सुरगली		71	51	9	41	5	55	0	232			
12	उगेन		55	84	53	44	34	307	12	589			
13	भीमगंज	सीसोला	82	79	26	59	90	222	8	566			
14	सीसोला		125	147	64	135	270	264	112	1117			
15	महावीरपुरा		63	51	16	46	0	111	0	287			
	योग		1336	1684	435	857	1142	3648	167	9269			


 अधिकारी
 पशुधन विभाग
 नैनवा, बन्दी

**IWMP I WATERSHED NAINWA
P.S.-NAINWA DISTT. BUNDI**

क.स.	गाँव का नाम	ग्राम पंचायत	पशुधनहीन परिवार				
			S.T.	S.C.	OBC.	OTH.	TOTAL
1	पाण्डुला	सुवानिया	0	2	10	1	13
2	कोलाडा		8	19	4	0	31
3	पीपरवाला		0	0	0	7	7
4	सन्थली		16	49	0	2	67
5	धीरपूर		0	8	1	10	19
6	विजलवा		10	6	4	0	20
7	धानूगांव		13	43	11	7	74
8	भावपुरा		0	0	0	2	2
9	सुवानिया		0	3	8	0	11
10	बाछेला	बाछेला	6	24	17	3	50
11	सुरगली		0	10	4	0	14
12	उगेन		0	0	0	0	0
13	भीमगंज	सीसोला	0	3	3	0	6
14	सीसोला		2	23	15	3	43
15	महावीरपुरा		8	0	0	0	8
योग			63	190	77	35	365

**IWMP I WATERSHED NAINWA
P.S.-NAINWA DISTT. BUNDI**

क.स.	गाँव का नाम	ग्राम पंचायत	BPL पशुधनयुक्त परिवार				
			S.T.	S.C.	OBC.	OTH.	TOTAL
1	पाण्डुला	सुवानिया	0	6	87	2	95
2	कोलाडा		55	20	27	0	102
3	पीपरवाला		0	0	14	17	31
4	सन्थली		70	43	3	2	118
5	धीरपूर		0	23	24	10	57
6	विजलवा		111	13	8	0	132
7	धानूगांव		67	47	19	7	140
8	भावपुरा		5	12	84	1	102
9	सुवानिया		0	22	94	0	116
10	बाछेला	बाछेला	10	67	88	25	190
11	सुरगली		0	22	36	0	58
12	उगेन		0	24	47	0	71
13	भीमगंज		0	19	57	0	76
14	सीसोला	सीसोला	20	49	98	11	178
15	महावीरपुरा		45	0	17	2	64
योग			383	367	703	77	1530


 पंचायत
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IWMP I WATERSHED NAINWA P.S. - NAINWA DISTT. BUNDI

क्र. स.	गाँव का नाम	ग्रामपंचायत	विद्यालय				सड़ककारी	बैंक	चिकित्सालय	ड्रमर रोड	बिजली	बाजार	कुओ की संख्या		योग
			प्राथमिक	उच्च प्राथमिक	माध्यमिक	उच्च माध्यमिक							बिजली रहित	बिजली सहित	
1	पाण्डुला	सुवागिया	1	0	0	0	0	0	0	1	no	0	81	0	83
2	कोलाडा		1	0	0	0	0	0	0	1	no	0	48	0	50
3	पीपरवाला		1	0	0	0	0	0	0	1	no	0	18	0	20
4	सब्यली		2	0	0	0	0	0	0	2	no		11	0	15
5	धीरपुर		1	0	0	0	1	0	0	2	yes	0	0	13	17
6	विजलावा		1	0	0	0	0	0	0	1	no	0	39	0	41
7	घाबुगांव		1	1	0	0	1	0	0	1	no	0	86	0	90
8	भावपुरा		1	0	0	0	0	0	0	1	no	0	36	0	38
9	सुधागिया		1	1	0	0	0	0	0	2	no	0	17	0	21
10	खाछोला	खाछोला	1	1	0	0	1	0	0	1	no	0	71	0	75
11	सुरगली		1	0	0	0	0	0	0	1	yes	0	0	5	7
12	उगेज		1	0	0	0	0	0	0	1	yes	0	0	18	20
13	भीमगंज	सीसोला	1	0	0	0	0	0	0	2	yes	0	31	20	54
14	सीसोला		1	1	0	0	1	1	1	2	yes	1	62	25	94
15	महावीरपुरा		1	0	0	0	0	0	0	2	yes	0	56	20	79
योग			16	4	0	0	4	0	1	21	0	1	556	101	704


 जिला शिक्षा अधिकारी
 बन्दी

समन्वित जलग्रहण प्रबंधन परियोजना अन्तर्गत कोलाहेडा जलग्रहण क्षेत्र की वर्षवार वार्षिक कार्य योजना

जिले का नाम	दुन्डी	कुल लागत राशि	718.47
पंचायत समिति का नाम	नैनवा	जलग्रहण क्षेत्र से	606.00
जलग्रहण क्षेत्र का नाम	कोलाहेडा	अन्य योजना से	112.47
कुल लागत राशि जलग्रहण क्षेत्र से	808.00 लाख		
रेल किया जाने वाला प्रस्तावित क्षेत्रफल	5050 हेक्टर	लागत प्रति हेक्टर	0.14227

क्र. सं.	गतिविधि का नाम	परिवारों की संख्या	TOTAL TARGET				From W/S		Other Scheme		Name of Other Scheme
			भौतिक लक्ष्य	दर	युनिट	वित्तीय लक्ष्य	भौतिक लक्ष्य	वित्तीय लक्ष्य	भौतिक लक्ष्य	वित्तीय लक्ष्य	
1	प्रशासनिक लागत					60.6		60.6		0.000	
2	मॉनिटरिंग					6.060		6.060		0.000	
3	इम्यून्यूशन					6.060		6.060		0.000	
4	प्रवेश बिन्दु गतिविधि					24.240		24.240		0.000	
5	संस्थान व क्षमता निर्माण					30.300		30.300		0.000	
6	विस्तृत परियोजना प्रतिवेदन					6.060		6.060		0.000	
	उपयोग					133.320	0	133.320	0	0.000	
7	जलग्रहण विकास कार्य चरण										
	कृषि भूमि कार्य (असिंचित)										
	C8 Ha	1500	0.0810	Ha	121.500	1113	90.153	397	31.347		MNREGS
	Waste Weir No	237	0.117	No	27.729	177	20.709	60	7.020		MNREGS
	CVB Ha.	150	0.182	Ha	27.300	150	27.300				
	Farm Pond No.	30	0.610	No	18.300	0	0.000	30	18.300		MNREGS
	(अकृषि भूमि)										
	बरागाह विकास Ha.	300	0.4700	Ha	141.000	300	141.000	0	0.000		MNREGS
	घरागाह विकास Ha.(Private Farmer)	50	0.0570	Ha	2.850	50	2.850				
	Open Contour Trench Ha	350	0.078	Ha	27.300	0	0.000	350	27.300		MNREGS
	नाडी निर्माण कार्य	6	3.644	No	21.864	6	21.864				
	नाला उपचार कार्य										
	Check Dam (Small)	180	0.090	No	16.200	180	16.200				
	Check Dam (Big)	20	0.450	No	9.000	20	9.000				
	WHS	10		No	34.520	10	34.520				
	उपयोग				447.563	2006	363.596	827	83.967		
B	माइको उच्चम										
A	LIVE STOCK										
	A.I. No.	2374	0.0015	No	3.561	2374	3.561				
	A.H. CAMP	40	0.100	No	4.000	40	4.000				
	स्वयं सहायता समूह (R/F.)	75	0.100	No	7.500	75	7.500				
	उपयोग				15.061		15.061		0.000		
B	उत्पादन व्यवस्था एवं आजीविका विकास कार्य										
	खरीफ	1058		No	16.505	732	16.505				
	रबी	586		No	14.305	508	14.305				
	फलदार पौधारोपण	70	0.2826	Ha	19.783	70	19.783				
	किचन गार्डन	950	0.007	No	6.650	950	6.650				
	वर्मी कम्पोस्ट	44	0.30	No	13.200	44	13.200				
	रिप्रक्लर सिस्टम	40	0.45	Ha	18.000			40	18.000		AGRICULTURE
	ड्रिप सिंचाई योजना	53	0.3	Ha	15.900	18	5.4	35	10.500		HORTICULTURE DEPPT.
	Total				104.343		75.843		28.500		
9	कन्सोलिडेशन चरण				18.180		18.180				
	GRAND TOTAL				718.47		606.00		112.47		

परियोजना प्रबन्धक
जिला जलग्रहण विकास इकाई
दुन्डी (राज०)

परियोजना क्रियान्वयन एजेन्सी
आई० डब्ल्यू० एम० पी०
पंचायत समिति नैनवा
जिला दुन्डी (राज०)

Summary			
S.No	NAME OF DEPARTMENT in Convergence		AMOUNT
1	MNREGS		83.967
2	HORTICULTURE		10.500
3	AGRICULTURE		18.000
	Grand Total		112.47


 पञ्चसरोवर विकास समिति
 आर. ३३०/१२
 विठ्ठल नगर, अहमदाबाद
 (अ. ३३०/१२)

समन्वित जलग्रहण प्रबन्धन परिगोजना अन्तर्गत कोलाहेडा जलग्रहण क्षेत्र की वर्षवार वार्षिक कार्य योजना

जिले का नाम : बुन्दी
 पंचायत समिति का नाम : नैनवा
 जलग्रहण क्षेत्र का नाम : कोलाहेडा
 कुल लागत राशि : 608.00 लाख
 पंचायत किया जाने वाला प्रस्तावित क्षेत्रफल : 5050 हेक्टर

क्र. सं.	गतिविधि का नाम	लक्ष्य		वर्षवार योजना												कुल योग				
		आत्रा दर	As Per Annex.	2009-10		2010-11		2011-12		2012-13		2013-14		2014-15		2015-16		वित्तीय लक्ष्य	भौतिक लक्ष्य	
				प्रथम वर्ष	द्वितीय वर्ष	तृतीय वर्ष	चतुर्थ वर्ष	पंचम वर्ष	छठवां वर्ष	सातवां वर्ष	वित्तीय लक्ष्य	भौतिक लक्ष्य	वित्तीय लक्ष्य	भौतिक लक्ष्य	वित्तीय लक्ष्य	भौतिक लक्ष्य				
1	प्रशासनिक लागत				10.100		10.100		10.100		10.100		10.100		10.100		10.100		60.600	
2	भौतिक						1.212		2.424				2.424						5.060	
3	इकोलुशन						1.818				2.1210				2.1210				6.060	
	योग				10.100	0	13.130	0	12.524	0	12.221	0	14.645	0	10.100	0	10.100	0	72.720	0

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समान्वित जलमार्ग प्रबंधन परियोजना अन्तर्गत कोलाहंडा जलप्रहरण क्षेत्र की वर्षवार वार्षिक कार्य योजना

0.00

जिले का नाम : हुन्दी
 प्रभावित समिति का नाम : नरपा
 जलप्रहरण क्षेत्र का नाम : कोलाहंडा
 कुल लागत राशि : 606.00 लाख
 अनुमानित किया जाने वाला प्रस्तावित क्षेत्रफल : 6050 हेक्टर

वर्षवार योजना जल प्रहरण समिति

क्र. सं.	संविधि का नाम	लक्ष्य		2009-10		2010-11		2011-12		2012-13		2013-14		2014-15		2015-16		कुल योग
		प्रतिशत	दर	मात्रा	As Per Annex.	लागत	प्रथम वर्ष		द्वितीय वर्ष		तृतीय वर्ष		चतुर्थ वर्ष		पांचम वर्ष			
							भौतिक लक्ष्य	वित्तीय लक्ष्य	भौतिक लक्ष्य	वित्तीय लक्ष्य	भौतिक लक्ष्य	वित्तीय लक्ष्य	भौतिक लक्ष्य	वित्तीय लक्ष्य	भौतिक लक्ष्य	वित्तीय लक्ष्य	भौतिक लक्ष्य	
4	प्रवेश बिन्दु संविधि	4%				24.240												0.000
1	प्रवेश बिन्दु कार्य					24.240												24.240
5	संरक्षण व सेवा निर्माण	5%				24.240	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	24.240
A	SLNA	0.05%				1.515	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	30.300
B	उपरोक्त सड़क का संरक्षण																	1.515
(i)	वर्षिक No.		30	9300				0	0.000	10	0.930	10	0.930					30
(ii)	वर्षिक No.		30	9300				0	0.000	10	0.930	10	0.930					30
(iii)	वर्षिक No.		30	9300				0	0.000	10	0.930	10	0.930					30
(iv)	वर्षिक संख्या, अनुमानित अन्य संयोजक		30	9300				0	0.000	10	0.930	10	0.930					30
(ii)	WDT प्रशिक्षण (4X3=12)		12	20000		2.400		2	0.400	6	1.200	4	0.800					12
(iii)	वर्षिक																	0
(i)	वर्षिक के अन्त		14	29300		4.102		0	0.000	8	2.344	4	1.172	2	0.586			14
(ii)	वर्षिक के अन्त		5	117500		5.875		0	0.000	3	3.525	1	1.175	1	1.175			5
(iii)	वार, सेवाई कार्य		15	25000		3.730		5	1.250	5	1.250	5	1.250					15
(iv)	परामर्श		3	50600		1.518		0	0.000	1	0.506	1	0.506					3
	उपयोग					30.300		7	3.165	63	12.525	55	8.623	44	5.987	0	0.000	169
B	दूरस्थ परियोजना प्रबंधन	1%				6.060												6.060
A	Remote sensing Deptt. For GIS Layer					3.030												3.030
B	For survey & Data collection, Printing work, mapping work					3.030												3.030
	उपयोग					6.060												6.060

परियोजना प्रबंधक,
 जिला जलमार्ग विकास इकाई

परियोजना निरीक्षण एजेंसी,
 आई० डब्ल्यू० एम०पी०

परिष्कार योजना जल ग्रहण समिति

वर्षवार योजना

क्र. सं.	श्रमिधिसि का नाम	वर्ष										कुल योग						
		2009-10		2010-11		2011-12		2012-13		2013-14		2014-15		2015-16				
		प्रकार वर्ष	श्रीमिधिसि लक्ष्य	श्रीमिधिसि लक्ष्य	श्रीमिधिसि लक्ष्य	श्रीमिधिसि लक्ष्य	श्रीमिधिसि लक्ष्य	श्रीमिधिसि लक्ष्य	श्रीमिधिसि लक्ष्य	श्रीमिधिसि लक्ष्य	श्रीमिधिसि लक्ष्य	श्रीमिधिसि लक्ष्य	श्रीमिधिसि लक्ष्य	श्रीमिधिसि लक्ष्य	श्रीमिधिसि लक्ष्य			
		प्रकार	रकम	As Per Annex.	रकम	रकम	रकम	रकम	रकम	रकम	रकम	रकम	रकम	रकम	रकम	रकम	रकम	रकम
7	जलपान कार्य करण	60%			363.600	0.000	24.240	120.59	177.861	40.905	0.000							363.600
(I.)	कृषि मृत्तु कार्य (अभियान)																	
(i)	CVH Ha.	1113	8100		90.153		8.100	26.730	32.400	22.923								90.153
(ii)	West well Na.	177	11700		20.709		1.170	6.435	8.190	4.914								20.709
(iii)	CVH (Production)Ha.	150	18200		27.300		0.910	6.370	20.020	0.000								27.300
(iv)	Farm Pond No.	30	61000	18.300			0.000	0.000	0.000	0.000								18.300
(II.)	(अकृषि मृत्तु)																	
(i)	खानाबे विकास Ha.	300	47000		141.000		14.100	56.400	70.500	0.000								141.000
(ii)	खानाबे विकास Ha. (Private farmer)	50	5700		2.850		0.000	1.710	1.140	0.000								2.850
(iv)	नारी निर्माण करण	6	364400		21.864		0.000	10.932	10.932	0.000								21.864
(v)	Open Contour Trench	350	7800	27.300														
(IV.)	श्रीमिधिसि उपकरण करण																	
(i)	Check Dam (Small)	180	9000		16.200		0.000	3.600	9.900	2.700								16.200
(ii)	Check Dam (Big)	20	45000		9.000		0.000	4.500	4.500	0.000								9.000
(iii)	WHS (Small Anicut)	10			34.520		4.340	4.300	15.600	10.280								34.520
	समाप्त			27.30	363.596	0.000	28.620	120.977	173.182	40.817	0.000							363.596

परियोजना प्रबन्धक
जिला जलपान विकास इकाई
मुन्दी (राजठ)

राजेश कुमार शर्मा
जिला जलपान विकास इकाई
मुन्दी (राजठ)

वर्षवार योजना जल ग्रहण समिति

वर्षवार योजना

क्र. सं.	गतिविधि का नाम	वर्ष													कुल योग				
		2009-10			2010-11		2011-12		2012-13		2013-14		2014-15			2015-16			
प्रतिशत	माच	घन	As Per Annex.	नाम	भौतिक संयोजन	द्वितीय वर्ष	प्राथमिक संयोजन	भौतिक संयोजन	प्राथमिक संयोजन	भौतिक संयोजन	प्राथमिक संयोजन	भौतिक संयोजन	प्राथमिक संयोजन	भौतिक संयोजन	प्राथमिक संयोजन	भौतिक संयोजन	प्राथमिक संयोजन		
8	विकासन व्यवस्था एवं																		
A	LIVE STOCK	15%			90.9														
B	A.I.		2374	150	3.561				6.060	1.050	600	0.900	24.240	0.900	474	0.711	18.180	6.060	90.900
(ii)	A.H. CAMP		40	10000	4.000				0.800	0.800	8	0.800	8.000	8.000	8.000	8.000	8.000	0.800	0.000
	उपयोग				7.56				1.850	1.700	1.700	1.700	22.540	1.700	1.511	1.511	1.511	0.800	7.561
B	साइको एवम्				83.339				4.210	0.000	0.000	0.000	22.540	0.000	16.669	16.669	5.260		83.339
(i)	खरीफ	No	1058		16.505								6.460	425	6.460	248	3.955		16.505
(ii)	रबी	No	586		14.305								5.135	218	5.135	132	3.342		14.305
(iii)	फलदार पौधासिपण	Ha.	70	28263	19.784								6.846	24	6.846	20	5.580		19.784
	कृषि सिंचाई योजना		18	30000	5.400			5	1.500	10	3.000	1	0.300	2	0.600			18	5.400
	कृषि सिंचाई योजना		35	30000	10.500														
	वर्गी कन्सर्ट	No	44	30000	18.200			5	1.500	20	6.000	7	2.100	5	1.500	7	2.100	44	18.200
	किशन गार्डन	No	950	700	6.650			100	0.700	250	1.750	200	1.400	110	0.770	290	2.030	950	6.650
	रिवाइजिंग कन्व	No	75	10000	7.500			7	0.700	45	4.500	6	0.600	5	0.500	12	1.200	75	7.500
	उपयोग				83.344				4.400		34.526		22.841		16.247		5.330	2801	83.344
9	कन्सोसिडेशन चरण	3%			18.1800														18.180
	कुल योग				533.281				47.40		165.83		203.71		58.58		24.31	7390	533.28
	प्रशासनिक व्यय				72.720				13.130		12.524		12.721		14.645		10.100		72.720
	कुल योग				606.00				60.525		178.350		215.931		73.220		34.430		606.00

परियोजना प्रबन्धक
जिला जलग्रहण विकास इकाई
भून्दी (राज.)

परियोजना प्रबन्धक
आर्यो डायग्नोसिस
पुनर्माण
जिला जल (राज.)


समान्वित जलग्रहण प्रबन्धन परियोजना अन्तर्गत कोलाहेडा जलग्रहण क्षेत्र की वर्षवार वार्षिक कार्य योजना

जिले का नाम	बुन्दी	कुल लागत राशि	327.01
पंचायत समिति का नाम	नैनवा	जलग्रहण क्षेत्र से	248.71
जलग्रहण क्षेत्र का नाम	मुवानिया	अन्य योजना से	78.30
कुल लागत राशि जलग्रहण क्षेत्र से	340.80 लाख		
देत किया जाने वाला प्रस्तावित क्षेत्रफल	2840 हैक्टर	लागत प्रति हैक्टर	0.11514

क्र. सं.	गतिविधि का नाम	परिवारों की संख्या	TOTAL TARGET				Fram W/S		Other Scheme		Name of Other Scheme
			भौतिक लक्ष्य	दर	यूनिट	वित्तीय लक्ष्य	भौतिक लक्ष्य	वित्तीय लक्ष्य	भौतिक लक्ष्य	वित्तीय लक्ष्य	
1	जलग्रहण विकास कार्य चरण										
	कृषि भूमि कार्य (असिंचित)										
	CB Ha.		790	0.0810	Ha	63.990	403	32.643	387	31.347	MNREGS
	Waste Weir No		124	0.117	No	14.508	64	7.488	60	7.020	MNREGS
	CVB Ha.		55	0.182	Ha	10.010	55	10.010			
	Farm Pond No. (अकृषि भूमि)		18	0.610	No	10.980	0	0.000	18	10.980	MNREGS
	बरागाह विकास Ha.		210	0.4700	Ha	98.700	210	98.700	0	0.000	MNREGS
	बरागाह विकास Ha. (Private Farmer)		30	0.0570	Ha	1.710	30	1.710			
	Open Contour Trench Ha		150	0.078	Ha	11.700	0	0.000	150	11.700	MNREGS
	नाड़ी निर्माण कार्य		4	3.844	No	14.576	4	14.576			
	नाला उपचार कार्य										
	Check Dam (Small)		50	0.090	No	4.500	50	4.500			
	Check Dam (Big)		5	0.450	No	2.250	5	2.250			
	WHS		7		No	25.880	7	25.880			
	उपयोग					258.804	828	197.757	615	61.047	
2	गाइको उद्यम										
A	LIVE STOCK										
	A.I. No.		1200	0.0015	No	1.800	1200	1.800			
	A.H. CAMP		14	0.100	No	1.400	14	1.400			
	स्वयं सहायता समूह (R/F.)		45	0.100	No	4.500	45	4.500			
	उपयोग					7.700		7.700		0.000	
B	उत्पादन व्यवस्था एवं आजीविका विकास कार्य										
	खरीफ	628			No	9.796	628	9.796			
	रबी	341			No	8.286	341	8.286			
	फलदार पौधारोपण		36	0.2828	Ha	10.174	36	10.174			
	किचन गार्डन		600	0.007	No	4.200	600	4.200			
	बमी कम्पोस्ट		26	0.30	No	7.800	26	7.800			
	स्प्रिंकलर सिस्टम		25	0.45	Ha	11.250			25	11.250	AGRICULTURE
	ड्रिप सिंचाई योजना		30	0.3	Ha	9.000	10	3	20	6.000	HORTICULTURE DEPPT.
	Total					60.506		43.256		17.250	
	GRAND TOTAL					327.01		248.71		78.30	

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Summary		
S.No	NAME OF DEPARTMENT in Convergence	AMOUNT
1	MNREGS	61.047
2	HORTICULTURE	6.000
3	AGRICULTURE	11.250
	Grand Total	78.30


परियोजना निगरान्तयन एगोन्सी
आई० डब्ल्यू० एम०पी०
पंचायत समिति नैनदा
जिला बुन्दी (राज०)

समन्वित जलसहाय्य प्रबन्धन परियोजना अन्तर्गत कोलाहोडा जलप्रदाय क्षेत्र की वर्षवार वार्षिक कार्य योजना

जिला का नाम : पूर्वी
 मण्डल समिति का नाम : कैमरा
 जलसहाय्य क्षेत्र का नाम : सुकानिया
 कुल लागत राशि : 340.80 लाख
 वर्षवार योजना के अन्तर्गत : 2840 लाख

वर्षवार योजना जल ग्रहण समिति

क्र. सं.	व्यतिथि का नाम	वर्षवार योजना										कुल योग						
		वर्ष		2009-10		2010-11		2011-12		2012-13		2013-14		2014-15		2015-16		
		प्रतिघण्टा	दर	AS Per Annex.	लागत	भौतिक लक्ष्य	वित्तीय लक्ष्य	भौतिक लक्ष्य	वित्तीय लक्ष्य	भौतिक लक्ष्य	वित्तीय लक्ष्य	भौतिक लक्ष्य	वित्तीय लक्ष्य	भौतिक लक्ष्य	वित्तीय लक्ष्य	भौतिक लक्ष्य	वित्तीय लक्ष्य	
	जलसहाय्य कार्य करना																	
1	जलसहाय्य विकास कार्य करना	60%			204.480	0.000	0.000	13.632	67.82	100.025	23.004						204.480	
(I.)	वृषि चालू कार्य (अतिरिक्त)																	
(i)	CVH Ha.	403	8100		32.643		0	0.000	100	8.100	230	18.630	73	5.913		403	32.643	
(ii)	West weir Ha.	64	11700		7.488		5	0.585	20	2.340	30	3.510	9	1.053		64	7.488	
(iii)	CVH (Production) Ha.	55	18200		10.010		0	0.000	35	6.370	10	1.820	10	1.820		55	10.010	
(iv)	Farm Pond No.	18	61000	10.980			0	0.000	0	0.000	0	0.000	0	0.000		18	10.980	
(II.)	(अवृषि चालू)																	
(i)	बनाने विकास Ha	210	47000		98.700		30	14.100	85	39.950	95	44.650	0	0.000		210	98.700	
(ii)	बनाने किसान Ha. (Private farmer)	30	5700		1.710			0.000	40	0.570	20	1.140	0	0.000		30	1.710	
(iv)	गाड़ी निर्माण कार्य	4	364400		14.576		0	0.000	2	7.288	2	7.288		0.000		4	14.576	
(v)	Open Contour Trench	150	7800	11.700														
(IV.)	नाला सफाई कार्य																	
(i)	Check Dam (Small)	50	9000		4.500		0	0.000	20	1.800	30	2.700	0	0.000		50	4.500	
(ii)	Check Dam (Big)	5	45000		2.250			0.000	3	1.350	2	0.900	0	0.000		5	2.250	
(iii)	WHS (Small Anicut)	7			25.880		0	0.000	0	0.000	4	15.600	3	10.280		7	25.880	
	उपयोग			11.70	197.757	0.000		14.685	67.768	96.238	19.066					0.000	828	197.757

परियोजना निदेशिका
 आर. टि. टि.
 निदेशिका नं. 1/2015
 दिनांक 1/1/2015

वर्षवार योजना जल ग्रहण समिति

वर्षवार योजना

क्र. सं.	गतिविधि का नाम	वर्ष										कुल योग					
		2009-10		2010-11		2011-12		2012-13		2013-14		2014-15		2015-16			
		प्रथम वर्ष	द्वितीय वर्ष	प्रथम वर्ष	द्वितीय वर्ष	प्रथम वर्ष	द्वितीय वर्ष	प्रथम वर्ष	द्वितीय वर्ष	प्रथम वर्ष	द्वितीय वर्ष	प्रथम वर्ष	द्वितीय वर्ष	प्रथम वर्ष	द्वितीय वर्ष		
		भाग	दर	As Per Annex.	राशि	भौतिक संयंत्र	वित्तीय संयंत्र	भौतिक संयंत्र	वित्तीय संयंत्र	भौतिक संयंत्र	वित्तीय संयंत्र	भौतिक संयंत्र	वित्तीय संयंत्र	भौतिक संयंत्र	वित्तीय संयंत्र	भौतिक संयंत्र	वित्तीय संयंत्र
2	उत्पादन व्यवस्था एवं																
A	LIVE STOCK	15%			51.12												
(i)	A.I.	1200	150		1.800		0.000	300	0.450	300	0.450	300	0.450	300	0.450	300	0.450
(ii)	A.H. CAMP एक दिवसीय	14	10000		1.400		0.000	3	0.300	3	0.300	3	0.300	3	0.300	3	0.300
	उपयोग				3.20		0.000		0.750		0.750		0.750		0.750		0.750
B	माइक्रो उपकरण				47.920		0.000		2.658		19.698		12.882		9.474		3.208
(i)	करोटक	628			9.796					235	3.656	263	4.012	130	2.088		628
(ii)	रबी	341			8.286					133	3.333	124	2.918	84	2.035		341
(iii)	फलदार वीधारोपण Ha.	36	28263		10.175					20	5.628	9	2.516	7	2.031		36
	ड्रिप सिंचाई योजना	10	30000		3.000			0	0.000	5	1.500	3	0.900	2	0.600		10
	ड्रिप सिंचाई योजना	20	30000	6.000													
	वर्गी कम्पोस्ट	26	30000		7.800			4	1.200	10	3.000	4	1.200	4	1.200	4	1.200
	विजय गार्डन	600	700		4.200			100	0.700	200	1.400	200	1.400	100	0.700	0	600
	रिवाइविंग फण्ड	45	100000		4.500			7	0.700	10	1.000	6	0.600	5	0.500	17	1.700
	उपयोग				47.757		0.000		2.600		19.557		13.546		9.154		2.900
	कुल योग				248.714		0.000		18.035		88.075		110.534		28.970		3.100
	कुल योग				248.71		0.000		18.035		88.075		110.534		28.970		3.100

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समन्वित जलग्रहण प्रबन्धन परियोजना अन्तर्गत कोलाहेडा जलग्रहण क्षेत्र की वर्षवार वार्षिक कार्य योजना

जिले का नाम	दुन्दी	कुल लागत राशि	145.54
पंचायत समिति का नाम	नैनवा	जलग्रहण क्षेत्र से	122.38
जलग्रहण क्षेत्र का नाम	बाछोला	अन्य योजना से	23.16
कुल लागत राशि जलग्रहण क्षेत्र से	187.20 लाख		
रित किया जाने वाला प्रस्तावित क्षेत्रफल	1560 हेक्टर	लागत प्रति हेक्टर	0.09330

क्र. सं.	गतिविधि का नाम	परिवारों की संख्या	TOTAL TARGET				From W/S		Other Scheme		Name of Other Scheme
			भौतिक लक्ष्य	दर	यूनिट	वित्तीय लक्ष्य	भौतिक लक्ष्य	वित्तीय लक्ष्य	भौतिक लक्ष्य	वित्तीय लक्ष्य	
1	जलग्रहण विकास कार्य चरण										
	कृषि भूमि कार्य (असिंचित)										
	CB Ha.		530	0.0810	Ha	42.930	530	42.930	0	0.000	MNREGS
	Waste Weir No		84	0.117	No	9.828	84	9.828	0	0.000	MNREGS
	CVB Ha.		70	0.182	Ha	12.740	70	12.740			
	Farm Pond No.		6	0.610	No	3.660	0	0.000	6	3.660	MNREGS
	(अकृषि भूमि)										
	घरागाह विकास Ha.		30	0.4700	Ha	14.100	30	14.100	0	0.000	MNREGS
	घरागाह विकास Ha.(Private Farmer)		10	0.0570	Ha	0.570	10	0.570			
	Open Contour Trench Ha		150	0.078	Ha	11.700	0	0.000	150	11.700	MNREGS
	नाडी निर्माण कार्य		1	3.644	No	3.644	1	3.644			
	नाला सफाई कार्य										
	Check Dam (Small)		100	0.090	No	9.000	100	9.000			
	Check Dam (Big)		10	0.450	No	4.500	10	4.500			
	WHS		1		No	4.300	1	4.300			
	उपयोग					116.972	836	101.612	156	15.360	
2	माइक्रो उद्यम										
A	LIVE STOCK										
	A.I. No.		700	0.0015	No	1.050	700	1.050			
	A.H. CAMP		13	0.100	No	1.300	13	1.300			
	स्वयं सहायता समूह (R/F.)		15	0.100	No	1.500	15	1.500			
	उपयोग					3.850		3.850		0.000	
B	उत्पादन व्यवस्था एवं आजीविका विकास कार्य										
	खरीफ	240			No	3.780	240	3.780			
	रबी	90			No	2.249	90	2.249			
	फलदार पौधारोपण		20	0.2826	Ha	5.652	20	5.652			
	किचन गार्डन		190	0.007	No	1.330	190	1.330			
	बगीचे कांफोर्ट		9	0.30	No	2.700	9	2.700			
	सिंचकाल सिस्टम		10	0.45	Ha	4.500			10	4.500	AGRICULTURE
	ड्रिप सिंचाई योजना		15	0.3	Ha	4.500	4	1.2	11	3.300	HORTICULTURE DEPPT.
	Total					24.721		16.921		7.800	
	GRAND TOTAL					145.54		122.38		23.16	

परियोजना निष्पादन एजेन्सी
आई० डब्ल्यू० एम०पी०
पंचायत समिति नैनवा
जिला दुन्दी (राज०)

Summary		
S.No	NAME OF DEPARTMENT in Convergence	AMOUNT
1	MNREGS	15.360
2	HORTICULTURE	3.300
3	AGRICULTURE	4.500
	Grand Total	23.16


श्री. राजेश कुमार
आई. ए. एस. (कृषि)
प्रधान सहायक निदेशक
जिला मुख्यालय (राज.)

सम्बन्धित जलग्रहण प्रबन्धन परियोजना अन्तर्गत कोलाहेडा जलग्रहण क्षेत्र की वर्षवार वार्षिक कार्य योजना

जिले का नाम : बुन्दी
 पंचायत समिति का नाम : नैनवा
 जलग्रहण क्षेत्र का नाम : बाछोला
 कुल लागत राशि : 187.20 लाख
 उपकारित किये जाने वाले प्रस्तावित क्षेत्रफल : 1550 हेक्टर

वर्षवार योजना जल ग्रहण समिति

क्र. सं.	गतिविधि का नाम	वर्षवार योजना										कुल योग						
		वर्ष		2009-10		2010-11		2011-12		2012-13		2013-14		2014-15		2015-16		
		राज्य	As Per Annix.	भौतिक लक्ष्य	वित्तीय लक्ष्य	भौतिक लक्ष्य	वित्तीय लक्ष्य	भौतिक लक्ष्य	वित्तीय लक्ष्य	भौतिक लक्ष्य	वित्तीय लक्ष्य	भौतिक लक्ष्य	वित्तीय लक्ष्य	भौतिक लक्ष्य	वित्तीय लक्ष्य	भौतिक लक्ष्य	वित्तीय लक्ष्य	
	प्रतिशत	दर																
7	जलग्रहण कार्य करना जलग्रहण विकास कार्य करना				0.000		0.000	7.488				54.943		12.636				
(I.)	शुद्धि युक्ति कार्य (संशोधन)																	
(i)	CVH Ha.	530	8100			0	0.000	0	0.000	230	18.630	200	16.200	100	8.100			
(ii)	West weir Ma.	84	11700			0	0.000	0	0.000	35	4.095	35	4.095	14	1.638			
(iii)	CVH (Production) Ha.	70	18200			0	0.000	0	0.000	20	3.640	40	7.280	10	1.820			
(iv)	Farm Pond No.	6	61000	3.660		0	0.000	0	0.000	0	0.000	0	0.000	0	0.000			
(II.)	(शुद्धि युक्ति)																	
(i)	खेतों में सिंचना Ha.	30	47000	14.100		10	4.700	10	4.700	10	4.700	10	4.700	0	0.000	30	14.100	
(ii)	चरणार विचार Ha. (Private farmer)	10	5700	0.570			0.000	5	0.285	5	0.285	5	0.285	0	0.000	10	0.570	
(iv)	नाली निर्माण कार्य	1	364400	3.644		0	0.000	0	0.000	0	0.000	1	3.644		0.000	1	3.644	
(v)	Open Contour Trench	150	7800	11.700														
(IV.)	नाला उपकरण कार्य																	
(i)	Check Dam (Small)	100	9000	9.000		30	2.700	10	0.900	60	5.400	60	5.400	0	0.000	100	9.000	
(ii)	Check Dam (Big)	10	45000	4.500			0.000	0	0.000	10	4.500	10	4.500	0	0.000	10	4.500	
(iii)	WHS (Small Anicut)	1		4.300		0	0.000	1	4.300	0	0.000	0	0.000	0	0.000	1	4.300	
	उपयोग			11.70		0.000	0.000	7.400			36.550	46.304		11.558		0.000	836	101.612

परियोजना क्रियान्वयन पत्रिका
 आई० डब्ल्यू० एम० पी०
 पंचायत समिति नैनवा
 जिला बुन्दी (राज०)

वर्षवार योजना जल ग्रहण समिति

क्र. सं.	नदिसिद्धि का नाम	वर्षवार योजना												कुल योग													
		2009-10						2010-11						2011-12						2012-13		2013-14		2014-15		2015-16	
		प्रभाग वर्ष	शिवीय वर्ष	शिवीय वर्ष	शिवीय वर्ष	शिवीय वर्ष	शिवीय वर्ष	प्रभाग वर्ष	शिवीय वर्ष	शिवीय वर्ष	शिवीय वर्ष	शिवीय वर्ष	शिवीय वर्ष	प्रभाग वर्ष	शिवीय वर्ष	शिवीय वर्ष	शिवीय वर्ष	प्रभाग वर्ष	शिवीय वर्ष	शिवीय वर्ष	शिवीय वर्ष	शिवीय वर्ष	शिवीय वर्ष	शिवीय वर्ष	शिवीय वर्ष	शिवीय वर्ष	शिवीय वर्ष
		गण्डा	हर	As Per Annex.	सागर	शिवीय वर्ष	शिवीय वर्ष	शिवीय वर्ष	शिवीय वर्ष	शिवीय वर्ष	शिवीय वर्ष	शिवीय वर्ष	शिवीय वर्ष	शिवीय वर्ष	शिवीय वर्ष	शिवीय वर्ष	शिवीय वर्ष	शिवीय वर्ष	शिवीय वर्ष	शिवीय वर्ष	शिवीय वर्ष	शिवीय वर्ष	शिवीय वर्ष	शिवीय वर्ष	शिवीय वर्ष	शिवीय वर्ष	शिवीय वर्ष
B	उत्पादन व्ययस्था एवं																										
A	LIVE STOCK	15%	700	150	28.08																						
(I)	A.L. No.				1.050																						
(II)	A.H. CAMP एक विभागीय		13	10000	1.300																						
	उपयोग				2.35																						
B	माइक्रो खण				25.730																						
(I.)	खरीफ No		240		3.790																						
(II.)	रबी No		90		2.249																						
(III.)	फलवार फवारोजन Ha		20	28263	5.653																						
	ड्रिप सिंचाई योजना		4	30000	1.200																						
	ड्रिप सिंचाई योजना		11	30000	3.300																						
	जमी कमास्ट No		9	30000	2.700																						
	डिजल गाडीन No		190	700	1.330																						
	रिजल्टिंग फव्व No		15	10000	1.500																						
	उपयोग				3.30																						
	कुल योग				15.00																						
	कुल योग				26.70																						

परिपालना क्रियाकलाप एके
आई. डब्ल्यू. एम.डी
पंचायत समिति केन्द्र
जिला बुन्डी। राज.


समन्वित जलग्रहण प्रबन्धन परियोजना अन्तर्गत कोलाहेडा जलग्रहण क्षेत्र की वर्षवार वार्षिक कार्य योजना

जिले का नाम	बून्दी	कुल लागत राशि	94.41
पंचायत समिति का नाम	नैनवा	जलग्रहण क्षेत्र से	83.40
जलग्रहण क्षेत्र का नाम	सीसीला	अन्य योजना से	11.01
कुल लागत राशि जलग्रहण क्षेत्र से	78.00 लाख		
रित किया जाने वाला प्रस्तावित क्षेत्रफल	850 हैक्टर	लागत प्रति हैक्टर	0.14525

क्र. सं.	गतिविधि का नाम	परिवारों की संख्या	TOTAL TARGET				From W/S		Other Scheme		Name of Other Scheme
			भौतिक लक्ष्य	दर	युनिट	वित्तीय लक्ष्य	भौतिक लक्ष्य	वित्तीय लक्ष्य	भौतिक लक्ष्य	वित्तीय लक्ष्य	
1	जलग्रहण विकास कार्य चरण										
	कृषि भूमि कार्य (असिंचित)										
	CB Ha.		180	0.0810	Ha	14.580	180	14.580	0	0.000	MNREGS
	Waste Weir No		29	0.117	No	3.393	29	3.393	0	0.000	MNREGS
	CVB Ha.		25	0.182	Ha	4.550	25	4.550			
	Farm Pond No.		6	0.610	No	3.660	0	0.000	6	3.660	MNREGS
	(अकृषि भूमि)										
	चरागाह विकास Ha.		60	0.4700	Ha	28.200	60	28.200	0	0.000	MNREGS
	चरागाह विकास Ha.(Private Farmer)		10	0.0570	Ha	0.570	10	0.570			
	Open Contour Trench Ha		50	0.078	Ha	3.900	0	0.000	50	3.900	MNREGS
	नाडी निर्माण कार्य		1	3.644	No	3.644	1	3.644			
	नाला उपचार कार्य										
	Check Dam (Small)		30	0.090	No	2.700	30	2.700			
	Check Dam (Big)		5	0.450	No	2.250	5	2.250			
	WHS		2		No	4.340	2	4.340			
	उपयोग					71.787	342	64.227	56	7.560	
2	माइक्रो उद्यम										
A	LIVE STOCK										
	A.I. No.		474	0.0015	No	0.711	474	0.711			
	A.H. CAMP		13	0.100	No	1.300	13	1.300			
	स्वयं सहायता समूह (R/F.)		15	0.100	No	1.500	15	1.500			
	उपयोग					3.511		3.511		0.000	
B	उत्पादन व्यवस्था एवं आजीविका विकास कार्य										
	खरीफ	180			No	2.919	180	2.919			
	रबी	155			No	3.766	155	3.766			
	फलदार पौधारोपण		14	0.2826	Ha	3.957	14	3.957			
	किचन गार्डन		160	0.007	No	1.120	160	1.120			
	वर्मी कम्पोस्ट		9	0.30	No	2.700	9	2.700			
	स्प्रिंकलर सिस्टम		5	0.45	Ha	2.250			5	2.250	AGRICULTURE
	द्विप सिंचाई योजना		8	0.3	Ha	2.400	4	1.2	4	1.200	HORTICULTURE DEPPT.
	Total					19.112		15.662		3.450	
	GRAND TOTAL					94.41		83.40		11.01	

परियोजना क्रियान्वयन एजेंसी
आई० डब्ल्यू० एम०पी०
पंचायत समिति नैनवा
जिला बून्दी (राज०)

Summary		
S.No	NAME OF DEPARTMENT in Convergence	AMOUNT
1	MNREGS	7.560
2	HORTICULTURE	1.200
3	AGRICULTURE	2.250
	Grand Total	11.01


परियोजना विभागाध्यक्ष, जिला
आरई डबल, इलाहाबाद
प्रशासनिक जंक्शन मैदान
जिला इलाहाबाद (उ.प्र.)

समन्वित जलग्रहण प्रबंधन परियोजना अन्तर्गत कोलाहोडा जलग्रहण क्षेत्र की वर्षवार वार्षिक कार्य योजना

जिले का नाम : बुन्दी
 पंचायत समिति का नाम : गीनावा
 जलग्रहण क्षेत्र का नाम : सौतोला
 कुल लागत राशि : 78.00 लाख
 उपकारित किया जाने वाला प्रस्तावित क्षेत्रफल : 650 हेक्टर

क्र. सं.	गतिविधि का नाम	क्षेत्र		वर्षवार योजना जल ग्रहण समिति वर्षवार योजना												कुल योग			
		प्रतिशत	एर	As Per Annex.	लागत	2009-10		2010-11		2011-12		2012-13		2013-14		2014-15		2015-16	
						प्रथम वर्ष	द्वितीय वर्ष	तृतीय वर्ष	चतुर्थ वर्ष	पंचम वर्ष	छठवीं वर्ष	सातवीं वर्ष	आठवीं वर्ष	नौतीय वर्ष	दशवीं वर्ष	ग्यारहवां वर्ष	बारहवां वर्ष		
						भौतिक लक्ष्य	वित्तीय लक्ष्य	भौतिक लक्ष्य	वित्तीय लक्ष्य	भौतिक लक्ष्य	वित्तीय लक्ष्य	भौतिक लक्ष्य	वित्तीय लक्ष्य	भौतिक लक्ष्य	वित्तीय लक्ष्य	भौतिक लक्ष्य	वित्तीय लक्ष्य	भौतिक लक्ष्य	वित्तीय लक्ष्य
1	जलग्रहण कार्य करना	60%		46.800		0.000	3.120	0.000	0.000	0.000	0.000	15.52	22.893	5.265					
(I.)	कृषि सुविधा कार्य (अतिरिक्त)																		
(i)	CVH Ha.		180	8100	14.580														
(ii)	West wall Ha		29	11700	3.393														
(iii)	CVH (Production) Ha.		25	18200	4.550														
(iv)	Farm Pond No.		6	61000	3.660														
(II.)	(अकृषि सुविधा)																		
(i)	खानाबंद विकास Ha.		60	47000	28.200														
(ii)	खानाबंद किसान Ha (Private farmer)		10	5700	0.570														
(iv)	नादी निर्माण कार्य		1	364400	3.644														
(v)	Open Contour Trench		50	7800	3.900														
(IV.)	नाला उत्पार कार्य																		
(i)	Check Dam (Small)		30	9000	2.700														
(ii)	Check Dam (Big)		5	45000	2.250														
(iii)	WHS (Small Anticut)		2		4.340														
	उपयोग			3.90	64.227	0.000	2.170	0.000	2.170	0.000	2.170	23.351	28.398	10.308	0.000	342	64.227	0.000	

परियोजना निष्पादन प्रमाणित
 आर्थिक प्रमाणित
 गणना प्रमाणित
 तिथि 5-

परियोजना योजना जल ग्रहण समिति

वर्षवार योजना

क्र. सं.	गतिविधि का नाम	संख्या		2009-10		2010-11		2011-12		2012-13		2013-14		2014-15		2015-16		कुल योग	
		मात्रा	रक	As Per Annex.	सागत	भौतिक लक्ष्य	वित्तीय लक्ष्य	भौतिक लक्ष्य	वित्तीय लक्ष्य	भौतिक लक्ष्य	वित्तीय लक्ष्य	भौतिक लक्ष्य	वित्तीय लक्ष्य	भौतिक लक्ष्य	वित्तीय लक्ष्य	भौतिक लक्ष्य	वित्तीय लक्ष्य		
2	उपकरण खपत का खर्च																		
A	LIVE STOCK	15%			11.7						4.680	3.120		2.340		0.780		11.700	
(I)	A.S. No.	474	150		0.711		0.000	50	0.075	100	0.150	100	0.150	224				474	1.300
(II)	A.H. CAMP	13	10000		1.300		0.000	2	0.200	2	0.200	3	0.300	3	0.300	3.000	0.300	13	1.300
	उपयोग				2.01		0.000		0.275		0.350		0.450		0.636		0.300		2.011
B	माइक्रो उद्यम				9.689		0.000		0.505		4.330	2.670		1.704		0.480		9.689	
(I)	खरीफ No	190			2.919					70	1.100	80	1.177	40	0.642			190	2.919
(II)	रबी No	155			3.766					75	1.810	50	1.175	30	0.781			155	3.766
(III)	फलदार पौधारोपण Ha	14	28263		3.957					8	2.289	5	1.435	1	0.233			14	3.957
	ड्रिप सिंचाई योजना	4	30000		1.200			0	0.000	1	0.300	2	0.600	1	0.300			4	1.200
	ड्रिप सिंचाई योजना	4	30000	1.200															
	कुल उपयोग				2.703			0	0.000	3	0.900	5	1.500	1	0.300	0	0.000	9	2.700
	कुल उपयोग				1.120			50	0.350	50	0.350	50	0.350	10	0.070	0	0.000	160	1.120
	कुल उपयोग				1.500			0	0.000	5	0.500	5	0.500	5	0.500	0	0.000	15	1.500
	कुल उपयोग				17.162		0.000		0.350		7.249	6.737		2.826		0.000		547	17.162
	कुल उपयोग				83.400		0.000		2.795		30.950	35.585		13.770		0.300		1376	83.400
	कुल योग				83.40		0.000		2.795		30.950	35.585		13.770		0.300		1376	83.40

परियोजना विकास प्रकल्प
आई. डब्ल्यू. ए.सी.
पंचायत समिति
जिला बुन्दी (मि.प्र.)

AREA IN HACT. 0.40 जलवाहण क्षेत्र मे खरीफ की फसल प्रदर्शन																		
क्र.स.	गाँव/शेरा	ग्राम	फसल की नाम	कुल लागत				प्रथम वर्ष		द्वितीय वर्ष		तृतीय वर्ष		आम पंचायत		सुबानिया		
				कृषक की संख्या	हद	राशि	कृषक की संख्या	राशि	कृषक की संख्या	राशि	कृषक की संख्या	राशि	कृषक की संख्या	राशि	कृषक की संख्या	राशि	कृषक की संख्या	राशि
1	सुबानिया	पंचायत	मक्का	50	1883	94150			0	0	0	0	20	37660	20	37660	10	18830
			उदद	15	1311	19665			0	0	0	0	5	6555	5	6555	5	6555
			मूँग	15	1048	15720			0	0	0	0	5	5240	5	5240	5	5240
			तिल	10	1099	10990			0	0	0	0	5	5495	5	5495	0	0
			ज्वार	10	1879	18790			0	0	0	0	5	9395	5	9395	0	0
			Total	100		159315		0	0	0	0	40	64345	40	64345	20	30625	
2	पाण्डुला	सुबानिया	मक्का	40	1883	75320			0	0	0	0	20	37660	10	18830	10	18830
			उदद	15	1311	19665			0	0	0	0	5	6555	5	6555	5	6555
			मूँग	15	1048	15720			0	0	0	0	5	5240	5	5240	5	5240
			तिल	5	1099	5495			0	0	0	0	5	5495	0	0	0	0
			ज्वार	5	1879	9395			0	0	0	0	5	9395	0	0	0	0
			Total	80		125595		0	0	0	0	40	64345	20	30625	20	30625	
3	कोलाहा	सुबानिया	मक्का	30	1883	56490			0	0	0	0	10	18830	10	18830	10	18830
			उदद	10	1311	13110			0	0	0	0	5	6555	5	6555	0	0
			मूँग	10	1048	10480			0	0	0	0	5	5240	5	5240	0	0
			तिल	10	1099	10990			0	0	0	0	5	5495	5	5495	0	0
			ज्वार	10	1879	18790			0	0	0	0	5	9395	5	9395	0	0
			Total	70		109860		0	0	0	0	30	45515	30	45515	10	18830	
4	पीपरवाला	सुबानिया	मक्का	10	1883	18830			0	0	0	0	5	9415	5	9415	0	0
			उदद	10	1311	13110			0	0	0	0	5	6555	5	6555	0	0
			मूँग	10	1048	10480			0	0	0	0	5	5240	5	5240	0	0
			तिल	4	1099	4396			0	0	0	0	0	0	4	4396	0	0
			ज्वार	4	1879	7516			0	0	0	0	0	0	4	7516	0	0
			Total	38		54332		0	0	0	0	15	21210	23	33122	0	0	
5	सुबानिया	सुबानिया	मक्का	30	1883	56490			0	0	0	0	10	18830	10	18830	10	18830
			उदद	10	1311	13110			0	0	0	0	5	6555	5	6555	0	0
			मूँग	10	1048	10480			0	0	0	0	5	5240	5	5240	0	0
			तिल	10	1099	10990			0	0	0	0	5	5495	5	5495	0	0
			ज्वार	10	1879	18790			0	0	0	0	5	9395	5	9395	0	0

फलदार पोधा रोपण

२०११/१२

S.NO	TEYP OF PLANTS	UNIT Hact.	UNIT COST /Ha.	Total Cost	I YEAR		II YEAR		III YEAR		IV YEAR		V YEAR	
					UNIT	COST	UNIT	COST	UNIT	COST	UNIT	COST	UNIT	COST
1	GUAVA	5	31999	159995					3	95997	1	31999	1	31999
2	AAWLA	10	23693	236930					5	118465	3	71079	2	47386
3	BER	4	36523	146092					2	73046	1	36523	1	36523
4	KARODA	5	28576	142880					3	85728	1	28576	1	28576
5	ANAR	8	22728	181824					5	113640	2	45456	1	22728
6	NIMBU	4	37961	151844					2	75922	1	37961	1	37961
	TOTAL (C)	36		1019565					20	562798	9	251594	7	205173

परियोजना निष्कासन
आई. डब्ल्यू. एस.
पंचायत समिति नं. १५
जिला बुन्दी (राज.)


AREA IN HACT. 0-40 जनपदकण क्षेत्र में खरीफ की फसल प्रदर्शन

क्र.सं.	गाँव का नाम	पन्सल का नाम	कुल आगत		प्रथम वर्ष		द्वितीय वर्ष		तृतीय वर्ष		गार्म पंचायत		बाछोला		
			घुंषक की संख्या	दर	राशि	घुंषक की संख्या	राशि	घुंषक की संख्या	राशि	घुंषक की संख्या	राशि	घुंषक की संख्या	राशि	घुंषक की संख्या	राशि
1	बाछोला	पंचायत	70	1883	131810			0	0	30	56490	20	37660	20	37660
		जयका	15	1311	19665			0	0	5	6555	5	6555	5	6555
		उडद	15	1048	15720			0	0	5	5240	5	5240	5	5240
		मूँग	10	1099	10990			0	0	0	0	5	5495	5	5495
		तिल	10	1879	18790			0	0	0	0	5	9395	5	9395
		गवार	10	1879	18790			0	0	0	0	5	9395	5	9395
		Total	120		196975		0	0	40	68285	40	64345	40	64345	
2	सुरगली	पंचायत	20	1883	37660			0	0	10	18830	5	9415	5	9415
		जयका	10	1311	13110			0	0	5	6555	3	3933	2	2622
		उडद	10	1048	10480			0	0	5	5240	3	3144	2	2096
		मूँग	10	1099	10990			0	0	0	0	5	5495	5	5495
		तिल	10	1879	18790			0	0	0	0	5	9395	5	9395
		गवार	10	1879	18790			0	0	0	0	5	9395	5	9395
		Total	60		91030		0	0	20	30625	21	31382	19	29023	
3	उजेन	पंचायत	20	1883	37660			0	0	10	18830	5	9415	5	9415
		जयका	10	1311	13110			0	0	5	6555	3	3933	2	2622
		उडद	10	1048	10480			0	0	5	5240	3	3144	2	2096
		मूँग	10	1099	10990			0	0	0	0	5	5495	5	5495
		तिल	10	1879	18790			0	0	0	0	5	9395	5	9395
		गवार	10	1879	18790			0	0	0	0	5	9395	5	9395
		Total	60		91030		0	0	20	30625	21	31382	19	29023	
		Total Kharif	240	0	379035		0	0	80	129535	82	127109	78	122391	


 परिभाषित निष्पत्ति है-
 अर्थ: सत्य। सुशुद्ध।
 प्रजापति संसदीय क्षेत्र
 जिला मुख्यालय (01-11-2014)

AREA IN HACT. 0.40 जनसंख्या क्षेत्र के रबी की फसल प्रदर्शन

ग्राम पंचायत या ब्लॉक		फसल प्रदर्शन											
क्र.सं	गाँव का नाम	ग्राम पंचायत	फसल का नाम	अपेक्षित संख्या	धर	राशि	प्रथम वर्ष अपेक्षित संख्या	द्वितीय वर्ष अपेक्षित संख्या	तृतीय वर्ष अपेक्षित संख्या	चतुर्थ वर्ष अपेक्षित संख्या	पंचम वर्ष अपेक्षित संख्या		
1	बाछेला	बाछेला	गेहूँ	30	2923	87690		0	0	10	29230	10	29230
			चना	10	2616	26160		0	0	5	13080	5	13080
			सरसो	10	1319	13190		0	0	5	6595	5	6595
			Total	50		127040	0	0	0	20	48905	20	48905
2	सुरगली	बाछेला	गेहूँ	10	2923	29230		0	0	0	0	5	14615
			चना	5	2616	13080		0	0	0	0	5	13080
			सरसो	5	1319	6595		0	0	0	0	5	6595
			Total	20		48905	0	0	0	0	0	15	34290
3	उगेन	बाछेला	गेहूँ	10	2923	29230		0	0	4	11692	3	8769
			चना	5	2616	13080		0	0	2	5232	3	7848
			सरसो	5	1319	6595		0	0	2	2638	3	3957
			Total	20		48905	0	0	0	8	19562	9	20574
			Total Rabi	90	0	224850	0	0	0	28	68467	44	103769
												3	8769
												18	52614


 परियोजना निष्पादन अधिकारी
 आई० डब्ल्यू० ए०
 पंचायत समिति
 किरा बुन्दी (राज.)

AREA IN HACT. 0.40 जलपाहण क्षेत्र में खरीफ की फसल प्रदर्शन

क्र.सं.	गाँव का नाम	ग्राम पंचायत	फसल का नाम	कुल लागत		प्रथम वर्ष		द्वितीय वर्ष		तृतीय वर्ष		ग्राम पंचायत सीसोला			
				चूबक की संख्या	दर	राशि	चूबक की संख्या	राशि	चूबक की संख्या	राशि	चूबक की संख्या	राशि	चूबक की संख्या	राशि	चूबक की संख्या
1	भीमगंज	सीसोला	मक्का	20	1883	37660		0	0	10	18830	5	9415	5	9415
उड़द			10	1311	13110		0	0	0	0	0	5	6555	5	6555
मूँग			10	1048	10480		0	0	0	0	0	5	5240	5	5240
तिल			10	1099	10990		0	0	0	0	0	5	5495	5	5495
ज्वार			10	1879	18790		0	0	0	0	0	5	9395	5	9395
	Total			60		91030	0	0	0	10	18830	25	36100	25	36100
2	सीसोला	सीसोला	मक्का	30	1883	56490		0	0	10	18830	10	18830	10	18830
उड़द			10	1311	13110		0	0	0	5	6555	5	6555	0	0
मूँग			10	1048	10480		0	0	0	5	5240	5	5240	0	0
तिल			10	1099	10990		0	0	0	5	5495	5	5495	0	0
ज्वार			10	1879	18790		0	0	0	5	9395	5	9395	0	0
	Total			70		109860	0	0	0	30	45515	30	45515	30	45515
3	अहावीरपुरा	सीसोला	मक्का	20	1883	37660		0	0	10	18830	5	9415	5	9415
उड़द			10	1311	13110		0	0	0	5	6555	5	6555	0	0
मूँग			10	1048	10480		0	0	0	5	5240	5	5240	0	0
तिल			10	1099	10990		0	0	0	5	5495	5	5495	0	0
ज्वार			10	1879	18790		0	0	0	5	9395	5	9395	0	0
	Total			60		91030	0	0	0	30	45515	25	36100	25	36100
	Total Kharif			190	0	291920	0	0	0	70	109860	80	117715	40	64345


 जिला अधिकारी
 जलपाहण
 अहावीरपुरा

AREA IN HACT. 0.40 जलवाहण क्षेत्र में टकी की फसल प्रदर्शन


क्र.सं.	गाँव का नाम	ग्राम पंचायत	फसल का नाम	प्रथम वर्ष		द्वितीय वर्ष		तृतीय वर्ष		चतुर्थ वर्ष		ग्राम पंचायत सीसोला						
				हैक्टर की संख्या	राशि	हैक्टर की संख्या	राशि	हैक्टर की संख्या	राशि	हैक्टर की संख्या	राशि	हैक्टर की संख्या	राशि	हैक्टर की संख्या	राशि			
1	भीमगंज	सीसोला	गेहूँ	2923	43845	0	0	5	14615	5	14615	5	14615					
			चना	2616	26160	0	0	5	13080	5	13080	0	0					
			सरसो	1319	13190	0	0	5	6595	5	6595	0	0					
		Total						15	34290	15	34290	5	14615					
2	सीसोला	सीसोला	गेहूँ	2923	116920	0	0	20	58460	10	29230	10	29230					
			चना	2616	52320	0	0	10	26160	5	13080	5	13080					
			सरसो	1319	26380	0	0	10	13190	5	6595	5	6595					
		Total						40	97810	20	48905	20	48905					
3	महावीरपुर	सीसोला	गेहूँ	2923	58460	0	0	10	29230	5	14615	5	14615					
			चना	2616	26160	0	0	5	13080	5	13080	0	0					
			सरसो	1319	13190	0	0	5	6595	5	6595	0	0					
		Total						20	48905	15	34290	5	14615					
		Total Rabi						155	0	376625	0	0	75	181005	50	117485	30	78135

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2011
12/24

फलादार पोधा रोपण

S.NO	TEYP OF PLANTS	UNIT Hact.	UNIT COST /Ha.	Total Cost	I YEAR		II YEAR		III YEAR		IV YEAR		V YEAR	
					UNIT	COST	UNIT	COST	UNIT	COST	UNIT	COST	UNIT	COST
1	GUAVA	2	31999	63998					1	31999	1	31999	0	0
2	AAWLA	5	23693	118465					3	71079	1	23693	1	23693
3	BER	2	36523	73046					1	36523	1	36523	0	0
4	KARODA	2	28576	57152					1	28576	1	28576	0	0
5	ANAR	2	22728	45456					1	22728	1	22728	0	0
6	NIMBU	1	37961	37961					1	37961	0	0	0	0
TOTAL(C)					395078				8	228866	5	143519	1	23693


 कृषियोजना कियान्वयन
 आई० डब्ल्यू० एम० पी०
 पंचायत समिति केन्द्र
 जिला बुन्दो (राज०)

DETAILED ESTIMATE OF ONE DAYS TRAINING

S.No	Activity	No of Trainees	Rates	Total Am (Rs)	Reference.	Remark
1	Daily Allowance for lodging / boarding for non-residential training within the district/state.	50	75/- per trainees/day	3750	Cir.No; 729-814. Dt 09.05.11 Dir. WDSC, Jaipur Item No 1	
2	Honorium of Resource person	50	250/- per lecture (2 Hr /lecture/day)	1000	Cir.No; 729-814. Dt 9.05.11 Dir. WDSC, Jaipur Item No 5	
3	POL (two days jeep Hire Charges)	50	500/- per day	1000	Cir.No; 1147-1200. Dt 12.07.04 Dir. WDSC, Jaipur Item No 7	
4	Literature & stationary	50	50/- per trainees	2500	Cir.No; 1147-1200. Dt 12.07.04 Dir. WDSC, Jaipur Item No 11	
5	Seating arrangement (tent, matting, chairs, etc)	50	750/-	750	Cir.No; 1147-1200. Dt 12.07.04 Dir. WDSC, Jaipur Item No 10	
6	Miscellaneous charges	50	0	300	Cir.No; 1147-1200. Dt 12.07.04 Dir. WDSC, Jaipur Item No 12	
7						
	TOTAL Am			9300		


 प्रत्येक संस्था निम्नलिखित
 मध्ये कार्य करणे आवश्यक
 किंवा अन्यथा
 कितीही नसणे

DETAILED ESTIMATE OF TWO DAYS TRAINING

S.No	Activity	No of Trainees	Rates	Total Am (Rs)	Reference.	Remark
1	Daily Allowance for lodging / boarding for residential training within the district.	50	125/- per trainees/day	12500	Cir.No; 729-814. Dt 9.05.11 Dir. WDSC, Jaipur Item No 2	
2	Honorium of Resource person	50	250/- per lecture (2 Hr /lecture/day)	2000	Cir.No; 729-814. Dt 9.05.11 Dir. WDSC, Jaipur Item No 5	
3	POL (three days jeep Hire Charges)	50	500/- per day	1500	Cir.No; 1147-1200. Dt 12.07.04 Dir. WDSC, Jaipur Item No 7	
4	One Day Bus Hire Charge for side visit within 300 km	50	0.42/-per km / member	6300		
5	Literature & stationary	50	100/- per trainees	5000	Cir.No; 1147-1200. Dt 12.07.04 Dir. WDSC, Jaipur Item No 11	
6	Seating arrangement (tent, matting, chairs, et c)	50	1500/-	1500	Cir.No; 1147-1200. Dt 12.07.04 Dir. WDSC, Jaipur Item No 10	
7	Miscellaneous charges	50	0	500	Cir.No; 1147-1200. Dt 12.07.04 Dir. WDSC, Jaipur Item No 12	
8						
			TOTAL AM	29300		


 07/05/11


DETAILED ESTIMATE OF PADYATRA (Raily)

S.No	Activity	No of Trainees	Rates	Total Am (Rs)	Remark
1	Meal Expenses	100	75/- per trainees/day	7500	
2	POL (two days Two jeep Hire Charges)	100	500/- per day	2000	
3	One Day small truck Hire Charge for Raily	100	1100/- per day	1100	
4	Two day tractor Hire Charge for Raily min. 4 tractor	100	1000/- per day	8000	
5	Material for construction of model	100	L S	5000	
6	Literature & stationary for Exivation	100	100/- per trainees	10000	
7	Seating arrangement (tent, matting, chairs, mike, etc)	100	2000/-	2000	
8	Photography, Video	100	For one days	500	L.S
9	Purchase of Banner	100	20 No of Banner	4000	L.S
10	Expenditure for Break fast	100	75/- per trainees/day	7500	
11	Water tanker for Drinking	100	500/- per day	1000	
12	Miscellaneous charges	100	L.S	2000	
13					
			TOTAL AM	50600	

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**PRAPOSED ESTIMATE FOR EDUCATIONAL TOUR UNDER WATERSHED DEVELOPMENT
PROGRAME (WITH IN DISTT.)
PARTICIPANTS-50
DURATION-SEVEN NIGHT & SIX DAYS
TOTAL DISTANCE- 1800KM**

S.No	HEAD	UNIT CHARGES	No. OF Participants	Amount Rs	Remarks
1	Travelling Allowances & Local	756	50	37800	
2	Daily Allowances for loading & boarding of trainees	200x6	50	60000	
3	Stationery & training material (per trainees)	150	50	7500	
4	D.A. of Resource person with the tour	250	12	3000	
5	POL (seven days jeep Hire Charges)	500	7 Days	3500	
6	Other Expenses	5700	0	5700	
7					
			TOTAL Am	117500	


 परियोजना क्रियान्वयन प्रजेन्सी
 आई० इन्स्यू० एम०पी०
 पंचायत समिति नैयतुं
 जिला कुन्दी (1151-1)

व्यवसाय	कारीगर प्रशिक्षण	
प्रस्तावना	यह प्रशिक्षण उसी स्थान पर दिया जायेगा जहां पर निर्माण कार्य चल रहा है। ताकि निर्माण सामाग्री की अलग से व्यवस्था नहीं करनी पड़े तथा प्रशिक्षण में उपयोग में ली जा रही सामाग्री को निर्माण कार्य में उपयोग में लिया जा सके तथा सामाग्री का अपव्यय न्यून हो।	
बाजार संभावना	ग्रामीण क्षेत्र में निर्माण कार्य आवास, सड़क, तालाब, एनीकट इत्यादि निरन्तर बनते रहते हैं। तथा भांग बनी रहती है।	
वित्तीय पहलू	1 प्रशिक्षण व्यवस्था (5 प्रशिक्षणार्थी) 1 मास्टर ट्रेनर 250/- दिन 15 दिवस हेतु 2 निर्माण सामाग्री जो प्रशिक्षण के दौरान उपयोग होगी 3 आवास एवं भोजन व्यवस्था 100/- प्रति व्यक्ति 2 स्थाई लागत 1 टूल किट 2000/- प्रति व्यक्ति	3750.00 5000.00 7500.00 10000.00 26250.00
	योजना की कुल लागत	

व्यवसाय	पुताई एवं रंग रोगन का व्यवसाय स्प्रे मशीन द्वारा	
प्रस्तावना	ग्रामीण बेरोजगार शहरों में आकर इस कार्य को करते हैं। वर्तमान में अधिकांश मजदूर हाथ से ही इस कार्य को करते हैं। अतः स्प्रे मशीन द्वारा कार्य किया जाये तो श्रम भी कम लगेगा एवं कार्य की गुणवत्ता में भी सुधार आयेगा।	
बाजार संभावना	दीपावली से पूर्व लगभग समस्त मकानों में यह कार्य होता है। तथा नये बनने वाले मकानों में निरन्तर कार्य रहता है।	
प्रशिक्षण आवश्यकता	न्यूनतम 10 दिवस का प्रशिक्षण आवश्यक है।	
वित्तीय पहलू	1 प्रशिक्षण व्यय (5 प्रशिक्षणार्थी) 1 आवास/भोजन व्यवस्था रु. 100/- प्रति व्यक्ति 2 मास्टर ट्रेनर रु. 300/- दिवस 3 रॉं मेटेरियल स्थायी लागत 1 स्प्रे मशीन 4000/- प्रति व्यक्ति 2 एसेसरीज 1000/- प्रति व्यक्ति 3 ब्रश के सेट प्रत्येक के लिये रु. 500/- प्रति व्यक्ति	5000.00 3000.00 5000.00 20000.00 5000.00 2500.00 40500.00
	योजना की कुल लागत	

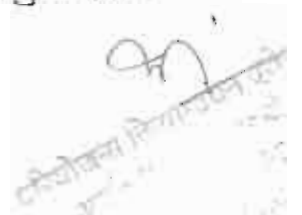
दरें आयुक्त जनजाति क्षेत्रीय विकास विभाग द्वारा अनुमोदित।

प्रयोजन विभाग
आर. प्र. वि. (स.स.)
विभाग, ज. वि. वि. वि.
दिसा, वि. वि. (स.स.)

व्यवसाय	सिलाई प्रशिक्षण	
प्रस्तावना	ग्रामीण क्षेत्र में इस व्यवसाय की आवश्यकता रहती है। इस हेतु महिलाओं को प्राथमिकता दी जाना उचित है।	
बाजार संभावना	निरन्तर आवश्यकता रहती है (न्यूनतम 30 दिवस का प्रशिक्षण आवश्यक है।)	
वित्तीय पहलू	<p>अ-प्रशिक्षण व्यवस्था (5 प्रशिक्षणार्थी)</p> <p>1 आवास/भोजन व्यवस्था रु. 100/- प्रति व्यक्ति 15000.00</p> <p>2 मास्टर ट्रेनर 300/- प्रति दिवस 9000.00</p> <p>3 रॉं मेटेरियल 500/- प्रति व्यक्ति 2500.00</p> <p>3 किराया राशि 100/- रु. प्रति व्यक्ति 500.00</p> <p>27000.00</p> <p>ब-स्थाई लागत</p> <p>1 पेइल वाली सिलाई मशीन रु. 4000/- 20000.00</p> <p>2 अन्य सामाग्री केची, फीता, बोकस रु. 1000/प्रति सेट 5000.00</p> <p>3 टेबल एवं स्टूल 500/- रु. प्रति व्यक्ति 2500.00</p> <p>4 कपड़ा 2000/- प्रति व्यक्ति 10000.00</p> <p>5 इलेक्ट्रीक प्रेस 500/- रु. प्रति व्यक्ति 2500.00</p> <p>40000.00</p> <p>योजना की कुल लागत 67000.00</p>	

व्यवसाय	साइकिल किराया एवं मरम्मत	
प्रस्तावना	ग्रामीण क्षेत्र में साइकिल बहुत उपयोग में ली जाती हैं अतः स्यानीय स्तर पर मरम्मत की सुविधा आवश्यक है।	
प्रशिक्षण आवश्यकता	10 दिवस का प्रशिक्षण आवश्यक है।	
वित्तीय पहलू	<p>अ-प्रशिक्षण व्यय (3 प्रशिक्षणार्थी)</p> <p>1 आवास/भोजन व्यवस्था रु. 100/- प्रति व्यक्ति 3000.00</p> <p>2 मास्टर ट्रेनर 300/- प्रति दिवस 3000.00</p> <p>3 रॉं मेटेरियल 1000.00</p> <p>7000.00</p> <p>ब-स्थाई लागत</p> <p>1 टूल किट 2000/- प्रति सेट 6000.00</p> <p>2 किराये हेतु साइकिल 3 नंग प्रति व्यक्ति (9 साइकिल) 18000.00</p> <p>3 कार्य शील पूंजी व अन्य व्यय 3000.00</p> <p>27000.00</p> <p>कुल लागत 34000.00</p>	

दरें आयुक्त जनजाति क्षेत्रीय विकास विभाग द्वारा अनुमोदित।



CONSTRUCTION OF WASTE WEIR

- 1 Name of village :- P.S Nainwa G.P. DISTT. Bundi (RAJ.)
- 2 Name of work :- CONSTRUCTION OF PAKKA WASTE WEIR

Design

- 1 Available crest length 3.00 M
- 2 Total catchment area 1.00 Ha
- 3 Hight of structure 0.30 M

A Design discharge (By flood discharge method)

A HYDROLIC DESIGN

Peak rate of run off in cum/sec.=

$$Q = \frac{C \cdot I \cdot A}{36} \quad C = 0.40 \quad \text{Catchment Area} = 1.00 \text{ Ha}$$

$$Q = 0.27 \text{ cumsec}$$

Say 1 cumsec

$$K = \frac{L^3}{H}$$

$$L = 75.00 \text{ M}$$

$$H = 0.80 \text{ M}$$

$$K = 726.18$$

$$T_c = 0.0195K^{0.77}$$

$$3.11$$

$$I = 23.90 \text{ cm/hr.}$$

B HYDROLIC DESIGN


$$Q = 1.71L(h)^{3/2} \quad L = 3.00 \text{ mt length available at site}$$

$$h = [Q/1.71L]^{2/3}$$

$$h = 0.14 \text{ Say } = 0.15$$

Taking free board as 0.05 M

Total d = 0.20


 परियोजक: विमानचपन एजेन्सी
 आई. डब्ल्यू. एम.पी.
 पंचायत समिति नैनवा
 जिला बुन्दी (राज.)

C. STRUCTURAL DESIGN

(i) Top width of Head wall				
$h/(p-1)^{0.5}$	0.13	0.13 say =		0.30 M
(as per site condition where h =		0.15 m p = 2.		0.15 M
p Specific gravity of stone masonry in cm = 2.3				
(ii) Bottom width of head wall				
$b = h+H/(p-1)^{0.5}$	0.39	Say		0.75 M
H = height of head wall in meters =		0.3 m		0.30 M
(iii) Length of head wall extension				
H + d + 1	1.50			1.50 M
d = h + free board =	0.20			0.20 M
but as per side condition L/S M	1.5	R/S M	1.5	3.00 M
(iv) Height of Head wall extension				
H + d =				0.50 M
(v) Bottom width of HW ext. side wall & wing wall				
$0.5(H+h) =$	0.23			0.45 M
(vi) Top width of HW ext				
$0.4H =$	0.12			0.25 M
(vii) Length of Basin				
$L.B = 0.75(H+d) + H$	0.68			0.75 M
(viii) Thickness of Basin = 0.60m (including concreting)				
(ix) Height of side wall				
H + d =	0.50			0.50 M
(x) Height of side wall = 1.5h at W W joints				
1.5h =	0.23			0.30 M
(xi) Length of side wall = B. W. of H. W - B. W of H W E + L.B + width of toe wall				
	1.50			
(xii) Length of wing wall = 2.25 h =	0.34			0.00 M



 प्रसिद्ध
 आर. ए. ए. ए.
 प्रमाणिका नं. १०७/११
 जिला इंज. कार्यालय

(xiii) Height of the wing wall =	0.23	0.00 M
(xiv) Top width of Head wall ext site wall wing wall =		
(xv) Width of toe wall =		0.3 M
(xv) Height of toe wall =		0.15 M
(xvi) Height of wing wall at wing end =		0.00 M
(xviii) Bottem width of the side wall &wing wall taking as per Bottom width of the head wall ext as in item no.5= m		0.45 M
(xix) Depth of foundation taking as		0.60 M


Prepared by


Checked by

Approved by

CHECKS IN OVERTURNING

Factor of safety against overturning

$E_m/E_{mo} = +m/-m = \text{Restoring moment/overturning moment}$

2.96

it is more than 1.50 hence structure is safe against overturning

SLIDING

Factor of safety against sliding

$E_v/E_h = 3.13$

it is more than 1.0 hence structure is safe against sliding

RUPTURE (safety against tension at the base)

X Relative Position of resultant measured from toe

$x = E_m/E_v = 1.48$

$e = b/2 - X = -1.11$

$E_v/o (1+6e/b) = -8.50$

$E_v/b (1-6e/b) = 9.25$

$P_{max} = -8.50$

$P_{min} = 9.25$

Handwritten signature and stamp of an official from the Government of Karnataka, Department of Public Works, Bangalore.

Modal estimate of wasteweer in arale land

ABSTRACT OF COST

Name of work :-Waste weir

S.No	Particular	Qty.	Total Rate	Per	Total Amount	Labour Rate	L.Amount
1	Excavation in hard soil dry or moist&disposal of excavated material within initial lead of 30 m and lift of 1.5m including dressing etc complete	4.39	91.00	cum	399.26	91	399.2625
4	cement concrete well mixed in cement mortar(1:4:8) laid in position complete including curing Aggregate size upto 40mm. HB	1.22	1952.00	cum	2371.68	252.55	305.85
5	Random rubble stone masonry in cement sand mortar(1:6) for foundation	2.84	1590.00	cum	4507.65	357	1012.095
6	Random rubble stone masonry in cement sand mortar(1:6) for super structure	1.32	1590.00	cum	2100.79	357	471.68825
8	Cement plaster including smooth finishing in cement mortar (1:4)25mm thick	7.22	150.00	cum	1082.25	67.9	489.8985
9	Cement concrete coping in cement mortar1:2:4 100mm thick	0.29	2849.00	cum	811.97	315.8	90.003
	TOTAL				11273.60		2769.79
				TOTAL	11273.60		2769.79
	MATERIAL				8503.80		
	LABOUR				2769.79		
				TOTAL	11273.60		
					11273.60		
	Add 3% Contingency Charges				338.21		
				TOTAL Rs.	11611.80		
				Say	11700		

Prepared by

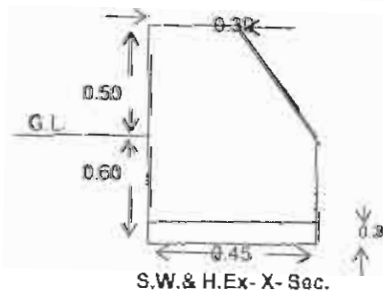
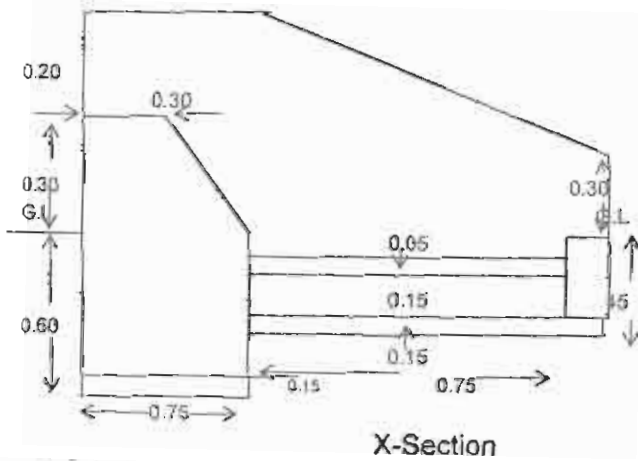
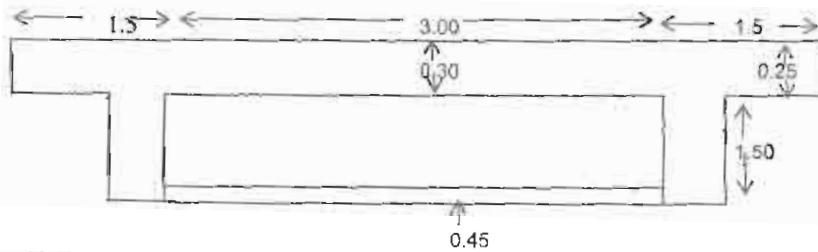
checked by


Approved by

MATERIAL CONSUMPTION STATEMENT

NAME OF WORK : WASTE WEIR							
S.n	Particular	Qty.	Cement Bags	Sand Cum	Aggregate 50mm	Aggregate 20mm	Stone Cum
1	Cement concrete (1:4:8) mm HB (cum) 3.40, 0.48, 0.96	1.22	4.13	0.58	1.17		
2	R R stone masonry (1:6) Foundation/ Super structure (cum) 1.68, 0.36, 1.14	4.16	6.98	1.50			4.74
3	Cement plaster (1:6) 2 mm thick (sqm) 0.108, 0.0022	7.22	0.78	0.16			
4	Raised & cut pointing (sqm) 0.032, 0.0043						
5	Stone kharanja in cement mortar (1:6)(cum) 1.80, 0.375, 1.20						
6	Cement concrete coping in cement mortar 1:2:4.75 mm thick	0.29	1.82	0.13	0.26		
7	Dry stone pitching						
	TOTAL		13.72	2.37	1.42		4.74

SAY 14 BAGS 0.69 MT
PLAN




 परियोजना क्रियान्वयन प्रजेन्ती
 आई० इत्यु० म्य०पी०
 पंचायत समिति कैमवा
 जिला पन्दी (राज०)

DETAILED ESTIMATE

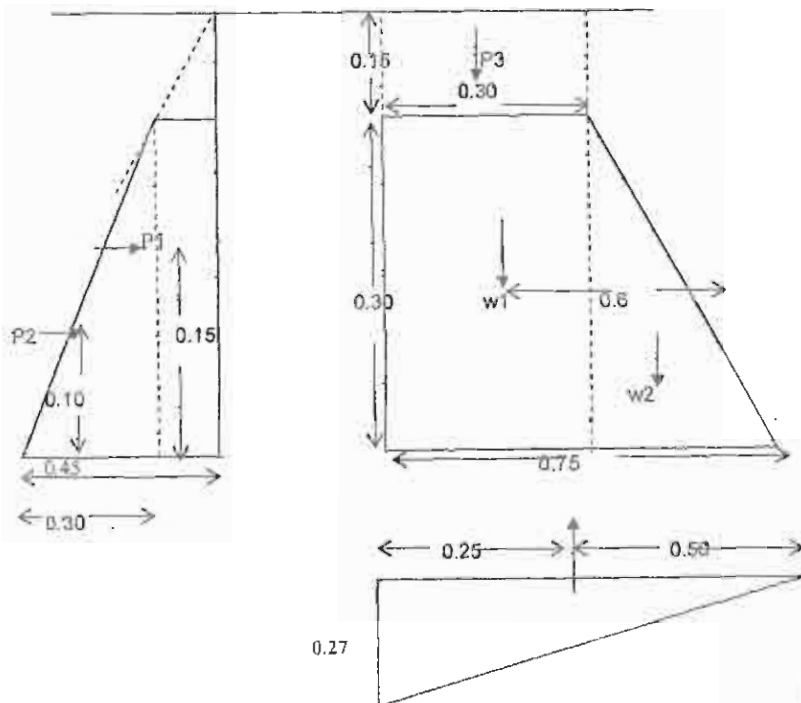
Name of work :- Waste Weir
P.S.

DISTT. Bundi

S.No	PARTICULAR	No.	LENGTH	BREADTH/DEPTH	QUANTITY
1	Total Excavation				
	H.W.	1.00	3.00	0.75	0.60 1.35
	H.W.E.	1.00	3.00	0.45	0.60 0.81
	S.W.	2.00	1.50	0.45	0.60 0.81
	Toe wall	1.00	3.00	0.30	0.45 0.41
	Apron	1.00	3.00	0.75	0.45 1.01
				Total (cu.m)	4.39
2	Excavation in hard soil dry or moist & disposal of excavated material within initial lead of 30 m and lift of 1.5m including dressing etc complete 10% of Total Excavation				
				Total	4.39
5	cement concrete well mixed in cement mortar (1:4:8) laid in position complete including curing Aggregate size upto 50mm. HB Total Excavation				
	H.W.	1.00	3.00	0.75	0.15 0.34
	H.W.E.	1.00	3.00	0.45	0.15 0.20
	S.W.	2.00	1.50	0.45	0.15 0.20
	Toe Wall	1.00	3.00	0.30	0.15 0.14
	Apron	1.00	3.00	0.75	0.15 0.34
				Total	1.22
6	Random rubble stone masonry in cement sand mortar (1:6) for foundation				
	H.W.	1.00	3.00	0.75	0.45 1.01
	H.W.E.	1.00	3.00	0.45	0.45 0.61
	S.W.	2.00	1.50	0.45	0.45 0.61
	Toe Wall	1.00	3.00	0.30	0.30 0.27
	Apron	1.00	3.00	0.75	0.15 0.34
				Total	2.84
7	Random rubble stone masonry in cement sand mortar (1:6) for super structure				
	H.W.	1.00	3.00	0.53	0.30 0.47
	H.W.E.	1.00	3.00	0.35	0.50 0.53
	S.W.	2.00	1.05	0.35	0.25 0.18
		2.00	0.30	0.35	0.50 0.11
		2.00	0.20	0.35	0.25 0.04
	Wing Wall	4.00	0.00	0.35	0.75 0.00
	Toe Wall				
				Total	1.32
9	Cement plaster including smooth finishing in cement mortar (1:3) 25mm thick				
	H.W.	1.00	3.00	0.30	0.90
		1.00	3.00	0.60	1.80
		1.00	3.00	0.30	0.90
	S.W.	2.00	0.30	0.20	0.12
		2.00	0.45	0.35	0.12
		2.00	1.05	0.25	0.53
		2.00	0.75	0.30	0.45
	H.W.E.	1.00	3.00	0.50	1.50
	Toe Wall	1.00	3.00	0.30	0.90
				Total	7.22

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 11/12/2011

11	Cement concrete coping in cement mortar 1:2:4.75 mm thick					
	H.W.	1.00	3.00	0.30	0.05	0.05
	S.W.	2.00	1.80	0.25	0.05	0.05
	H.W.E.	1.00	3.00	0.25	0.05	0.04
	Toe Wall	1.00	3.00	0.30	0.05	0.05
	Apron	1.00	3.00	0.75	0.05	0.11
				Total		0.29
12	EW for bind / embankment in dry or moist soil including laying on layers 1.5cm Breaking of clods sorting of grass pabbles etc and dressing in required profile when compacted manually or by plain roller with initial lead of 30mt and lift 1.5 mt (excluding charges of watering and compaction) Hard soil					
				Total		0
13	Dry stone pitching hammer dressing with packing of voids from small stone including all lifts in required profile of depth of 20 to 23 cm					
				Total		0
				Total		0



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कार्यालय पंचायत समिति, नैनावा, जिला बून्धी

निर्माण कार्य हेतु विस्तृत

लागत-अनुमान


क्र.सं.	कार्य का विवरण	सं०	पैदे का क्षेत्रफल	ऊपर का क्षेत्रफल	औसत क्षेत्रफल	गहराई	मात्रा	इकाई	दर		राशि		योग
									श्रम	कुल	श्रम	सामग्री	
1	नैनावा, खाई, परगला में 1.5 गहराई तक मिट्टी की खुदाई करना, पत्तों को कूटना, पानी डालना, बगल को सजाना।												
A-	सख्त, चिकनी, कंकर मिट्टी में 80 प्रति. औसत	1	100	400	250	1.6	400	घन मी.	91.00	91.00	36400.00	0.00	36400.00
B-	विघटित सट्टान / गुरुन 20 प्रति. औसत	1	100	400	250	0.4	100	घन मी.	134.00	134.00	13400.00	0.00	13400.00
2	अतिरिक्त रिफ्ट का कार्य	1	100	156.25	128.125	0.5	64.06	सख्त	11.00	11.00	704.69	0.00	704.69
3	अतिरिक्त लोच का कार्य	1	100	400	250	1	250	सख्या	33.80	33.80	8450.00	0.00	8450.00
Total									58954.69		0.00	58954.69	
TOTAL												58954.69	
contingency 3%												1768.64	
Grant Total												60723.33	
Total Labour Cost												60723.33	
Total Cost												60700.0	

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Pasture Land Development									
Panchayat samiti: Nainwa , Tehsil - Nainwa , District - Bundi , State - Rajasthan , India									
Model Estimate									
Name of Work :- Pasture Land Development									
Costing & Quantity Estimation of Pasture Land Development									
1.00 Ha. Area for trenching, 0.45 mt. Depth 0.45 mt. Width									
Size of trench									
33	Mt. Contour to contour intervals	0.2025	Sqm cross section area of trench						
296	Mt. trenching length required in one hectare of land	Say CCT/ha.	300.00						
70	Rmt. Length of Ditch cum bund per ha.	plant per ha.	200						7 x 7 mt.
200	Plants to be planted in one hectare	Top width	1.5						Bottom width
1.20	Mt. Depth of cattle protection trench.	70.00	Rmt. Length of cattle protection trench per ha						0.9
1.44	Sqm cross section area of trench								
S.no	Particular	Unit	Quantity	Labour Rate	Total Rate	Labour Cost	Total Amount		
1	Dug belling work up to 5 to 7 cm depth. (page no. 14 , Item no. 156)	Rmt.	280.00	1.00	1.00	280	280.00		
2	A .Excavation of cattle protection trench in Hard soil. 30 %	Cum	30.24	91.00	91.00	2751.84	2751.84		
	B. Excavation of cattle protection trench in moorum soil. 30 %	Cum	30.24	134.00	134.00	4052.16	4052.16		
	C .Excavation of cattle protection trench in D.I.R.40 %	Cum	40.32	177.00	177.00	7136.64	7136.64		
4	Layout (by A-farm or dump level) for contouring.	Rmt.	300.00	0.27	0.27	81	81.00		
5	Dug belling work up to 5 to 7 cm depth for contouring.	Rmt.	600.00	1.00	1.00	600	600.00		
6	CCT Excavation in 50 % Hard soil for trenching.	Cum	30.375	85.00	85.00	2581.875	2581.88		
7	CCT Excavation in 50 % Ordinary murrum for trenching.	Cum	30.375	134.00	134.00	4070.25	4070.25		
8	Pit digging in hard soil of size 45x45x45 Cm. (page no. 15 , item no. 122-b)	Cum	60	6.80	6.80	408	408.00		
9	Pit digging in moorum soil of size 45x45x45 Cm. (page no. 15 , item no. 112-c)	Cum	140	13.40	13.40	1876	1876.00		
10	Pit Treatment by Pesticides for Tremites.	Per pit	200	0.40	0.40	80	82.00		
11	Treatment of pit by FYM.	Per pit	200	0.20	0.20	40	40.00		
12	Supply of FYM (as per market rate) 2 Kg per Pit	Per pit	200	0.00	6.00	0	1200.00		
13	Cost of saplings (as per market rate)	Per plant	200	0.00	3.00	0	600.00		
14	Plantation work (page no. 15 , item no. 113-a)	Per pit	200	3.60	3.60	720	720.00		

परियोजना निदेशिका
 आर्द्रक कृषि विभाग
 जिला नैनवा (राजस्थान)

15	Transportation Cost of saplings from 50 km distance.	Per 1000 Plant	0.2	145.00	6132.00	29	1226.40
16	Ring making of 1.0 Mt. Radius & 30 Cm. width X 20 Cm. Depth. (page no. 15 , item no. 117-a)	Per plant	200	2.40	2.40	480	480.00
17	Sowing of tree seeds by notching/dibbling (page no. 15 , item no. 114)	Rmt.	370	0.59	0.59	218.3	218.30
18	Cost of seed(as per market rate)	Kg.	1.00	0.00	18.00	0	18.00
	Babool	Kg.	1.00	0.00	20.00	0	20.00
	Kumtha	Kg.	1.00	0.00	40.00	0	40.00
	Khair	Kg.	0.50	0.00	20.00	0	10.00
	Neem	Kg.	600	1.80	1.80	1080	1080.00
19	Three times watering to the plant with 15 liters per plant(page no. 15 , item no. 115). (200X3=600)	Per plant	9000.0	0.00	450.00	0	1012.50
20	Transportation Cost of water(With Water cost) from 5 km distance. (200*15*3=9000Lit)/Ha	Per 4000 Litre.	5	0.00	50.00	0	250.00
21	Dhamaan (as per market rate)	Kg.	5	0.00	40.00	0	200.00
22	Staylo hmata (as per market rate)	Kg.	740	0.59	0.59	436.6	436.60
23	Sowing of grass seed on bunds in two rows, (page no. 15 , item no. 114) 2X370=740 Rmt/Ha	Rmt.					
25	Gap Filling Work in II Yr 20%					5384.33	6294.31
26	One Man Chokidar Per 25 Ha (365*3)/25		43.8	135.00	135.00	6405.20	7497.18
	Total				Total	38711.2	45263.05
	Contingency @ 3%					Rs.38,711	Rs.45,263
	Grand Total (A+B)					38711.20	46621
	Labour Cost(Lakh)						0.38711
	Material Cost(Lakh)						0.07910
	Grand Total(Lakh)					Say Rs	0.46621
						0.47/-Ha	


 7/04/

ड्रेनेज लाईन ट्रीटमेंट कार्य हेतु लूज स्टोन चैक डेम का विस्तृत लागत तकमीना

क्र.स.	कार्य विवरण	मात्रा	प्रति	दर		राशि	
				Lc	Total	Lc	Total
1	नीव ट्रेंचेज में मिट्टी खुदाई का कार्य ब. सख्त मिट्टी में	2.37	घ.मी	91.00	91.00	215.67	215.67
2	सुखे पत्थर की चुनाई का कार्य नीव के लिये	7.97	घ.मी	285.10	950.00	2272.247	7571.50
Total						2487.917	7787.17

योग

2488

7787

जोड़ 3 % कन्स्ट्रिक्शन जॉर्सी

233.62

कुल योग

8021

SAY

8100

लागत श्रम मद में

31

2490

लागत सामग्री मद में

69

5610

कुल योग

8100

Say am

9000

परियोजना विभाजन ए.सी.
आर.डी. डब्ल्यू. एम.पी.
पंचायत समिति नैमडां
जिला पुन्दी (राज.)

जल गठण क्षेत्र में फसल प्रदर्शन

नाम फसल:-गोहूँ

किस्म:-राज.3077/राज.4037/एच.आई153

क्र.स.	गतिविधि	प्रकार	युनिट	दर	प्रति हेक्टेयर		प्रदर्शन हेतु (0.40हे.)		विवरण	
					मात्रा	राशि	मात्रा	राशि		
1	भूमि उपचार	एण्डोसल्फोन 4%	k.g	31/-kg.	25	775	10	310		
2	बीज		k.g	20/-kg.	125	2500	50	1000		
3	बीज उपचार									
(I)	दिमक नियंत्रण	कलोरोपाइरीफास 20E.C.	M.L.	330LIT.	600	180	240	72		
(II)	बीज जनित रोगों के लिए	थाइरान	gm.	0.20/-gm.	312.5	62.5	125	25		
(B.)	कल्चर									
(I)	ऐजोलोवेक्ट	तीन पैकेट पर्याप्त		12/Each		36		14.4		
(II)	पी.एस.बी.	तीन पैकेट पर्याप्त		12/Each		36		14.4		
(III)										
3	उर्वरक									
(I)	नात्रजन		k.g		80		32			
(II)	फास्फोरस		k.g		35		14			
(III)	डी.ए.पी.		k.g	10/kg.	77	770	31	308		
(IV)	यूरिया		k.g	6/kg.	146	873.048	58	349.22		
4	सूक्ष्म तत्व	जिंक सल्फेट	k.g	50/kg.	25	1250	10	500		
5	खरपतवार नियंत्रण									
(I)		2-4,D (A.I)	M.L.	250/LIT.	500	125	200	50		
(II)										
6	पौध संरक्षण									
(I)	दिमक	एण्डोसल्फोन 35EC	LIT.	280/LIT.	2.5	700	1	280		
TOTAL							7308	771	2923	

27

जल ग्रहण क्षेत्र में फसल प्रदर्शन

नाम फसल:-चना

किस्म:-प्रताप चना/RSG-888

क.स.	गतिविधि	प्रकार	युनिट	राशि	प्रति हेक्टेयर		प्रदर्शन हेतु (0.40हे.)		विवरण
					मात्रा	राशि	मात्रा	राशि	
1	भूमि उपचार	क्यूनालफास 1.5%	k.g	28/-kg	25	700	10	280	
2	बीज		k.g	33/kg.	80	2640	32	1056	
3	बीज उपचार								
(I)	जडगलन रोग	6gm. टाइकोहर्मा				10		4	
(B.)	कल्चर								
(I)	राइजोबियम								
(I)	कल्चर	तीन पैकेट पर्याप्त		12/Each		36		14.4	
(II)	PSM.	तीन पैकेट पर्याप्त		12/Each		36		14.4	
3	उर्वरक								
(I)	नात्रजन		k.g			20		8	
(II)	फास्फोरस		k.g			40		16	
(III)	डी.ए.पी.			10/kg.		88	880	35	352
(IV)	यूरिया			6/kg.		186	1114.08	74	445.63
4	खरपतवार नियंत्रण								
(I)									
(II)									
5	पौध संरक्षण								
(I)	कटवर्म	मिथाइल पैराथियान 2%चूण	k.g	17/-kg.	25	425	10	170	
(II)	फलीछेदक	मेलाथियान 5%या क्यूनालफास 1.5%	k.g	28/-kg.	25	700	10	280	
TOTAL						6541	195	2616.4	

27

जल ग्रहण क्षेत्र में फसल प्रदर्शन

नाम फसल:-सरसो

किस्म:-बायो 902/वसुन्धरा

क्र.स.	गतिविधि	प्रकार	युनिट	राशि	प्रति हेक्टेयर		प्रदर्शन हेक्टे (0.40हे.)		विवरण
					मात्रा	राशि	मात्रा	राशि	
1	भूमि उपचार	एण्डोसल्फोन 4% चूर्ण	k.g	31/-kg.	25	775	10	310	
		जिप्सम	k.g		250	500	100	200	
2	बीज		k.g	38/-kg.	4	152	2	61	
3	बीज उपचार								
(I)		मैकोजेव 2gm./kg. बीज		400/-kg.		10		4	
(II)									
(III)									
(B.)	कलंघर								
(I)		लीन पैकेट पर्याप्त PSD.		12/Each		36		14.4	
(II)	PSM.	लीन पैकेट पर्याप्त PSD.		12/Each		36		14.4	
3	उर्वरक								
(I)	नात्रजन		k.g		60		24		
(II)	फास्फोरस		k.g		30		12		
(III)	डी.ए.पी.			10/kg.	66	660	26	264	
(IV)	यूरिया			6/kg.	121	728.64	49	291.456	
4	सूक्ष्म तत्व	गंधकचूर्ण	gm.	10	40	400	16	160	
TOTAL						3298	239	1319	


 प्राधोक्तना कियन्वान ए.क.
 आई० डब्ल्यू० एम०पी०
 पंचायत समिति नैनावा
 जिला कुन्ना (राजो०)

जल ग्रहण क्षेत्र में फसल प्रदर्शन

नाम फसल:-आवका

किस्म:-प्रताप संकर मयका 1/नवजोत

क्र.स.	गतिविधि	प्रकार	युनिट	राशि	प्रति हेक्टेयर		प्रदर्शन हेतु(0.40हे.)		विवरण
					मात्रा	राशि	मात्रा	राशि	
1	भूमि उपचार	दीमक एण्डोसल्फोन 4% चूर्ण	k.g	31/-kg.	25	775	10	310	
2	बीज		k.g	30/-kg.	20	600	8	240	
3	बीज उपचार								
(I)	तुलायिता रोग	रिडोमिल m.z. 4gm./kg. बीज	gm.		80	120	32	48	
(II)	दीमक नियंत्रण	3m.l. एण्डोसल्फान /kg. बीज		31/-kg.		25		10	
(III)		आइराम	gm.	23	3	69	1	27.6	
(B.)	कल्वर								
(I)		ऐजोटोवेक्टर कल्वर से उपचारित				100		40	
(II)	फास्फोरस	तीन पैकेट फास्फोवेकिन PSD.		12/Each		36		14.4	
(III)	PSM.	तीन पैकेट फास्फोवेकिन PSD.		12/Each		36		14.4	
3	उर्वरक								
(I)	नात्रजन		k.g		60		24		
(II)	फास्फोरस		k.g		30		12		
(III)	डी.ए.पी.			10/kg.	66	660	26	264	
(IV)	यूरिया			6/kg.	121	728.64	49	291.456	
4	सूक्ष्म तत्व	जस्ते की कमी पर znso4	k.g	50/kg.	25	1250	10	500	
	खरपतवार								
5	नियंत्रण	500gm. एवजीन (A.I.)	LIT.	180/-PKT.	600	108	240	43	
		1.5kg. एलाक्लोरो				100		40	
6	पौध संरक्षण								
(I)	एफिंड	मिथाइल डिमेटोन 25E.C.	LIT.		1	100		40	
TOTAL						4708	412	1883	

27
 जल ग्रहण क्षेत्र में फसल प्रदर्शन
 आ.स. 2019-20

जन ग्रहण क्षेत्र में फसल प्रदर्शन

नाम फसल:-उड़द
किस्म:-कृष्णा/डी-9

क्र.सं.	गतिविधि	प्रकार	युनिट	राशि	प्रति हेक्टेयर		प्रदर्शन हेक्टे (0.40हे.)		विवरण
					मात्रा	राशि	मात्रा	राशि	
1	भूमि उपचार	मिथाइल 2%चूर्ण	k.g.	17/-kg.	25	425	10	170	
2	बीज		k.g.	47/-kg.	15	705	6	282	
3	बीज उपचार								
(I)		थाइराम	gm.	23	3	69	1	27.6	
(B.)	कल्चर								
(I)	राइजोबियम कल्चर	तीन पैकेट पर्याप्त		12/Each		36		14.4	
(II)	PSM.	तीन पैकेट पर्याप्त		12/Each		36		14.4	
(III)									
3	उर्वरक								
(I)	नात्रजन		k.g.		10		4		
(II)	फास्फोरस		k.g.		30		12		
(III)	डी.ए.पी.			10/kg.	66	660	26	264	
(IV)	यूरिया			6/kg.	141	847.44	56	338.976	
4	सूक्ष्म तत्व								
5	खरपतवार नियंत्रण	फ्लूक्लोरिन (A.I.)	LIT.	500/-LIT.	1	500		200	
TOTAL						3278.4	116	1311	

AM
Bharatpur
2018-19

जल ग्रहण क्षेत्र में फसल प्रदर्शन

नाम फसल:-बूंगे		किसम:-पूसा वैशाखी/Rmg-902									
क.स.	गतिविधि	प्रकार	युनिट	राशि	प्रति हेक्टेयर		(प्रदर्शन हेतु(0.40हे.))		विवरण		
					मात्रा	राशि	मात्रा	राशि			
1	भूमि उपचार	मिथाइल पैराथियान 2%बूर्ण	k.g	17/-kg.	25	425	10	170			
2	बीज		k.g	41/-kg.	15	615	6	246			
3	बीज उपचार										
(I)											
(II)											
(III)											
(B.)	कव्चर										
(I)	PSM.	तीन पैकेट पर्याप्त		12/Each		36		14.4			
(II)	राइजोबियम	तीन पैकेट पर्याप्त		12/Each		36		14.4			
(III)											
3	उर्वरक										
(I)	नात्रजन		kg.		10		4				
(II)	फास्फोरस		kg.		30		12				
(III)	डी.ए.पी.			10/kg.	66	660	26	264			
(IV)	सूरिया			6/kg.	141	847.44	56	338.976			
4	सूक्ष्म तत्व										
TOTAL						2619.4	115	1048			

परियोजना क्रियान्वयन एजेंडा
आई० डब्ल्यू० एस०पी०
पंचायत समिति नैनादा
जिला कुन्नी (राज०)

जल ग्रहण क्षेत्र में फसल प्रदर्शन

नाम फसल:-तिल किस्म:-RT.-46/TC-25		जल ग्रहण क्षेत्र में फसल प्रदर्शन									
क.स.	गतिविधि	प्रकार	युनिट	राशि	प्रति हेक्टेयर		(प्रदर्शन हेतु(0.40हे.))		विवरण		
					मात्रा	राशि	मात्रा	राशि			
1	भूमि उपचार	मिथाइल पैराथियान 2%ई	k.g	17/-kg.	25	425	10	170			
2	बीज	जिप्सम	k.g	137/-kg.	250	500	100	200			
3	बीज उपचार				2	274	1	110			
(I)		साइराम	gm.	23	3	69	1	27.6			
(II)	जीवाणु अंगभासी रोग हेतु	स्केप्टोसाइक्लिन 10lit. पानी में	gm.	40/-पैकेट	2	80	1	32			
(III)											
(B.)	कवच										
(I)	ऐजोवोवेक्टर	तीन पैकेट पर्याप्त		12/Each		36		14.4			
(II)	PSM.	तीन पैकेट पर्याप्त		12/Each		36		14.4			
(III)											
3	उर्वरक										
(I)	नत्रजन		k.g		20		8				
(II)	फास्फोरस		k.g		25		10				
(III)	डी.ए.पी.			10/kg.	55	550	22	220			
(IV)	यूरिया			6/kg.	113	678.48	45	271.392			
4	सूक्ष्म तत्व	जिप्सम का प्रयोग									
5	खरपतवार नियंत्रण	ऐलाक्लोर (A.I.)	k.g		1.5	100	1	40			
				TOTAL		2748.5	199	1099			

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जल ग्रहण क्षेत्र में फसल प्रदर्शन

क.स.	गतिविधि	प्रकार	युनिट	राशि	प्रति हेक्टेयर		प्रदर्शन हेतु (0.40हे.)		विवरण
					मात्रा	राशि	मात्रा	राशि	
1	भूमि उपचार								
2	बीज		k.g	40/-kg.	15	600	6	240	
3	बीज उपचार								
(I)	अंगमारी रोग	250ppm. एग्मीमाइसिन		60		563		225	
(II)	थाइलम		gm.	23	3	69	1	27.6	
(III)									
(B.)	कल्चर								
(I)	राइजोबियम कल्चर	तीन पैकेट पर्याप्त		12/Each		36		14.4	
(II)	PSM.	तीन पैकेट पर्याप्त		12/Each		36		14.4	
(III)									
3	उर्वरक								
(I)	नात्रजन		k.g		10		4		
(II)	फास्फोरस		k.g		40		16		
(III)	डी.ए.पी.			10/kg.	88	880	35	352	
(IV)	यूरिया			6/kg.	190	1137.8	76	455.136	
4	सूक्ष्म तत्व	जिंक सल्फेट	k.g	50/-kg.	25	1250	10	500	
5	खरपतवार नियंत्रण	2-4,D- एस्टरसाल्ट	gm.	250/-kg.	500	125	200	50	
				TOTAL		4697	348	1879	

परिचालना क्लियरिंग, जल एडो-
आर्क. डब्ल्यू. एम. पी.
पंचायत समिति नैतवां
जिला कुन्दी (राज.)

जल ग्रहण क्षेत्र में फसल प्रदर्शन

नाम फसल:-ज्वार												
किस्म:-राजस्थान चरी- 1,2/CSH-5,6												
क्र.स.	गतिविधि	प्रकार	युनिट	राशि	प्रति हेक्टेयर		प्रदर्शन हेतु(0.40हे.)		विवरण			
					मात्रा	राशि	मात्रा	राशि				
1	भूमि उपचार	एण्डोसल्फोन 4% चूर्ण	k.g	31/-kg.	25	775	10	310				
2	बीज	दाने हेतु	k.g	30/-kg.	10	300	4	120				
		चारे हेतु	k.g		25		10					
3	बीज उपचार											
(I)		थाइराम	gm.	23	3	69	1	27.6				
(II)		गंधकचूर्ण	gm.	110	4	440	2	176				
(III)												
(B.)	कलशर											
(I)	ऐजोटोवेक्टर	तीन पैकेट पर्याप्त		12/Each		36		14.4				
(II)	PSM.	तीन पैकेट पर्याप्त		12/Each		36		14.4				
(III)												
3	उर्वरक											
(I)	नत्रजन		k.g		80		32					
(II)	फास्फोरस		k.g		45		18					
(III)	डी.ए.पी.			10/kg.	99	990	40	396				
(IV)	यूरिया			6/kg.	186	1116	74	446.4				
4	सूक्ष्म तत्व	जिंक सल्फेट का प्रयोग	k.g	50/-kg.	25	1250	10	500				
TOTAL						5012	201	2005				


 प्रमुख अधिकारी
 जल एवं पर्यावरण विभाग
 राजस्थान सरकार
 जयपुर

AREA IN HACT. 0.40 जलसहज क्षेत्र में खरीफ की फसल प्रदर्शन

क्र.स.	गाँव का नाम	फसल का नाम	सुख जागत		प्रथम वर्ष		द्वितीय वर्ष		तृतीय वर्ष		चतुर्थ वर्ष		पंचम वर्ष	
			घुसक की संख्या	एकरी संख्या	घुसक की संख्या	एकरी संख्या	घुसक की संख्या	एकरी संख्या	घुसक की संख्या	एकरी संख्या	घुसक की संख्या	एकरी संख्या	घुसक की संख्या	एकरी संख्या
1	बाधोला	मक्का	70	1883	131810		0	0	30	56490	20	37660	20	37660
		उड़द	15	1311	19865		0	0	5	6555	5	6555	5	6555
		मूँग	15	1048	15720		0	0	5	5240	5	5240	5	5240
		तिल	10	1099	10990		0	0	0	0	5	5495	5	5495
		ग्वार	10	1879	18790		0	0	0	0	5	9395	5	9395
	Total		120		196975	0	0	40	68285	40	64345	40	64345	
2	सुरगली	मक्का	20	1883	37660		0	0	10	18830	5	9415	5	9415
		उड़द	10	1311	13110		0	0	5	6555	3	3933	2	2622
		मूँग	10	1048	10480		0	0	5	5240	3	3144	2	2096
		तिल	10	1099	10990		0	0	0	0	5	5495	5	5495
		ग्वार	10	1879	18790		0	0	0	0	5	9395	5	9395
	Total		60		91030	0	0	20	30625	21	31382	19	29023	
3	उगेज	मक्का	20	1883	37660		0	0	10	18830	5	9415	5	9415
		उड़द	10	1311	13110		0	0	5	6555	3	3933	2	2622
		मूँग	10	1048	10480		0	0	5	5240	3	3144	2	2096
		तिल	10	1099	10990		0	0	0	0	5	5495	5	5495
		ग्वार	10	1879	18790		0	0	0	0	5	9395	5	9395
	Total		60		91030	0	0	20	30625	21	31382	19	29023	
4	भीमगंज	मक्का	20	1883	37660		0	0	10	18830	5	9415	5	9415
		उड़द	10	1311	13110		0	0	0	0	5	6555	5	6555
		मूँग	10	1048	10480		0	0	0	0	5	5240	5	5240
		तिल	10	1099	10990		0	0	0	0	5	5495	5	5495
		ग्वार	10	1879	18790		0	0	0	0	5	9395	5	9395
	Total		60		91030	0	0	10	18830	25	36100	25	36100	
5	सीसोला	मक्का	30	1883	56490		0	0	10	18830	10	18830	10	18830
		उड़द	10	1311	13110		0	0	5	6555	5	6555	0	0
		मूँग	10	1048	10480		0	0	5	5240	5	5240	0	0
		तिल	10	1099	10990		0	0	5	5495	5	5495	0	0
		ग्वार	10	1879	18790		0	0	5	9395	5	9395	0	0

28

6	महावीरपुरा	सीसोला	Total		70		109860	0	0	0	0	30	45515	30	45515	10	18830			
			मक्का	20	1883	37660							0	10	18830	5	9415	5	9415	
			उडद	10	1311	13110								5	6555	5	6555	0	0	0
			मूँग	10	1048	10480								5	5240	5	5240	0	0	0
			तिल	10	1099	10990								5	5495	5	5495	0	0	0
7	सुवागिया	सुवागिया	Total		60		91030	0	0	0	0	30	45515	25	36100	5	9415			
			मक्का	50	1883	94150							20	37660	20	37660	10	18830		
			उडद	15	1311	19665							5	6555	5	6555	5	6555		
			मूँग	15	1048	15720							5	5240	5	5240	5	5240		
			तिल	10	1099	10990							5	5495	5	5495	0	0		
8	पाण्डुला	सुवागिया	Total		100		159315	0	0	0	0	40	64345	40	64345	20	30625			
			मक्का	40	1883	75320							20	37660	10	18830	10	18830		
			उडद	15	1311	19665							5	6555	5	6555	5	6555		
			मूँग	15	1048	15720							5	5240	5	5240	5	5240		
			तिल	5	1099	5495							5	5495	0	0	0	0		
9	कोलाडा	सुवागिया	Total		80		125595	0	0	0	0	40	64345	20	30625	20	30625			
			मक्का	30	1883	56490							10	18830	10	18830	10	18830		
			उडद	10	1311	13110							5	6555	5	6555	0	0		
			मूँग	10	1048	10480							5	5240	5	5240	0	0		
			तिल	10	1099	10990							5	5495	5	5495	0	0		
10	पीपरवाला	सुवागिया	Total		70		109860	0	0	0	0	30	45515	30	45515	10	18830			
			मक्का	10	1883	18830							5	9415	5	9415	0	0		
			उडद	10	1311	13110							5	6555	5	6555	0	0		
			मूँग	10	1048	10480							5	5240	5	5240	0	0		
			तिल	4	1099	4396							0	0	4	4396	0	0		
11	सुब्यली	सुवागिया	Total		38		54332	0	0	0	0	15	21210	23	33122	0	0			
			मक्का	30	1883	56490							10	18830	10	18830	10	18830		
			उडद	10	1311	13110							5	6555	5	6555	0	0		
			मूँग	10	1048	10480							5	5240	5	5240	0	0		
			तिल	10	1099	10990							5	5495	5	5495	0	0		

पारंपारिक कृषि विज्ञान एजेन्सी
and its staff members

			ग्वार	10	1879	18790			0	0	0	0	5	9395	5	9395	0	0	0
		Total		70		109860	0	0	0	0	0	0	30	45515	30	45515	10	18830	0
12	धीरपुर	सुवामिया	मक्का	20	1883	37660			0	0	0	0	10	18830	10	18830	0	0	0
			उरद	10	1311	13110							5	6555	5	6555	0	0	0
			मूँग	10	1048	10480							5	5240	5	5240	0	0	0
			तिल	10	1099	10990							5	5495	5	5495	0	0	0
			ग्वार	10	1879	18790							5	9395	5	9395	0	0	0
		Total		60		91030	0	0	0	0	0	0	30	45515	30	45515	0	0	0
13	विजलया	सुवामिया	मक्का	30	1883	56490			0	0	0	0	10	18830	10	18830	10	18830	0
			उरद	10	1311	13110							0	0	5	6555	5	6555	5
			मूँग	10	1048	10480							0	0	5	5240	5	5240	5
			तिल	10	1099	10990							0	0	5	5495	5	5495	5
			ग्वार	10	1879	18790							0	0	5	9395	5	9395	5
		Total		70		109860	0	0	0	0	0	0	10	18830	30	45515	30	45515	30
14	आवपुरा	सुवामिया	मक्का	30	1883	56490			0	0	0	0	10	18830	10	18830	10	18830	0
			उरद	10	1311	13110							5	6555	5	6555	0	0	0
			मूँग	10	1048	10480							5	5240	5	5240	0	0	0
			तिल	10	1099	10990							5	5495	5	5495	0	0	0
			ग्वार	10	1879	18790							5	9395	5	9395	0	0	0
		Total		70		109860	0	0	0	0	0	0	30	45515	30	45515	10	18830	10
15	घाबूगाँव	सुवामिया	मक्का	30	1883	56490			0	0	0	0	10	18830	10	18830	10	18830	0
			उरद	10	1311	13110							0	0	5	6555	5	6555	5
			मूँग	10	1048	10480							0	0	5	5240	5	5240	5
			तिल	10	1099	10990							0	0	5	5495	5	5495	5
			ग्वार	10	1879	18790							0	0	5	9395	5	9395	5
		Total		70		109860	0	0	0	0	0	0	10	18830	30	45515	30	45515	30
		Total Kharif		1058		1650527	0	0	0	0	0	0	385	609015	425	646006	248	395506	248


 जमा आवाक्याम एकरा
 पंचायत सामात नमदा
 जिला बुन्दी (राजप)

AREA IN HACT. 0.40 जलवाहन क्षेत्र में रबी की फसल प्रदर्शन

क्र.सं.	गाँव का नाम	कान संघ/अंत	फसल का नाम	शुष्क की संख्या	दर	राशि	प्रथम वर्ष		द्वितीय वर्ष		तृतीय वर्ष		चतुर्थ वर्ष		पंचम वर्ष	
							शुष्क की संख्या	राशि	शुष्क की संख्या	राशि	शुष्क की संख्या	राशि	शुष्क की संख्या	राशि	शुष्क की संख्या	राशि
1	बाखेला	बाखेला	गेहूँ	30	2923	87690			0	0	10	29230	10	29230	10	29230
			चना	10	2616	26160			0	0	5	13080	5	13080	0	0
			सरसो	10	1319	13190			0	0	5	6595	5	6595	0	0
	Total			50		127040	0	0	20	48905	20	48905	20	48905	10	29230
2	सुरगली	बाखेला	गेहूँ	10	2923	29230			0	0	0	0	5	14615	5	14615
			चना	5	2616	13080			0	0	0	0	5	13080	0	0
			सरसो	5	1319	6595			0	0	0	0	5	6595	0	0
	Total			20		48905	0	0	0	0	15	34290	5	14615	5	14615
3	उगेन	बाखेला	गेहूँ	10	2923	29230			0	0	4	11692	3	8769	3	8769
			चना	5	2616	13080			0	0	2	5232	3	7848	0	0
			सरसो	5	1319	6595			0	0	2	2638	3	3957	0	0
	Total			20		48905	0	0	0	8	19562	9	20574	3	8769	
4	भीमगंज	बाखेला	गेहूँ	15	2923	43845			0	0	5	14615	5	14615	5	14615
			चना	10	2616	26160			0	0	5	13080	5	13080	0	0
			सरसो	10	1319	13190			0	0	5	6595	5	6595	0	0
	Total			35		83195	0	0	0	15	34290	15	34290	5	14615	
5	सीसोला	सीसोला	गेहूँ	40	2923	116920			0	0	20	58460	10	29230	10	29230
			चना	20	2616	52320			0	0	10	26160	5	13080	5	13080
			सरसो	20	1319	26380			0	0	10	13190	5	6595	5	6595
	Total			80		195620	0	0	0	40	97610	20	48905	20	48905	
6	महावीरपुरा	सीसोला	गेहूँ	20	2923	58460			0	0	10	29230	5	14615	5	14615
			चना	10	2616	26160			0	0	5	13080	5	6595	0	0
			सरसो	10	1319	13190			0	0	5	6595	5	6595	0	0
	Total			40		97810	0	0	0	20	48905	15	34290	5	14615	



 10/10/2023

MODEL ESTIMATE OF HORTICULTURE PLANTATION

Aawla Plant Production

S.N	Details of work	Total plant Qty	Unit	No		C/C		8mx8m	
				Rate		Amount			
				Lc	Total	Lc	Total		
1	Excavation of earth work in hard soil for digging of pits, 0.75 x0.75 x0.90 = 0.5062cum	78.98	cum	91.00	91	7186.73	7186.73		
2	Treatment of pits					0.00			
a	Through chemicals	156	Per plant	0.55	0.55	85.80	85.80		
b	Through mannure	156	Per plant	0.27	0.27	42.12	42.12		
3	Planting of plant with rehandling upto 100m,refilling of soil & compaction etc	156	Per plant	7.40	7.40	1154.40	1154.40		
4	Cost of Plant including transportation (19+2)=21	156	Per plant	0.00	21.00	0.00	3276.00		
5	Making of thanwala,of 50 cm radius	156	Per plant	2.40	2.40	374.40	374.40		
6	Watering of plant,15 lit per plant three times in the year (156x3x3)	1404	Per plant	1.80	1.80	2527.20	2527.20		
7	Cost of water including transportation (156x3x3x15=21060)	21060	4000 litre	0.00	450	0.00	2369.25		
8	Weeding & hoeing three times in the year (156x3x3=1404)	1404	Per plant	1.20	1.20	1684.80	1684.80		
9	Cost of Mannure including transportation	156	Per Kg	0.50	2.00	78.00	312.00		
10	Cost of Chemical including transportation	156	Per plant	0.50	1.00	78.00	156.00		
	Total					13211.45	19188.70		
15	Gap filling 20%					2642.289	3833.74		
	Total					15853.73	23062.43		
	Say Rs					15854	23002		
	Contengency 3%						690		
	Grand total						23693		

Labour Am 15854
 Meterial Am 7839
 Total Am 23693


 प्रस्ताव संख्या: २०२०/२०२१
 दिनांक: २०/०५/२०२१

MODEL ESTIMATE OF HORTICULTURE PLANTATION

Ber Plant

S.N	Details of work	Total plant	Unit	No		C/C		6mx6m
		277						
		Qty		Rate		Amount		
			Lc	Total	Lc	Total		
1	Excavation of earth work in hard soil for digging of pits, 0.75 x0.75 x0.90 = 0.5062cum	140.23	cum	91.00	91	12761.04	12761.04	
2	Treatment of pits					0.00		
a	Through chemicals	277	Per plant	0.55	0.55	152.35	152.35	
b	Through mannure	277	Per plant	0.27	0.27	74.79	74.79	
3	Planting of plant with rehandling upto 100m,refilling of soil & compaction etc	277	Per plant	7.40	7.40	2049.80	2049.80	
4	Cost of Plant including transportation(10+2=12)	277	Per plant	0.00	12.00	0.00	3324.00	
5	Making of thanwala,of 50 cm radius	277	Per plant	2.40	2.40	664.80	664.80	
6	Watering of plant,15 lit per plant three times in the year	2493	Per plant	1.80	1.80	4487.40	4487.40	
7	Cost of water including transportation	37395	4000 litre	0.00	450	0.00	4206.94	
8	Weeding & hoeing three times in the year	831	Per plant	1.20	1.20	997.20	997.20	
9	Cost of Mannure including transportation	277	Per Kg	0.50	2.00	138.50	554.00	
10	Cost of Chemical including transportation	277	Per plant	0.50	1.00	138.50	277.00	
	Total					21464.38	29549.32	
15	Gap filling 20%					4292.877	5909.86	
	Total					25757.26	35459.19	
	Say Rs					25757	35459	
	Contengency 3%						1064	
	Grand total						36523	


Labour Am 25757
 Meterial Am 10766
 Total Am 36523

MODEL ESTIMATE OF HORTICULTURE PLANTATION

Guava Plant

S.N	Details of work	Total plant	Unit	No		C/C		6mx6m
		277		Rate		Amount		
		Qty		Lc	Total	Lc	Total	
1	Excavation of earth work in hard soil for digging of pits, 0.60 x0.60 x0.60 = 0.216cum	59.83	cum	91.00	91.00	5444.71	5444.71	
2	Treatment of pits					0.00		
a	Through chemicals	277	Per plant	0.55	0.55	152.35	152.35	
b	Through mannure	277	Per plant	0.27	0.27	74.79	74.79	
3	Planting of plant with rehandling upto 100m,refilling of soil & compaction etc	277	Per plant	7.40	7.40	2049.80	2049.80	
4	Cost of Plant including transportation (16+2=18)	277	Per plant	0.00	18.00	0.00	4986.00	
5	Making of thanwala,of 50 cm radius	277	Per plant	2.40	2.40	664.80	664.80	
6	Watering of plant,15 lit per plant three times in the year (277x3x3=2493)	2493	Per plant	1.80	1.80	4487.40	4487.40	
7	Cost of water including transportation (277x3x3x15=37395 lit.)	37395	4000 litre	0.00	450	0.00	4206.94	
8	Weeding & hoeing three times in the year (277x3x3=2493)	2493	Per plant	1.20	1.20	2991.60	2991.60	
9	Cost of Mannure including transportation	277	Per Kg	0.50	2.00	138.50	554.00	
10	Cost of Chemical including transportation	277	Per plant	0.25	1.00	69.25	277.00	
	Total					16073.20	25889.39	
11	Gap filling 20%					3214.84	5177.88	
	Total					19287.84	31067.27	
	Say					19288	31067	
	Contengency 3%						932	
	Grand total						31999	

Labour Am 19288
 Meterial Am 12711
 Total Am 31999


 परियोजना
 आई. नं. एम.सी.
 पंचायत समिति नैना
 जिला कुन्दी (राज.)

MODEL ESTIMATE OF HORTICULTURE PLANTATION

Karonda Plant

Total plant 277

No

C/C

6mx6m

S.N	Details of work	Qty	Unit	Rate		Amount	
				Lc	Total	Lc	Total
1	Excavation of earth work in hard soil for digging of pits, 0.6 x0.6 x0.6 = 0.216cum	59.83	cum	91.00	91.00	5444.71	5444.71
2	Treatment of pits						
a	Through chemicals	277	Per plant	0.55	0.55	152.35	152.35
b	Through mannure	277	Per plant	0.27	0.27	74.79	74.79
3	Planting of plant with rehandling upto 100m,refilling of soil & compaction etc	277	Per plant	7.40	7.40	2049.80	2049.80
4	Cost of Plant including transportation	277	Per plant	0.00	8.00	0.00	2216.00
5	Making of thanwala,of 50 cm radius	277	Per plant	2.40	2.40	664.80	664.80
6	Watering of plant,15 lit per plant three times in the year	2493	Per plant	1.80	1.80	4487.40	4487.40
7	Cost of water including transportation	37395	4000 litre	0.00	450	0.00	4206.94
8	Weeding & hoeing three times in the year	2493	Per plant	1.20	1.20	2991.60	2991.60
9	Cost of Mannure including transportation	277	Per Kg	0.50	2.00	138.50	554.00
10	Cost of Chemical including transportation	277	Per plant	0.50	1.00	138.50	277.00
	Total					16142.45	23119.39
11	Gap filling 20%					3228.49	4623.88
	Total					19370.94	27743.27
	Say Rs					19371	27743
	Contengency 3%						832
	Grand total						28576

Labour Am 19371
 Meterial Am 8205
 Total Am 28576


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 १२/११/२०२०

MODEL ESTIMATE OF HORTICULTURE PLANTATION

Nimbu Plant

Total plant 277

No

C/C

6mx6m

S.N	Details of work	Qty	Unit	Rate		Amount	
				Lc	Total	Lc	Total
1	Excavation of earth work in hard soil for digging of pits, 0.75 x0.75 x0.90 = 0.5062cum	140.23	cum	91.00	91.00	12761.04	12761.04
2	Treatment of pits						
a	Through chemicals	277	Per plant	0.55	0.55	152.35	152.35
b	Through mannure	277	Per plant	0.27	0.27	74.79	74.79
3	Planting of plant with rehandling upto 100m,refilling of soil & compaction etc	277	Per plant	7.40	7.40	2049.80	2049.80
4	Cost of Plant including transportation (7+2=9)	277	Per plant	0.00	9.00	0.00	2493.00
5	Making of thanwala,of 50 cm radius	277	Per plant	2.40	2.40	664.80	664.80
6	Watering of plant,15 lit per plant five times in the year (277x3x3=2493)	2493	Per plant	1.80	1.80	4487.40	4487.40
7	Cost of water including transportation (277x3x3x15=37395)	37395	4000 litre	0.00	450	0.00	4206.94
8	Weeding & hoeing three times in the year (277x3x3=2493)	2493	Per plant	1.20	1.20	2991.60	2991.60
9	Cost of Mannure including transportation	277	Per Kg	0.50	2.00	138.50	554.00
10	Cost of Chemical including transportation	277	Per plant	0.50	1.00	138.50	277.00
	Total					23458.78	30712.72
11	Gap filling 20%					4691.757	6142.54
	Total					28150.54	36855.27
						28151	36855
	Contengency 3%						1106
	Grand total						37961

Labour Am 28151
 Meterial Am 9810
 Total Am 37961

Panchayat samity-Nainwa, District - Bundi, State - Rajasthan,

Name of Village :-		ALOEVERA					
Name of Panchayat :-		ALOEVERA					
Name of Work :- Pasture Land Development		(Production)					
Costing & Quantity Estimation of Pasture Land Development							
S.no	Particular	Unit	Quantity	Labour Rate	Total Rate	Labour Cost	Total Amount
1	1 Ha. Area for P.D.						
400	Rmt. Length of Thor fencing per ha.						
400	Plants to be planted in one hectare	Say	400				1.0 x 1.0 mt. Spacing
(A)	Thor fencing work						
1	Excavation for thor fencing size 0.15x0.15x60 m	Cum	9.00	91	91	819.00	819.00
2	Supply and cutting of 80 cm thor sticks.(7 No Danda 1-Ha)	Per 100 stick	2800	74.3	174	2080.4	4872.00
3	Transportation cost of thor sticks through bullock cart from 5 km distance, loading & unloading. (70+30=100)	Per 100 stick	2800	100	100	2800	2800.00
4	Retrading work of thor sticks up to 200 to 500mt distance.	Per 100 stick	2800	76.5	76.5	2142	2142.00
5	Planting of Thor sticks.	Rmt.	400	6.93	6.93	2772	2772.00
	Total					10613.40	13405.00
(B)	Plantation work						
6	Planting of Aloe vera plant on Boundary of field & (0.6mx0.6m) spacing with complete work (400x0.6=240 Rmt)	Per Rmt	240	9.97	9.97	2392.8	2392.8
7	Cost of Aloe vera including Transportation 10 Km + Loading Unloading + Retrading 50 % (3.75+0.94+0.297+0.3715=5.36)	Per plant	400	1	5.36	400	2144.00
8	Grass Seeding work (Dhama Seed) 12 kg/Ha	Per Kg	12	0	50.00	0	600.00
9	Making of Pallets	Per Kg	12	18.9	18.90	226.8	226.80
10	Spreading of Grass Seed	Per Ha	1	160	160.00	160	160.00
	Note:- All Rates Apply Gramin kary Nirdesika 2011				Total	Rs.3,180	Rs.5,524
	Add 3% Contingency				Total	Rs.3,180	Rs.5,524
	Grand Total				Total	Rs.3,180	165.71
							5689.31

Total Cost/ Ha	Labour Cost/ Ha	Material Cost/ Ha
5689	3180	2510
19084		
5689		
13405		


Total Cost of Private Pasture Development
 Cost From w/s scheme
 Contribution From Farmer in terms of live fencing

पंचायत समिति नैनवा
 आदि संस्था
 बन्दि जिला
 राजस्थान

OPEN LAND CONTOUR TRENCH					
Name of Village :-					
Name of site :-		Chragah Plot no. -1 ()			
Name of Work :-		Continius contour trench			
Jal Grahan Vikash Samiti					
Costing & Quantity Estimation of Contour trench					
Total length of CCT per ha =300 m/ha					
CX= 0.2025 Cum					
Total Area in Ha		1			
S.no.	Item	Quantity	Unit	Rate	Amount
1	Marking of contour line through dumpy level	300	Per metre	0.31	93.00
2	Dug belling work for CCT up to 5-7 cm depth (2X300=600)	600	Rm	1.00	600.00
	Quantity of E/W (300Rmt X 0.2025=60.75 cum)	60.75	Cum		
3	Excavation of hard soil for CCT 50%	30.375	Cum	91.00	2764.13
4	Excavation of murram for CCT 50%	30.375	Cum	134.00	4070.25
	Total cost for CCT				7527.38
	Contengency charge 3%				225.82
					7753.20

SAY Am

7800 Per Ha


 पञ्चसालीन विद्यापीठ
 साईनगर, १५.५.०५
 इन्सपेक्टर कामात मन्ड
 विना, नदी (सायन)

ESTIMATE OF NADI WITH SIDE WAISTE WEIR

(1)- INVESTIGATIONS

Name of Work: Construction of NADI WITH SIDE WAISTE WEIR Village: _____ G.P. _____
 Panchayat Samity:-Nairwa District:-Bundi
 Macro/Micro No. _____
 Available crest length = 3.00 M.
 Total catchment area= 20.00 Ha.
 Height of structure= 0.50 M.
 Length of Nadi = 300.00 M.

DESIGN

(2)- Design discharge (By flood discharge method)

(A). HYDROLOGIC DEDIGN

Peak rate of run off in cum/sec=	Catchment area= 20.00 Ha.
$Q = \frac{C \cdot I \cdot A}{36}$	$K = 8285.90671$
$C = 0.3$	$L = 650$ M.
$Q = 2.5000$ cum/sec	$H = 4$ M.
Say = 2.50 cum/sec	$T_c = 20.2841$
	= Say = 20.28 Min.
	$I = 15$ Cm/hr.

(B) HYDRAULIC DESIGN:

(a)-Flow over the crest.


$Q = 1.71 \cdot L \cdot h^{3/2}$
 $h = 0.6193$
 = 0.62 M. Say = 0.50 M.

(b)-Fetch length $D_f = 350.00$ M.
 Free board $F = 1.5hw = 0.39$ Say = 0.40 M.
 $hw = 0.014(D_f)^{0.5} = 0.26$

Total $d = 0.90$ M.

(C). STRUCTURAL DESIGN

- (i) Top width of Head wall
 $a = h/(p-1)^{0.5} = 0.44$ M. Say = 0.50 M.
- (ii) Bottom width of Head wall
 $b = h+H/(P-1)^{0.5} = 0.88$ M. Say = 0.90 M.
- (iii) Length of Head Wall Extension
 $H+d = 2.40$ M. Say = 3.00 M.
- (iv) Height of Head Wall Extension
 $H+d = 1.40$ M. Say = 1.40 M.
- (v) Bottom width of Head Wall Extension, Side Wall & Wing Wall
 $0.5(H+h) = 0.50$ M. Say = 0.90 M.
- (vi) Top width of Head Wall Extension
 $0.4H = 0.20$ M. Say = 0.60 M.
- (vii) Length of Basin
 $LB = 0.75(H+d)+H = 1.55$ M. Say = 1.60 M.
- (viii) Thickness of Basin = 0.6 M. (including concreting)
- (ix) Height of Side Wall
 $H+d = 1.40$ M. Say = 1.40 M.
 (At Head Wall joint up to T_c of Head Wall)
- (x) Height of Side Wall
 $1.5h = 0.75$ M. Say = 1.00 M.
 (At Toe Wall of Basin)
- (xi) Length of Side Wall = Length of Basin = 1.60 M.
- (xii) Length of Wing Wall


 परिषदना कियान्वयन एजेन्सी
 आडो डब्ल्यू.एस.ए.
 गामत नारायण मेमरी
 भादुनी (रा. ०३)


DETAIL ESTIMATE

Name of Work: Construction of NADI WITH SIDE WAISTE WEIR Village: ----- G.P.-----
 Panchayat Samity:-Nainwa District:-Bundi

S.No.	Particular	No.	Length	Breadth	Ht./Depth	Quantity
1	2	3	4	5	6	7
1	Total E/W Excavation					
	H.W.	1	3.00	1.20	1.20	4.32
	H.W.E.	2	3.00	1.20	2.60	18.72
	S.W.	4	1.60	0.90	1.20	6.91
	Wing Wall	4	1.50	0.90	1.20	6.48
	Toe Wall	1	3.00	0.60	1.00	1.80
	Apron	1	3.00	1.60	0.60	2.88
	Total					41.11
2	Excavation in hard soil dry of moist & disposal of excavated material within initial lead of 30 m and lift of 1.5 m including dressing etc. complete. (40% of Total Excavation)					
	Total (Cu.m.)					16.44
3	Excavation in ordinary murrum of earth mixed with bajri and kankar or boulder dry or moist & disposal of excavation material within initial lead of 30 m and lift of 1.5 m including dressing etc. complete. (50% of Total Excavation)					
	Total (Cu.m.)					20.56
4	Excavation in disintegrated rock and or soft rock or hard kankar or compacted murrum, dry or moist including dressing & disposal of excavated material with initial lead of 30 m and lift of 1.5 M (10% of Total Excavation)					
	Total					4.11
5	Cement concrete well mixed in cement mortar (1:4:8) laid in position complete including curing. Aggregate size up to 50mm HB					
	H.W.	1	3.00	1.20	0.30	1.08
	H.W.E.	2	3.00	1.20	0.30	2.16
	S.W.	4	1.60	0.90	0.30	1.73
	Wing Wall	4	1.50	0.90	0.30	1.62
	Toe Wall	1	3.00	0.60	0.30	0.54
	Apron	1	3.00	1.60	0.30	1.44
	Total (Cu.m.)					8.57
6	Random rubble stone masonry in cement sand mortar (1:6) for foundation					
	H.W.	1	3.00	0.90	0.90	2.43
	H.W.E.	2	3.00	0.90	2.30	12.42
	S.W.	4	1.60	0.60	0.90	3.46
	Wing Wall	4	1.50	0.60	0.90	3.24
	Toe Wall	1	3.00	0.30	0.70	0.63
	Total (Cu.m.)					22.18
7	Random rubble stone masonry in cement sand mortar (1:6) for superstructure					
	H.W.	1	3.00	0.70	0.50	1.05
	H.W.E.					
	S.W.	4	1.60	0.60	1.00	3.84
		4	1.03	0.60	0.40	0.98
	Wing Wall	4	1.50	0.60	1.00	3.60
	Toe Wall	1	3.00	0.30	0.15	0.14
	Total (Cu.m.)					9.61
8	Stone kharanja in cement mortar (1:6) for bed floor including curing etc. complete					
	Total (Cu.m.)	1	3.00	1.60	0.23	1.10
9	Cement plaster including smooth finishing in cement mortar (1:4) 25mm thick					
	H.W.	1	3.00	0.50		1.50
	H.W.E.	2	3.00	1.40		8.40
	S.W.	4	1.60	1.00		6.40
		4	1.03	0.40		1.64
	Wing Wall	4	1.50	1.00		6.00
	Toe Wall	2	3.00	0.23		1.38
	Total (Cu.m.)					25.32

परियोजना अधिकारी
 आई. ए. ए. ए. ए.
 पंचायत समिति नैनवा
 जिला बुंदी (राज.)

S.No.	Particular	No.	Length	Breadth	Height	Quantity
1	2	3	4	5	6	7
10	Ruled pointing in cement mortar (1:3)					
	H.W	1	3.00		0.64	1.92
	Total (Cu.m.)					1.92
11	Cement concrete coping in cement mortar (1:2:4) 75mm thick					
	H.W	1	3.00	0.50	0.08	0.11
	H.W.E	2	3.00	0.80	0.08	0.27
	S.W.	4	1.70	0.60	0.08	0.31
	Wing Wall	4	1.50	0.60	0.08	0.27
	Toe Wall	1	3.00	0.30	0.08	0.07
	Apron	1	3.00	1.50	0.08	0.36
	Total (Cu.m.)					1.39
12	Benching of Base and depositing the excavated material including dressing etc. complete within in an initial lead of 50m & lift of 1.5 m					
	Total (Cu.m.)	1	300.00	4.10	0.15	184.50
13	EW for bund / Excavation in dry or moist soil including laying in layers of 15cm Breaking of clods, sorting of grass pabbles etc. and dressing in required profile when compacted manually or by plain roller with initial lead of 30 M and lift of 1.5 M (excluding charges of watering and compaction) in H.S. (H=(2.0+0.0)/2=1m Height in Hard soil 50% in O.M. 50%	1	250.00	6.00	2.00	3000.00 1500.00 1500.00
	Total (Cu.m.)					3000.00
14	Dry stone pitching hammer dressed with packing of voids from small stones including all lifts in required profile of depth of 20 to 23 c.m.					
	Total (Cu.m.)	1	0.00	0.84	0.23	0.00
15	Rehandling of excavated soil from foundations or trenches upto 1.5m lift & 50 m. lead including plaining of soil					
	Total (Cu.m.)					41.11


 अर्थ: रु. ५-००/००
 पंचांगल मन्त्रालय
 नं. १००/१०००

MATERIAL CONSUMPTION STATEMENT

Name of Work: Construction of NADI WITH SIDE WAISTE WEIR Village: _____ G.P. _____

Panchayat Samity: -Nainwa

District: -Bundi

S No.	Particulars	Qty.	Cement (Bags)	Sand (Cum.)	Aggregate (Cum)		Stone (Cum.)
					50 mm	20 mm	
1	2	3	4	5	6	7	8
1	Cement concrete (1:4:8) Aggregate size up to 50mm (cum)	8.57	27.42	3.86	7.71		
2	RR Stone masonry in CM (1:6) for foundation & Superstructure (cum)	31.79	44.50	9.54			34.96
3	Cement Plaster (1:3) 25mm thick (Sq.m.)	25.32	5.67	0.81			
4	Raised and cut pointing in CM (1:3) (Sq.m.)	1.92	0.12	0.01			
5	Stone kharanja in CM (1:6) (cum.)	1.10	1.99	0.41			1.32
6	Cement concrete coping (1:2:4) 75mm thick (cum.)	1.39	8.10	0.57		1.14	
7	Dry Stone pitching (cum)	0.00					0.00
	Total		87.79	15.19	7.71	1.14	36.29

Say= 4.39 M.T.


आ.स.स. पंचायत,
नैनवा,
बुंदेलखण्ड (राज्य)

ABSTRACT OF COST

Name of Work: Construction of NADI WITH SIDE WAISTE WEIR Village: _____ G.P. _____

Panchayat Samity.-Nainwa

District:-Bundi

S. No.	Particular	Qty.	Rate		Per	Amount (Rs)	
			Labour	including material		Labour Amount	Total Amount
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	16.44	91.00	91	cum	1496.48	1496.48
2	Excavation in ordinary muram of earth mixed with bajri and kankar of boulder dry of moist & disposal of excavation of material within lead of 30 M. and left of 1.5 M. including dressing etc. complete	20.56	134.00	134	cum	2754.50	2754.50
3	Excavation in disintegrated rock and of soft rock of hard kankar or compacted murum. dry or moist including dressing & disposal of excavated material with initial lead of 30 M. and lift of 1.5 M.	4.11	177.00	177	Cum	727.68	727.68
4	Cement concrete well mixed in cement mortar (1:4:8) laid in position complete including curing. Aggregate size up to 50 mm HB	8.57	252.55	1952	Cum	2163.85	16724.74
5	Random rubble stone masonry in cement sand mortar (1:6) for foundation	22.18	357.00	1590	Cum	7916.83	35259.84
6	Random rubble stone masonry in cement sand mortar (1:6) for super	9.61	357.00	1590	Cum	3430.41	15278.31
7	Stone kharanja in cement mortar (1:6) for ba floor including curing etc.	1.10	357.00	1590	Cum	394.13	1755.36
8	Cement plaster including smooth finishing in cement mortar (1:4) 25 mm	25.32	67.90	150	Sq.m.	1719.23	3798.00
9	Cement concrete coping in cement mortar (1:2:4) 100 mm thick	1.39	315.80	2849	Cum	437.93	3950.75
10	Ruled pointing in cement mortar (1:3)	1.92	39.80	50.3	Sq.m.	76.45	96.62
11	Benching of Base and depositing the excavated material including dressing etc. complete within in an initial lead of 50m & lift of 1.5 m	184.50	85.00	85	Cum	15682.50	15682.50
12	E/W for bund / Excavation in dry or moist soil including laying in layers of 15cm Breaking of clods, sorting of grass pabbles etc. and dressing in required profile when compacted manually or by plain roller with initial lead of 30 M and left of 1.5 M (excluding charges of watering and compaction) in hard soil in H.S.	1500.00	85.00	85	Cum	127500.00	127500.00
13	in O.M.	1500.00	85.00	85	Cum	127500.00	127500.00
14	Dry stone pitching hammer dressed with packing of voids from small stones including all lifts in required profile of depth of 20 to 23 c.m.	0.00	59.50	590	Cum	0.00	0.00
15	Rehandling of excavated soil from foundations or trenches upto 1.5m.lift & 50 m. lead including plaining of soil	41.11	29.8	29.8	Cum	1225.14	1225.14
Total						293025.13	353749.93

कोड 3 % कन्स्टिन जैसी

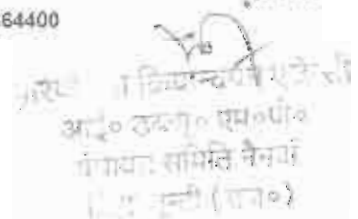
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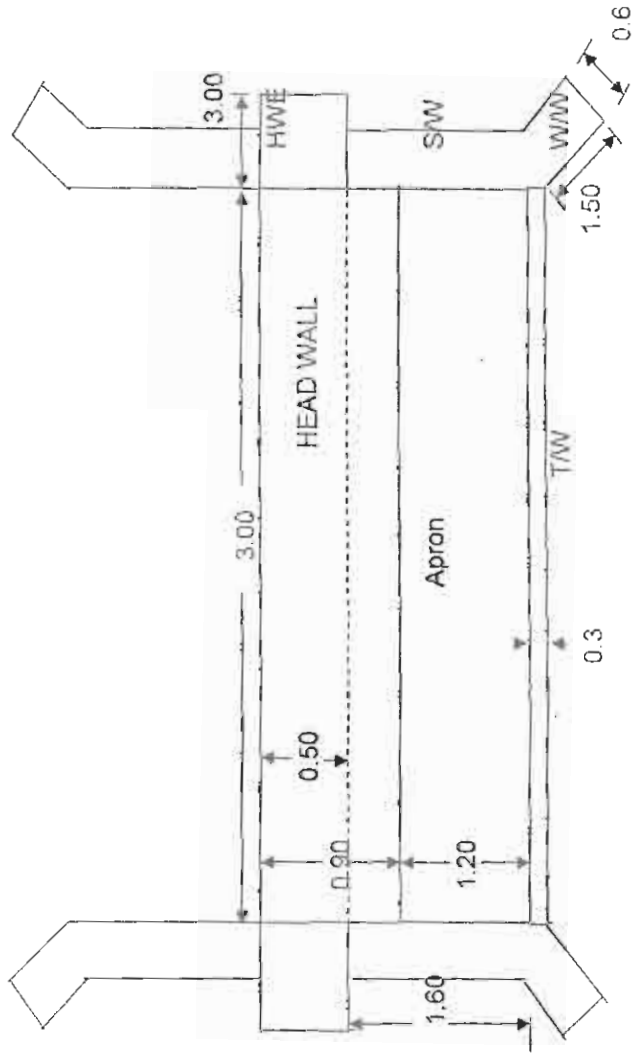
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Name of Work: Construction of NADI WITH SIDE WAISTE WEIR Village: ----- G.P.-----
Panchayat Samity:-Nainwa District:-Bundi

Not to the scale PLAN 0 0 (All dimensions in m.)




Handwritten signature and date: 25/11/2024

IWMP WATERSHED PROJECT KHOLAHERA
Village - Bizalwa
Tehsil - Nainwa, District - Bundi, State: Rajasthan, India

Estimate of Anicut		
Name of Gram Panchayat :-	Suwaniya	
Panchayat Samity :-	Nainwa	
Name of Site :-	Madan Doli ke khet ke Pass	
Name of samiti :-	Suwaniya	
Type of Structure :-	R.R.Stone masonry structure	
GPS position		
Latitude :-		
Longitude :-		
Macro/Micro No. :-		
Cost of Anicut :-	3.62 Lack	

Basic Data of Project			
		=	
1	Catch ment Area	=	250 Ha.
2	Maxmium Rain fall intency	=	5 cm./hr.
3	General nature of catchment Area		
a.	Agricultural land	=	150
b.	Pasture Land	=	100 Ha.
4	Height of crest above G.L.	=	1.2 M.
5	Flood lift	=	0.75
6	Free board	=	0.45
7	Top width of Head wall	=	1
8	Bottom width of Head wall	=	2.50
9	Width of concrete Bed	=	2.50
10	Length of crest	=	10 M.
11	Percentage slope of land	=	1.5
12	No. of well benefited	=	0
13	Cost of Project	=	362000.00
a.	Labour component	=	134000.00
b.	Material component	=	228000.00
c.	Contingency	=	10524
Rates are as per BSR (GKN) 2011, Bundi			


 प्र.पो.सहा. वि.मानवसं. ए.पं.सी.
 आई० डब्ल्यू० एम०पी०
 पंचायत समिति नैनवा
 जिला बुन्दी (राज०)

IWMP WATERSHED PROJECT KHOLAHERA
 Village - Bizalwa
 Tehsil - Nainwa, District - Bundi, State: Rajasthan, India

Name of Village :-		Suwaniya	
Name of Site :-		Madan Doli ke khet ke Pass	
Design calculation of anicut			
A.			
i	Available crest length	10	M
ii	Total catchment Area	250	Ha. As per G.T. Sheet
iii	Peak Runoff Rate		
a By Rational Method			
	$Q_p = 0.0276 CIA$		Use when catchment is <1300Ha. Q=Run off in m ³ /sec.
			C= Coefficient of runoff 0.3
	$K = L^{3/2}/H^{1/2}$		I= Intensity of rain fall in cm/hr. 5
	$K = 1397.54$		A= Catchment Area in Ha. 250
	$T_c = 0.0195K^{0.77}$		L=Maximum length of travel by runoff water in m. 250
	$T_c = 5.15$		H= Difference in elevation between most remote point and outlet point in meter 8
	$Q_p = 10.35$	0.0276	$0.30 \times 5 \times 250$
b By weir formula			
	$Q = 1.71Lh^{3/2}$		
	$10.35 = 1.71$	10	$h^{3/2}$
	$h = 0.72$		
	Say $h = 0.75$		
3 Free Board			
			hw= Wave height in meter
	$F_b = 1.5h_w$		Df= Fetch length in meter 400 Meter.
	$1.5 \times 0.014(D_f)^{1/2}$		
	$F_b = 0.42$		
	Say $F_b = 0.45$		
B. STRUCTURAL DESIGN			
1. Head wall			
a	Height of Head wall H=	1.2	
b	Top width(Tw) =	h	P= Sp.ht. Of masonry 2.3
		$(P-1)^{1/2}$	
	$Tw = 0.66$		
	Top width=	1	
C. Bottom width Bw			
		$Tw + 0.8H$	
	$Bw = 1.96$		
	So Bottom Width=	2.50	Meter
2 Head wall extension			
a	Length= $H+h+1+F_b$		
	$1.2 + 0.75 + 1 + 0.45 = 2.95$		Meter
	But as per site condition	= 4	
b	Height of Head Extension wall =	$H+h+F_b$	
	$1.2 + 0.8 + 0.5 = 2.4$		Meter
c	Top width	0.8	Meter
d	Bottom Width= $0.5(H+h)$	$0.5(1.2 + 0.8) = 0.98$	Meter

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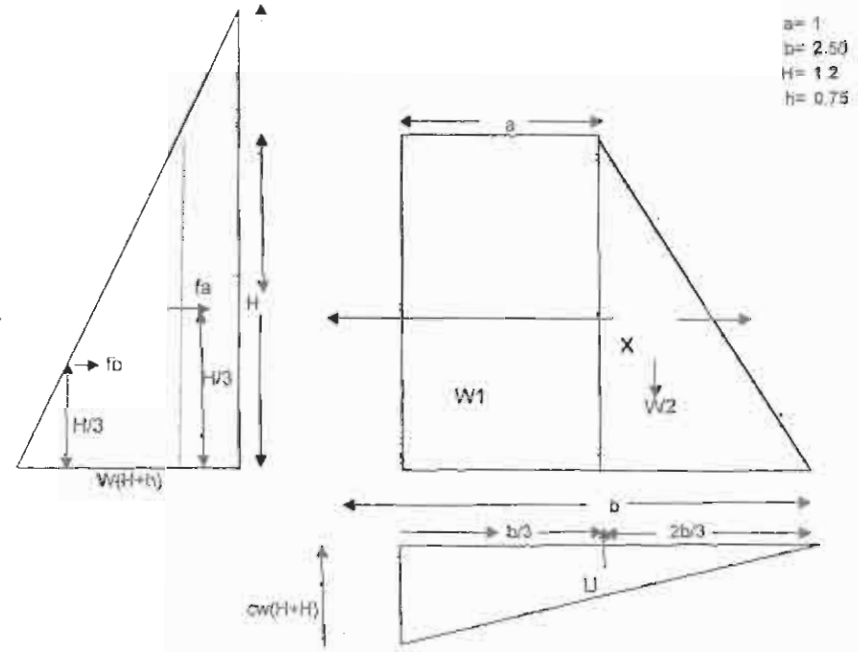
3	Side wall					
a	Length=	$1.75H+0.75h+0.45$	=		3.1	
		But as per site condition=			4.0 Meter	
b	Height:					
	At H.W.End=	$H+h+Fb$	1.2	+ 0.8 + 0.5	=	2.4 Meter
	At W.W.End=	$h+fb$	=	0.75 + 0.5	=	1.2 Meter
c	Top width=					0.6 Meter
d	Bottom width=					
	At H.W.End=	$0.6+0.4(H+h)$				1.4 Meter
	At W.W.End=	$0.6+0.4(1.5h)$				1.1 Meter
		But taken as=				1.2 Meter
4	Wing wall					
a	Height	$h+Fb$	0.75	+	0.5	= 1.2 Meter
b	Length=	$2.25h$	2.25	X	0.8	= 1.69 Meter Say 1.5
c	Top width					0.6 Meter
	Bottom width of wing wall					0.6 Meter
5	Apron					
a	Length=					10 Meter
b	Width=	$H+h+Fb$	1.2	+ 0.8 + 0.5		2.4 Meter Say 2
c	Thickness					0.8 Meter
6	Toe wall					
a	Length=					10 Meter
b	Width=					0.3 Meter
c	Height=					0.2 Meter

3


IWMP WATERSHED PROJECT KHOLAHERA
 Village - Bizalwa
 Tehsil - Nainwa, District - Bundi, State: Rajasthan, India

Name of Village :- Suwaniya
 Name of Site :- Madan Doli ke khot ke Pass

FREE BODY DIAGRAM



Specific Wt. Of masonry P	=	2.3 T/m ³
Specific Wt. of water w	=	1 T/m ³
Coefficient of uplift pressure c	=	0.6
coefficient of friction atbed surface and creep length	=	0.75
Weight of Dam:-	=	
Weight of Dam:-		
$W_1 = aHP$		
$W_1 = T$		2.76 T
$W_2 = \frac{b-a}{2} HP$		2.07 T
$W = W_1 + W_2$		2.76 + 2.07 = 4.83 T
Water pressure		
At Depth h= $P_1 = wh$		1 X 0.75 = 0.75 T/m ²
At Depth H+h= $P_2 = w(H+h)$		1(1.20 + 0.75) = 2.0 T/m ²
Force aching due to water pressure i.e. Net horizontal		
Water force $P = \frac{P_1 + P_2}{2} H$		= 1.62 T/m ²
Horizontal water pressure at depth h = $F_a = whh$		= 0.9 T
At depth H+h = $F_b = \frac{P_2 \cdot P_1}{2} H$		= 0.72 T
Force due to water column at crest $F_3 = wha$		= 0.75 T
Up lift pressure $U = \frac{1}{2} cwb (H+h)$		= 1.4625 T


 प्रमुख, जिला विद्यालय, खोलाहरा
 आई. डी. एम. पी. ए.
 पंचायत, आंचलिक नैनवा
 जिला, बन्दी (राज.)

IWMP WATERSHED PROJECT KHOLAHERA
 Village - Bizalwa
 Tehsil - Nainwa, District - Bundi, State: Rajasthan, India

Name of Village	:-	Suwaniya
Name of Site	:-	Madan Doli ke khet ke Pass
STABILITY CHECKS		
1 Safety against over turning		
Over turning moment $M_o =$	$F_a \frac{H}{2} + F_b \frac{H}{3} + u \frac{2}{3} b$	
	$0.90 \frac{1.2}{2} + 0.720 \frac{1.2}{3} + 1.46 \frac{2}{3} \cdot 2.50$	
$M_o =$	3.2655	
Restoring Moment $M_r =$	$W_1 (b-a/2) + W_2 (b-a)2/3 + F_3 (b-a/2)$	
$M_r =$		
$M_r =$	5.52 + 2.070 + 1.500 =	9.09
Factor of safety	$\frac{M_r}{M_o} = \frac{9.09}{3.2655} = 2.784 > 1.5$	Hence
Structure is safe against over turning		
2 Safety against Rupture from tension		
Net Vertical Pressure $V =$	$W_1 + W_2 + F_3 - U$	
	2.76 + 2.07 + 0.75 - 1.463 =	4.1175
Position of resultant where it cut the base		
$X =$	$\frac{\text{Excess moment}(M_r - M_o)}{\text{Net vertical force}} = \frac{9.09 - 3.266}{4.118} = 1.41$	
TRUE		
3 Safety against crusing		
Eccentricity $e =$	$b/2 - X$	
	-0.155	
Crusting stress at the toe of the Head wall		
$P_c =$	$\frac{V(1 + 6eb)}{b}$	
$P_c =$	0.99648	
$P_c \ll 20$ Hence it is safe		
4 Safety against sliding		
Net vertical Force $V =$	4.1175 T	
Restoring force $= uV =$	0.78 X 4.1175 =	3.2157675 T (u=0.65 to 0.75)
Sliding force Net horizontal force $=$	$F_a + F_b$	
	0.9 + 0.72 =	1.62 T
Factor of safety $=$	$\frac{\text{Restoring force}}{\text{Sliding force}} = \frac{3.216}{1.62} = 1.985 > 1.3$	Hence
Hence it is safe		



IWMP WATERSHED PROJECT KHOLAHERA

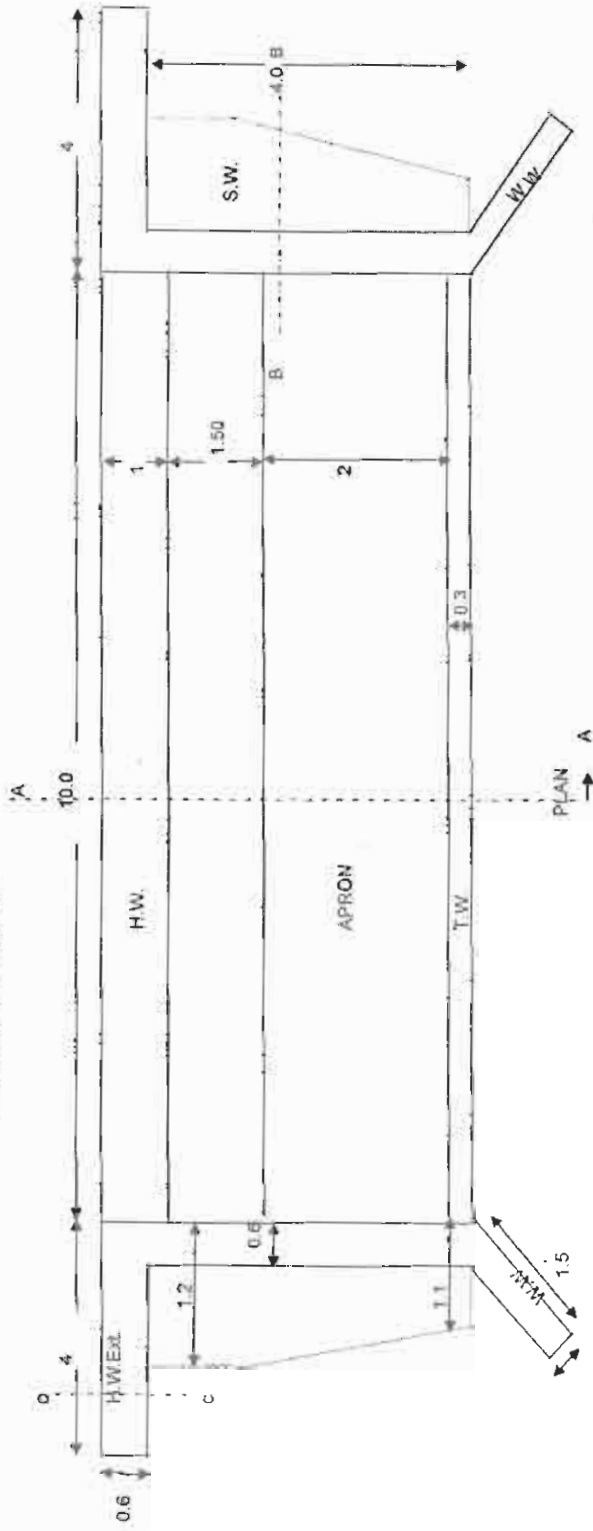
Village - Bizehwa

Tehsil - Nainwa, District - Bundl, State: Rajasthan, India

PLAN AND SECTION OF ANICUT

Name of Village
Name of Site

:- Suwaniya
:- Madan Doli ke Khat ke Pass

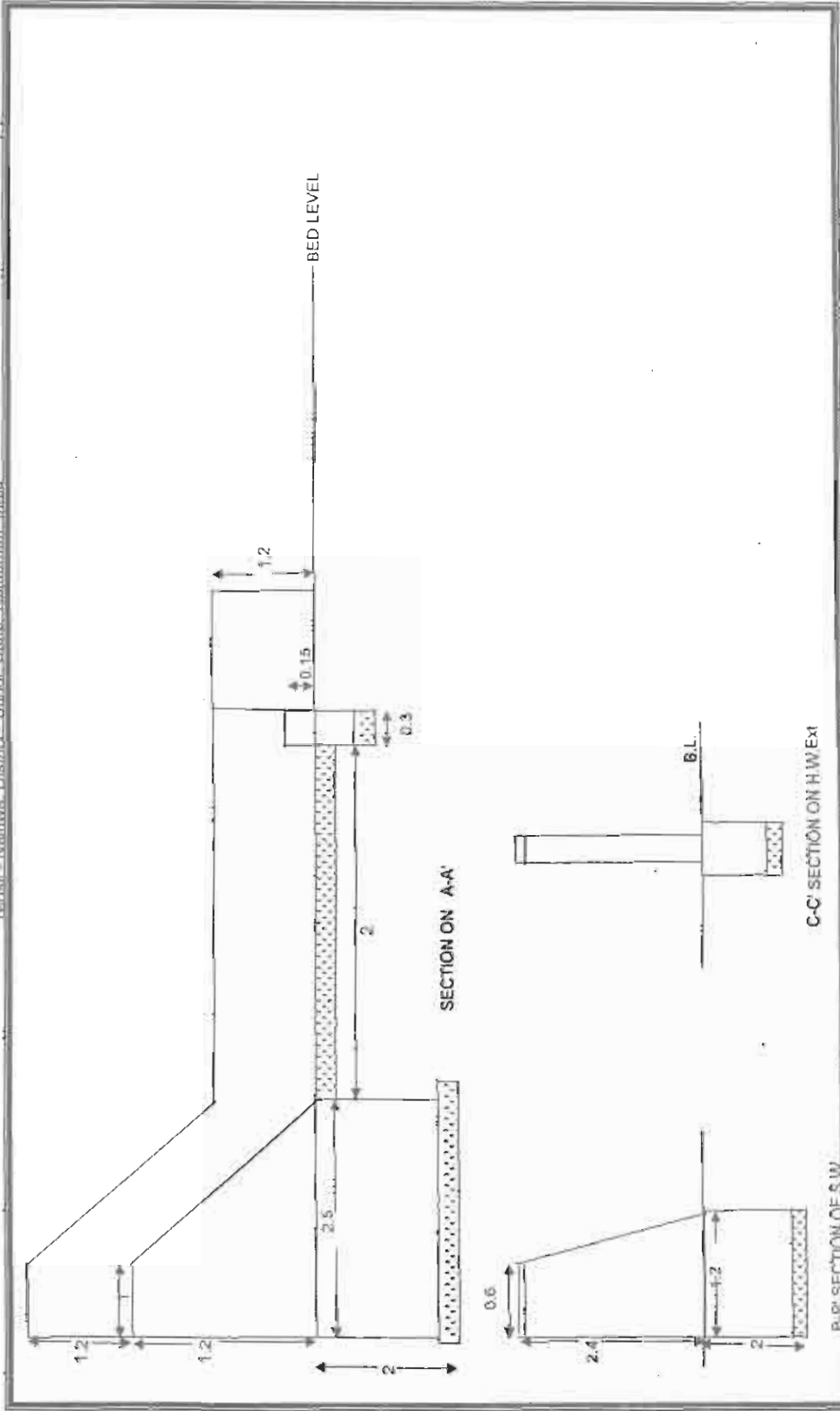


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IWMP WATERSHED PROJECT KHOLAHERA

Village - Bhalwa

Tehsil - Nainwa, District - Bundi, State - Rajasthan, India




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आदेशिका निदेशिका
आई. ए. ए. (म. ए.)
पंचायत समिति के. व.
जिला बुन्दी (राज.)

IWMP WATERSHED PROJECT KHOLAHERA
 Village - Bizalwa
 Tehsil - Nainwa, District - Bundi, State: Rajasthan, India

DETAILED ESTIMATE OF ANICUT									
Name of Village :-		Suwaniya							
Name of Site :-		Madan Dool ka khet ka Pass							
General features of anicut:-									
Height of crest =		1.2 M.							
Length of Crest		10 M.							
Depth of foundation for H.W. =		2.0 M.	Length of wing wall =				1.5 M.		
Bottom width of H.W. =		2.5 M.	Height of Wing wall =				1.2 M.		
Top of H.W. =		1.0 M.	Bottom width of Wing wall =				0.9 M.		
Length of H.W. Ext =		4.0 M.	Depth of foundation for Wing wall =				1.0 M.		
Height of H.W. Ext. at H.W. =		2.4 M.	Height of Toe wall =				0.15 M.		
Top Width of H.W. Ext. =		0.6 M.	Top & Bottom width of Toe wall =				0.30 M.		
Bottom width for H.W. Ext.		1.0 M.	Depth of foundation for Toe wall =				0.9 M.		
Depth of foundation for H.W. Ext. =		1.5 M.	Thickness of Apron =				0.8 M.		
Length of side wall =		4.0 M.	Width of Apron =				2.0 M.		
Bottom Width of S.W.		1.20 M.							
Height of side wall at W.W. End =		1.2 M.							
Depth of foundation for side wall =		2.0 M.							
S.No.	Item	No	L	B	H	Quantity			
1	Dag belling 5cm. To 7.5cm deep (As per item no. page of G.K.N.2008 BSR of Bhalwara circle)						Total		
2	Cutting and clearing of ordinary jungle including bushes shrubs and disposal as per instruction of engineer incharge		30	X	7.0	=	210 Sqm.		
3	Benching of the base and depositing the excavated material for bund for bund canal dressing etc. all components	1	30	2	0.3	=	18 Cum.		
						Total	18 Cum.		
4	Earth work excavation for bund in hard dry or moist soil including laying in layer of 15cm. Breaking of clods dressing to require profile with manual compaction including initial lift up to 1.5 m and lead up to 30M		2	30	5	2	= 800 Cum.		
5	Earth work excavation for foundation in dry or moist soil including ramming of bottom scrapping of sides disposal of soil initial lift up to 1.5 m and lead up to 30M						Total		
	Berm						0.00 Cum.		
	Cutting								
	H.W.	1	X	10	X	2.7	X	2.0 = 54.00 Cum.	
	H.W. Ext	2	X	4.0	X	1.0	X	1.5 = 11.70 Cum.	
	S.W.	2	X	4.0	X	1.20	X	2.0 = 19.20 Cum.	
	W.W.	2	X	1.5	X	0.9	X	0.90 = 2.43 Cum.	
	Apron	1	X	10	X	2.0	X	0.75 = 15.00 Cum.	
	T.W.	1	X	10	X	0.30	X	0.9 = 2.70 Cum.	
							Total	105.03	
1	Excavation in Hard soil					20%	21.01		
2	Excavation in ordinary humant					30%	31.51		
3	Excavation in Simple rock					50%	52.52		

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 10/10/2008
 जिला मुख्यालय बीकानेर
 योजना बून्दी (राज.)

6	Providing and laying of cement concrete well mixed in cement mortar 1:4:8 laying in position complete excluding curing with maximum size of aggregate up to 50 mm.											
		H.W.	1	X	10.0	X	2.7	X	0.3	=	8.10	Cum.
		H.W.Ext.	2	X	4	X	1.0	X	0.3	=	2.34	Cum.
		S.W.	2	X	4	X	1.20	X	0.3	=	2.88	Cum.
		W.W.	2	X	1.5	X	0.9	X	0.3	=	0.81	Cum.
		Apron	1	X	10.0	X	2.0	X	0.3	=	6.00	Cum.
		T.W.	1	X	10.0	X	0.30	X	0.3	=	0.90	Cum.
										Total	21.03	
7	Random rubble stone masonry for foundation & plinth cement sand mortar(1:6) for above 30 cm. Thick wall											
		H.W.	1	X	10.0	X	2.5	X	1.7	=	42.50	Cum.
		H.W.Ext.	2	X	4.0	X	1.0	X	1.2	=	9.36	Cum.
		S.W.	2	X	4.0	X	1.20	X	1.7	=	16.32	Cum.
		W.W.	2	X	1.5	X	0.9	X	0.8	=	1.62	Cum.
		T.W.	1	X	10.0	X	0.15	X	0.6	=	0.90	Cum.
										Total	70.70	
8	Random rubble stone masonry for Super structure for wall above 30 cm. Thick in cement sand mortar(1:6)											
		H.W.	1	X	10.0	X	1.75	X	1.2	=	21.00	Cum.
		H.W.Ext.	2	X	4.0	X	0.79	X	2.4	=	15.12	Cum.
		S.W.	2	X	4.0	X	0.9	X	1.80	=	12.96	Cum.
		W.W.	2	X	1.5	X	0.9	X	1.2	=	3.24	Cum.
		T.W.	1	X	10.0	X	0.30	X	0.15	=	0.45	Cum.
										Total	52.77	
9	Stone Kharanja in cement mortar 1:6 for bed and floor including craction etc. complete apron											
		Apron	1	X	10.0	X	2.0	X	0.45	=	9.00	Cum.
										Total	9.00	
10	Providing and laying of cement concrete well mixed in cement mortar 1:2:4 laying in position complete excluding curing with maximum size of aggregate up to 20 mm. etc. complete											
		H.W.	1	X	10.0	X	1.0	X	0.05	=	0.50	Cum.
		H.W.Ext.	2	X	4.0	X	0.6	X	0.05	=	0.24	Cum.
		S.W.	2	X	4.0	X	0.6	X	0.05	=	0.24	Cum.
		W.W.	2	X	1.5	X	0.9	X	0.05	=	0.14	Cum.
		T.W.	1	X	10.0	X	0.30	X	0.05	=	0.15	Cum.
										Total	1.27	
11	Flush pointing in cement motar (1:3)	H.W.	1	X	10.0	X	1.92		=	19.21	Sqm.	
										Total	19.21	
12	25 mm thick plastering on new surface in cement mortar (1:4)											
		H.W.	1	X	10.0	X	4.9		=	49.00		
		H.W.Ext.	2	X	4.0	X	3.0		=	24.00		
		S.S.	2	X	4.0	X	3.0		=	24.00		
		W.W.	2	X	1.5	X	1.5		=	5.40		
		T.W.	2	X	10.0	X	0.2		=	3.00		
										Total	105.40	
13	Dry stone pitching of Hammer dressed with packing of voids of small stone including all lifts in require profile (20 cm depth)											
		1		20		—	2			40.00	Sqm.	

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IWMP WATERSHED PROJECT KHOLAHERA
Village - Bizalwa
Tehsil - Nainwa, District - Bundi, State: Rajasthan, India


Abstract of Cost of Anicut							
Name of Village :-		Suwaniya					
Name of Site :-		Madan Doli ke khet ke Pass					
S.No	Item	Quantity	Unit	Rate		Amount	
				Labour	(LC+MC)Total	Labour cost	Total Cost
1	Dag belling 5cm. To 7.5cm deep(As per item no. page of G.K.N.2008 BSR of Bhilwara circle	0.00	Cum.	1.00	1.00	0.00	0
2	Cutting and clearing of ordinary jungle including bushes shrubs and disposal as per instruction of engineer incharge	210	Sqm.	1.40	1.40	294.00	294
3	Benching of the base and depositing the excavated material for bund for bund canal dressing etc. all components	18	Cum.	85.00	85.00	1530.00	1530
4	Earth work excavation for bund in hard dry or moist soil including laying in layer of 15cm. Breaking of clods dressing to require profile	600	Cum.	85.00	85.00	51000.00	51000
5	Earth work excavation for foundation in dry or moist soil including ramming of bottom scrapping of sides dipodal of soil intial lift up to 1.5 m and lead up to 30M	105.03	Cum.				0
	Excavation in Hard soil	21.01	Cum.	91.00	91.00	1911.55	1911.55
	Excavation in ordinary murram	31.51	Cum.	134.00	134.00	4222.21	4222.21
	Excavation in Simple rock	52.52	Cum.	177.00	177.00	9295.16	9295.155
6	Providing and laying of cement concrete well mixed in cement mortar 1:4:8 laying in position complete excluding curing with maximum size of aggregate up to 50 mm.	21.03	Cum.	252.55	1952.00	5311.13	41050.56
7	Random rubble stone masonry for foundation & plinth cement sand mortar(1:6) for above 30 cm. Thick wall	70.70	Cum.	357	1590.00	25239.90	112413
8	Random rubble stone masonry for Super structure for wall above 30 cm. Thick in cement sand mortar(1:6)	52.77	Cum.	357	1590.00	18838.89	83904.3
9	Stone Kharanja in cement mortar 1:6 for bed and floor including craction etc. complete apron	9.00	Cum.	357	1590.00	3213.00	14310
10	Providing and laying of cement concrete well mixed in cement mortar 1:2:4 laying in position complete excluding curing with maximum size of aggregate up to 20 mm. etc. complete	1.27	Cum.	315.8	2849.00	399.49	3603.985
11	Flush pointing in cement motar (1:3)	19.21	Sqm.	39.8	50.30	764.53	966.23145
12	25 m.m thick plastering on new surface in cement mortar (1:4)	105.40	Sqm.	67.9	150.00	7156.66	15810
13	Dry stone pitching of Hammer dressed witch packing of voids of small stone including all lifts in require profile (23 cm depth)	40.00	Sqm.	100.5	262.00	4020.00	10480
				Total		133196.504	350790.98
				Say Rs		133197	350791
				Contingency		3%	10524
				TOTAL		133197	361315
				Total Cost rounded of			362000
				Labour cost		134000	
				Meterial cost		228000	

207

IWMP WATERSHED PROJECT KHOLAHERA
Village - Bizahwa
Tehsil - Nainwa, District - Bundi, State: Rajasthan, India

Material Statement	
Name of Village :-	Suwanlya
Name of Site :-	Madan Doli ke khet ke Pass

S.No.	ITEM	Quantity	Cement	Sand	Aggrigats	Stone
		Cum / Sqm	Bags	Cum	Cum	Cum
1	Cement Concrete (1:4:8)	21.030	67.30	9.88	19.77	-
2	Plaster in C.C. (1:4)	105.400	17.92	3.37	-	-
3	Massonary in Cement mortar (1:6)	123.470	172.86	52.85	-	135.82
4	Pointing in Cement	19.209	0.79	0.08	-	-
5	Stone Kharanja in cement mortar (1:6)	9.000	12.6	3.375	-	10.8
6	Cement concrete coping(1:2:4)	1.27	7.39	0.57	1.14	-
7	Dry Stone Pitching	40.000	-	-	-	44.00
		TOTAL	278.85	70.13	20.91	190.62
		Say Bags	279			
		or	13.95	MT.		
		1 Cement	13.95	MT.		
		2 Sand	70.13	Cum.		
		3 Stones	190.62	Cum.		
		4 Aggregates	20.91	Cum.		


पञ्जीकता विद्यालय एजेन्सी
आर - डब्ल्यू एसपी०
पंचायत समिति नैनवा
जिला बुन्डी (राज०)

IWMP WATERSHED PROJECT KHOLAHERA
 Village - Bizalwa
 Tehsil - Nainwa, District - Bundi, State: Rajasthan, India

Estimate of Anicut			
Name of Gram Panchayat :-		Suwaniya	
Panchayat Samity :-		Nainwa	
Name of Site :-		Prahlad / Sukhpal Meena ke khet ke Pass	
Name of samiti :-		Suwaniya	
Type of Structure :-		R.R.Stone masonry structure	
GPS position			
Latitude :-			
Longitude :-			
Macro/Micro No. :-			
Cost of Anicut :-		4.49 Lack	
Basic Data of Project			
=			
1	Catch ment Area	=	450 Ha.
2	Maxmium Rain fall intency	=	5 cm./hr.
3	General nature of catchment Area		
	a. Agricultural land	=	200
	b. Pasture Land	=	250 Ha.
4	Height of crest above G.L.	=	1.2 M.
5	Flood lift	=	0.8
6	Free board	=	0.4
7	Top width of Head wall	=	1
8	Bottom width of Head wall	=	2.50
9	Width of concrete Bed	=	2.50
10	Length of crest	=	15 M.
11	Percentage slope of land	=	1.5
12	No. of well benifited	=	0
13	Cost of Project	=	449000.00
	a. Labour component	=	157000.00
	b. Material component	=	292000.00
	c. Contingency	=	13089
Rates are as per BSR (GKN) 2011, Bundi			



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IWMP WATERSHED PROJECT KHOLAHERA
 Village - Bizalwa
 Tehsil - Nainwa, District - Bundi, State: Rajasthan, India

Name of Village :-		Suwaniya	
Name of Site :-		Prahlad / Sukhpal Meena ka khet ka Pass	
Design calculation of anicut			
A.			
i	Available crest length	15	M
ii	Total catchment Area	450	Ha. As per G.T. Sheet
iii	Peak Runoff Rate		
a By Rational Method		Use when catchment is <1300Ha.	
	$Q_p = 0.0276 CIA$		Q=Run off in m3/sec.
			C= Coefficient of runoff 0.3
	$K = L^{3/2}/H^{1/2}$		I= Intensity of rain fall in cm/hr. 5
	$K = 3723.52$		A= Catchment Area in Ha. 450
	$T_c = 0.0195K^{0.77}$		L=Maxmium length of travel by runoff water in m. 550
	$T_c = 10.96$		H= Difference in elevation between most remote point and and outlet point in meter 12
		$Q_p = 0.0276$	$0.30 \times 5 \times 450$
	$Q_p = 18.63$		
b By weir formula			
	$Q = 1.71Lh^{3/2}$		
	$18.63 = 1.71$	15	$h^{3/2}$
	$h = 0.81$		
	Say $h = 0.8$		
3	Free Board		hw= Wave height in meter
	$F_b = 1.5h_w$		Df= Fetch length in meter 350 Meter.
	$1.5 \times 0.014(D_f)^{1/2}$		
	$F_b = 0.39$		
	Say $F_b = 0.4$		
B. STRUCTURAL DESGIN			
1 Head wall			
a	Height of Head wall H=	1.2	
b	Top width(Tw) =	$\frac{h}{(P-1)^{1/2}}$	P= Sp.ht. Of masonry 2.3
	$Tw = 0.70$		
	Top width=	1	
C.	Bottom width Bw	$Tw + 0.8H$	
	$Bw = 1.96$		
	So Bottom Width=	2.50	Meter
2 Head wall extension			
a	Length= $H+h+1+F_b$		
	$1.2 + 0.8 + 1 + 0.4 = 3.00$		Meter
	But as per site condition	=	4
b	Height of Head Extensionwall =	$H+h+F_b$	
	$1.2 + 0.8 + 0.4 = 2.4$		Meter
c	Top width		0.6 Meter
d	Bottom Width= $0.5(H+h)$	=	$0.5(1.2 + 0.8) = 1.00$ Meter

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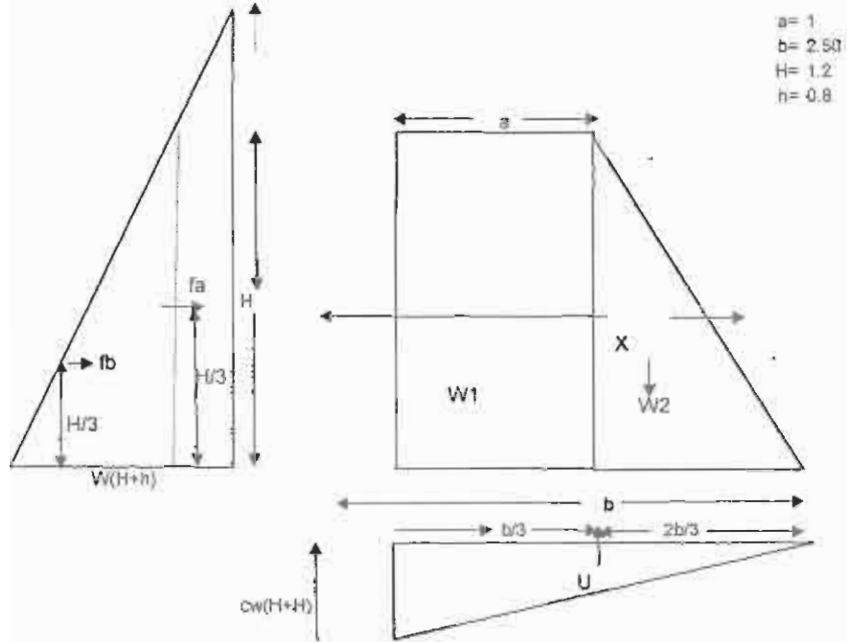
3	Side wall					
a	Length=	$1.75H+0.75h+0.45$	=		3.2	
		But as per site condition=			4.0 Meter	
b	Height:					
	At H.W.End=	$H+h+Fb$	1.2	+ 0.8 + 0.4 =	2.4 Meter	
	At W.W.End=	$h+fb$	=	0.8 + 0.4 =	1.2 Meter	
c	Top width=				0.6 Meter	
d	Bottom width=					
	At H.W.End=	$0.6+0.4(H+h)$			1.4 Meter	
	At W.W.End=	$0.6+0.4(1.5h)$			1.1 Meter	
		But taken as=			1.2 Meter	
4	Wing wall					
a	Height	$h+Fb$	0.8	+	0.4 =	1.2 Meter
b	Length=	$2.25h$	2.25	X	0.8 =	1.80 Meter Say 1.5
c	Top width					0.6 Meter
	Bottom width of wing wall					0.6 Meter
5	Apron					
a	Length=					15 Meter
b	Width=	$H+h+Fb$	1.2	+ 0.8 + 0.4 =	2.4 Meter Say	2
c	Thickness					0.8 Meter
6	Toe wall					
a	Length=					15 Meter
b	Width=					0.3 Meter
c	Height=					0.2 Meter


 आइ. ए. ए. ए.
 पंचायत समिति नैनदा
 जिला बन्दी (राज.)

IWMP WATERSHED PROJECT KHOLAHERA
 Village - Bizalwa
 Tehsil - Nainwa, District - Bundi, State: Rajasthan, India

Name of Village :- Suwaniya
 Name of Site :- Prahlad / Sukhpal Meena ke khet ke Pass

FREE BODY DIAGRAM



Specific Wt. Of masonry P	=	2.3 T/m ³
Specific Wt. of water w	=	1 T/m ³
Coefficient of uplift pressure c	=	0.6
coefficient of friction at bed surface and creep length	=	0.75
Weight of Dam:-		
Weight of Dam:-		
$W_1 = aHP$		
$W_1 =$	T	2.76 T
$W_2 = \frac{b-a}{2} HP$		2.07 T
$W = W_1 + W_2 =$	2.76 + 2.07	= 4.83 T
Water pressure		
At Depth h = $P_1 = wh =$	1 x 0.8	= 0.8 T/m ²
At Depth H+h = $P_2 = w(H+h) =$	1 (1.20 + 0.8)	= 2.0 T/m ²
Force acting due to water pressure i.e. Net horizontal		
Water force $P = \frac{P_1 + P_2}{2} H =$		= 1.68 T/m ³
Horizontal water pressure at depth h = $F_a =$	$whh =$	= 0.96 T
At depth H+h = $F_b =$	$\frac{P_2 - P_1}{2} H =$	= 0.72 T
Force due to water column at crest $F_3 =$	$wha =$	= 0.8 T
Up lift pressure $U =$	$1/2 cwb (H+h)$	= 1.5 T

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 जयपुर जल संयंत्र
 प्रशासन मंडल, जयपुर
 जिला बन्दी, (राजस्थान)

IWMP WATERSHED PROJECT KHOLAHERA

Village - Bizalwa

Tehsil - Nainwa, District - Bundi, State: Rajasthan, India

Name of Village	:-	Suwaniya
Name of Site	:-	Prahlad / Sukhapal Meena ke khet ke Pass

STABILITY CHECKS

1 Safety against over turning

Over turning moment $M_o =$	$F_a \frac{H}{2} + F_b \frac{H}{3} + u \frac{2}{3} b$
	$0.96 \frac{1.2}{2} + 0.720 \frac{1.2}{3} + 1.5 \frac{2}{3} \cdot 2.50$
$M_o =$	3.384
Restoring Moment $M_r =$	$W_1 (b-a/2) + W_2 (b-a)/3 + F_3 (b-a/2)$
$M_r =$	$5.52 + 2.070 + 1.600 = 9.19$
Factor of safety $\frac{M_r}{M_o} =$	$\frac{9.19}{3.384} = 2.732 > 1.5$ Hence
Structure is safe against over turning	

2 Safety against Rupture from tension

Net Vertical Pressure $V =$	$W_1 + W_2 + F_3 - U$
	$2.76 + 2.07 + 0.8 - 1.5 = 4.13$
Position of resultant where it cut the base	
$X = \frac{\text{Excess moment}(M_r - M_o)}{\text{Net vertical force}}$	$= \frac{9.19 - 3.384}{4.13} = 1.41$

TRUE

3 Safety against crusing

Eccentricity $e =$	$b/2 - X$
	-0.161
Crusting stress at the toe of the Head wall	
$P_c = \frac{V (1 + 6e/b)}{b}$	
$P_c =$	1.01504
$P_c \ll 20$ Hence it is safe	

4 Safety against sliding

Net vertical Force $V =$	4.13 T
Restoring force $= uV =$	$0.78 \times 4.13 = 3.22563$ T
Sliding force Net horizontal force $= F_a + F_b$	$0.96 + 0.72 = 1.68$ T
Factor of safety $= \frac{\text{Restoring force}}{\text{Sliding force}}$	$= \frac{3.228}{1.68} = 1.92 > 1.3$ Hence

Hence it is safe

for

JWMP WATERSHED PROJECT KHOLAHERA

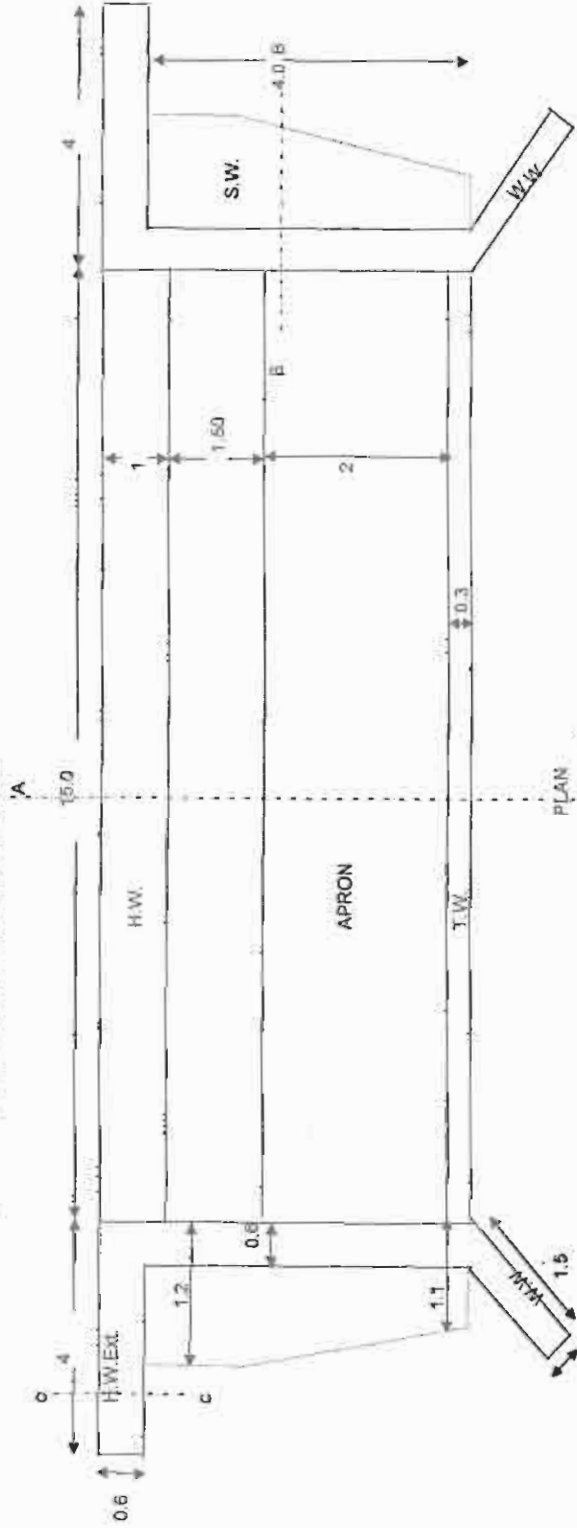
Village - Bizakwa

Tehsil - Nainwa, District - Bundi, State: Rajasthan, India

PLAN AND SECTION OF ANICUT

Name of Village
Name of Site

:- Suwariya
:- Prahlad / Sunhapal Maena Ke khet Ke Pass

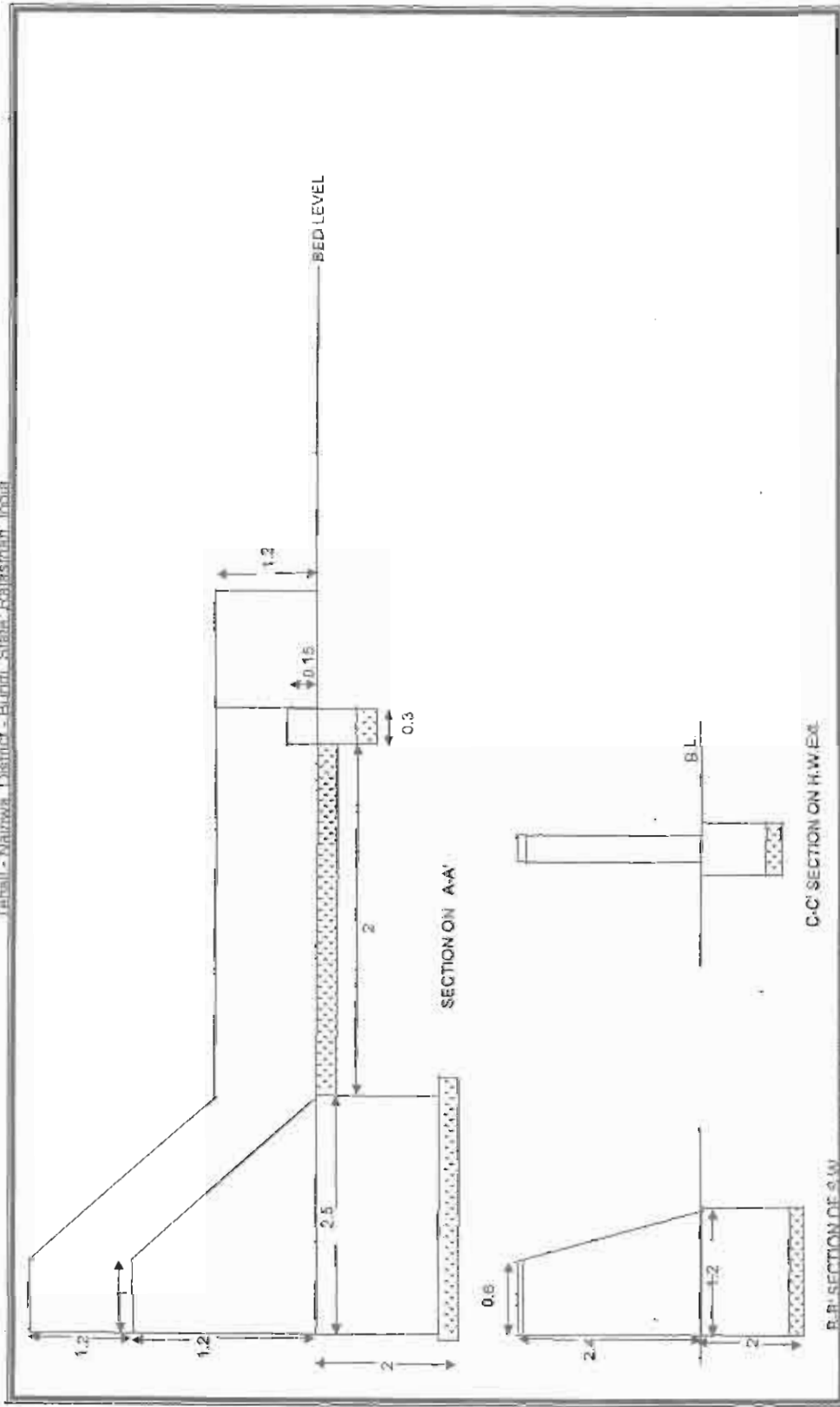


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IWMP WATERSHED PROJECT KHOLAHERA

Village - Bizalwa

Talhall - Nainhya District - Bundi State Rajasthan India




20/11/20
पंचायत
जिला

IWMP WATERSHED PROJECT KHOLAHERA
Village - Bicalwa
Tehsil - Nainwa, District - Bundi, State: Rajasthan, India

DETAILED ESTIMATE OF ANICUT										
Name of Village :-		Suwaniya								
Name of Site :-		Prahlad / Sukhpal Meena ke khat ke Pass								
General features of anicut:-										
Height of crest=		1.2 M.								
Length of Crest		15 M.								
Depth of foundation for H.W. =		2.0 M.	Length of wing wall=			1.5 M.				
Bottom width of H.W. =		2.5 M.	Height of Wing wall=			1.2 M.				
Top of H.W. =		1.0 M.	Bottom width of Wing wall=			0.9 M.				
Length of H.W.Ext. =		4.0 M.	Depth of foundation for Wing wall =			1.0 M.				
Height of H.W.Ext. at H.W. =		2.4 M.	Height of Toewall=			0.15 M.				
Top Width of H.W.Ext.=		0.6 M.	Top & Bottom width of Toe wall=			0.30 M.				
Bottom width for H.W.Ext.		1.0 M.	Depth of foundation for Toe wall =			0.9 M.				
Depth of foundation for H.W.Ext.=		1.5 M.	Thickness of Apron=			0.8 M.				
Length of side wall=		4.0 M.	Width of Apron =			2.0 M.				
Bottom Width of S.W.		1.20 M.								
Height of side wall at W.W End=		1.2 M.								
Depth of foundation for side wall =		2.0 M.								
S.No.	Item	No	L	B	H	Quantity				
1	Dag belling 5cm. To 7.5cm deep (As per item no. page of G.K.N 2008 BSR of Bhalwara circle					Total				
2	Cutting and clearing of ordinary jungle including bushes shrubs and disposal as per instruction of engineer incharge		30	X	7.0	=	210	Sqm.		
3	Benching of the base and depositing the excavated material for bund for bund canal dressing etc. all components	1	30		2	0.3	18			
							Total 18 Cum.			
4	Earth work excavation for bund in hard dry or moist soil including laying in layer of 15cm. Breaking of clods dressing to require profile with manual compaction including initial lift up to 1.5 m and lead up to 30M.	2	30		5	2	600 Cum.			
5	Earth work excavation for foundation in dry or moist soil including ramming of bottom scraping of sides disposal of soil initial lift up to 1.5 m and lead up to 30M						Total			
	Berm Cutting							0.00	Cum.	
	H.W	1	X	15	X	2.7	X	2.0	= 81.00	
	H.W.Ext	2	X	4.0	X	1.0	X	1.5	= 12.00	
	S.W.	2	X	4.0	X	1.20	X	2.0	= 19.20	
	W.W.	2	X	1.5	X	0.9	X	0.90	= 2.43	
	Apron	1	X	15	X	2.0	X	0.75	= 22.50	
	T.W.	1	X	15	X	0.30	X	0.9	= 4.05	
							Total 141.18			
1	Excavation in Hard soil					20%	28.24			
2	Excavation in ordinary murrum					30%	42.35			
3	Excavation in Simple rock					60%	70.59			

contd.


प्रवायत समिति नैनवा
जिला बून्दी (राज.)

6	Providing and laying of cement concrete well mixed in cement mortar 1:4:8 laying in position complete excluding curing with maximum size of aggregate up to 50 mm.											
		H.W.	1	X	15.0	X	2.7	X	0.3	=	12.15	Cum.
		H.W.Ext	2	X	4	X	1.0	X	0.3	=	2.40	Cum.
		S.W.	2	X	4	X	1.20	X	0.3	=	2.88	Cum.
		W.W.	2	X	1.5	X	0.9	X	0.3	=	0.81	Cum.
		Apron	1	X	15.0	X	2.0	X	0.3	=	9.00	Cum.
		T.W.	1	X	15.0	X	0.30	X	0.3	=	1.35	Cum.
										Total	28.59	
7	Random rubble stone masonry for foundation & plinth cement sand mortar(1:6) for above 30 cm. Thick wall											
		H.W.	1	X	15.0	X	2.5	X	1.7	=	63.75	Cum.
		H.W.Ext	2	X	4.0	X	1.0	X	1.2	=	9.60	Cum.
		S.W.	2	X	4.0	X	1.20	X	1.7	=	16.32	Cum.
		W.W.	2	X	1.5	X	0.9	X	0.6	=	1.62	Cum.
		T.W.	1	X	15.0	X	0.15	X	0.6	=	1.35	Cum.
										Total	82.64	
8	Random rubble stone masonry for Super structure for wall above 30 cm. Thick in cement sand mortar(1:6)											
		H.W.	1	X	15.0	X	1.75	X	1.2	=	31.50	Cum.
		H.W.Ext	2	X	4.0	X	0.8	X	2.4	=	15.36	Cum.
		S.W.	2	X	4.0	X	0.9	X	1.80	=	12.96	Cum.
		W.W.	2	X	1.5	X	0.9	X	1.2	=	3.24	Cum.
		T.W.	1	X	15.0	X	0.30	X	0.15	=	0.68	Cum.
										Total	63.74	
9	Stone Kharanja in cement mortar 1:6 for bed and floor including craction etc. complete apron											
		Apron	1	X	15.0	X	2.0	X	0.45	=	13.50	Cum.
										Total	13.50	
10	Providing and laying of cement concrete well mixed in cement mortar 1:2:4 laying in position complete excluding curing with maximum size of aggregate up to 20 mm etc. complete											
		H.W.	1	X	15.0	X	1.0	X	0.05	=	0.75	Cum.
		H.W.Ext	2	X	4.0	X	0.6	X	0.05	=	0.24	Cum.
		S.W.	2	X	4.0	X	0.6	X	0.05	=	0.24	Cum.
		W.W.	2	X	1.5	X	0.9	X	0.05	=	0.14	Cum.
		T.W.	1	X	15.0	X	0.30	X	0.05	=	0.23	Cum.
										Total	1.69	
11	Flush pointing in cement motar (1:3)											
		H.W.	1	X	15.0	X	1.92			=	28.81	Sqm.
										Total	28.81	
12	25 mm thick plastering on new surface in cement mortar (1:4)											
		H.W.	1	X	15.0	X	4.9			=	73.50	
		H.W.Ext	2	X	4.0	X	3.0			=	24.00	
		S.S	2	X	4.0	X	3.0			=	24.00	
		W.W.	2	X	1.5	X	1.8			=	5.40	
		T.W.	2	X	15.0	X	0.2			=	4.50	
										Total	131.40	
13	Dry stone pitching of Hammer dressed with pecking of voids of small stone including all lifts in require profile (23 cm depth)											
		1		20		2					40.00	
											Sqm	


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IWMP WATERSHED PROJECT KHOLAHERA

Village - Bizalwa

Tehsil - Nainwa, District - Bundi, State: Rajasthan, India

Abstract of Cost of Anicut

Name of Village :- Suwaniya							
Name of Site :- Prahlad / Sukhpal Meena ke khet ke Pass							
S.No	Item	Quantity	Unit	Rate		Amount	
				Labour	(LC+MC)Total	Labour cost	Total Cost
1	Dag belling 5cm. To 7.5cm deep(As per item no. page of G.K.N.2008 BSR of Bhitwara circle	0.00	Cum.	1.00	1.00	0.00	0
2	Cutting and clearing of ordinary jungle including bushes shrubs and disposal as per instruction of engineer incharge	210	Sqm.	1.40	1.40	294.00	294
3	Benching of the base and depositing the excavated material for bund for bund canal dressing etc. all components	18	Cum.	85.00	85.00	1530.00	1530
4	Earth work excavation for bund in hard dry or moist soil including laying in layer of 15cm. Breaking of clods dressing to require profile	600	Cum.	85.00	85.00	51000.00	51000
5	Earth work excavation for foundation in dry or moist soil including ramming of bottom scrapping of sides dipodal of soil intial lift up to 1.5 m and lead up to 30M	141.18	Cum.				0
	Excavation in Hard soil	28.24	Cum.	91.00	91.00	2569.48	2569.48
	Excavation in ordinary murram	42.35	Cum.	134.00	134.00	5675.44	5675.44
	Excavation in Simple rock	70.59	Cum.	177.00	177.00	12494.43	12494.43
6	Providing and laying of cement concrete well mixed in cement mortar 1:4:8 laying in position complete excluding curing with maximum size of aggregate up to 50 mm.	28.59	Cum.	252.55	1952.00	7220.40	55807.68
7	Random rubble stone masonry for foundation & plinth cement sand mortar(1:6) for above 30 cm. Thick wall	92.64	Cum.	357	1590.00	33072.48	147297.6
8	Random rubble stone masonry for Super structure for wall above 30 cm. Thick in cement sand mortar(1:6)	63.74	Cum.	357	1590.00	22753.40	101338.65
9	Stone Kharanja in cement mortar 1:6 for bed and floor including craction etc. complete apron	13.50	Cum.	357	1590.00	4819.50	21465
10	Providing and laying of cement concrete well mixed in cement mortar 1:2:4 laying in position complete excluding curing with maximum size of aggregate up to 20 mm. etc. complete	1.59	Cum.	315.8	2849.00	502.12	4529.91
11	Flush pointing in cement motar (1:3)	28.81	Sqm.	39.8	50.30	1148.80	1449.3472
12	25 m.m thick plastering on new surface in cement mortar (1:4)	131.40	Sqm.	67.9	150.00	8922.06	19710
13	Dry stone pitching of Hammer dressed witch packing of voids of small stone including all lifts in require profile (23 cm depth)	40.00	Sqm.	100.5	262.00	4020.00	10480
				Total		156020.103	435641.53
				Say Rs		156020	435642
				Contingency		3%	13069
				TOTAL		156020	448711
				Total Cost rounded of			449000
				Labour cost		157000	
				Material cost		292000	


 जलसंधारण विभाग
 राजस्थान सरकार

IWMP WATERSHED PROJECT KHOLAHERA
Village - Kholahera
Tensil - Nainwa, District - Bundi, State: Rajasthan, India

Estimate of Anicut	
Name of Gram Panchayat :-	Suwaniya
Panchayat Samity :-	Nainwa
Name of Site :-	Sagas ji ke Pass Channage-1860m
Name of samiti :-	Suwaniya
Type of Structure :-	R.R.Stone masonry structure
GPS position	
Latitude :-	
Longitude :-	
Macro/Micro No. :-	
Cost of Anicut :-	3.76 Lack

Basic Data of Project			
		=	
1	Catch ment Area	=	750 Ha.
2	Maxmium Rain fall intency	=	5 cm./hr.
3	General nature of catchment Area		
a.	Agricultural land	=	300
b.	Pasture Land	=	450 Ha.
4	Height of crest above G.L.	=	1.5 M.
5	Flood lift	=	1
6	Free board	=	0.4
7	Top width of Head wall	=	1
8	Bottom width of Head wall	=	2.50
9	Width of concrete Bed	=	2.50
10	Length of crest	=	9 M.
11	Percentage slope of land	=	1.5
12	No. of well benifited	=	0
13	Cost of Project	=	378000.00
a.	Labour component	=	137000.00
b.	Material component	=	239000.00
c.	Contingency	=	10927

Rates are as per BSR (GKN) 2011, Bundi




IWMP WATERSHED PROJECT KHOLAHERA

Village - Kholahera


Tehsil - Nainwa, District - Bundi, State: Rajasthan, India

Name of Village :-		Suwaniya	
Name of Site :-		Sagas ji ke Pass Channage-1860m	
Design calculation of anicut			
A.			
i	Available crest length	9 M	
ii	Total catchment Area	750 Ha.	As per G.T.Sheet
iii	Peak Runoff Rate		
a	By Rational Method		
	$Q_p = 0.0276 CIA$	Use when catchment is <1300Ha. Q=Run off in m3/sec.	
		C= Coefficient of runoff	0.3
	$K = L^{0.2}/H^{1.2}$	I= Intensity of rain fall in cm/hr.	5
	$K = 20712.08$	A= Catchment Area in Ha.	750
	$T_c = 0.0195K^{0.77}$	L=Maximum length of travel by runoff water in m.	1860
	$T_c = 41.07$	H= Difference in elevation between most remote point and and outlet point in meter	15
	$Q_p = 31.05$	$0.0276 \times 0.30 \times 5 \times 750$	
b	By weir formula		
	$Q = 1.71Lh^{3/2}$		
	$31.05 = 1.71$	$9 h^{3/2}$	
	$h = 1.60$		
	Say $h = 1$		
3	Free Board		
		hw= Wave height in meter	
	$F_b = 1.5h_w$	Df= Fetch length in meter 350 Meter.	
	$1.5 \times 0.014(D_f)^{1/2}$		
	$F_b = 0.39$		
	Say $F_b = 0.4$		
B. STRUCTURAL DESGIN			
1	Head wall		
a	Height of Head wall H=	1.5	
b	Top width(Tw) =	$\frac{h}{(P-1)^{1/2}}$	P= Sp.ht. Of masonry 2.3
		$Tw = 0.88$	
	Top width=	1	
C.	Bottom width Bw	$Tw + 0.8H$	
		$Bw = 2.20$	
	So Bottom Width=	2.50 Meter	
2	Head wall extension		
a	Length= $H+h+1+Fb$		
	$1.5 + 1 + 1 + 0.4 = 3.50$	Meter	
	But as per site condition	= 4	
b	Height of Head Extensionwall =	$H+h+Fb$	
	$1.5 + 1 + 0.4 = 2.9$	Meter	
c	Top width	0.6 Meter	
d	Bottom Width= $0.5(H+h)$	$0.5(1.5 + 1.0) = 1.25$ Meter	

contd..


 पा. योजना विभाजन एत
 आई० डब्ल्यू० एम० पी०
 पंचायत मण्डल नैनवा
 जिला बून्दी (राज०)

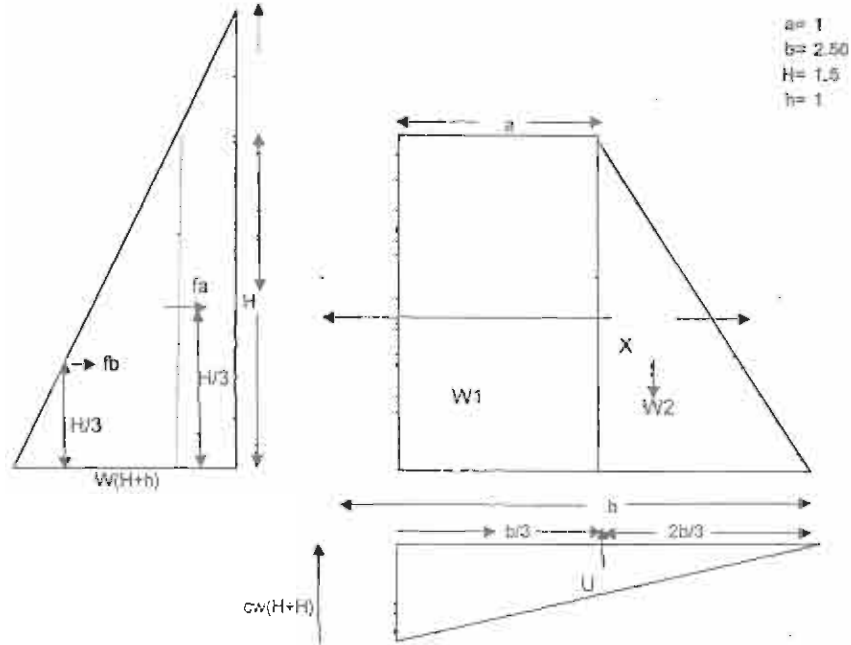
3	Side wall					
a	Length=	$1.75H+0.75h+0.45$	=		3.8	
		But as per site condition=			4.0 Meter	
b	Height:					
	At H.W.End=	$H+h+Fb$	1.5	+	1	+ 0.4 = 2.9 Meter
	At W.W.End=	$h+fb$	=	1	+ 0.4 =	1.4 Meter
c	Top width=					0.6 Meter
d	Bottom width=					
	At H.W.End=	$0.6+0.4(H+h)$				1.6 Meter
	At W.W.End=	$0.6+0.4(1.5h)$				1.2 Meter
		But taken as=				1.2 Meter
4	Wing wall					
a	Height	$h+Fb$	1	+	0.4	= 1.4 Meter
b	Length=	$2.25h$	2.25	X	1	= 2.25 Meter Say 1.5
c	Top width					0.6 Meter
	Bottom width of wing wall					0.6 Meter
5	Apron					
a	Length=					9 Meter
b	Width=	$H+h+Fb$	1.5	+	1	+ 0.4 = 2.9 Meter Say 2
c	Thickness					0.8 Meter
6	Toe wall					
a	Length=					9 Meter
b	Width=					0.3 Meter
c	Height=					0.2 Meter


 १५/०५/२०१९
 जिला कुन्दा (राजस्थान)


IWMP WATERSHED PROJECT KHOLAHERA
 Village - Kholahera
 Tehsil - Nainwa, District - Bund, State - Rajasthan, India

Name of Village	:-	Suwariya
Name of Site	:-	Sagas Ji ke Pass Charnage-1960m

FREE BODY DIAGRAM



Specific Wt. Of masonry P	=	2.9 T/m ³
Specific Wt. of water w	=	1 T/m ³
Coefficient of uplift pressure c	=	0.8
coefficient of friction atbed surface and creep length	=	0.75
Weight of Dam:-		
Weight of Dam:-		
$W_1 = aHP$		
$W_1 =$	T	3.45 T
$W_2 = \frac{b-h}{2} HP$		2.5875 T
$W = W_1 + W_2 =$	3.45 + 2.5875	= 6.0375 T
Water pressure		
At Depth $h = P_1 = wh =$	1 X 1	= 1 T/m ²
At Depth $H+h = P_2 = w(H+h) =$	1 (1.50 + 1)	= 2.5 T/m ²
Force aching due to water pressure i.e. Net horizontal		
Water force $P = \frac{P_1 + P_2}{2} H =$		= 2.625 T/m
Horizontal water pressure at depth $h = Fa =$	$whh =$	= 1.5 T
At depth $H+h = Fb =$	$\frac{P_2 - P_1}{2} H$	= 1.125 T
Force due to water column at crest $F_3 =$	$wha =$	= 1 T
Up lift pressure $U =$	$1/2 cw_b (H+h)$	= 1.875 T


 का निधानियन एवं
 आरंभ डब्ल्यू.एम.पी.
 पंचायत समिति नैनवां
 जिला बुन्दी (राज.)

IWMP WATERSHED PROJECT KHOLAHERA

Village - Kholahera

Tehsil - Nainwa, District - Bundi, State: Rajasthan, India

Name of Village :-	Suwaniya
Name of Site :-	Sagas ji ke Pass Channage-1860m

STABILITY CHECKS

1 Safety against over turning

$$\text{Over turning moment } M_o = F_a \frac{H}{2} + F_b \frac{H}{3} + u \frac{2}{3} b$$

$$= 1.50 \frac{1.5}{2} + 1.125 \frac{1.5}{3} + 1.88 \frac{2}{3} = 2.50$$

$$M_o = 4.8125$$

$$\text{Restoring Moment } M_r = W_1 (b-a/2) + W_2 (b-a)/3 + F_3 (b-a/2)$$

$$M_r = 6.9 + 2.588 + 2.000 = 11.5$$

$$\text{Factor of safety } = \frac{M_r}{M_o} = \frac{11.488}{4.8125} = 2.387 > 1.5 \text{ Hence}$$

Structure is safe against over turning

2 Safety against Rupture from tension

$$\text{Net Vertical Pressure } V = W_1 + W_2 + F_3 - U$$

$$= 3.45 + 2.5875 + 1 - 1.875 = 5.1625$$

Position of resultant where it cut the base

$$X = \frac{\text{Excess moment } (M_r - M_o)}{\text{Net vertical force}} = \frac{11.49 - 4.813}{5.163} = 1.29$$

TRUE

3 Safety against crusing

$$\text{Eccentricity } e = \frac{b}{2} - X$$

$$= -0.043$$

Crusting stress at the toe of the Head wall

$$P_c = \frac{V (1 + 6e/b)}{b}$$

$$P_c = 1.852$$

$P_c \ll 20$ Hence it is safe

4 Safety against sliding

$$\text{Net vertical Force } V = 5.1625 \text{ T}$$


$$\text{Restoring force } = uV = 0.78 \times 5.1625 = 4.0319125 \text{ T}$$

$$\text{Sliding force Net horizontal force} = F_a + F_b$$

$$= 1.5 + 1.125 = 2.625 \text{ T}$$

$$\text{Factor of safety} = \frac{\text{Restoring force}}{\text{Sliding force}} = \frac{4.032}{2.625} = 1.536 > 1.3 \text{ Hence}$$

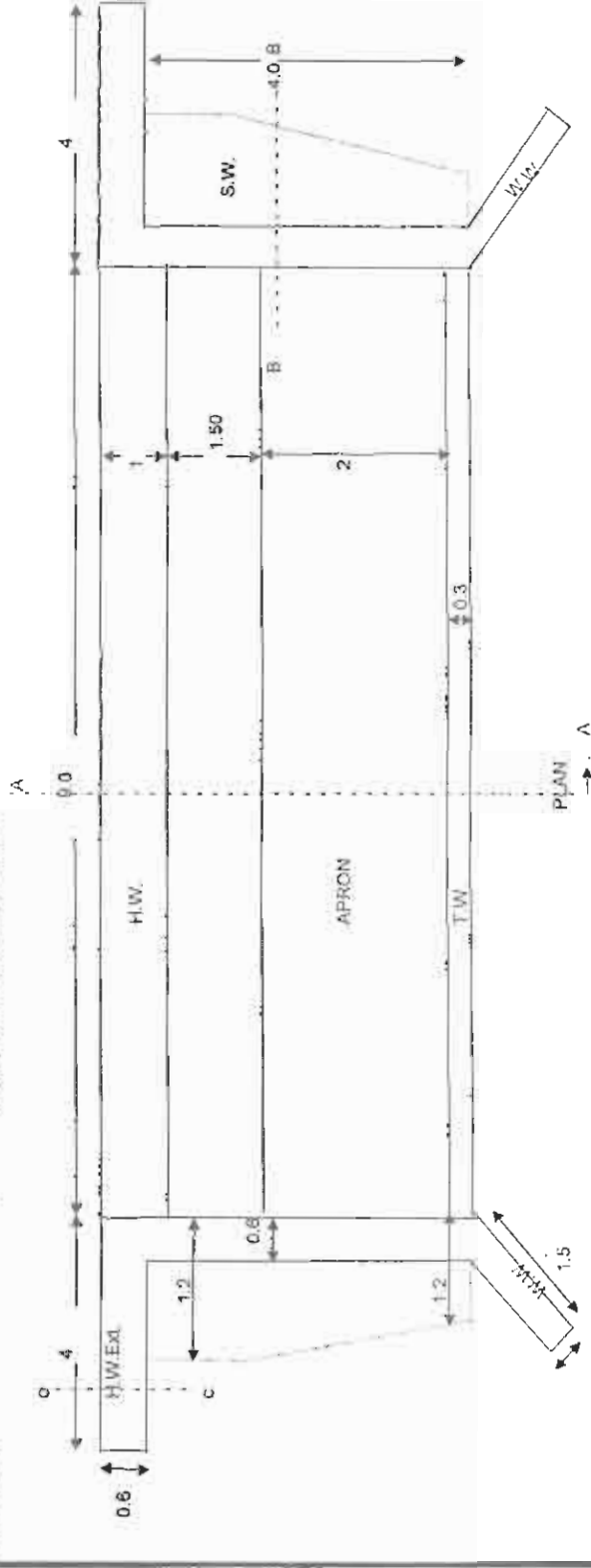
Hence it is safe



 20/11/2020
 प्रस्तावक माधव वैभव
 तहसील बुन्दी (राजस्थान)

IWMP WATERSHED PROJECT KHOLAHERA
 Village - Kholahera
 Tehsil - Nainwa, District - Bundi, State: Rajasthan, India

PLAN AND SECTION OF ANICUT

Name of Village :- Suweniya
 Name of Site :- Segas Jiki Pass Channage-1860m

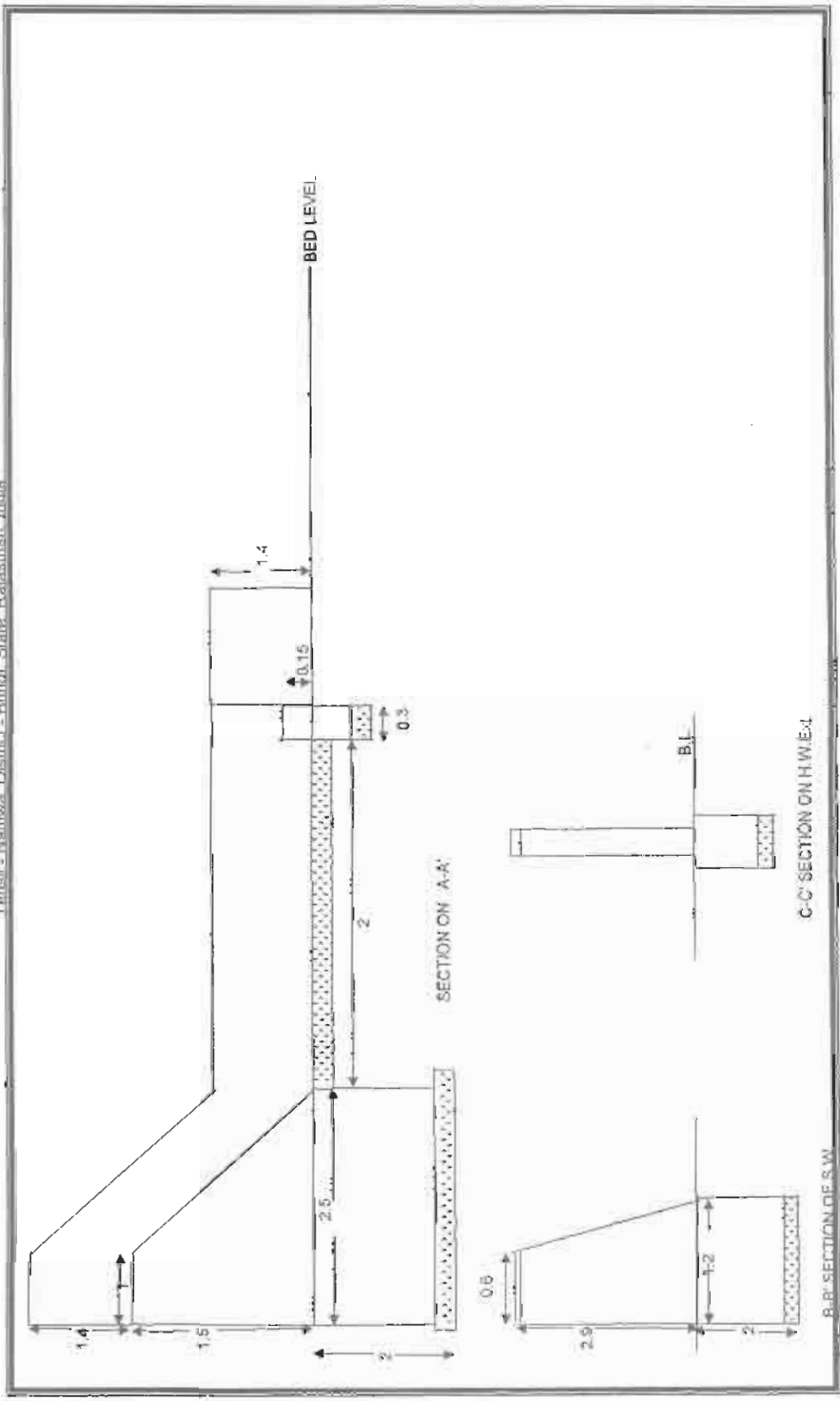



 चारव्योजना किराज (राजस्थान)
 आई. डब्ल्यू. एम. ए. ए.
 पंचायत समिति नैनवा
 जिला बुन्दी (राज.)

IWMP WATERSHED PROJECT KHOLAHERA

Village - Kholahera

Tehsil - Mainwa, District - Bundi, State - Rajasthan, India



Handwritten signature and text in Hindi, including the name "K. S. SINGH" and the title "सिंचन अभियंता (सि.स.)" (Irrigation Engineer).


WMP WATERSHED PROJECT KHOLAHERA
 Village - Kholahera
 Tehsil - Nainwa, District - Bundi, State - Rajasthan, India

DETAILED ESTIMATE OF ANICUT

Name of Village :- Suwariya						
Name of Site :- Sapas J ka Past Channage-1660m						
General features of anicut:-						
Height of crest =	1.5 M.					
Length of Crest	9 M.					
Depth of foundation for H.W. =	2.5 M.	Length of wing wall =	1.5 M.			
Bottom width of H.W. =	2.5 M.	Height of Wing wall =	1.4 M.			
Top of H.W. =	1.0 M.	Bottom width of Wing wall =	0.8 M.			
Length of H.W Ext =	4.0 M.	Depth of foundation for Wing wall =	1.0 M.			
Height of H.W Ext. at H.W. =	2.9 M.	Height of Toe wall =	0.15 M.			
Top Width of H.W Ext. =	0.6 M.	Top & Bottom width of Toe wall =	0.30 M.			
Bottom width for H.W Ext.	1.3 M.	Depth of foundation for Toe wall =	0.9 M.			
Depth of foundation for H.W Ext. =	1.5 M.	Thickness of Apron =	0.8 M.			
Length of side wall =	4.0 M.	Width of Apron =	2.0 M.			
Bottom Width of S.W.	1.20 M.					
Height of side wall at W.W End =	1.4 M.					
Depth of foundation for side wall =	2.0 M.					
S.No.	Item	No	L	B	H	Quantity
1	Deg boring 5cm. To 7.5cm deep(As per item no. page of G.K.N 2008 BSR of Bhalwara circle					Total
2	Cutting and clearing of ordinary jungle including bushes shrubs and disposal as per instruction of engineer incharge		30	X	7.0	= 210 Sqm.
3	Benching of the base and depositing the excavated material for bund for bund canal dressing etc. all components.	1	30	2	0.3	18 Total 18 Cum.
4	Earth work excavation for bund in hard dry or moist soil including laying in layer of 15cm. Breaking of clods dressing to require profile with manual compaction including initial lift up to 1.5 m and lead up to 30M.	2	30	5	2	600 Cum.
5	Earth work excavation for foundation in dry or moist soil including ramming of bottom scrapping of sides dipodal of soil initial lift up to 1.5 m and lead up to 30M					Total
	Berm Cutting					0.00 Cum.
	H.W.	1	X	9	X	2.7 X 2.0 = 48.60 Cum.
	H.W.Ext	2	X	4.0 X	1.3 X	1.5 = 15.50 Cum.
	S.W.	2	X	4.0 X	1.20 X	2.0 = 19.20 Cum.
	W.W.	2	X	1.5 X	0.9 X	0.90 = 2.43 Cum.
	Apron	1	X	9	X	2.0 X 0.75 = 13.50 Cum.
	T.W.	1	X	9	X	0.30 X 0.9 = 2.43 Cum.
						Total 101.16
1	Excavation in Hard soil					20% 20.23
2	Excavation in ordinary murrum					30% 30.35
3	Excavation in Simple rock					50% 50.58

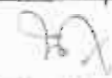
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6	Providing and laying of cement concrete well mixed in cement mortar 1:4:8 laying in position complete excluding curing with maximum size of aggregate up to 50 mm.											
		H.W.	1	X	9.0	X	2.7	X	0.3	=	7.29	Cum.
		H.W Ext	2	X	4	X	1.3	X	0.3	=	3.00	Cum.
		S.W.	2	X	4	X	1.20	X	0.3	=	2.88	Cum.
		W.W.	2	X	1.5	X	0.9	X	0.3	=	0.81	Cum.
		Apron	1	X	9.0	X	2.0	X	0.3	=	5.40	Cum.
		T.W.	1	X	9.0	X	0.30	X	0.3	=	0.81	Cum.
									Total	20.19		
7	Random rubble stone masonry for foundation & plinth cement sand mortar(1:6) for above 30 cm. Thick wall											
		H.W.	1	X	9.0	X	2.5	X	1.7	=	38.25	Cum.
		H.W Ext	2	X	4.0	X	1.3	X	1.2	=	12.00	Cum.
		S.W.	2	X	4.0	X	1.20	X	1.7	=	16.32	Cum.
		W.W.	2	X	1.5	X	0.9	X	0.6	=	1.62	Cum.
		T.W.	1	X	9.0	X	0.15	X	0.6	=	0.81	Cum.
									Total	69.00	Cum.	
8	Random rubble stone masonry for Super structure for wall above 30 cm. Thick in cement sand mortar(1:6)											
		H.W.	1	X	9.0	X	1.75	X	1.5	=	23.63	Cum.
		H.W Ext	2	X	4.0	X	0.93	X	2.9	=	21.48	Cum.
		S.W.	2	X	4.0	X	0.9	X	2.15	=	15.48	Cum.
		W.W.	2	X	1.5	X	0.9	X	1.4	=	3.78	Cum.
		T.W.	1	X	9.0	X	0.30	X	0.15	=	0.41	Cum.
									Total	64.75	Cum.	
9	Stone Kharanja in cement mortar 1:6 for bed and floor including cpeaction etc. complete apron											
		Apron	1	X	9.0	X	2.0	X	0.45	=	8.10	Cum.
									Total	8.10	Cum.	
10	Providing and laying of cement concrete well mixed in cement mortar 1:2:4 laying in position complete excluding curing with maximum size of aggregate up to 20 mm. etc. complete											
		H.W.	1	X	9.0	X	1.0	X	0.05	=	0.45	Cum.
		H.W Ext	2	X	4.0	X	0.6	X	0.05	=	0.24	Cum.
		S.W.	2	X	4.0	X	0.6	X	0.05	=	0.24	Cum.
		W.W.	2	X	1.5	X	0.9	X	0.05	=	0.14	Cum.
		T.W.	1	X	9.0	X	0.30	X	0.05	=	0.14	Cum.
									Total	1.20	Cum.	
11	Flush pointing in cement motar (1:3)	H.W.	1	X	9.0	X	2.12		=	19.08	Sqm.	
									Total	19.08	Sqm.	
12	25 mm thick plastering on new surface in cement mortar (1:4)											
		H.W.	1	X	9.0	X	5.2		=	46.80		
		H.W Ext	2	X	4.0	X	3.5		=	28.00		
		S.S.	2	X	4.8	X	3.5		=	28.00		
		W.W.	2	X	1.5	X	2.0		=	6.00		
		T.W.	2	X	9.0	X	0.2		=	2.70		
									Total	111.50		
13	Dry stone pitching of Hammer dressed witch pecking of voids of small stone including all lifts in require profile (23 cm depth)											
		1		20		2				40.00	Sqm.	


 पी. लोन्ग, डिप्टी सप्लायर
 आई. डी. एम. पी.
 पंचायत समिति नैन्वा
 जिला बुन्दी (राज.)

IWMP WATERSHED PROJECT KHOLAHERA
Village - Kholahera
Tehsil - Nainwa, District - Bundi, State: Rajasthan, India

Abstract of Cost of Anicut							
Name of Village :-		Suwaniya					
Name of Site :-		Sagas ji ke Pass Channage-1860m					
S.No	Item	Quantity	Unit	Rate		Amount	
				Labour	(LC+MC)Total	Labour cost	Total Cost
1	Dag belling 5cm. To 7.5cm deep(As per item no. page of G.K.N.2008 BSR of Bhitwara circle	0.00	Cum.	1.00	1.00	0.00	0
2	Cutting and clearing of ordinary jungle including bushes shrubs and disposal as per instruction of engineer incharge	210	Sqm.	1.40	1.40	294.00	294
3	Benching of the base and depositing the excavated material for bund for bund canal dressing etc. all components	18	Cum.	85.00	85.00	1530.00	1530
4	Earth work excavation for bund in hard dry or moist soil including laying in layer of 15cm. Breaking of clods dressing to require profile	600	Cum.	85.00	85.00	51000.00	51000
5	Earth work excavation for foundation in dry or moist soil including ramming of bottom scrapping of sides dipodal of soil initial lift up to 1.5 m and lead up to 30M	301.18	Cum.				0
	Excavation in Hard soil	20.23	Cum.	91.00	91.00	1841.11	1841.11
	Excavation in ordinary murrum	30.35	Cum.	134.00	134.00	4066.63	4066.63
	Excavation in Simple rock	50.58	Cum.	177.00	177.00	8952.66	8952.66
6	Providing and laying of cement concrete well mixed in cement mortar 1:4:8 laying in position complete excluding curing with maximum size of aggregate up to 50 mm.	20.19	Cum.	252.55	1952.00	5098.98	39410.88
7	Random rubble stone masonry for foundation & plinth cement sand mortar(1:6) for above 30 cm. Thick wall	69.00	Cum.	357	1590.00	24633.00	109710
8	Random rubble stone masonry for Super structure for wall above 30 cm. Thick in cement sand mortar(1:6)	64.75	Cum.	357	1590.00	23145.75	102952.5
9	Stone Kharanja in cement mortar 1:6 for bed and floor including craction etc. complete apron	8.10	Cum.	357	1590.00	2891.70	12879
10	Providing and laying of cement concrete well mixed in cement mortar 1:2:4 laying in position complete excluding curing with maximum size of aggregate up to 20 mm. etc. complete	1.20	Cum.	315.8	2849.00	378.96	3418.8
11	Flush pointing in cement motar (1:3)	19.09	Sqm.	39.8	50.30	759.86	960.32172
12	25 m.m thick plastering on new surface in cement mortar (1:4)	111.50	Sqm.	67.9	150.00	7570.85	18725
13	Dry stone pitching of Hammer dressed witch packing of voids of small stone including all lifts in require profile (23 cm depth)	40.00	Sqm.	100.5	262.00	4020.00	10480
				Total		136153.505	364220.91
				Say Rs		136154	364221
				Contingency		3%	10927
				TOTAL		136154	375148
				Total Cost rounded of			376000
				Labour cost		137000	
				Material cost		239000	


 श्री. राजेश कुमार शर्मा
 सहायक मास्टर वैसा
 जिला बुन्डी (राजस्थान)

WMP WATERSHED PROJECT KHOLAHERA
 Village - Kholahera
 Tehsil - Nairwa, District - Bundi, State: Rajasthan, India


Material Statement	
Name of Village :-	Suwaniya
Name of Site :-	Sagas ji ke Pass Channage-1860m

S.No.	ITEM	Quantity	Cement	Sand	Aggrigate	Stone
		Cum / Sqm	Bags	Cum	Cum	Cum
1	Cement Concrete (1:4:8)	20.190	64.61	9.49	18.98	-
2	Plaster in C.C. (1:4)	111.500	18.98	3.67	-	-
3	Messonary in Cement mortar (1:6)	133.750	187.26	57.25	-	147.13
4	Pointing in Cement	19.092	0.79	0.08	-	-
5	Stone Kharanja in cement mortar (1:6)	8.100	11.34	3.0375	-	9.72
6	Cement concrete coping(1:2:4)	1.20	7.01	0.54	1.08	-
7	Dry Stone Pitching	40.000	-	-	-	44.00
		TOTAL	289.95	73.98	20.06	200.85
		Say Bags	290			
		or	14.50	MT-		
		1 Cement	14.5	MT.		
		2 Sand	73.98	Cum.		
		3 Stones	200.85	Cum.		
		4 Aggregates	20.06	Cum.		


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IWMP WATERSHED PROJECT KHOLAHERA
 Village - Kholahera
 Tehsil - Nainwa, District - Bundi, State: Rajasthan, India

Estimate of Anicut			
Name of Gram Panchayat :-	Suwaniya		
Panchayat Samity :-	Nainwa		
Name of Site :-	Visna / Laxman Vairva ke khet ke Pass		
Name of samiti :-	Suwaniya		
Type of Structure :-	R.R.Stone masonry structure		
GPS position			
Latitude :-			
Longitude :-			
Macro/Micro No. :-			
Cost of Anicut :-	3.73 Lack		
Basic Data of Project			
=			
1	Catch ment Area	=	550 Ha.
2	Maximum Rain fall intensity	=	5 cm./hr.
3	General nature of catchment Area		
a.	Agricultural land	=	250
b.	Pasture Land	=	300 Ha.
4	Height of crest above G.L.	=	1.2 M.
5	Flood lift	=	1
6	Free board	=	0.4
7	Top width of Head wall	=	1
8	Bottom width of Head wall	=	2.50
9	Width of concrete Bed	=	2.50
10	Length of crest	=	10 M.
11	Percentage slope of land	=	1.5
12	No. of well benefited	=	0
13	Cost of Project	=	373000.00
a.	Labour component	=	136000.00
b.	Material component	=	237000.00
c.	Contingency	=	10839
Rates are as per BSR (GKN) 2011, Bundi			


 जिला कृषि विभाग एजेन्ट
 आर्टीकल डायरेक्टर एम०पी०
 पंचायत समिति नैनवा
 जिला बून्दी (राज०)

IWMP WATERSHED PROJECT KHOLAHERA
 Village - Kholahera
 Tehsil - Nainwa, District - Bundi, State: Rajasthan, India

Name of Village :-		Suwaniya	
Name of Site :-		Visna / Laxman Vairva ke khet ke Pass	
Design calculation of anicut			
A.			
i	Available crest length	10	M
ii	Total catchment Area	550	Ha. As per G.T. Sheet
iii	Peak Runoff Rate		
a By Rational Method			
	$Q_p = 0.0276 CIA$		Use when catchment is <1300Ha. Q=Run off in m ³ /sec.
	$K = L^{0.7}/H^{1/2}$		C= Coefficient of runoff 0.3
	$K = 9866.77$		I= Intensity of rain fall in cm/hr. 5
	$T_c = 0.0195K^{0.77}$		A= Catchment Area in Ha. 550
	$T_c = 23.20$		L=Maxmium length of travel by runoff water in m. 880
			H= Difference in elevation between most remote point and and outlet point in meter 7
	$Q_p = 22.77$	0.0276	0.30 X 5 X 550
b By weir formula			
	$Q = 1.71Lh^{3/2}$		
	22.77 = 1.71	10	$h^{3/2}$
	h = 1.21		
	Say h= 1		
3 Free Board			
			hw= Wave height in meter
	$F_b = 1.5h_w$		Df= Fetch length in meter 350 Meter.
	$1.5 \times 0.014(D_f)^{1/2}$		
	$F_b = 0.39$		
	Say Fb= 0.4		
B. STRUCTURAL DESGIN			
1 Head wall			
a	Height of Head wall H=	1.2	
b	Top width(Tw) =	$\frac{h}{(P-1)^{1/2}}$	P= Sp.ht. Of masonry 2.3
		Tw= 0.88	
	Top width=	1	
C. Bottom width Bw			
		Tw+0.8H	
		Bw= 1.96	
	So Bottom Width=	2.50	Meter
2 Head wall extension			
a	Length= H+h+1+Fb		
	1.2 + 1 + 1 + 0.4 =	3.20	Meter
	But as per site condition =	4	
b	Height of Head Extensionwall =	H+h+Fb	
	1.2 + 1 + 0.4 =	2.6	Meter
c	Top width		0.6 Meter
d	Bottom Width= 0.5(H+h)	= 0.5(1.2 + 1.0)=	1.10 Meter

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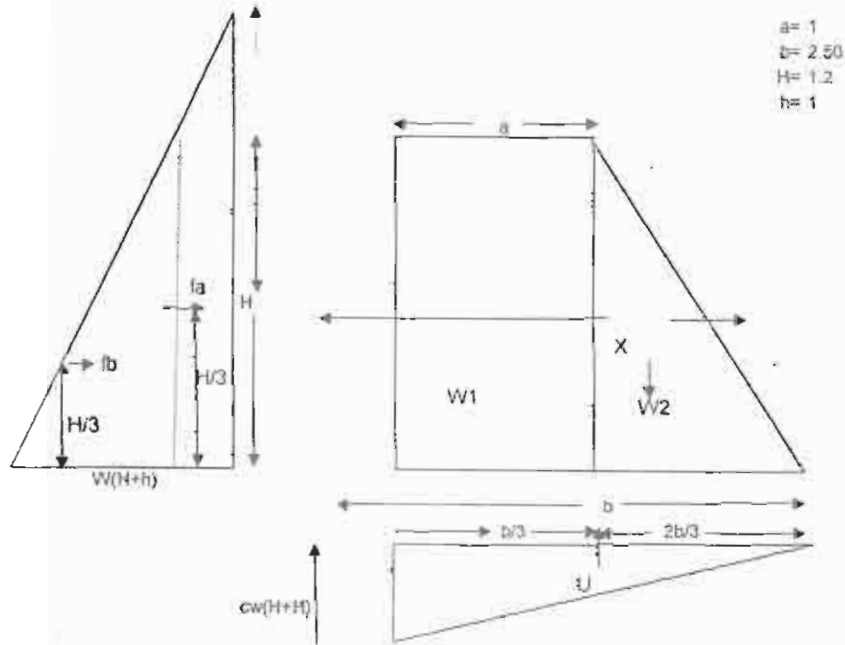
3	Side wall				
a	Length=	$1.75H+0.75h+0.45$	=		3.3
		But as per site condition=			4.0 Meter
b	Height:				
	At H.W.End=	$H+h+Fb$	1.2	$+ 1 + 0.4$	= 2.6 Meter
	At W.W.End=	$h+fb$	=	$1 + 0.4$	= 1.4 Meter
c	Top width=				0.6 Meter
d	Bottom width=				
	At H.W.End=	$0.6+0.4(H+h)$			1.5 Meter
	At W.W.End=	$0.6+0.4(1.5h)$			1.2 Meter
		But taken as=			1.2 Meter
4	Wing wall				
a	Height	$h+Fb$	1	$+ 0.4$	= 1.4 Meter
b	Length=	$2.25h$	2.25	$\times 1$	= 2.25 Meter Say 1.5
c	Top width				0.6 Meter
	Bottom width of wing wall				0.6 Meter
5	Apron				
a	Length=				10 Meter
b	Width=	$H+h+Fb$	1.2	$+ 1 + 0.4$	2.8 Meter Say 2
c	Thickness				0.8 Meter
6	Toe wall				
a	Length=				10 Meter
b	Width=				0.3 Meter
c	Height=				0.2 Meter

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IWMP WATERSHED PROJECT KHOLAHERA
 Village - Kholahera
 Tehsil - Nainwa, District - Bundi, State: Rajasthan, India

Name of Village :- Suwaniya
 Name of Site :- Vana / Laxman Vairva ke khet ke Pass

FREE BODY DIAGRAM



Specific Wt. Of masonry P	=	2.3 T/m ³
Specific Wt. of water w	=	1 T/m ³
Coefficient of uplift pressure c	=	0.6
coefficient of friction atbed surface and creep length	=	0.75
Weight of Dam:-		
Weight of Dam:-		
$W_1 = aHP$		
$W_1 = T$		2.76 T
$W_2 = \frac{b-a}{2} HP$		2.07 T
$W = W_1 + W_2$		2.76 + 2.07 = 4.83 T
Water pressure		
At Depth h= P ₁ = wh =		1 X 1 = 1 T/m ²
At Depth H+h= P ₂ = w(H+h) =		1(1.20 + 1) = 2.2 T/m ²
Force aching due to water pressure i.e. Net horizontal		
Water force	$P = \frac{P_1 + P_2}{2} H =$	= 1.92 T/m ²
Horizontal water pressure at depth h = F _a =	$\frac{wh^2}{2}$	= 1.2 T
At depth H+h = F _b =	$\frac{P_2 \cdot P_1}{2} H$	= 0.72 T
Force due to water column at crest F ₃ =	$\frac{wh^2}{2}$	= 1 T
Up lift pressure U =	$\frac{1}{2} cw (H+h)$	= 1.65 T

परियोजना विभाजन एडवोकेट
 आई० डब्ल्यू० एच० पी०
 पंचायत समिति नैनवा
 जिला बुन्दी (राज०)

IWMP WATERSHED PROJECT KHOLAHERA
 Village - Kholahera
 Tehsil - Nainwa, District - Bundi, State: Rajasthan, India

Name of Village	:-	Suwaniya
Name of Site	:-	Visna / Laxman Vairva ke khet ke Pass

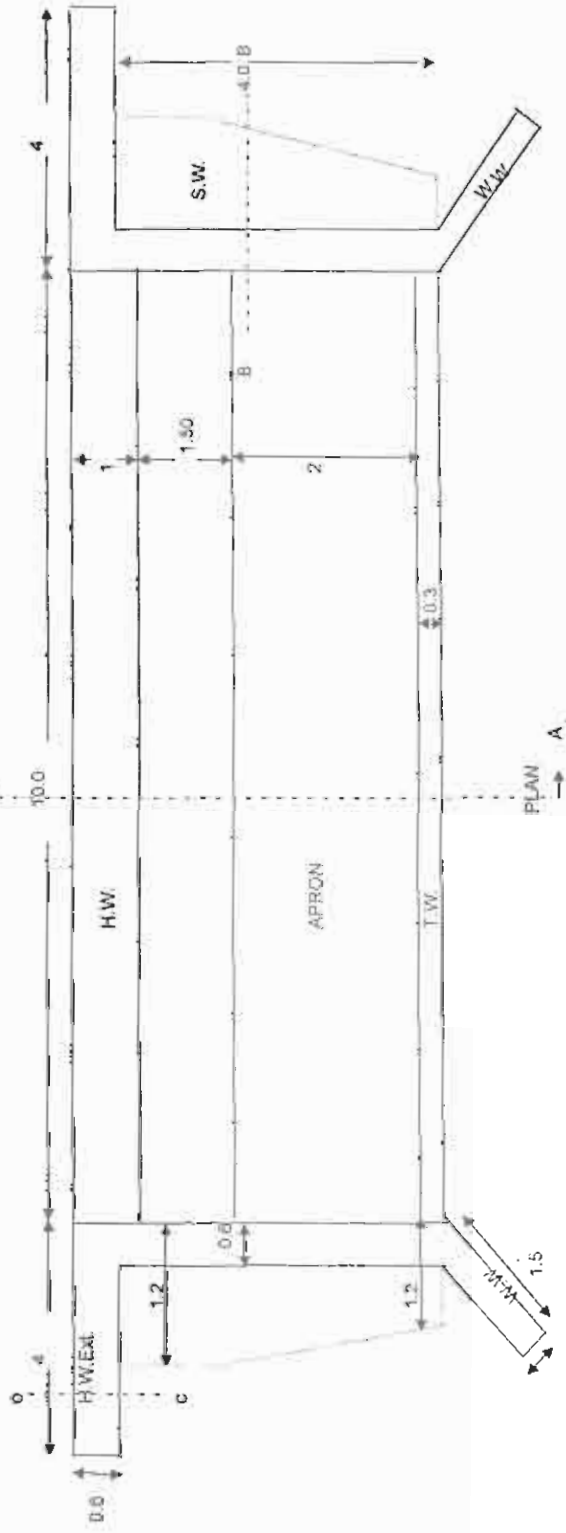
STABILITY CHECKS			
1 Safety against over turning			
Over turning moment $M_o =$	$F_a \frac{H}{2}$	+	$F_b \frac{H}{3} + u \frac{2}{3} b$
	$1.20 \frac{1.2}{2}$	+	$0.720 \frac{1.2}{3} + 1.65 \frac{2}{3} = 2.50$
	$M_o =$		3.758
Restoring Moment $M_r =$	$W_1 (b-a/2)$	+	$W_2 (b-a)/3 + F_3 (b-a/2)$
	$M_r =$		9.59
	$M_r =$	5.52 + 2.070 + 2.000 =	9.59
Factor of safety	$\frac{M_r}{M_o} = \frac{9.59}{3.758}$	=	2.552 > 1.5 Hence
Structure is safe against over turning			
2 Safety against Rupture from tension			
Net Vertical Pressure $V =$	$W_1 + W_2 + F_3 - U$		
	2.76 + 2.07 + 1 - 1.65 =		4.18
Position of resultant where it cut the base			
$X =$	$\frac{\text{Excess moment}(M_r - M_o)}{\text{Net vertical force}}$	=	$\frac{9.59 - 3.758}{4.18} = 1.4$
TRUE			
3 Safety against crusing			
Eccentricity $e =$	$b/2 - X$		-0.145
Crusting stress at the toe of the Head wall			
$P_c =$	$\frac{V}{b} (1 + 6e/b)$		
	$P_c =$		1.08928
$P_c \ll 20$ Hence it is safe			
4 Safety against sliding			
Net vertical Force $V =$	4.18 T		
Restoring force = $uV =$	0.78 X	4.18	($u=0.65$ to 0.75)
		3.26458 T	
Sliding force Net horizontal force =	$F_a + F_b$		
	1.2 + 0.72 =		1.92 T
Factor of safety =	$\frac{\text{Restoring force}}{\text{Sliding force}} = \frac{3.265}{1.92}$	=	1.7 > 1.3 Hence
Hence it is safe			

37
 10/11/2023
 आर्य इंजीनियरिंग
 प्रकल्प विकास सेवा
 दला बुन्दी (राजस्थान)

IWMP WATERSHED PROJECT KHOLAHERA
 Village - Kholahera
 Tehsil - Nainwa, District - Bundi, State: Rajasthan, India

PLAN AND SECTION OF ANICUT

Name of Village: Suwantiya
 Name of Site: Visha / Laxman Vairwa ke khet ke Pass

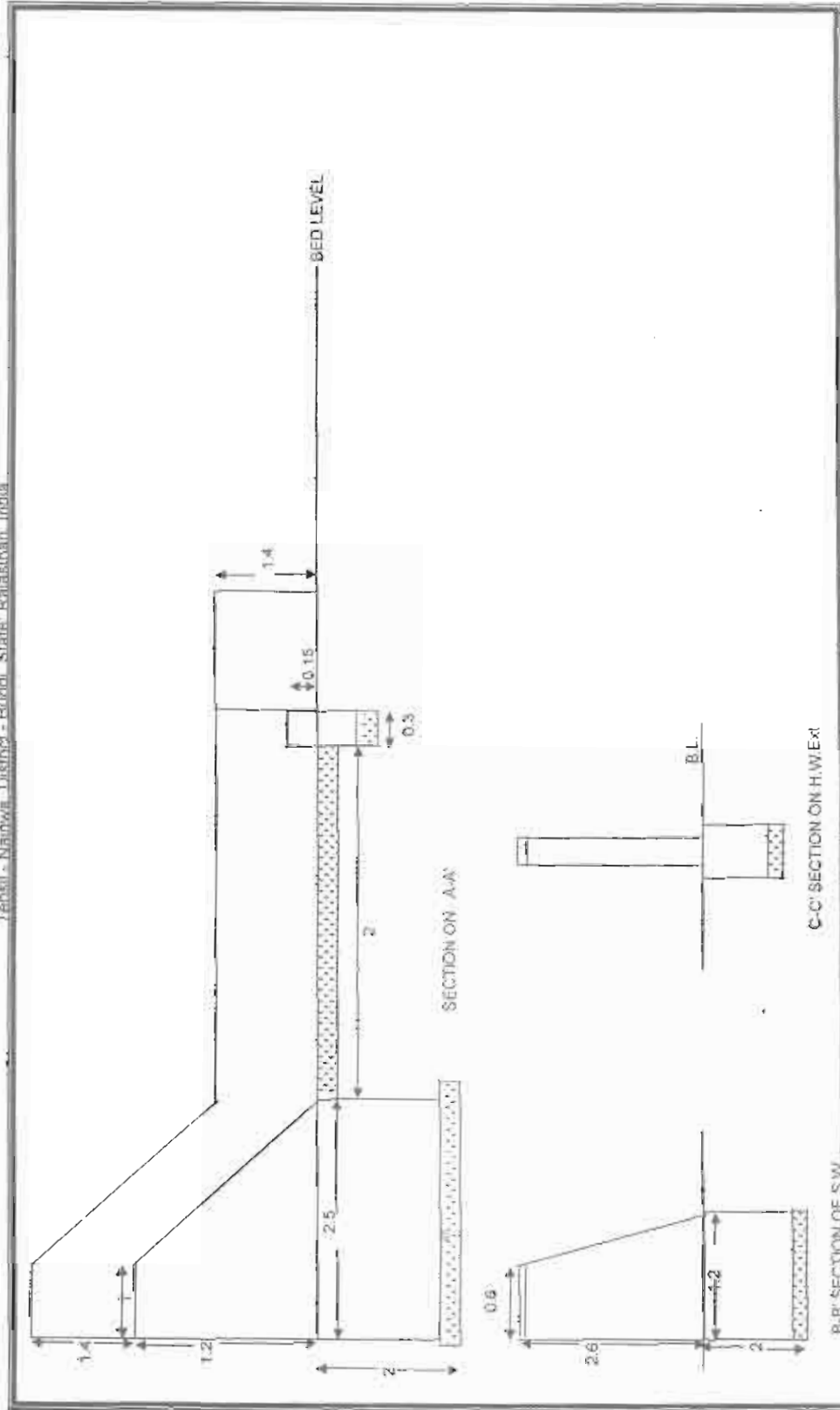


25
 20/11/2024
 प्रजापल विभाग नैनवा
 जिला बुन्दी (राजस्थान)

IWMP WATERSHED PROJECT KHOLAHERA

Village - Kholahera

Tehsil - Nainwa District - Bundi State - Rajasthan - India




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IWMP WATERSHED PROJECT KHOLAHERA
 Village - Kholahara
 Tehsil - Nairwa, District - Bondi, State: Rajasthan, India

DETAILED ESTIMATE OF ANICUT									
Name of Village		:- Suwaniya							
Name of Site		:- Viana / Laxman Vairva ke khet ke Pass							
General features of anicut:-									
Height of crest=		1.2 M.							
Length of Crest		10 M.							
Depth of foundation for H.W. =		2.0 M.	Length of wing wall=				1.5 M.		
Bottom width of H.W. =		2.8 M.	Height of Wing wall=				1.4 M.		
Top of H.W. =		1.0 M.	Bottom width of Wing wall=				0.9 M.		
Length of H.W Ext =		4.0 M.	Depth of foundation for Wing wall =				1.0 M.		
Height of H.W.Ext. at H.W. =		2.8 M.	Height of Toewall=				0.15 M.		
Top Width of H.W.Ext.=		0.6 M.	Top & Bottom width of Toe wall=				0.30 M.		
Bottom width for H.W.Ext.		1.1 M.	Depth of foundation for Toe wall =				0.9 M.		
Depth of foundation for H.W.Ext.=		1.5 M.	Thickness of Apron=				0.8 M.		
Length of side wall=		4.0 M.	Width of Apron =				2.0 M.		
Bottom Width of S.W.		1.20 M.							
Height of side wall at W.W.End=		1.4 M.							
Depth of foundation for side wall =		2.0 M.							
S.No.	Item	No	L	B	H	Quantity			
1	Dag belling 5cm. To 7.5cm deep(As per item no. page of G.K.N.2008 BSR of Bhitwara circle					Total			
2	Cutting and clearing of ordinary jungle including bushes shrubs and disposal as per instruction of engineer incharge		30	X	7.0	=	210	Sqm.	
3	Benching of the base and depositing the excavated material for bund for bund canal dressing etc. all components:	1	30	2	0.3	Total 18 Cum.			
4	Earth work excavation for bund in hard dry or moist soil including laying in layer of 15cm. Breaking of clods dressing to require profile with manual compaction including initial lift up to 1.5 m and lead up to 30M.	2	30	5	2	600 Cum.			
5	Earth work excavation for foundation in dry or moist soil including ramming of bottom scrapping of sides disposal of soil initial lift up to 1.5 m. and lead up to 30M					Total			
	Berm							0.00	Cum.
	Cutting								
	H.W.	1	X	10	X	2.7	X	2.0	= 54.00
	H.W.Ext	2	X	4.0	X	1.1	X	1.5	= 13.20
	S.W.	2	X	4.0	X	1.20	X	2.0	= 19.20
	W.W.	2	X	1.8	X	0.9	X	0.90	= 2.43
	Apron	1	X	10	X	2.0	X	0.75	= 15.00
	T.W.	1	X	10	X	0.30	X	0.9	= 2.70
								Total	106.53
1	Excavation in Hard soil						20%		21.31
2	Excavation in ordinary murrum						30%		31.96
3	Excavation in Single rock						50%		53.27

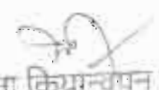
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6	Providing and laying of cement concrete well mixed in cement mortar 1:4:8 laying in position complete excluding curing with maximum size of aggregate up to 50 mm.										
	H.W.	1	X	10.0	X	2.7	X	0.3	=	8.10	Cum.
	H.W Ext	2	X	4	X	1.1	X	0.3	=	2.64	Cum.
	S.W.	2	X	4	X	1.20	X	0.3	=	2.88	Cum.
	W.W.	2	X	1.5	X	0.9	X	0.3	=	0.81	Cum.
	Apron	1	X	10.0	X	2.0	X	0.3	=	6.00	Cum.
	T.W.	1	X	10.0	X	0.30	X	0.3	=	0.90	Cum.
Total										21.33	
7	Random rubble stone masonry for foundation & plinth cement sand mortar(1:6) for above 30 cm. Thick wall										
	H.W.	1	X	10.0	X	2.5	X	1.7	=	42.60	Cum.
	H.W Ext	2	X	4.0	X	1.1	X	1.2	=	10.56	Cum.
	S.W.	2	X	4.0	X	1.20	X	1.7	=	16.32	Cum.
	W.W.	2	X	1.5	X	0.9	X	0.6	=	1.62	Cum.
	T.W.	1	X	10.0	X	0.15	X	0.6	=	0.90	Cum.
	Total										71.90
8	Random rubble stone masonry for Super structure for wall above 30 cm. Thick in cement sand mortar(1:6)										
	H.W.	1	X	10.0	X	1.75	X	1.2	=	21.00	Cum.
	H.W Ext	2	X	4.0	X	0.85	X	2.6	=	17.68	Cum.
	S.W.	2	X	4.0	X	0.9	X	2.00	=	14.40	Cum.
	W.W.	2	X	1.5	X	0.9	X	1.4	=	3.78	Cum.
	T.W.	1	X	10.0	X	0.30	X	0.15	=	0.45	Cum.
	Total										57.31
9	Stone Kharanja in cement mortar 1:6 for bed and floor including fraction etc. complete apron										
	Apron	1	X	10.0	X	2.0	X	0.45	=	9.00	Cum.
Total										9.00	Cum.
10	Providing and laying of cement concrete well mixed in cement mortar 1:2:4 laying in position complete excluding curing with maximum size of aggregate up to 20 mm etc. complete										
	H.W.	1	X	10.0	X	1.0	X	0.05	=	0.50	Cum.
	H.W Ext	2	X	4.0	X	0.6	X	0.05	=	0.24	Cum.
	S.W.	2	X	4.0	X	0.6	X	0.05	=	0.24	Cum.
	W.W.	2	X	1.5	X	0.9	X	0.05	=	0.14	Cum.
	T.W.	1	X	10.0	X	0.30	X	0.05	=	0.15	Cum.
	Total										1.27
11	Flush pointing in cement mortar (1:3)										
	H.W.	1	X	10.0	X	1.92			=	19.21	Sqft.
Total										19.21	Sqm.
12	25 mm thick plastering on new surface in cement mortar (1:4)										
	H.W.	1	X	10.0	X	4.9			=	49.00	
	H.W Ext	2	X	4.0	X	3.2			=	25.60	
	S.S.	2	X	4.0	X	3.2			=	25.60	
	W.W.	2	X	1.5	X	2.0			=	6.00	
	T.W.	2	X	10.0	X	0.2			=	3.00	
	Total										108.20
13	Dry stone pitching of Hammer dressed with packing of voids of small stone including all fits in requires profile (23 cm depth)										
		1		20		2				40.00	Sqm.


 दिवाण सा विभाजन
 कार्यो इन्फ्रस्ट्रक्चर
 विकास समिति - 2
 जिला बुन्देलखण्ड

IWMP WATERSHED PROJECT KHOLAHERA
Village - Kholahera
Tehsil - Nairwa, District - Bundi, State: Rajasthan, India

Abstract of Cost of Anicut							
Name of Village :-		Suwarnya					
Name of Site :-		Visna / Laxman Vairva ke khet ke Pass					
S.No	Item	Quantity	Unit	Rate		Amount	
				Labour	(LC+MC) Total	Labour cost	Total Cost
1	Dag belling 5cm. To 7.5cm deep(As per Item no. page of G.K.N.2008 BSR of Bhilwara circle	0.00	Cum.	1.00	1.00	0.00	0
2	Cutting and clearing of ordinary jungle including bushes shrubs and disposal as per instruction of engineer incharge	210	Sqm.	1.40	1.40	294.00	294
3	Benching of the base and depositing the excavated material for bund for bund canal dressing etc. all components	18	Cum.	85.00	85.00	1530.00	1530
4	Earth work excavation for bund in hard dry or moist soil including laying in layer of 15cm. Breaking of clods dressing to require profile	600	Cum.	85.00	85.00	51000.00	51000
5	Earth work excavation for foundation in dry or moist soil including ramming of bottom scrapping of sides dipodal of soil initial lift up to 1.5 m and lead up to 30M	106.53	Cum.				0
	Excavation in Hard soil	21.31	Cum.	91.00	91.00	1938.85	1938.85
	Excavation in ordinary murrum	31.96	Cum.	134.00	134.00	4282.51	4282.51
	Excavation in Simple rock	53.27	Cum.	177.00	177.00	9427.91	9427.905
6	Providing and laying of cement concrete well mixed in cement mortar 1:4:8 laying in position complete excluding curing with maximum size of aggregate up to 50 mm.	21.33	Cum.	252.55	1952.00	5388.89	41636.18
7	Random rubble stone masonry for foundation & plinth cement sand mortar(1:6) for above 30 cm. Thick wall	71.90	Cum.	357	1590.00	25668.30	114321
8	Random rubble stone masonry for Super structure for wall above 30 cm. Thick in cement sand mortar(1:6)	57.31	Cum.	357	1590.00	20459.67	91122.9
9	Stone Kharanja in cement mortar 1:6 for bed and floor including craction etc. complete apron	9.00	Cum.	357	1590.00	3213.00	14310
10	Providing and laying of cement concrete well mixed in cement mortar 1:2:4 laying in position complete excluding curing with maximum size of aggregate up to 20 mm. etc. complete	1.27	Cum.	315.8	2849.00	399.49	3603.985
11	Flush pointing in cement motar (1:3)	19.21	Sqm.	39.8	50.30	764.53	966.23145
12	25 m.m thick plastering on new surface in cement mortar (1:4)	109.20	Sqm.	67.9	150.00	7414.68	16380
13	Dry stone pitching of Hammer dressed witch packing of voids of small stone including all lifts in require profile (23 cm depth)	40.00	Sqm.	100.5	262.00	4020.00	10480
				Total		135799.819	361293.53
				Say Rs		135800	361294
				Contingency		3%	10839
				TOTAL		135800	372132
				Total Cost rounded of			373000
				Labour cost		136000	
				Material cost		237000	


 परियोजना कियान्तरण ए
 आई० डब्ल्यू० एम०पी०
 पंचायत समिति नैनवा
 जिला बन्दी (राज०)

IWMP WATERSHED PROJECT KHOLAHERA
 Village - Kholahera
 Tehsil - Nainwa, District - Bundi, State: Rajasthan, India

Material Statement	
Name of Village :-	Suwaniya
Name of Site :-	Vina / Laxman Vairya ke khet ke Pass

S.No.	ITEM	Quantity	Cement	Sand	Aggregate	Stone
		Cum / Sqm	Bags	Cum	Cum	Cum
1	Cement Concrete (1:4:8)	21.330	68.28	10.03	20.05	
2	Plaster in C.C. (1:4)	109.200	18.56	3.49		
3	Masonry in Cement mortar (1:6)	129.210	180.69	55.30		142.13
4	Pointing in Cement	19.209	0.79	0.08		
5	Stone Kharanja in cement mortar (1:6)	9.000	12.6	3.375		10.8
6	Cement concrete coping(1:2:4)	1.27	7.39	0.57	1.14	
7	Dry Stone Pitching	40.000				44.00
		TOTAL	288.49	72.85	21.19	198.93
		Say Bags	289			
		or	14.45	MT.		
		1 Cement	14.45	MT.		
		2 Sand	72.85	Cum.		
		3 Stones	198.93	Cum.		
		4 Aggregates	21.19	Cum.		


 श्री. वि. वि. वि.
 आर. डी. वि. वि. वि.
 पंचायत समिति केन्द्र
 वि. वि. वि. वि. वि.

IWMP WATERSHED PROJECT KHOLAHERA
 Village - Dheerpur
 Tehsil - Nainwa, District - Bundi, State: Rajasthan, India

Estimate of Anicut	
Name of Gram Panchayat :-	Suwaniya
Panchayat Samity :-	Nainwa
Name of Site :-	At Branch Ramswoop ke khet ke Pass Chainnage-480m
Name of samiti :-	Suwaniya
Type of Structure :-	R.R.Stone masonry structure
GPS position	
Latitude :-	
Longitude :-	
Macro/Micro No. :-	
Cost of Anicut :-	2.79 Lack

Basic Data of Project			
=			
1	Catch ment Area	=	350 Ha.
2	Maxmium Rain fall intencity	=	6 cm./hr.
3	General nature of catchment Area		
a.	Agricultural land	=	200
b.	Pasture Land	=	100 Ha.
4	Height of crest above G.L.	=	1 M.
5	Flood lift	=	0.8
6	Free board	=	0.4
7	Top width of Head wall	=	1
8	Bottom width of Head wall	=	2.20
9	Width of concrete Bed	=	2.20
10	Length of crest	=	8 M.
11	Percentage slope of land	=	1.5
12	No. of well benifited	=	0
13	Cost of Project	=	279000.00
a.	Labour component	=	112000.00
b.	Material component	=	167000.00
c.	Contingency	=	8099
Rates are as per BSR (GKN) 2011, Bundi			

26

IWMP WATERSHED PROJECT KHOLAHERA

Village - Dheerpur

Tehsil - Nainwa, District - Bundi, State: Rajasthan, India

Name of Village :-		Suwaniya	
Name of Site :-		At Branch Ramswoop ke khet ke Pass Chainnage--480m	
Design calculation of anicut			
A.			
i	Available crest length	8 M	
ii	Total catchment Area	350 Ha. (As per G.T.Sheet)	
iii	Peak Runoff Rate		
a	By Rational Method	Use when catchment is <1300Ha.	
	$Q_p = 0.0276 CIA$	$Q = \text{Run off in m}^3/\text{sec.}$	
	$C =$	Coefficient of runoff 0.3	
	$K = L^{0.22} I^{1/2}$	$I =$ Intensity of rain fall in cm/hr. 5	
	$K = 5258.14$	$A =$ Catchment Area in Ha. 350	
	$T_c = 0.0195K^{0.77}$	$L =$ Maxmium length of travel by runoff water in m. 480	
	$T_c = 14.29$	$H =$ Difference in elevation between most remote point and and outlet point in meter 4	
	$Q_p = 0.0276 \times 350$		
	$Q_p = 14.49$		
b	By weir formula		
	$Q = 1.71Lh^{3/2}$		
	$14.49 = 1.71 \times 8 h^{3/2}$		
	$h = 1.04$		
	Say $h = 0.8$		
3	Free Board	$hw =$ Wave height in meter	
	$F_v = 1.5h_w$	$D_f =$ Fetch length in meter 400 Meter.	
	$F_v = 1.5 \times 0.014(D_f)^{1/2}$		
	$F_v = 0.42$		
	Say $F_b = 0.4$		
B. STRUCTURAL DESGIN			
1	Head wall		
a	Height of Head wall $H =$	1	
b	Top width(T_w) =	h P= Sp.ht. Of masonry 2.3	
		$(P-1)^{1/2}$	
	$T_w = 0.70$		
	Top width= 1		
C.	Bottom width B_w	$T_w + 0.8H$	
	$B_w = 1.80$		
	So Bottom Width= 2.20	Meter	
2	Head wall extension		
a	Length= $H+h+1+F_b$		
	$1 + 0.8 + 1 + 0.4 = 2.80$ Meter		
	But as per site condition	$= 3$	
b	Height of Head Extensionwall =	$H+h+F_b$	
	$1 + 0.8 + 0.4 = 2.2$ Meter		
c	Top width	0.6 Meter	
d	Bottom Width= $0.5(H+h)$	$= 0.5(1 + 0.8) = 0.90$ Meter	

contd.

परियोजना कियान्दान एच.
आई० एच० एच० पी०
पंचायत नौवा नदी
जिला बुन्दी (राज०)

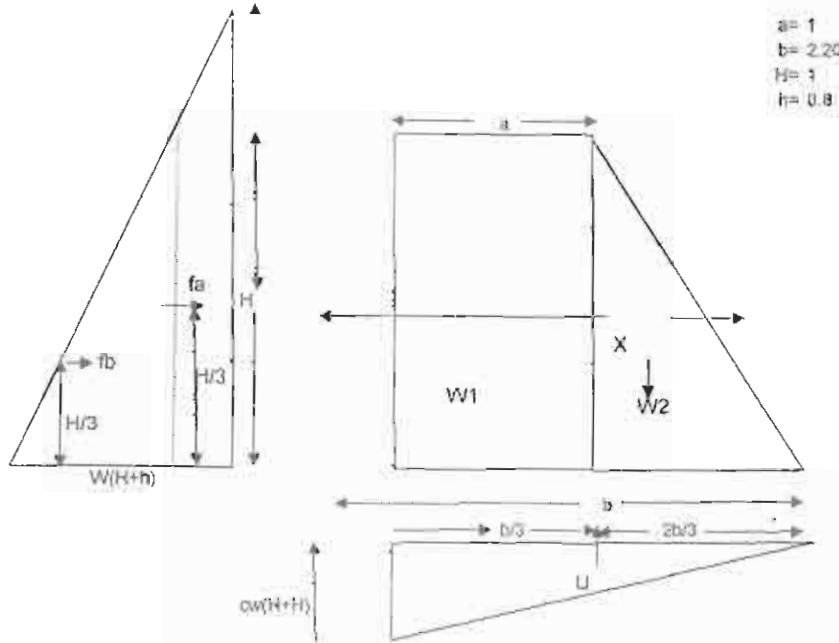
3	Side wall						
a	Length=	$1.75H+0.75h+0.45$	=			2.8	
		But as per site condition=				3.0 Meter	
b	Height:						
	At H.W.End=	$H+h+F_b$	1	+	0.8	+	0.4 = 2.2 Meter
	At W.W.End=	$h+f_b$	=	0.8	+	0.4 =	1.2 Meter
c	Top width=						0.6 Meter
d	Bottom width=						
	At H.W.End=	$0.6+0.4(H+h)$					1.3 Meter
	At W.W.End=	$0.6+0.4(1.5h)$					1.1 Meter
		But taken as=					1.2 Meter
4	Wing wall						
a	Height	$h+F_b$	0.8	+	0.4	=	1.2 Meter
b	Length=	$2.25h$	2.25	X	0.8	=	1.80 Meter Say 1.5
c	Top width						0.6 Meter
	Bottom width of wing wall						0.6 Meter
5	Apron						
a	Length=						8 Meter
b	Width=	$H+h+F_b$	1	+	0.8	+	0.4 = 2.2 Meter Say 2
c	Thickness						0.8 Meter
6	Toe wall						
a	Length=						8 Meter
b	Width=						0.3 Meter
c	Height=						0.2 Meter


 प्र. ॥ १३ ॥ ११/११/२०११
 भवन, टोलु, एच.पी.
 जलधर मण्डल केन्द्र
 ११३३ कुशी राज

TWNP WATERSHED PROJECT KHOLAHERA
 Village - Dheerpur
 Tehsil - Nainwa, District - Bundi, State: Rajasthan, India

Name of Village :- Suwaniya
 Name of Site :- At Branch Ramsroop ke khet ke Pass Chainage-480m

FREE BODY DIAGRAM




Specific Wt. Of masonry P	=	2.3 T/m ³
Specific Wt. of water w	=	1 T/m ³
Coefficient of uplift pressure c	=	0.6
Coefficient of friction at bed surface and creep length	=	0.75
Weight of Dam:-	=	
Weight of Dam:-	=	
$W_1 = aHP$		
$W_1 = \frac{a}{2} \times H \times P$		$\frac{2.3 \times 1 \times 1}{2} = 1.15 \text{ T}$
$W_2 = \frac{b-a}{2} \times H \times P$		$\frac{2.20-1}{2} \times 1 \times 2.3 = 1.38 \text{ T}$
$W = W_1 + W_2$		$1.15 + 1.38 = 2.53 \text{ T}$
Water pressure		
At Depth h= $P_1 = wh =$		$1 \times 0.8 = 0.8 \text{ T/m}^2$
At Depth H+h= $P_2 = w(H+h) =$		$1(1+0.8) = 1.8 \text{ T/m}^2$
Force acting due to water pressure i.e. Net horizontal		
Water force $P = \frac{P_1 + P_2}{2} \times H =$		$\frac{0.8 + 1.8}{2} \times 1 = 1.3 \text{ T/m}^2$
Horizontal water pressure at depth h = $F_a =$		$whh = 0.8 \times 0.8 = 0.64 \text{ T}$
At depth H+h = $F_b = \frac{P_2 - P_1}{2} \times H =$		$\frac{1.8 - 0.8}{2} \times 1 = 0.5 \text{ T}$
Force due to water column at crest $F_3 =$		$wha = 0.8 \times 1 = 0.8 \text{ T}$
Up lift pressure $U = \frac{1}{2} cw_b (H+h)$		$\frac{1}{2} \times 0.6 \times 2.20 \times (1+0.8) = 1.188 \text{ T}$

परियोजना सिविलियन एंजि
 आई० डब्ल्यू० एम० पी०
 पंचायत समिति नैनवा
 जिला बुन्दी (राज०)

IWMP WATERSHED PROJECT KHOLAHERA
 Village - Dheerpur
 Tehsil - Nainwa, District - Bundi, State: Rajasthan, India

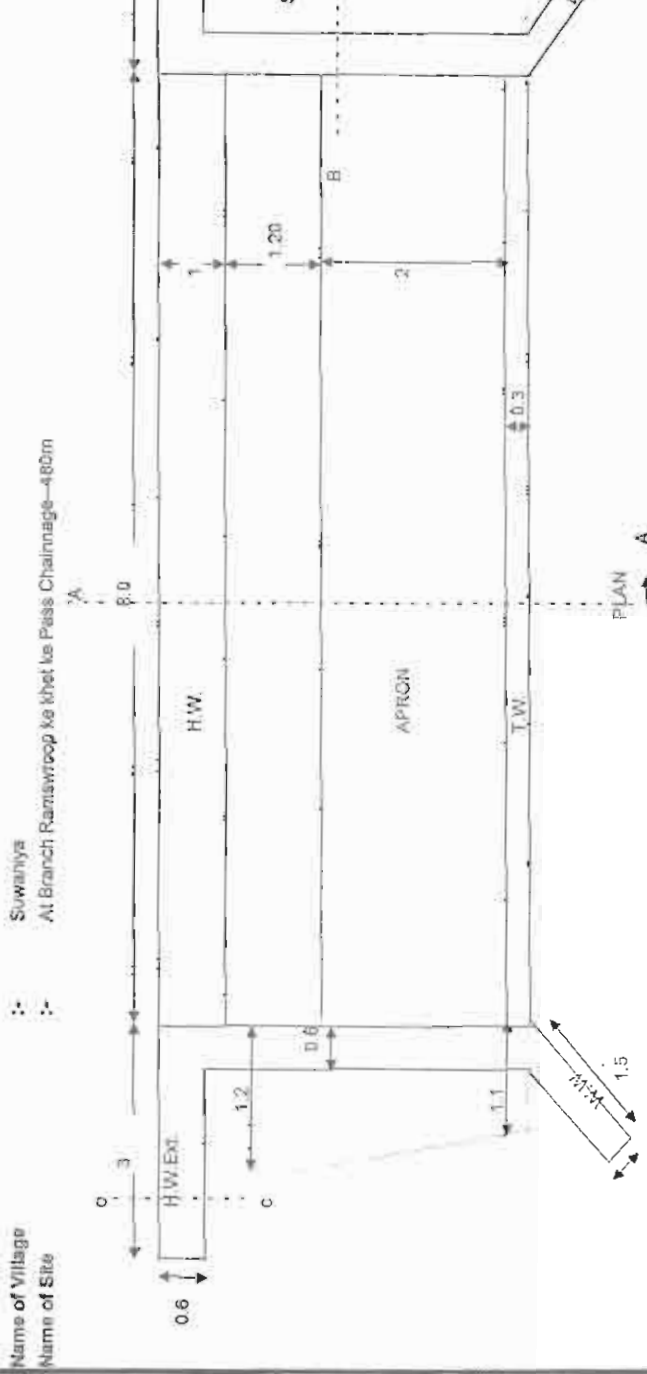
Name of Village	:-	Suwaniya
Name of Site	:-	At Branch Ramsroop ke khet ke Pass Chainage--480m

STABILITY CHECKS			
1 Safety against over turning			
Over turning moment $M_o =$	$F_a \frac{H}{2} + F_b \frac{H}{3} + u \frac{2}{3} b$		
	$0.80 \frac{1}{2} + 0.500 \frac{1}{3} + 1.19 \frac{2}{3} = 2.20$		
$M_o =$	2.3091		
Restoring Moment $M_r =$	$W_1 (b-a/2) + W_2 (b-a)/3 + F_3 (b-a/2)$		
$M_r =$	$3.91 + 1.104 + 1.360 = 6.37$		
Factor of safety	$\frac{M_r}{M_o} = \frac{6.374}{2.3091} = 2.76 > 1.5$	Hence	
Structure is safe against over turning			
2 Safety against Rupture from tension			
Net Vertical Pressure $V =$	$W_1 + W_2 + F_3 - U$		
	$2.3 + 1.38 + 0.8 - 1.188 = 3.292$		
Position of resultant where it cut the base			
$X =$	$\frac{\text{Excess moment}(M_r - M_o)}{\text{Net vertical force}} = \frac{6.374 - 2.309}{3.292} = 1.23$		
TRUE			
3 Safety against crusing			
Eccentricity $e =$	$b/2 - X$		
	-0.135		
Crusing stress at the toe of the Head wall			
$P_c =$	$\frac{V(1 + 6e/b)}{b}$		
$P_c =$	0.946281		
$P_c \ll 20$ Hence it is safe			
4 Safety against sliding			
Net vertical Force $V =$	3.292 T		
Restoring force $= uV =$	$0.78 \times 3.292 = 2.571052$ T		$(u=0.65 \text{ to } 0.75)$
Sliding force Net horizontal force $=$	$F_a + F_b$		
	$0.8 + 0.5 = 1.3$ T		
Factor of safety $=$	$\frac{\text{Restoring force}}{\text{Sliding force}} = \frac{2.571}{1.3} = 1.978 > 1.3$	Hence	
Hence it is safe			


 परियोजना निदेशक
 आर्द्र जल संसाधन विभाग
 राजस्थान सरकार, जयपुर
 302 015

IWMP WATERSHED PROJECT KHOLAHERA
 Village - Dhiserpur
 Tehsil - Nainwa, District - Bundi, State: Rajasthan, India

PLAN AND SECTION OF ANICUT



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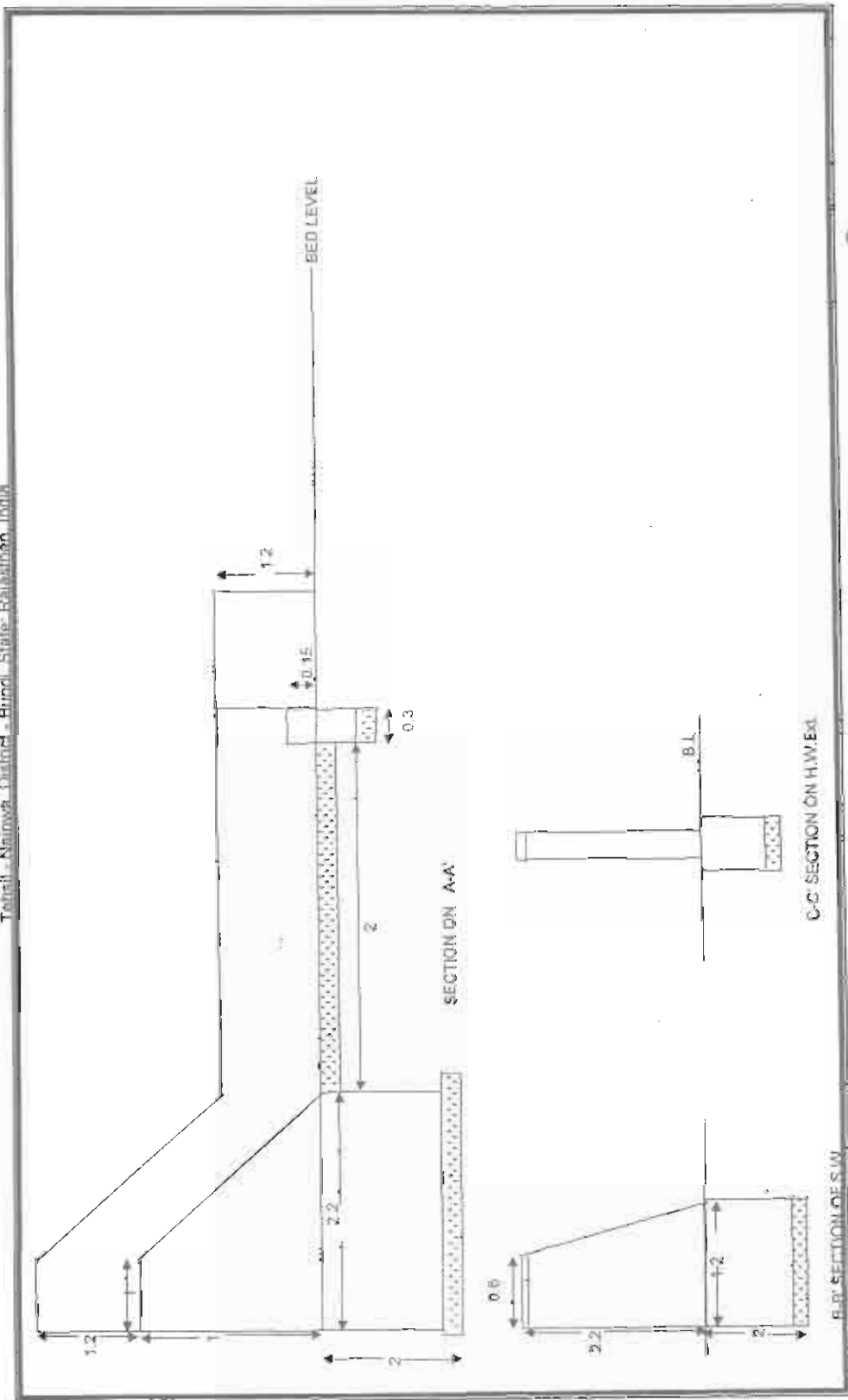
Name of Village
 Name of Site

Suwahiya
 At Branch Ramswaroop ka khet ka Pass Chainmage-480m

IWMP WATERSHED PROJECT KHOLAHERA

Village - Dheerpur

Tehsil - Nainwa District - Bundel State - Rajasthan, India



36
परिधीयना कियान्वयनरूप
आई० डब्ल्यू० एम०पी०
पंचायत समिति नैनवा
जिला बुन्दी (राज०)

IWMP WATERSHED PROJECT KHOLAHERA
 Village - Dheerpur
 Tehsil - Nainwa, District - Bandi, State: Rajasthan, India

DETAILED ESTIMATE OF ANICUT										
Name of Village :-		Suweniya								
Name of Site :-		At Branch Ramavroop ke khet ke Pass Chainage-480m								
General features of anicut:-										
Height of crest=		1 M.								
Length of Crest		8 M.								
Depth of foundation for H.W. =		2.0 M.	Length of wing wall=			1.5 M.				
Bottom width of H.W. =		2.2 M.	Height of Wing wall=			1.2 M.				
Top of H.W. =		1.0 M.	Bottom width of Wing wall=			0.9 M.				
Length of H.W.Ext =		3.0 M.	Depth of foundation for Wing wall =			1.0 M.				
Height of H.W.Ext. at H.W. =		2.2 M.	Height of Toewall=			0.15 M.				
Top Width of H.W.Ext. =		0.6 M.	Top & Bottom width of Toe wall=			0.30 M.				
Bottom width for H.W.Ext.		0.9 M.	Depth of foundation for Toe wall =			0.9 M.				
Depth of foundation for H.W.Ext. =		1.5 M.	Thickness of Apron=			0.8 M.				
Length of side wall=		3.0 M.	Width of Apron =			2.0 M.				
Bottom Width of S.W.		1.20 M.								
Height of side-wall at W.W.End=		1.2 M.								
Depth of foundation for side wall =		2.0 M.								
S.No.	Item	No	L	B	H	Quantity				
1	Dag boring 5cm. To 7.5cm deep/ As per item no. page of G.K.N.2088 BSR of Bhilwara circle									
										Total
2	Cutting and clearing of ordinary jungle including bushes shrubs and disposal as per instruction of engineer incharge		30	X	7.0					210 Sqm.
3	Benching of the base and depositing the excavated material for bund for bund canal dressing etc. all components	1	30	2	0.3					18 Cum.
										Total
4	Earth work excavation for bund in hard dry or moist soil including laying in layer of 15cm. Breaking of clods dressing to require profile with manual compaction including initial lift up to 1.5 m and lead up to 30M.	2	30	5	2					600 Cum.
5	Earth work excavation for foundation in dry or moist soil including ramming of bottom scrapping of sides disposal of soil initial lift up to 1.5 m and lead up to 30M									Total
	Berm									0.00 Cum.
	Cutting									
	H.W.	1	X	8	X	2.4	X	2.0	=	38.40 Cum.
	H.W.Ext	2	X	3.0	X	0.9	X	1.5	=	8.10 Cum.
	S.W.	2	X	3.0	X	1.20	X	2.0	=	14.40 Cum.
	W.W.	2	X	1.5	X	0.9	X	0.90	=	2.43 Cum.
	Apron	1	X	8	X	2.0	X	0.75	=	12.00 Cum.
	T.W.	1	X	8	X	0.30	X	0.9	=	2.16 Cum.
										Total
1	Excavation in Hard soil							20%		15.50
2	Excavation in ordinary murrum							30%		23.25
3	Excavation in Simple rock							50%		38.75

contd.


27
 आदेश- 20/01/2017
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 आदेश- 20/01/2017

6	Providing and laying of cement concrete well mixed in cement mortar 1:4:8 laying in position complete excluding curing with maximum size of aggregate up to 50 mm.											
		H.W.	1	X	8.0	X	2.4	X	0.3	=	5.78	Cum.
		H.W.Ext	2	X	3	X	0.9	X	0.3	=	1.62	Cum.
		S.W.	2	X	3	X	1.20	X	0.3	=	2.16	Cum.
		W.W.	2	X	1.5	X	0.9	X	0.3	=	0.81	Cum.
		Apron	1	X	8.0	X	2.0	X	0.3	=	4.90	Cum.
		T.W.	1	X	8.0	X	0.30	X	0.3	=	0.72	Cum.
									Total	15.87		
7	Random rubble stone masonry for foundation & plinth cement sand mortar(1:6) for above 30 cm. Thick wall											
		H.W.	1	X	8.0	X	2.2	X	1.7	=	29.92	Cum.
		H.W.Ext	2	X	3.0	X	0.9	X	1.2	=	6.48	Cum.
		S.W.	2	X	3.0	X	1.20	X	1.7	=	12.24	Cum.
		W.W.	2	X	1.5	X	0.9	X	0.6	=	1.62	Cum.
		T.W.	1	X	8.0	X	0.15	X	0.6	=	0.72	Cum.
											Total	50.98
8	Random rubble stone masonry for Super structure for wall above 30 cm. Thick in cement sand mortar(1:6)											
		H.W.	1	X	8.0	X	1.8	X	1	=	12.80	Cum.
		H.W.Ext	2	X	3.0	X	0.75	X	2.2	=	9.90	Cum.
		S.W.	2	X	3.0	X	0.9	X	1.70	=	9.18	Cum.
		W.W.	2	X	1.5	X	0.9	X	1.2	=	3.24	Cum.
		T.W.	1	X	8.0	X	0.30	X	0.16	=	0.36	Cum.
											Total	35.48
9	Stone Kharanja in cement mortar 1:6 for bed and floor including compaction etc. complete apron											
		Apron	1	X	8.0	X	2.0	X	0.45	=	7.20	Cum.
										Total	7.20	Cum.
10	Providing and laying of cement concrete well mixed in cement mortar 1:2:4 laying in position complete excluding curing with maximum size of aggregate up to 28 mm etc. complete											
		H.W.	1	X	8.0	X	1.0	X	0.05	=	0.40	Cum.
		H.W.Ext	2	X	3.0	X	0.6	X	0.05	=	0.18	Cum.
		S.W.	2	X	3.0	X	0.6	X	0.05	=	0.18	Cum.
		W.W.	2	X	1.5	X	0.9	X	0.05	=	0.14	Cum.
		T.W.	1	X	8.0	X	0.30	X	0.05	=	0.12	Cum.
											Total	1.02
11	Flush pointing in cement mortar (1:3)											
		H.W.	1	X	8.0	X	1.58			=	12.50	Sqm.
									Total	12.50	Sqm.	
12	25 m.m thick plastering on new surface in cement mortar (1:4)											
		H.W.	1	X	8.0	X	4.7			=	37.80	
		H.W.Ext.	2	X	3.0	X	2.8			=	16.80	
		S.S.	2	X	3.0	X	2.8			=	16.80	
		W.W.	2	X	1.5	X	1.8			=	5.40	
		T.W.	2	X	8.0	X	0.2			=	2.40	
									Total	79.00		
13	Dry stone pitching of Hammer dressed with packing of voids of small stone including all lifts in require profile (23 cm depth)											
			1		20		2				40.00	Sqm

27

IWMP WATERSHED PROJECT KHOLAHERA
Village - Dheerpur
Tehsil - Nainwa, District - Bundi, State: Rajasthan, India


Abstract of Cost of Anicut							
Name of Village :-		Suwaniya					
Name of Site :-		At Branch Ramswoop ka khot ka Pass Chalnnze-480m					
S.No	Item	Quantity	Unit	Rate		Amount	
				Labour	[LC+MC]Total	Labour cost	Total Cost
1	Dag belling 5cm. To 7.5cm deep(As per item no. page of G.K.N.2008 BSR of Bhilwara circle	0.00	Cum.	1.00	1.00	0.00	0
2	Cutting and clearing of ordinary jungle including bushes shrubs and disposal as per instruction of engineer incharge	210	Sqm.	1.40	1.40	294.00	294
3	Benching of the base and depositing the excavated material for bund for bund canal dressing etc. all components	18	Cum.	85.00	85.00	1530.00	1530
4	Earth work excavation for bund in hard dry or moist soil including laying in layer of 15cm. Breaking of clods dressing to require profile	600	Cum.	85.00	85.00	51000.00	51000
5	Earth work excavation for foundation in dry or moist soil including ramming of bottom scrapping of sides dipodal of soil initial lift up to 1.5 m and lead up to 30M	77.49	Cum.				0
	Excavation in Hard soil	15.50	Cum.	91.00	91.00	1410.32	1410.32
	Excavation in ordinary murrum	23.29	Cum.	134.00	134.00	3115.10	3115.10
	Excavation in Simple rock	38.75	Cum.	177.00	177.00	6857.87	6857.865
6	Providing and laying of cement concrete well mixed in cement mortar 1:4:8 laying in position complete excluding curing with maximum size of aggregate up to 50 mm	15.87	Cum.	252.55	1952.00	4007.97	30978.24
7	Random rubble stone masonry for foundation & plinth cement sand mortar(1:6) for above 30 cm. Thick wall	50.98	Cum.	357	1590.00	18199.86	81058.2
8	Random rubble stone masonry for Super structure for wall above 30 cm. Thick in cement sand mortar(1:6)	35.48	Cum.	357	1590.00	12666.36	58413.2
9	Stone Kharanja in cement mortar 1:6 for bed and floor including craction etc. complete apron	7.20	Cum.	357	1590.00	2570.40	11448
10	Providing and laying of cement concrete well mixed in cement mortar 1:2:4 laying in position complete excluding curing with maximum size of aggregate up to 20 mm. etc. complete	1.02	Cum.	315.8	2849.00	320.54	2891.735
11	Flush pointing in cement molar (1:3)	12.50	Sqm.	39.8	50.30	497.36	628.66889
12	25 m.m thick plastering on new surface in cement mortar (1:4)	79.00	Sqm.	67.9	150.00	5364.10	11850
13	Dry stone pitching of Hammer dressed witch packing of voids of small stone including all lifts in require profile (23 cm depth)	40.00	Sqm.	100.5	262.00	4020.00	10480
				Total		111853.863	269955.22
				Say Rs		111854	269955
				Contingency		3%	8099
				TOTAL		111854	278054
				Total Cost rounded of			278000
				Labour cost		112000	
				Material cost		167000	


 परियोजना निदेशक
 आई. डी. ए. ए. ए. ए.
 संरक्षण मंत्रालय
 जिला बुंदी (राज.)

(WMP WATERSHED PROJECT KHOLAHERA
Village - Dheerpur
Tehsil - Nainwa, District - Bundi, State: Rajasthan, India

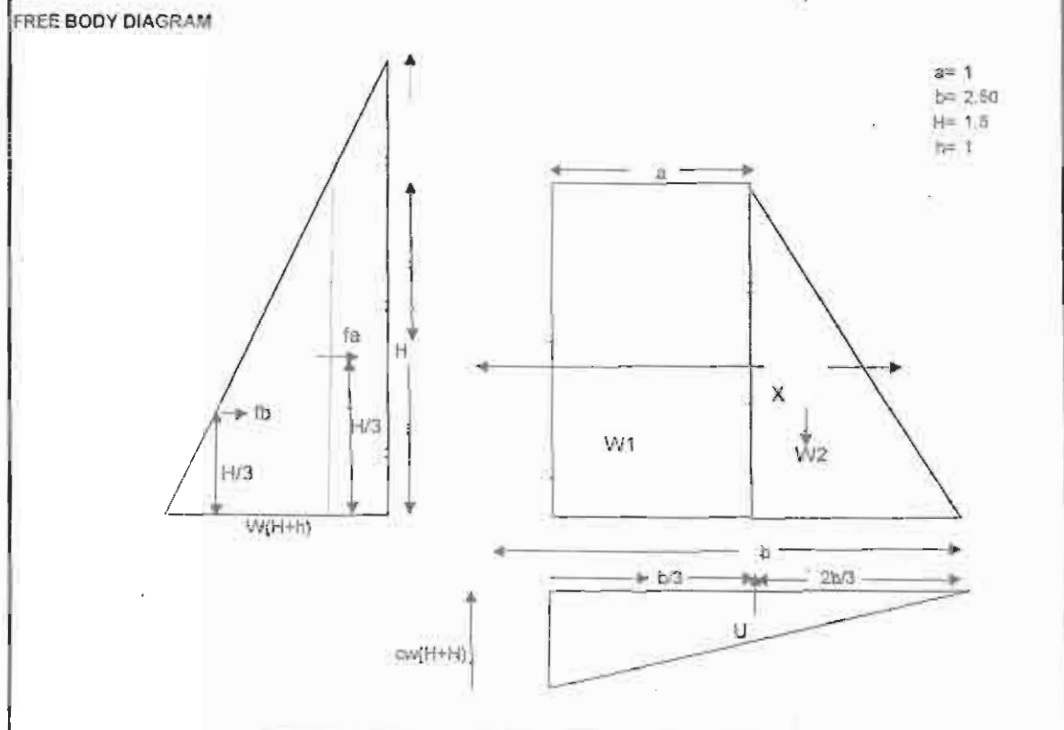
Material Statement	
Name of Village :-	Suwarniya
Name of Site :-	At Branch Ramswoop ke khet ke Pass Chainage-480m

S.No.	ITEM	Quantity	Cement	Sand	Aggregate	Stone
		Cum / Sqm	Bags	Cum	Cum	Cum
1	Cement Concrete (1:4:8)	15.870	50.78	7.48	14.92	-
2	Plaster in C.C. (1:4)	79.000	13.43	2.53	-	-
3	Masonry in Cement mortar (1:6)	86.460	121.04	37.00	-	95.11
4	Pointing in Cement	12.496	0.51	0.05	-	-
5	Stone Kharanja in cement mortar (1:6)	7.200	10.08	2.7	-	8.64
6	Cement concrete coping(1:2:4)	1.02	5.93	0.46	0.91	-
7	Dry Stone Pitching	40.000	-	-	-	44.00
		TOTAL	201.78	50.20	15.83	147.75
		Say Bags	202			
		or	10.10	MT.		
		1 Cement	10.1	MT.		
		2 Sand	50.20	Cum.		
		3 Stones	147.75	Cum.		
		4 Aggregates	15.83	Cum.		


 पारंपरीयोजना त्रिन्यान्वयन एज
 आई० डब्ल्यू० एम०पी०
 पंचायत समिति नैनवा
 जिला बुन्दी (राज०)

IWMP WATERSHED PROJECT KHOLAHERA
 Village - SunThali
 Tehsil - Nainwa, District - Bundl, State: Rajasthan, India

Name of Village :- Suvaniya
 Name of Site :- Near Balaji Temple



Specific Wt. Of masonry P	=	2.3 T/m ³
Specific Wt. of water w	=	1 T/m ³
Coefficient of uplift pressure c	=	0.6
coefficient of friction aibed surface and creep length	=	0.75
Weight of Dam-	=	
Weight of Dam-		
$W_1 = aHP$		
$W_1 = 1 \times 1.5 \times 2.3$		3.45 T
$W_2 = \frac{b-a}{2} HP$		2.5875 T
$W = W_1 + W_2$	3.45 + 2.5875	= 6.0375 T
Water pressure		
At Depth h = P ₁ = wh =	1 X 1	= 1 T/m ²
At Depth H+h = P ₂ = w(H+h) =	1 (1.50 + 1)	= 2.5 T/m ²
Force aching due to water pressure i.e. Net horizontal		
Water force	$P = \frac{P_1 + P_2}{2} H$	= 2.625 T/m ²
Horizontal water pressure at depth h = Fa =	$\frac{wh^2}{2}$	= 1.5 T
At depth H+h = Fb =	$\frac{P_2 - P_1}{2} H$	= 1.125 T
Force due to water column at crest F3 =	$\frac{wha^2}{2}$	= 1 T
Up lift pressure U =	$\frac{1}{2} cwb (H+h)$	= 1.875 T

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 20/11/18

IWMP WATERSHED PROJECT KHOLAHERA

Village - SunThali

Tehsil - Nainwa, District - Bundi, State: Rajasthan, India

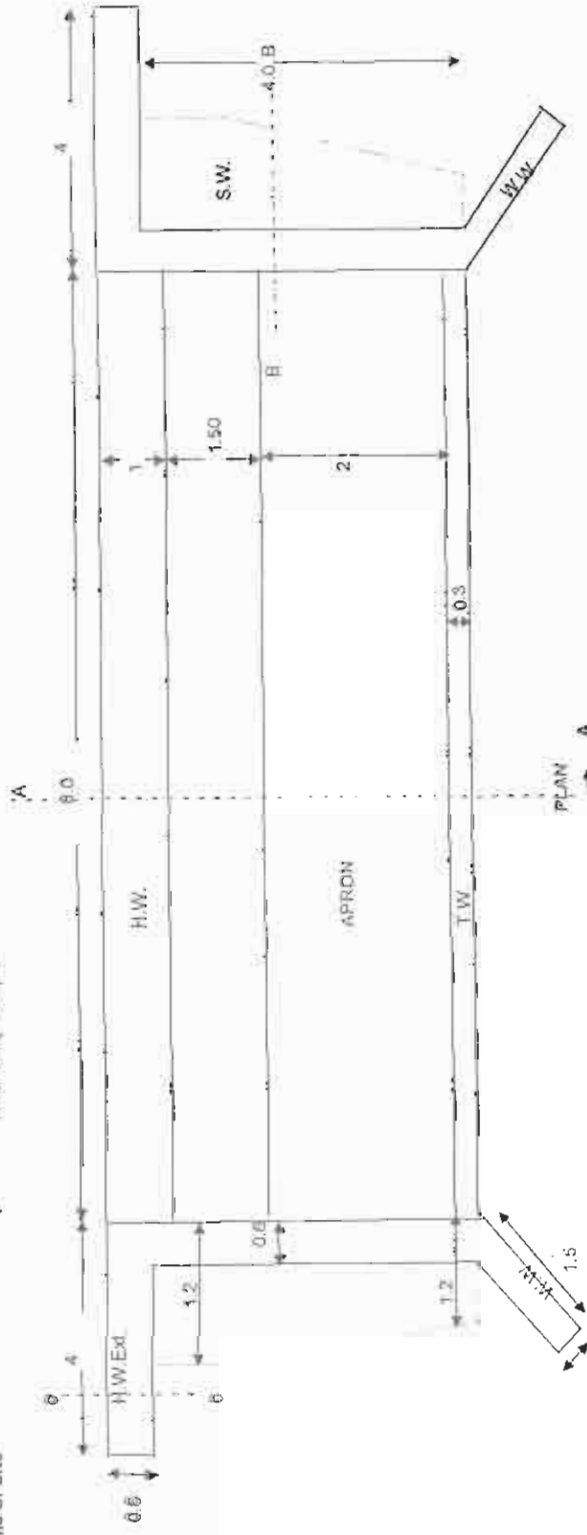
Name of Village	:-	Suwaniya
Name of Site	:-	Near Balaji Temple
STABILITY CHECKS		
1 Safety against over turning		
Over turning moment $M_o =$	$F_a \frac{H}{2} + F_b \frac{H}{3} + u \frac{2}{3} b$	
	$1.50 \frac{1.5}{2} + 1.125 \frac{1.5}{3} + 1.88 \frac{2}{3} \times 2.50$	
	$M_o = 4.8125$	
Restoring Moment $M_r =$	$W_1 (b-a/2) + W_2 (b-a)/3 + F_3 (b-a/2)$	
	$M_r = 8.9 + 2.588 + 2.000 = 11.5$	
Factor of safety	$\frac{M_r}{M_o} = \frac{11.488}{4.8125} = 2.387 > 1.5$	Hence
Structure is safe against over turning		
2 Safety against Rupture from tension		
Net Vertical Pressure $V =$	$W_1 + W_2 + F_3 - U$	
	$3.45 + 2.5875 + 1 - 1.875 = 5.1625$	
Position of resultant where it cut the base		
$X =$	$\frac{\text{Excess moment}(M_r - M_o)}{\text{Net vertical force}} = \frac{11.49 - 4.813}{5.163} = 1.29$	
TRUE		
3 Safety against crusing		
Eccentricity $e =$	$b/2 - X$	
	-0.043	
Crusing stress at the toe of the Head wall		
$P_c =$	$\frac{V (1 + 6e/b)}{b}$	
	$P_c = 1.852$	
$P_c < 20$ Hence it is safe		
4 Safety against sliding		
Net vertical Force $V =$	$5.1625 T$	
Restornn force $= uV =$	$0.78 \times 5.1625 = 4.0319125 T$	$(u=0.65 \text{ to } 0.75)$
Sliding force Net horizontal force $=$	$F_a + F_b$	
	$1.5 + 1.125 = 2.625 T$	
Factor of safety $=$	$\frac{\text{Restoring force}}{\text{Sliding force}} = \frac{4.032}{2.625} = 1.536 > 1.3$	Hence
Hence it is safe		

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WMP WATERSHED PROJECT KHOLAHERA
 Village - SunThali
 Tehsil - Nainwa, District - Bundi, State: Rajasthan, India

PLAN AND SECTION OF ANICUT

Name of Village :- Suwaniya
 Name of Site :- Near Balaji Temple

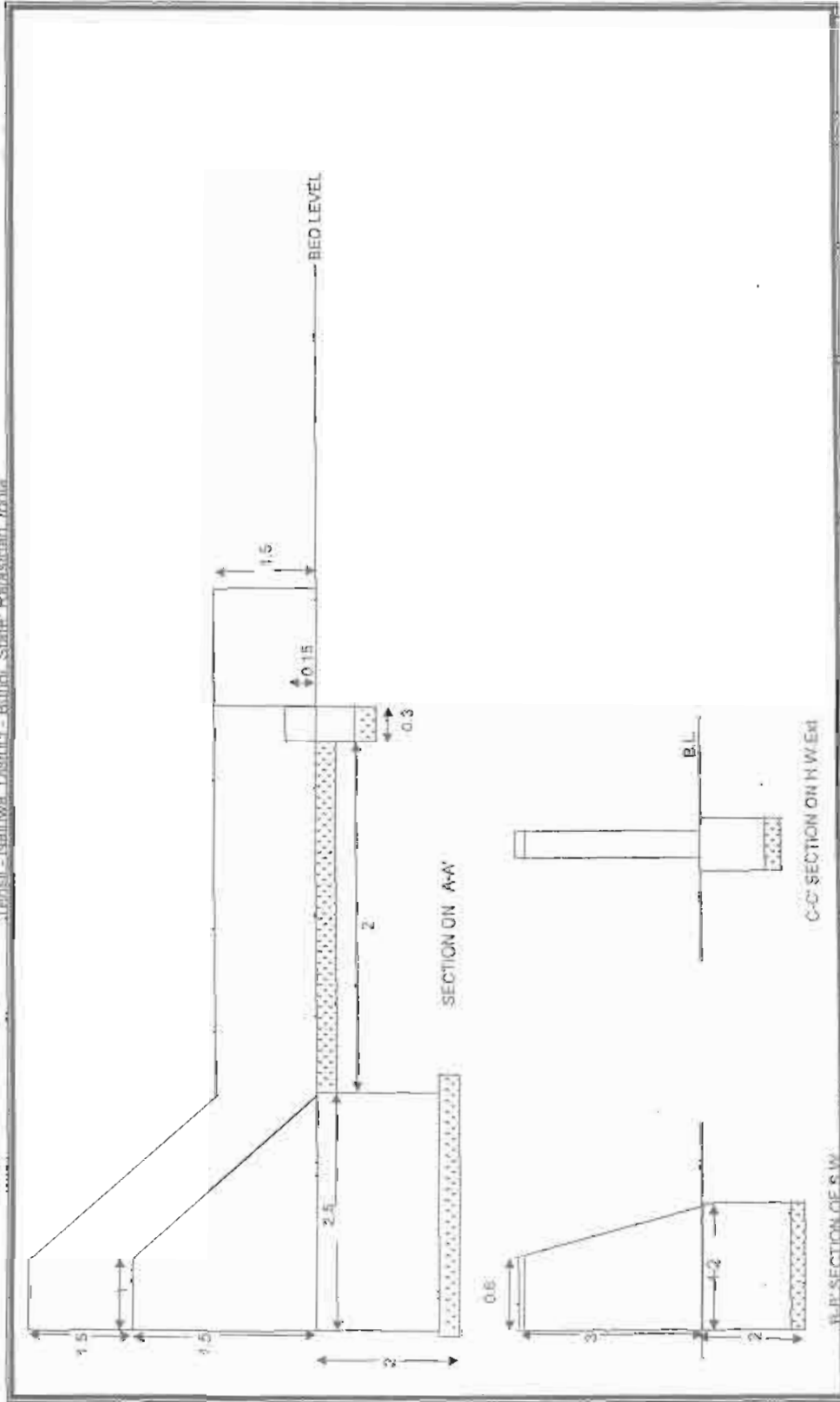


परियोजना विचारक एजेन्ट
 आर्. ए. ए. ए. ए.
 पञ्जाब सभास नैवो
 जिला बुन्दी (राज.)

IWMP WATERSHED PROJECT KHOLAHERA

Village - SunThali

Tehsil - Nainwa District - Bundelkhand State, Rajasthan, India



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IWMP WATERSHED PROJECT KHOLAHERA
 Village - SunThali
 Tehsil - Nainwa, District - Bundi, State - Rajasthan, India

DETAILED ESTIMATE OF ANICUT									
Name of Village :-		Suwaniya							
Name of Site :-		Near Balaji Temple							
General features of anicut:-									
Height of crest=	1.5 M.								
Length of Crest	8 M.								
Depth of foundation for H.W. =	2.0 M.	Length of wing wall=	1.5 M.						
Bottom width of H.W. =	2.5 M.	Height of Wing wall=	1.5 M.						
Top of H.W. =	1.0 M.	Bottom width of Wing wall=	0.9 M.						
Length of H.W.Ext. =	4.0 M.	Depth of foundation for Wing wall =	1.0 M.						
Height of H.W.Ext. at H.W. =	3.0 M.	Height of Toe wall=	0.15 M.						
Top Width of H.W.Ext. =	0.6 M.	Top & Bottom width of Toe wall=	0.30 M.						
Bottom width for H.W.Ext.	1.3 M.	Depth of foundation for Toe wall =	0.5 M.						
Depth of foundation for H.W.Ext. =	1.5 M.	Thickness of Apron=	0.6 M.						
Length of side wall=	4.0 M.	Width of Apron =	2.0 M.						
Bottom Width of S.W.	1.20 M.								
Height of side wall at W.W End=	1.5 M.								
Depth of foundation for side wall =	2.0 M.								
S.No.	Item	No	L	B	H	Quantity			
1	Dag bailing 5cm. To 7.5cm deep(As per item no. page of G.K.N.2008 BSR of Bhiwara circle					Total			
2	Cutting and clearing of ordinary jungle including bushes shrubs and disposal as per instruction of engineer incharge		30	X	7.0	=	210	Sq.m.	
3	Benching of the base and depositing the excavated material for bund for bund canal dressing etc. all components	1	30	2	0.3		18		
						Total		18	Cum.
4	Earth work excavation for bund in hard dry or moist soil including laying in layer of 15cm. Breaking of clods dressing to require profile with manual compaction including initial lift up to 1.5 m and lead up to 30M.		2	30	5	2		600	Cum.
5	Earth work excavation for foundation in dry or moist soil including ramming of bottom scrapping of sides disposal of soil initial lift up to 1.5 m and lead up to 30M						Total		
	Berm							0.00	Cum.
	Cutting								
	H.W.	1	X	8	X	2.7	X	2.0	= 43.20
	H.W.Ext	2	X	4.0	X	1.3	X	1.5	= 15.00
	S.W.	2	X	4.0	X	1.20	X	2.0	= 19.20
	W.W.	2	X	1.5	X	0.9	X	0.90	= 2.43
	Apron	1	X	8	X	2.0	X	0.75	= 12.00
	T.W.	1	X	8	X	0.30	X	0.9	= 2.16
								Total 93.99	
1	Excavation in Hard soil					20%		18.80	
2	Excavation in ordinary murram					30%		28.20	
3	Excavation in Simple rock					50%		47.00	


contd.

6	Providing and laying of cement concrete well mixed in cement mortar 1:4:8 laying in position complete excluding curing with maximum size of aggregate up to 50 mm	H.W.	1	X	8.0	X	2.7	X	0.3	=	8.48	Cum.
		H.W.Ext.	2	X	4	X	1.3	X	0.3	=	3.00	Cum.
		S.W.	2	X	4	X	1.20	X	0.3	=	2.88	Cum.
		W.W.	2	X	1.5	X	0.9	X	0.3	=	0.81	Cum.
		Apron	1	X	8.0	X	2.0	X	0.3	=	4.80	Cum.
		T.W.	1	X	8.0	X	0.30	X	0.3	=	0.72	Cum.
		Total										18.69
7	Random rubble stone masonry for foundation & plinth cement sand mortar(1:6) for above 30 cm. Thick wall	H.W.	1	X	8.0	X	2.5	X	1.7	=	34.00	Cum.
		H.W.Ext.	2	X	4.0	X	1.3	X	1.2	=	12.00	Cum.
		S.W.	2	X	4.0	X	1.20	X	1.7	=	16.32	Cum.
		W.W.	2	X	1.5	X	0.9	X	0.6	=	1.62	Cum.
		T.W.	1	X	8.0	X	0.15	X	0.6	=	0.72	Cum.
		Total										64.66
8	Random rubble stone masonry for Super structure for wall above 30 cm. Thick in cement sand mortar(1:6)	H.W.	1	X	8.0	X	1.75	X	1.5	=	21.00	Cum.
		H.W.Ext.	2	X	4.0	X	0.93	X	3.0	=	22.20	Cum.
		S.W.	2	X	4.0	X	0.9	X	2.25	=	18.20	Cum.
		W.W.	2	X	1.5	X	0.9	X	1.5	=	4.05	Cum.
		T.W.	1	X	8.0	X	0.30	X	0.15	=	0.38	Cum.
		Total										63.81
9	Stone Kharanja in cement mortar 1:6 for bed and floor including cpeaction etc. complete apron.	Apron	1	X	8.0	X	2.0	X	0.45	=	7.20	Cum.
		Total									7.20	Cum.
10	Providing and laying of cement concrete well mixed in cement mortar 1:2:4 laying in position complete excluding curing with maximum sizes of aggregate up to 20 mm etc. complete	H.W.	1	X	8.0	X	1.0	X	0.05	=	0.40	Cum.
		H.W.Ext.	2	X	4.0	X	0.6	X	0.05	=	0.24	Cum.
		S.W.	2	X	4.0	X	0.6	X	0.05	=	0.24	Cum.
		W.W.	2	X	1.5	X	0.9	X	0.05	=	0.14	Cum.
		T.W.	1	X	8.0	X	0.30	X	0.05	=	0.12	Cum.
		Total										1.14
11	Flush pointing in cement mortar (1:3)	H.W.	1	X	8.0	X	2.12			=	16.97	Sqm.
		Total									16.97	Sqm.
12	25 m.m thick plastering on new surface in cement mortar (1:4)	H.W.	1	X	8.0	X	5.2			=	41.60	
		H.W.Ext.	2	X	4.0	X	3.6			=	28.80	
		S.S	2	X	4.0	X	3.6			=	28.80	
		W.W.	2	X	1.5	X	2.1			=	6.30	
		T.W.	2	X	8.0	X	0.2			=	2.40	
		Total										107.90
13	Dry stone pitching of Hammer dressed with packing of voids of small stone including all fits in require profile (23 cm depth)		1		20		2				40.00	Sqm

परिचालना क्रियालय एजे
आई० डब्ल्यू० एम० पी०
पंचायत समिति नैनस
जिला बुन्दी (राज०)

IWMP WATERSHED PROJECT KHOLAHERA
 Village - SunThali
 Tehsil - Nainwa, District - Bundi, State: Rajasthan, India


Abstract of Cost of Anicut						
Name of Village :-		Suwaniya				
Name of Site :-		Near Balaji Temple				
S.No.	Item	Quantity	Unit	Rate		Amount
				Labour	(LC+MC)Total	
						Labour cost Total Cost
1	Dag belling 5cm. To 7.5cm deep(As per item no. page of G.K.N.2008 BSR of Bhilwara circle	0.00	Cum.	1.00	1.00	0.00 0
2	Cutting and clearing of ordinary jungle including bushes shrubs and disposal as per instruction of engineer incharge	210	Sqm.	1.40	1.40	294.00 294
3	Benching of the base and depositing the excavated material for bund for bund canal dressing etc. all components	18	Cum.	85.00	85.00	1530.00 1530
4	Earth work excavation for bund in hard dry or moist soil including laying in layer of 15cm. Breaking of clods dressing to require profile	600	Cum.	85.00	85.00	51000.00 51000
5	Earth work excavation for foundation in dry or moist soil including ramming of bottom scrapping of sides dipodal of soil intial. lift up to 1.5 m and lead up to 30M	93.99	Cum.			
	Excavation in Hard soil	18.80	Cum.	91.00	91.00	1710.62 1710.62
	Excavation in ordinary murrum	28.20	Cum.	134.00	134.00	3778.40 3778.40
	Excavation in Simple rock	47.00	Cum.	177.00	177.00	8318.12 8318.12
6	Providing and laying of cement concrete well mixed in cement mortar 1:4:8 laying in position complete excluding curing with maximum size of aggregate up to 50 mm.	18.69	Cum.	252.55	1952.00	4720.16 36482.88
7	Random rubble stone masonry for foundation & plinth cement sand mortar(1:6) for above 30 cm. Thick wall	64.86	Cum.	357	1590.00	23083.62 102809.4
8	Random rubble stone masonry for Super structure for wall above 30 cm. Thick in cement sand mortar(1:6)	63.81	Cum.	357	1590.00	22780.17 101457.9
9	Stone Kharanja in cement mortar 1:6 for bed and floor including craction etc. complete apron	7.20	Cum.	357	1590.00	2570.40 11448
10	Providing and laying of cement concrete well mixed in cement mortar 1:2:4 laying in position complete excluding curing with maximum size of aggregate up to 20 mm. etc. complete	1.14	Cum.	315.8	2849.00	358.43 3233.615
11	Flush pointing in cement motar (1:3)	16.97	Sqm.	39.8	60.30	675.43 853.61931
12	25 m.m thick plastering on new surface in cement mortar (1:4)	107.90	Sqm.	67.9	150.00	7326.41 16185
13	Dry stone pitching of Hammer dressed witch packing of voids of small stone including all lifts in require profile (23 cm depth)	40.00	Sqm.	100.5	262.00	4020.00 10480
				Total		132166 349581.55
				Say Rs		132166 349582
				Contingency	3%	10487
				TOTAL		132166 360069
				Total Cost rounded of		361000
				Labour cost		133000
				Material cost		228000


 11/01/2011
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IWMP WATERSHED PROJECT KHOLAHERA
 Village - SunThal
 Tehsil - Nairwa, District - Bundi, State: Rajasthan, India

Material Statement	
Name of Village :-	Suwaniya
Name of Site :-	Near Balaji Temple

S.No.	ITEM	Quantity	Cement	Sand	Aggregate	Stone
		Cum / Sqm	Bags	Cum	Cum	Cum
1	Cement Concrete (1:4:8)	18.690	59.81	8.78	17.57	-
2	Plaster in C.C. (1:4)	107.900	18.34	3.45	-	-
3	Massonary in Cement mortar (1:6)	128.470	179.88	54.99	-	141.32
4	Pointing in Cement	16.971	0.70	0.07	-	-
5	Stone Kharanja in cement mortar (1:6)	7.200	10.08	2.7	-	8.84
6	Cement concrete coping(1:2:4)	1.14	6.83	0.51	1.02	-
7	Dry Stone Pitching	40.000	-	-	-	44.00
		TOTAL	275.42	70.50	18.59	193.96
		Say Bags	276			
		or	13.80	MT.		
		1 Cement	13.8	MT.		
		2 Sand	70.50	Cum.		
		3 Stones	193.96	Cum.		
		4 Aggregates	18.59	Cum.		


 परिचालक, क्लिनिंग एवं
 आई० डब्ल्यू० एम० पी०
 पंचायत समिति नैनदा
 जिला बून्दी (राज०)

IWMP WATERSHED PROJECT KHOLAHERA

Village - Seesola

Tehsil - Nainwa, District - Bundi, State: Rajasthan, India

Name of Village	:-	Seesola
Name of Site	:-	Near Devsthan

STABILITY CHECKS

1 Safety against over turning

$$\text{Over turning moment } M_o = F_a \frac{H}{2} + F_b \frac{H}{3} + u \frac{2}{3} b$$

$$= 0.80 \frac{1}{2} + 0.500 \frac{1}{3} + 1.19 \frac{2}{3} = 2.20$$

$$M_o = 2.3091$$

$$\text{Restoring Moment } M_r = W_1 (b-a/2) + W_2 (b-a)/3 + F_3 (b-a/2)$$

$$M_r = 3.91 + 1.104 + 1.360 = 6.37$$

$$\text{Factor of safety} = \frac{M_r}{M_o} = \frac{6.374}{2.3091} = 2.76 > 1.5 \text{ Hence}$$

Structure is safe against over turning

2 Safety against Rupture from tension

$$\text{Net Vertical Pressure } V = W_1 + W_2 + F_3 - U$$

$$= 2.3 + 1.38 + 0.8 - 1.188 = 3.292$$

Position of resultant where it cut the base

$$X = \frac{\text{Excess moment}(M_r - M_o)}{\text{Net vertical force}} = \frac{6.374 - 2.309}{3.292} = 1.23$$

TRUE

3 Safety against crusing

$$\text{Eccentricity } e = \frac{b}{2} - X$$

$$= -0.135$$

Crusting stress at the toe of the Head wall

$$P_c = \frac{V (1 + 6e/b)}{b}$$

$$P_c = 0.946281$$

$P_c \ll 20$ Hence it is safe

4 Safety against sliding

$$\text{Net vertical Force } V = 3.292 \text{ T}$$

$$\text{Restorin force} = uV = 0.78 \times 3.292 \quad (u=0.65 \text{ to } 0.75)$$

$$= 2.571052 \text{ T}$$

$$\text{Sliding force Net horizontal force} = F_a + F_b$$

$$= 0.8 + 0.5 = 1.3 \text{ T}$$

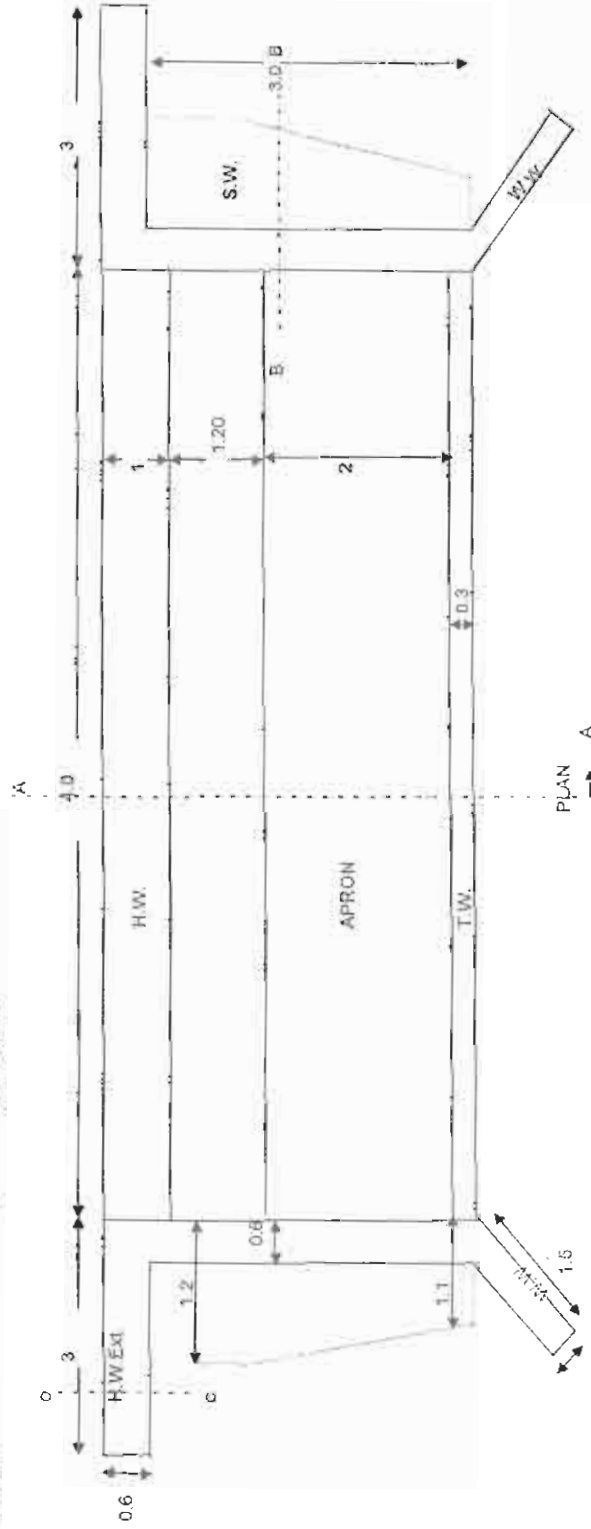
$$\text{Factor of safety} = \frac{\text{Restoring force}}{\text{Sliding force}} = \frac{2.571}{1.3} = 1.978 > 1.3 \text{ Hence}$$

Hence it is safe

IWMP WATERSHED PROJECT KHOLAHERA
 Village - Seesola
 Tehsil - Nainwa, District - Bundi, State: Rajasthan, India

Name of Village :- Seesola
 Name of Site :- Near Devsthan

PLAN AND SECTION OF ANICUT




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IWMP WATERSHED PROJECT KHOLAHERA
Village - Seesola
Tehsil - Nairwa, District - Bundi, State: Rajasthan, India

DETAILED ESTIMATE OF ANICUT									
Name of Village		:- Seesola							
Name of Site		:- Near Devsthan							
General features of anicut:-									
Height of crest=		1 M.							
Length of Crest		4 M.							
Depth of foundation for H.W. =		2.0 M.	Length of wing wall=				1.5 M.		
Bottom width of H.W. =		2.2 M.	Height of Wing wall=				1.2 M.		
Top of H.W. =		1.0 M.	Bottom width of Wing wall=				0.9 M.		
Length of H.W.Ext. =		3.0 M.	Depth of foundation for Wing wall =				1.0 M.		
Height of H.W.Ext. at H.W. =		2.2 M.	Height of Toewall=				0.15 M.		
Top Width of H.W.Ext. =		0.6 M.	Top & Bottom width of Toe wall=				0.30 M.		
Bottom width for H.W.Ext. =		0.9 M.	Depth of foundation for Toe wall =				0.9 M.		
Depth of foundation for H.W.Ext. =		1.5 M.	Thickness of Apron=				0.8 M.		
Length of side wall=		3.0 M.	Width of Apron =				2.0 M.		
Bottom Width of S.W.		1.20 M.							
Height of side wall at W.W.End=		1.2 M.							
Depth of foundation for side wall =		2.0 M.							
S.No.	Item	No	L	B	H	Quantity			
1	Dag belling 5cm. To 7.5cm deep(As per item no. page of G.K.N.2008 BSR of Bhilwara circle					Total			
2	Cutting and clearing of ordinary jungle including bushes shrubs and disposal as per instruction of engineer incharge		30	X	7.0		=	210	Sqm.
3	Benching of the base and depositing the excavated material for bund for bund canal dressing etc. all components	1	30	2	0.3			18	
							Total	18	Cum.
4	Earth work excavation for bund in hard dry or moist soil including laying in layer of 15cm. Breaking of clods dressing to require profile with manual compaction including initial lift up to 1.5 m and lead up to 30M.	2	30	5	2			600	Cum.
5	Earth work excavation for foundation in dry or moist soil including ramming of bottom scrapping of sides disposal of soil initial lift up to 1.5 m and lead up to 30M						Total		
	Berris Cutting							0.00	Cum.
	H.W	1	X	4	X	2.4	X	2.0	= 19.20
	H.W.Ext	2	X	3.0	X	0.9	X	1.5	= 8.10 Cum.
	S.W.	2	X	3.0	X	1.20	X	2.0	= 14.40 Cum.
	W.W.	2	X	1.5	X	0.9	X	0.90	= 2.43 Cum.
	Apron	1	X	4	X	2.0	X	0.75	= 6.00 Cum.
	T.W	1	X	4	X	0.30	X	0.9	= 1.08 Cum.
							Total	51.21	
1	Excavation in Hard soil						20%	10.24	
2	Excavation in ordinary murrum						30%	15.36	
3	Excavation in Simple rock						50%	25.61	

contd.


 परियोजना निदेशक पदे पर
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 11/11/2008

6	Providing and laying of cement concrete well mixed in cement mortar 1:4:8 laying in position complete, excluding curing with maximum size of aggregate up to 50 mm.	H.W.	1	X	4.0	X	2.4	X	0.3	=	2.88	Cum.	
		H.W.Ext	2	X	3	X	0.9	X	0.3	=	1.62	Cum.	
		S.W.	2	X	3	X	1.20	X	0.3	=	2.16	Cum.	
		W.W.	2	X	1.5	X	0.9	X	0.3	=	0.81	Cum.	
		Apron	1	X	4.0	X	2.0	X	0.3	=	2.40	Cum.	
		T.W.	1	X	4.0	X	0.30	X	0.3	=	0.36	Cum.	
											Total	10.23	
7	Random rubble stone masonry for foundation & plinth cement sand mortar(1:6) for above 30 cm. Thick wall	H.W.	1	X	4.0	X	2.2	X	1.7	=	14.96	Cum.	
		H.W.Ext	2	X	3.0	X	0.9	X	1.2	=	6.48	Cum.	
		S.W.	2	X	3.0	X	1.20	X	1.7	=	12.24	Cum.	
		W.W.	2	X	1.5	X	0.9	X	0.6	=	1.62	Cum.	
		T.W.	1	X	4.0	X	0.15	X	0.6	=	0.36	Cum.	
													Total
8	Random rubble stone masonry for Super structure for wall above 30 cm. Thick in cement sand mortar(1:6)	H.W.	1	X	4.0	X	1.6	X	1	=	6.40	Cum.	
		H.W.Ext	2	X	3.0	X	0.75	X	2.2	=	9.90	Cum.	
		S.W.	2	X	3.0	X	0.9	X	1.70	=	9.18	Cum.	
		W.W.	2	X	1.5	X	0.9	X	1.2	=	3.24	Cum.	
		T.W.	1	X	4.0	X	0.39	X	0.15	=	0.18	Cum.	
													Total
9	Stone Kharanja in cement mortar 1:6 for bed and floor including craction etc. complete apron	Apron	1	X	4.0	X	2.0	X	0.45		3.60	Cum.	
													Total
10	Providing and laying of cement concrete well mixed in cement mortar 1:2:4 laying in position complete excluding curing with maximum size of aggregate up to 20 mm, etc. complete	H.W.	1	X	4.0	X	1.0	X	0.05	=	0.20	Cum.	
		H.W.Ext	2	X	3.0	X	0.6	X	0.05	=	0.18	Cum.	
		S.W.	2	X	3.0	X	0.6	X	0.05	=	0.18	Cum.	
		W.W.	2	X	1.5	X	0.8	X	0.05	=	0.14	Cum.	
		T.W.	1	X	4.0	X	0.30	X	0.05	=	0.06	Cum.	
													Total
11	Flush pointing in cement mortar (1:3)	H.W.	1	X	4.0	X	1.56			=	6.25	Sqm.	
											Total	6.25	Sqm.
12	25 mm thick plastering on new surface in cement mortar (1:4)	H.W.	1	X	4.0	X	4.7			=	18.80		
		H.W.Ext	2	X	3.0	X	2.8			=	16.80		
		S.S.	2	X	3.0	X	2.8			=	16.80		
		W.W.	2	X	1.5	X	1.8			=	5.40		
		T.W.	2	X	4.0	X	0.2			=	1.20		
													Total
13	Dry stone pitching of Hammer dressed with packing of voids of small stone including all lifts in require profile (23 cm depth)				20		-2				40.00	Sqm	


 Date: _____


IWMP WATERSHED PROJECT KHOLAHERA
 Village - Seesola
 Tehsil - Nainwa, District - Bundi, State: Rajasthan, India

Abstract of Cost of Anicut							
Name of Village :-		Seesola					
Name of Site :-		Near Devsthan					
S.No	Item	Quantity	Unit	Rate		Amount	
				Labour	(LC+MC)Total	Labour cost	Total Cost
1	Dag belling 5cm. To 7.5cm deep(As per item no. page of G.K.N.2008 BSR of Bhilwara circle	0.00	Cum.	1.00	1.00	0.00	0
2	Cutting and clearing of ordinary jungle including bushes shrubs and disposal as per instruction of engineer incharge	210	Sqm.	1.40	1.40	294.00	294
3	Benching of the base and depositing the excavated material for bund for bund canal dressing etc. all components	18	Cum.	85.00	85.00	1530.00	1530
4	Earth work excavation for bund in hard dry or moist soil including laying in layer of 15cm. Breaking of clods dressing to require profile	600	Cum.	85.00	85.00	51000.00	51000
5	Earth work excavation for foundation in dry or moist soil including ramming of bottom scrapping of sides dipodal of soil initial lift up to 1.5 m and lead up to 30M	51.21	Cum.				0
	Excavation in Hard soil	10.24	Cum.	91.00	91.00	932.02	932.02
	Excavation in ordinary murrum	15.38	Cum.	134.00	134.00	2058.64	2058.64
	Excavation in Simple rock	25.61	Cum.	177.00	177.00	4532.09	4532.085
6	Providing and laying of cement concrete well mixed in cement mortar 1:4:8 laying in position complete excluding curing with maximum size of aggregate up to 50 mm.	10.23	Cum.	252.55	1952.00	2583.59	19968.96
7	Random rubble stone masonry for foundation & plinth cement sand mortar(1:6) for above 30 cm. Thick wall	35.88	Cum.	357	1590.00	12730.62	56699.4
8	Random rubble stone masonry for Super structure for wall above 30 cm. Thick in cement sand mortar(1:6)	28.90	Cum.	357	1590.00	10317.30	45951
9	Stone Kharanja in cement mortar 1:6 for bed and floor including cpaction etc. complete apron	3.80	Cum.	357	1590.00	1285.20	5724
10	Providing and laying of cement concrete well mixed in cement mortar 1:2:4 laying in position complete excluding curing with maximum size of aggregate up to 20 mm. etc. complete	0.76	Cum.	315.8	2849.00	238.43	2150.995
11	Flush pointing in cement motar (1:3)	6.25	Sqm.	39.8	50.30	248.68	314.28445
12	25 m.m thick plastering on new surface in cement mortar (1:4)	59.00	Sqm.	67.9	150.00	4006.10	8850
13	Dry stone pitching of Hammer dressed witch packing of voids of small stone including all lifts in require profile (23 cm depth)	40.00	Sqm.	100.5	262.00	4020.00	10480
				Total		95776.8628	210485.39
				Say Rs		95777	210485
				Contingency		3%	8315
				TOTAL		95777	210800
				Total Cost rounded of			217000
				Labour cost		96000	
				Material cost		121000	

IWMP WATERSHED PROJECT KHOLAHERA
 Village - Seesola
 Tehsil - Nainwa, District - Bundi, State: Rajasthan, India

Material Statement	
Name of Village :-	Seesola
Name of Site :-	Near Devsthan

S.No.	ITEM	Quantity	Cement	Sand	Aggrigate	Stone
		Cum / Sqm	Bags	Cum	Cum	Cum
1	Cement Concrete (1:4:8)	10.230	32.74	4.81	9.62	
2	Plaster in C.C. (1:4)	59.000	10.03	1.89		
3	Masonry in Cement mortar (1:6)	84.560	90.38	27.83		71.02
4	Pointing in Cement	6.248	0.26	0.03		
5	Stone Kharanja in cement mortar (1:6)	3.600	5.04	1.35		4.32
8	Cement concrete coping(1:2:4)	0.76	4.41	0.34	0.68	
7	Dry Stone Pitching	40.000				44.00
		TOTAL	142.86	36.04	10.30	119.34
		Say Bags	143			
		or	7.15	MT.		
		1 Cement	7.15	MT.		
		2 Sand	36.04	Cum.		
		3 Stones	119.34	Cum.		
		4 Aggregates	10.30	Cum.		


 परियोजना क्रियान्वयन ए०
 आई० डब्ल्यू० एम० पी०
 पंचायत समिति नैनवा
 जिला बुन्देलखण्ड (राज०)

IWMP WATERSHED PROJECT KHOLAHERA
 Village - Mahaveerpura
 Tehsil - Nainwa, District - Bundi, State: Rajasthan, India

Estimate of Anicut			
Name of Gram Panchayat :-		Seesola	
Panchayat Samity :-		Nainwa	
Name of Site :-		Near Devsthan	
Name of samiti :-		Seesola	
Type of Structure :-		R.R.Stone masonry structure	
GPS position			
Latitude :-			
Longitude :-			
Macro/Micro No. :-			
Cost of Anicut :-		2.17 Lack	
Basic Data of Project			
=			
1	Catch ment Area	=	350 Ha.
2	Maxmium Rain fall intency	=	5 cm./hr.
3	General nature of catchment Area		
a.	Agricultural land	=	200
b.	Pasture Land	=	150 Ha.
4	Height of crest above G.L.	=	1 M.
5	Flood lift	=	0.8
6	Free board	=	0.4
7	Top width of Head wall	=	1
8	Bottom width of Head wall	=	2.20
9	Width of concrete Bed	=	2.20
10	Length of crest	=	4 M.
11	Percentage slope of land	=	0.5
12	No. of well benifited	=	0
13	Cost of Project	=	217000.00
a.	Labour component	=	96000.00
b.	Material component	=	121000.00
c.	Contingency	=	6315
Rates are as per BSR (GKN) 2011, Bundi			



IWMP WATERSHED PROJECT KHOLAHERA
 Village - Mahaveerpura
 Tehsil - Nainwa, District - Bundi, State: Rajasthan, India

Name of Village :-		Seesola	
Name of Site :-		Near Devsthan	
Design calculation of anicut			
A.			
i	Available crest length	4 M	
ii	Total catchment Area	350 Ha.	As per G.T. Sheet
iii	Peak Runoff Rate		
a	By Rational Method		Use when catchment is <1300Ha.
	$Q_p = 0.0276 CIA$	Q=Run off in m ³ /sec.	
	$K = L^{3/2}/H^{1/2}$	C= Coefficient of runoff 0.3	
	$K = 113128.59$	I= Intensity of rain fall in cm/hr. 5	
	$T_c = 0.0195K^{0.77}$	A= Catchment Area in Ha. 350	
	$T_c = 151.80$	L=Maxmium length of travel by runoff water in m. 5500	
		H= Difference in elevation between most remote point and outlet point in meter 13	
	$Q_p = 14.49$	$Q_p = 0.0276 \times 350 \times 5 \times 350$	
b	By weir formula		
	$Q = 1.71Lh^{3/2}$		
	$14.49 = 1.71$	$4 h^{3/2}$	
	$h = 1.65$		
	Say $h = 0.8$		
3	Free Board		hw= Wave height in meter
	$F_b = 1.5h_w$	Df= Fetch length in meter 250 Meter.	
	$1.5 \times 0.014(D_f)^{1/2}$		
	$F_b = 0.33$		
	Say $F_b = 0.4$		
B. STRUCTURAL DESGIN			
1	Head wall		
a	Height of Head wall H=	1	
b	Top width(Tw) =	h	P= Sp.h.L. Of masonry 2.3
		$(P-1)^{1/2}$	
		$Tw = 0.70$	
	Top width=	1	
C.	Bottom width Bw	$Tw + 0.8H$	
		$Bw = 1.80$	
	So Bottom Width=	2.20 Meter	
2	Head wall extension		
a	Length= $H+h+1+F_b$		
	$1 + 0.8 + 1 + 0.4 = 2.80$	Meter	
	But as per site condition	$= 3$	
b	Height of Head Extension wall =	$H+h+F_b$	
	$1 + 0.8 + 0.4 = 2.2$	Meter	
c	Top width	0.6 Meter	
d	Bottom Width= $0.5(H+h)$	$= 0.5(1 + 0.8) = 0.90$ Meter	

contd..

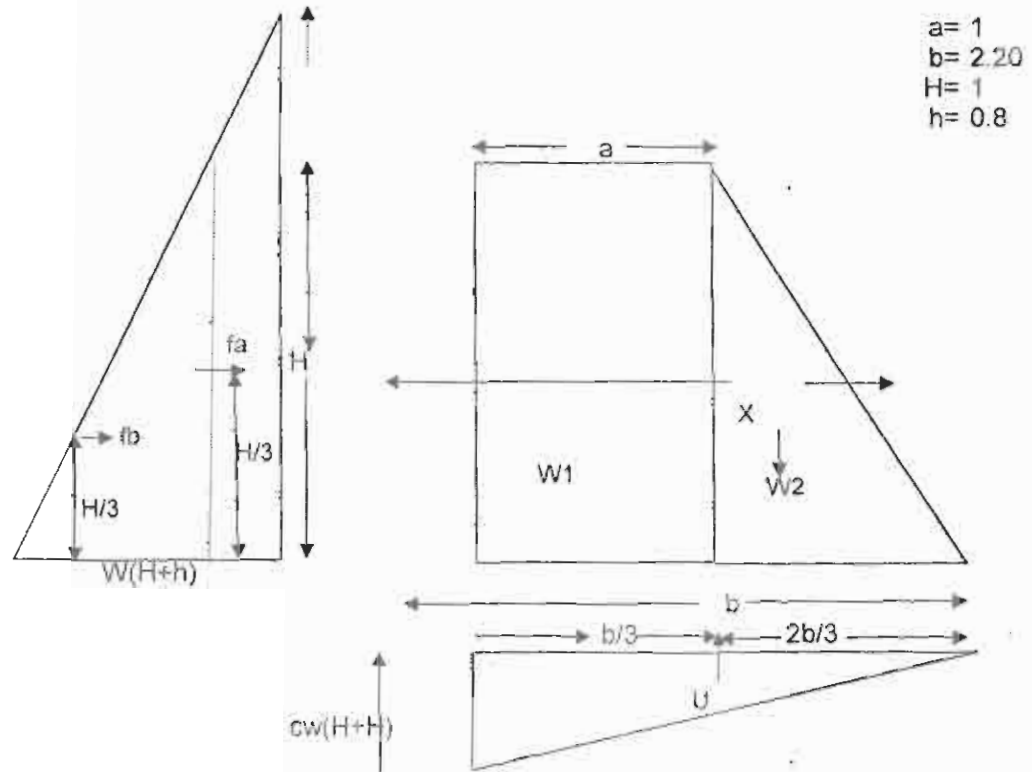
3	Side wall						
a	Length=	$1.75H+0.75h+0.45$	=			2.8	
		But as per site condition=				3.0 Meter	
b	Height:						
	At H.W.End=	$H+h+Fb$	=	$1 + 0.8 + 0.4$	=	2.2 Meter	
	At W.W.End=	$h+fb$	=	$0.8 + 0.4$	=	1.2 Meter	
c	Top width=					0.6 Meter	
d	Bottom width=						
	At H.W.End=	$0.6+0.4(H+h)$				1.3 Meter	
	At W.W.End=	$0.6+0.4(1.5h)$				1.1 Meter	
		But taken as=				1.2 Meter	
4	Wing wall						
a	Height	$h+Fb$	+ 0.8	+ 0.4	=	1.2 Meter	
b	Length=	$2.25h$	2.25	$\times 0.8$	=	1.80 Meter Say	1.5
c	Top width					0.6 Meter	
	Bottom width of wing wall					0.6 Meter	
5	Apron						
a	Length=					4 Meter	
b	Width=	$H+h+Fb$	+ 0.8	+ 0.4	=	2.2 Meter Say	2
c	Thickness					0.8 Meter	
6	Toe wall						
a	Length=					4 Meter	
b	Width=					0.3 Meter	
c	Height=					0.2 Meter	

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IWMP WATERSHED PROJECT KHOLAHERA
 Village - Mahaveerpura
 Tehsil - Nainwa, District - Bundi, State: Rajasthan, India

Name of Village :- Seesola
 Name of Site :- Near Devsthan

FREE BODY DIAGRAM



Specific Wt. Of masonry P	=	2.3 T/m ³
Specific Wt. of water w	=	1 T/m ³
Coefficient of uplift pressure c	=	0.6
coefficient of friction atbed surface and creep length	=	0.75
Weight of Dam:-	=	
Weight of Dam:-		
$W_1 = aHP$		
$w_1 = 1 \times 2.3 \times 1$		2.3 T
$W_2 = \frac{b-a}{2} HP =$		1.38 T
$W = W_1 + W_2 =$	2.3 + 1.38	= 3.68 T
Water pressure		
At Depth h = $P_1 = wh =$	1 X 0.8	= 0.8 T/m ²
At Depth H+h = $P_2 = w(H+h) =$	1(1.00 + 0.8)	= 1.8 T/m ²
Force aching due to water pressure i.e. Net horizontal		
Water force $P = \frac{P_1 + P_2}{2} H =$		= 1.3 T/m ²
Horizontal water pressure at depth h = $F_a = wHh =$		= 0.8 T
At depth H+h = $F_b = \frac{P_2 - P_1}{2} H =$		= 0.5 T
Force due to water column at crest $F_3 =$	$wha =$	= 0.8 T
Up lift pressure $U =$	$1/2 cwb (H+h)$	= 1.188 T


 परियोजना विभागाध्यक्ष एजेन्डी
 आई. डी. ए. ए.
 पं. 1 सी. ए. ए.
 ए. डी. ए. (रा.)

IWMP WATERSHED PROJECT KHOLAHERA
 Village - Mahaveerpura
 Tehsil - Nainwa, District - Bundi, State: Rajasthan, India

Name of Village	:-	Seesola
Name of Site	:-	Near Devsihan

STABILITY CHECKS

1 Safety against over turning

Over turning moment $M_o =$	$F_a \frac{H}{2} + F_b \frac{H}{3} + u \frac{2}{3} b$
	$0.80 \frac{1}{2} + 0.500 \frac{1}{3} + 1.19 \frac{2}{3} = 2.20$
$M_o =$	2.3091
Restoring Moment $M_r =$	$W_1 (b-a/2) + W_2 (b-a)/3 + F_3 (b-a/2)$
$M_r =$	$3.91 + 1.104 + 1.360 = 6.37$
Factor of safety	$\frac{M_r}{M_o} = \frac{6.374}{2.3091} = 2.76 > 1.5$ Hence
Structure is safe against over turning	

2 Safety against Rupture from tension


Net Vertical Pressure $V =$	$W_1 + W_2 + F_3 - U$
	$2.3 + 1.38 + 0.8 - 1.188 = 3.292$
Position of resultant where it cut the base	
$X = \frac{\text{Excess moment}(M_r - M_o)}{\text{Net vertical force}}$	$= \frac{6.374 - 2.309}{3.292} = 1.23$
TRUE	

3 Safety against crusing

Eccentricity $e =$	$b/2 - X$
	-0.135
Crusting stress at the toe of the Head wall	
$P_c = \frac{V(1 + 6e/b)}{b}$	
$P_c =$	0.946281
$P_c < 20$ Hence it is safe	

4 Safety against sllding

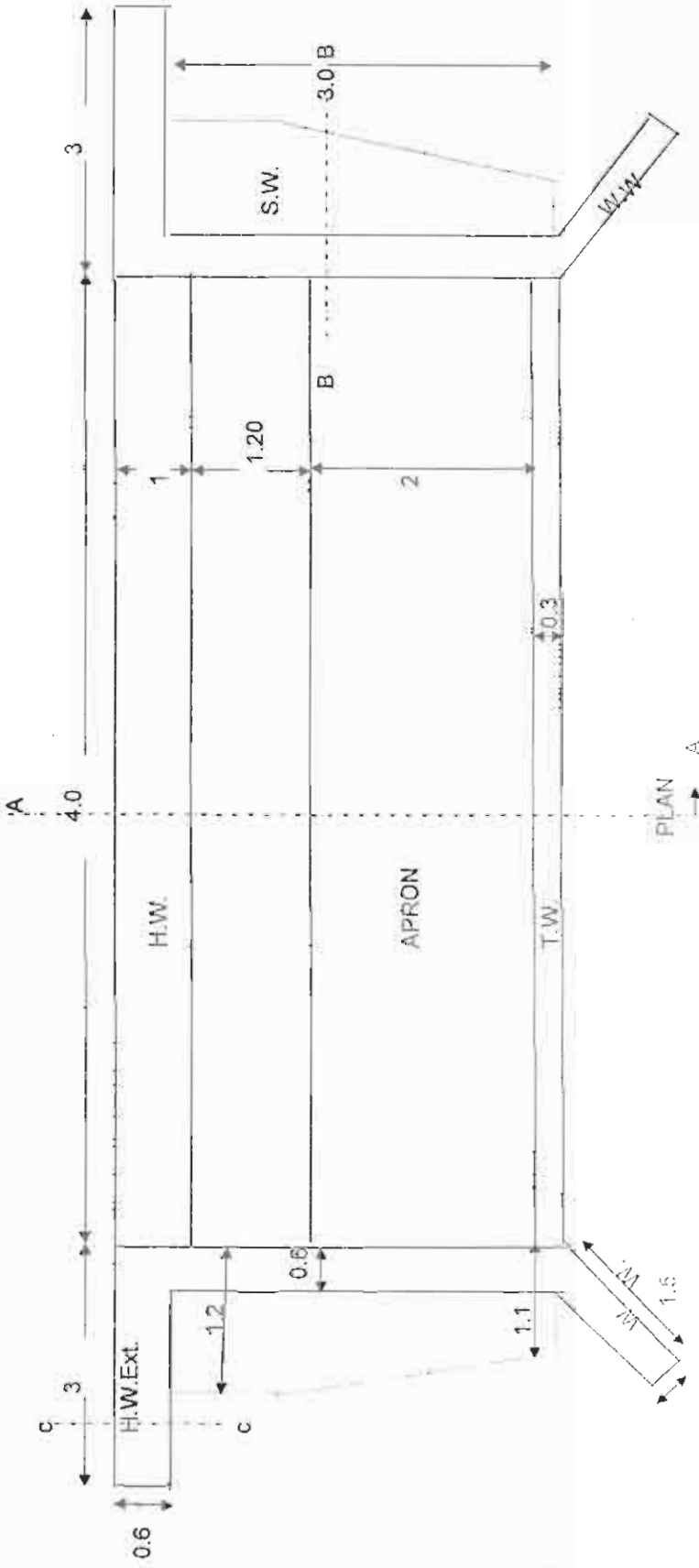
Net vertical Force $V =$	3.292 T
Restorin force $= uV =$	$0.78 \times 3.292 = 2.571052$ T
Sliding force Net horizontal force $=$	$F_a + F_b$
	$0.8 + 0.5 = 1.3$ T
Factor of safety $=$	$\frac{\text{Restoring force}}{\text{Sliding force}} = \frac{2.571}{1.3} = 1.978 > 1.3$ Hence
Hence it is safe	


 आण. इन्ज. रमेश
 निवासी अण्डोल नैचल
 जिला सी. (राज.)

IWMP WATERSHED PROJECT KHOLAHERA
 Village - Mahavseerpura
 Tehsil - Nainwa, District - Bundi, State: Rajasthan, India

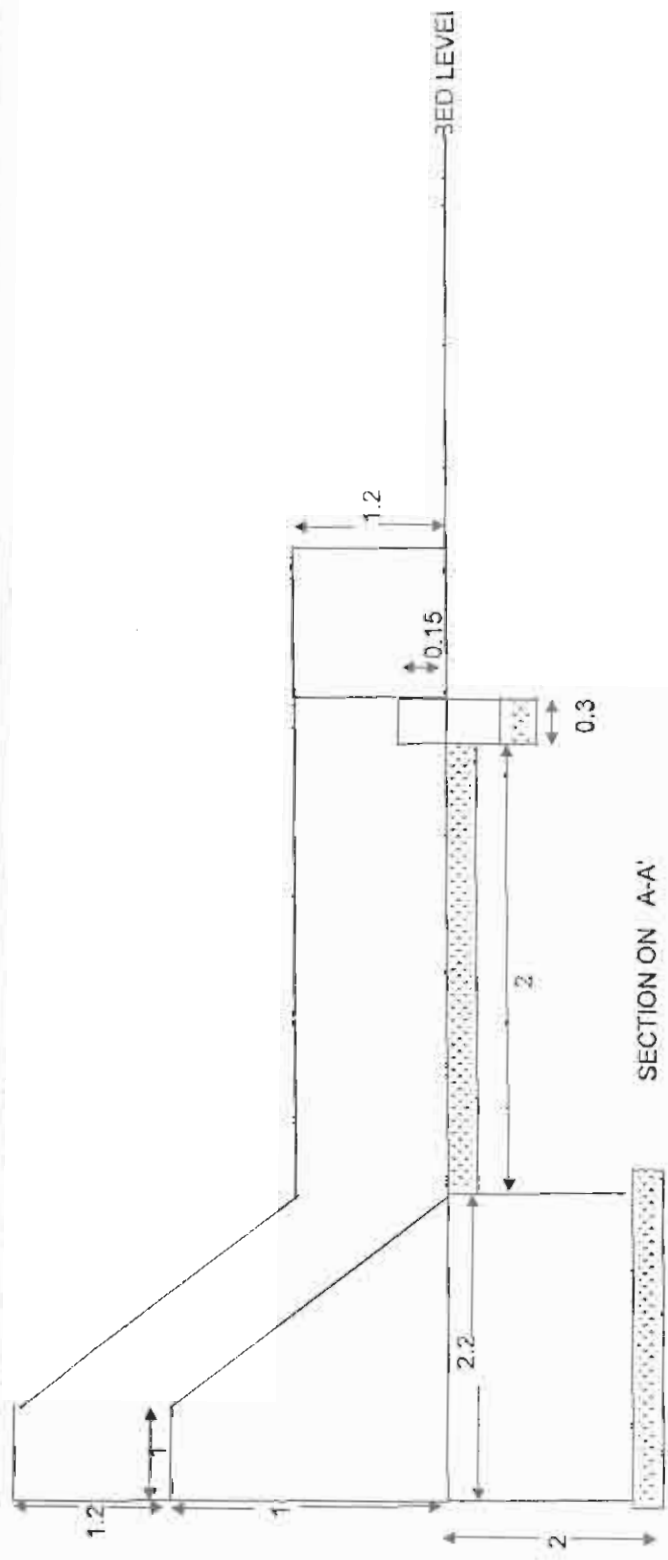
PLAN AND SECTION OF ANICUT

Name of Village :- Seesola
 Name of Site :- Near Devasthan

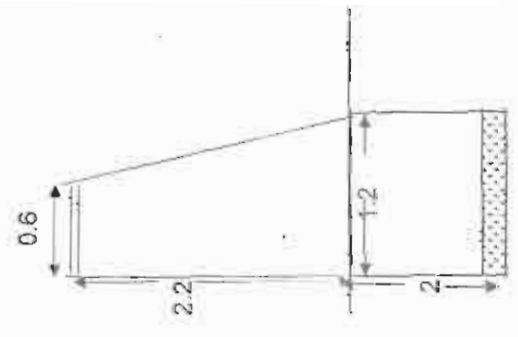


परियोजना कियानुसार एकेरी
 आई० डब्ल्यू० एम०पी०
 पंचायत समिति भैरवा
 जिला बुन्दी (राज०)

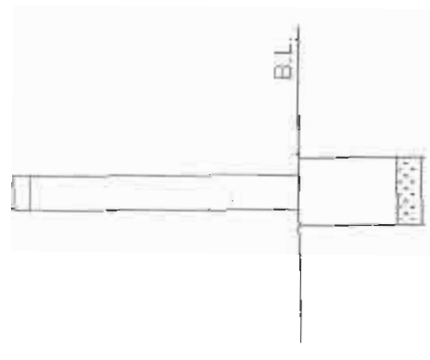
IWMP WATERSHED PROJECT KHOLAHERA
 Village - Mahaveerpura
 Tehsil - Nainwa District - Bundi, State: Rajasthan, India



SECTION ON A-A'



B.P. SECTION OF S.W.



C-C SECTION ON H.W. EX.

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 Date: 05/01/2011
 Scale: 1:100
 Project No: 10/2010
 Drawing No: 10/2010/1

IWMP WATERSHED PROJECT KHOLAHERA
 Village - Mahaveerpura
 Tehsil - Nainwa, District - Bundi, State: Rajasthan, India

DETAILED ESTIMATE OF ANICUT										
Name of Village :-		Seesola								
Name of Site :-		Near Devsthan								
General features of anicut:-										
Height of crest=	1 M.									
Length of Crest	4 M.									
Depth of foundation for H.W. =	2.0 M.	Length of wing wall=	1.5 M.							
Bottom width of H.W. =	2.2 M.	Height of Wing wall=	1.2 M.							
Top of H.W. =	1.0 M.	Bottom width of Wing wall=	0.9 M.							
Length of H.W.Ext =	3.0 M.	Depth of foundation for Wing wall =	1.0 M.							
Height of H.W.Ext. at H.W. =	2.2 M.	Height of Toewall=	0.15 M.							
Top Width of H.W.Ext =	0.6 M.	Top & Bottom width of Toe wall=	0.30 M.							
Bottom width for H.W.Ext.	0.9 M.	Depth of foundation for Toe wall =	0.9 M.							
Depth of foundation for H.W.Ext.=	1.5 M.	Thickness of Apron=	0.8 M.							
Length of side wall=	3.0 M.	Width of Apron =	2.0 M.							
Bottom Width of S.W.	1.20 M.									
Height of side wall at W.W.End=	1.2 M.									
Depth of foundation for side wall =	2.0 M.									
S.No	Item	No	L	B	H	Quantity				
1	Dag belling 5cm. To 7.5cm deep(As per item no. page of G.K.N.2008 BSR of Bhillwara circle					Total				
2	Cutting and clearing of ordinary jungle including bushes shrubs and disposal as per instruction of engineer incharge		30	X	7.0	=	210	Sqm		
3	Benching of the base and depositing the excavated material for bund for bund canal dressing etc. all components	1	30	2	0.3		18			
							Total		18	Cum.
4	Earth work excavation for bund in hard dry or moist soil including taying in layer of 15cm. Breaking of clods dressing to require profile with manual compaction including intial lift up to 1.5 m and lead up to 30M.	2	30	5	2		600	Cum		
5	Earth work excavation for foundation in dry or moist soil including ramming of bottom scrapping of sides dipodal of soil Intial lift up to 1.5 m and lead up to 30M									
							Total			
	Berm						0.06	Cum.		
	Cutting									
	H.W.	1	X	4	X	2.4	X	2.0	= 19.20	
	H.W.Ext	2	X	3.0	X	0.9	X	1.5	= 8.10	
	S.W.	2	X	3.0	X	1.20	X	2.0	= 14.40	
	W.W.	2	X	1.5	X	0.9	X	0.90	= 2.43	
	Apron	1	X	4	X	2.0	X	0.75	= 6.00	
	T.W.	1	X	4	X	0.30	X	0.9	= 1.08	
							Total		51.21	
1	Excavation in Hard soil					20%	10.24			
2	Excavation in ordinary murrum					30%	15.36			
3	Excavation in Simple rock					50%	25.61			

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no. page of G.K.N.2008 BSR of Bhiwara												
6	Providing and laying of cement concrete well mixed in cement mortar 1:4:8 laying in position complete excluding curing with maximum size of aggregate up to 50 mm.	H.W.	1	X	4.0	X	2.4	X	0.3	=	2.88	Cum.
		H.W.Ext	2	X	3	X	0.9	X	0.3	=	1.62	Cum.
		S.W.	2	X	3	X	1.20	X	0.3	=	2.16	Cum.
		W.W.	2	X	1.5	X	0.9	X	0.3	=	0.81	Cum.
		Apron	1	X	4.0	X	2.0	X	0.3	=	2.40	Cum.
		T.W.	1	X	4.0	X	0.30	X	0.3	=	0.36	Cum.
		Total										10.23
7	Random rubble stone masonry for foundation & pirth cement sand mortar(1:6) for above 30 cm. Thick wall	H.W.	1	X	4.0	X	2.2	X	1.7	=	14.96	Cum.
		H.W.Ext	2	X	3.0	X	0.9	X	1.2	=	6.48	Cum.
		S.W.	2	X	3.0	X	1.20	X	1.7	=	12.24	Cum.
		W.W.	2	X	1.5	X	0.9	X	0.6	=	1.62	Cum.
		T.W.	1	X	4.0	X	0.15	X	0.6	=	0.36	Cum.
		Total										35.66
8	Random rubble stone masonry for Super structure for wall above 30 cm. Thick in cement sand mortar(1:6)	H.W.	1	X	4.0	X	1.6	X	1	=	6.40	Cum.
		H.W.Ext	2	X	3.0	X	0.8	X	2.2	=	9.90	Cum.
		S.W.	2	X	3.0	X	0.9	X	1.70	=	9.18	Cum.
		W.W.	2	X	1.5	X	0.9	X	1.2	=	3.24	Cum.
		T.W.	1	X	4.0	X	0.30	X	0.15	=	0.18	Cum.
		Total										28.90
9	Stone Kharanja in cement mortar 1:6 for bed and floor including craction etc. complete apron	Apron	1	X	4.0	X	2.0	X	0.45		3.60	Cum.
		Total									3.60	Cum.
10	Providing and laying of cement concrete well mixed in cement mortar 1:2:4 laying in position complete excluding curing with maximum size of aggregate up to 20 mm, etc. complete	H.W.	1	X	4.0	X	1.0	X	0.05	=	0.20	Cum.
		H.W.Ext	2	X	3.0	X	0.6	X	0.05	=	0.18	Cum.
		S.W.	2	X	3.0	X	0.6	X	0.05	=	0.18	Cum.
		W.W.	2	X	1.5	X	0.9	X	0.05	=	0.14	Cum.
		T.W.	1	X	4.0	X	0.30	X	0.05	=	0.06	Cum.
		Total										0.76
11	Flush pointing in cement mortar (1:3)	H.W.	1	X	4.0	X	1.6		=	6.25	Sqm.	
Total										6.25	Sqm.	
12	25 m.m thick plastering on new surface in cement mortar (1:4)	H.W.	1	X	4.0	X	4.7		=	18.80		
		H.W.Ext	2	X	3.0	X	2.8		=	16.80		
		S.S	2	X	3.0	X	2.8		=	16.80		
		W.W.	2	X	1.5	X	1.8		=	5.40		
		T.W.	2	X	4.0	X	0.2		=	1.20		
		Total										59.00
13	Dry stone pitching of Hammer dressed with packing of voids of small stone including all lifts in require profile (23 cm depth)		1		20		2			40.00	Sqm.	

IWMP WATERSHED PROJECT KHOLAHERA
Village - Mahaveerpura
Tehsil - Nainwa, District - Bundi, State: Rajasthan, India

Abstract of Cost of Anicut							
Name of Village :-		Seesola					
Name of Site :-		Near Devsthan					
S.No	Item	Quantity	Unit	Rate		Amount	
				Labour	(LC+MC)Total	Labour cost	Total Cost
1	Dag belling 5cm. To 7.5cm deep(As per item no. page of G.K.N.2008 BSR of Bhilwara circle	0.00	Cum.	1.00	1.00	0.00	0
2	Cutting and clearing of ordinary jungle including bushes shrubs and disposal as per instruction of engineer incharge	210	Sqm.	1.40	1.40	294.00	294
3	Benching of the base and depositing the excavated material for bund for bund canal dressing etc. all components	18	Cum.	85.00	85.00	1530.00	1530
4	Earth work excavation for bund in hard dry or moist soil including laying in layer of 15cm. Breaking of clods dressing to require profile	600	Cum.	85.00	85.00	51000.00	51000
5	Earth work excavation for foundation in dry or moist soil including ramming of bottom scrapping of sides dipodal of soil intial lift up to 1.5 m and lead up to 30M	51.21	Cum.				0
	Excavation in Hard soil	10.24	Cum.	91.00	91.00	932.02	932.02
	Excavation in ordinary muram	15.36	Cum.	134.00	134.00	2058.64	2058.64
	Excavation in Simple rock	25.61	Cum.	177.00	177.00	4532.09	4532.085
6	Providing and laying of cement concrete well mixed in cement mortar 1:4:8 laying in position complete excluding curing with maximum size of aggregate up to 50 mm.	10.23	Cum.	252.55	1952.00	2583.59	19968.96
7	Random rubble stone masonry for foundation & plinth cement sand mortar(1:6) for above 30 cm. Thick wall	35.66	Cum.	357	1590.00	12730.62	56699.4
8	Random rubble stone masonry for Super structure for wall above 30 cm. Thick in cement sand mortar(1:6)	28.90	Cum.	357	1590.00	10317.30	45951
9	Stone Kharanja in cement mortar 1:6 for bed and floor including craction etc. complete apron	3.60	Cum.	357	1590.00	1285.20	5724
10	Providing and laying of cement concrete well mixed in cement mortar 1:2:4 laying in position complete excluding curing with maximum size of aggregate up to 20 mm etc. complete	0.76	Cum.	315.8	2849.00	238.43	2150.995
11	Flush pointing in cement motar (1:3)	6.25	Sqm.	39.8	50.30	248.68	314.28445
12	25 m.m thick plastering on new surface in cement mortar (1:4)	59.00	Sqm.	67.9	150.00	4006.10	8850
13	Dry stone pitching of Hammer dressed witch packing of voids of small stone including all lifts in require profile (23 cm depth)	40.00	Sqm.	100.5	262.00	4020.00	10480
Total						95776.8628	210485.39
Say Rs						95777	210485
Contingency						3%	6315
TOTAL						95777	216800
Total Cost rounded of							217000
Labour cost						96000	
Material cost						121000	


परियोजना क्रियात्मक रूप से
आई. ए. ए.
दस्तावेज संख्या
दिनांक बुदा (राज.)

IWMP WATERSHED PROJECT KHOLAHERA
 Village - Mahaveerpura
 Tehsil - Nainwa, District - Bundi, State: Rajasthan, India

Material Statement

Name of Village :- Seesola
 Name of Site :- Near Devsthan


S.No.	ITEM	Quantity	Cement	Sand	Aggrigate	Stone
		Cum / Sqm	Begs	Cum	Cum	Cum
1	Cement Concrete (1:4:8)	10.230	32.74	4.81	9.62	
2	Plaster in C.C. (1:4)	59.000	10.03	1.89		
3	Massonary in Cement mortar (1:6)	64.560	90.38	27.63		71.02
4	Pointing in Cement	6.248	0.26	0.03		
5	Stone Kharanja in cement mortar (1:6)	3.600	5.04	1.35		4.32
6	Cement concrete coping(1:2:4)	0.76	4.41	0.34	0.68	
7	Dry Stone Pitching	40.000				44.00
	TOTAL		142.86	36.04	10.30	119.34
	Say Bags		143			
	or		7.15	MT.		
	1 Cement		7.15	MT.		
	2 Sand		36.04	Cum.		
	3 Stones		119.34	Cum.		
	4 Aggregates		10.30	Cum.		


 आदेश इत्युक्त एम्पी
 संचायक मण्डल नैनवा
 दिनांक १५/०५/१९


WMP WATERSHED PROJECT KHOLAHERA
 Village - Bachhola
 Tehsil - Nainwa, District - Bundi, State: Rajasthan, India

Estimate of Anicut	
Name of Gram Panchayat :-	Bachhola
Panchayat Samity :-	Nainwa
Name of Site :-	
Name of samiti :-	Bachhola
Type of Structure :-	R.R.Stone masonry structure
GPS position	
Latitude :-	
Longitude :-	
Macro/Micro No. :-	
Cost of Anicut :-	4.30 Lack

Basic Data of Project			
1	Catch ment Area	=	750 Ha.
2	Maxmium Rain fall intency	=	5 cm./hr.
3	General nature of catchment Area		
a.	Agricultural land	=	300
b.	Pasture Land	=	450 Ha.
4	Height of crest above G.L.	=	1.5 M.
5	Flood lift	=	1
6	Free board	=	0.4
7	Top width of Head wall	=	1
8	Bottom width of Head wall	=	2.50
9	Width of concrete Bed	=	2.50
10	Length of crest	=	12 M.
11	Percentage slope of land	=	0.5
12	No. of well benifited	=	0
13	Cost of Project	=	430000.00
a.	Labour component	=	151000.00
b.	Material component	=	279000.00
c.	Contingency	=	12517
Rates are as per BSR (GKN) 2011, Bundi			



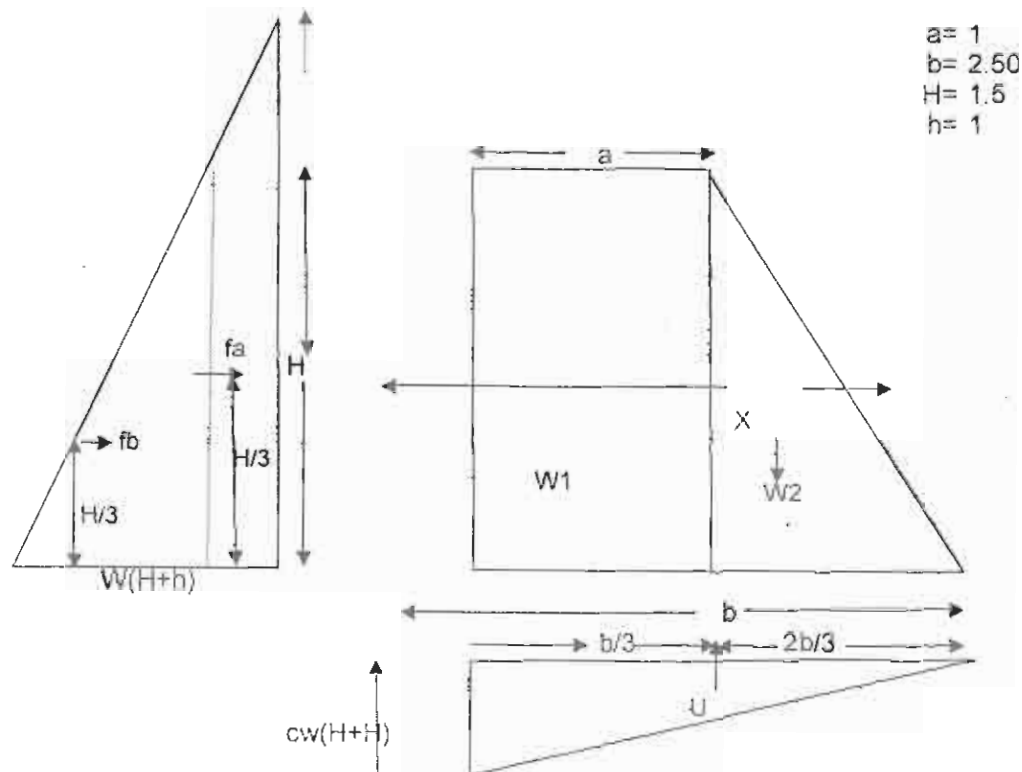
3	Side wall					
a	Length=	$1.75H+0.75h+0.45$	=			3.8
		But as per site condition=				4.0 Meter
b	Height:					
	At H.W. End=	$H+h+Fb$	1.5	+	1	+ 0.4 = 2.9 Meter
	At W.W. End=	$h+fb$	=	1	+	0.4 = 1.4 Meter
c	Top width=					0.6 Meter
d	Bottom width=					
	At H.W. End=	$0.6+0.4(H+h)$				1.6 Meter
	At W.W. End=	$0.6+0.4(1.5h)$				1.2 Meter
		But taken as=				1.2 Meter
4	Wing wall					
a	Height	$h+Fb$	1	+	0.4	= 1.4 Meter
b	Length=	$2.25h$	2.25	X	1	= 2.25 Meter Say 1.5
c	Top width					0.6 Meter
	Bottom width of wing wall					0.6 Meter
5	Apron					
a	Length=					12 Meter
b	Width=	$H+h+Fb$	1.5	+	1	+ 0.4 = 2.9 Meter Say 2
c	Thickness					0.8 Meter
6	Toe wall					
a	Length=					12 Meter
b	Width=					0.3 Meter
c	Height=					0.2 Meter


 ॐ नमो भगवते वासुदेवाय
 ॐ नमो भगवते वासुदेवाय
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IWMP WATERSHED PROJECT KHOLAHERA
 Village - Bachhola
 Tehsil - Nainwa, District - Bundi, State: Rajasthan, India

Name of Village :- Bachhola
 Name of Site :- 0

FREE BODY DIAGRAM



Specific Wt. Of masonry P	=	2.3 T/m ³
Specific Wt. of water w	=	1 T/m ³
Coefficient of uplift pressure c	=	0.6
coefficient of friction at bed surface and creep length	=	0.75
Weight of Dam:-	=	
Weight of Dam:-		
$W_1 = aHP$		
$W_1 = 1 \times 1.5 \times 2.3$		3.45 T
$W_2 = \frac{b-a}{2} HP$		2.5875 T
$W = W_1 + W_2 = 3.45 + 2.5875$		6.0375 T
Water pressure		
At Depth h = $P_1 = wh = 1 \times 1 = 1$		1 T/m ²
At Depth H+h = $P_2 = w(H+h) = 1(1.50 + 1) = 2.5$		2.5 T/m ²
Force acting due to water pressure i.e. Net horizontal		
Water force $P = \frac{P_1 + P_2}{2} H = \frac{1 + 2.5}{2} \times 1.5 = 2.625$		2.625 T/m ²
Horizontal water pressure at depth h = $F_a = wHh = 1 \times 1 \times 1 = 1.5$		1.5 T
At depth H+h = $F_b = \frac{P_2 - P_1}{2} H = \frac{2.5 - 1}{2} \times 1.5 = 1.125$		1.125 T
Force due to water column at crest $F_3 = wha = 1 \times 1 \times 1 = 1$		1 T
Up lift pressure $U = \frac{1}{2} cw_b (H+h) = \frac{1}{2} \times 0.6 \times 2.5 \times 1.5 = 1.875$		1.875 T

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IWMP WATERSHED PROJECT KHOLAHERA
 Village - Bachhola
 Tehsil - Nainwa, District - Bundi, State: Rajasthan, India

Name of Village	:-	Bachhola
Name of Site	:-	0

STABILITY CHECKS

1 Safety against over turning

Over turning moment $M_o =$	$F_a \frac{H}{2} + F_b \frac{H}{3} + u \frac{2}{3} b$
	$1.50 \frac{1.5}{2} + 1.125 \frac{1.5}{3} + 1.88 \frac{2}{3} \cdot 2.50$
$M_o =$	4.8125
Restoring Moment $M_r =$	$W_1 (b-a/2) + W_2 (b-a)2/3 + F_3 (b-a/2)$
$M_r =$	
$M_r =$	6.9 + 2.588 + 2.000 = 11.5

Factor of safety	$\frac{M_r}{M_o} = \frac{11.488}{4.8125} = 2.387 > 1.5$	Hence
Structure is safe against over turning		

2 Safety against Rupture from tension

Net Vertical Pressure $V =$	$W_1 + W_2 + F_3 - U$
	3.45 + 2.5875 + 1 - 1.875 = 5.1625
Position of resultant where it cut the base	
$X = \frac{\text{Excess moment}(M_r - M_o)}{\text{Net vertical force}}$	$= \frac{11.49 - 4.813}{5.163} = 1.29$

TRUE

3 Safety against crusing

Eccentricity $e =$	$b/2 - X$
	-0.043
Crusting stress at the toe of the Head wall	
$P_c =$	$\frac{V(1 + 6e/b)}{b}$
$P_c =$	1.852
$P_c \ll 20$ Hence it is safe	

4 Safety against sliding

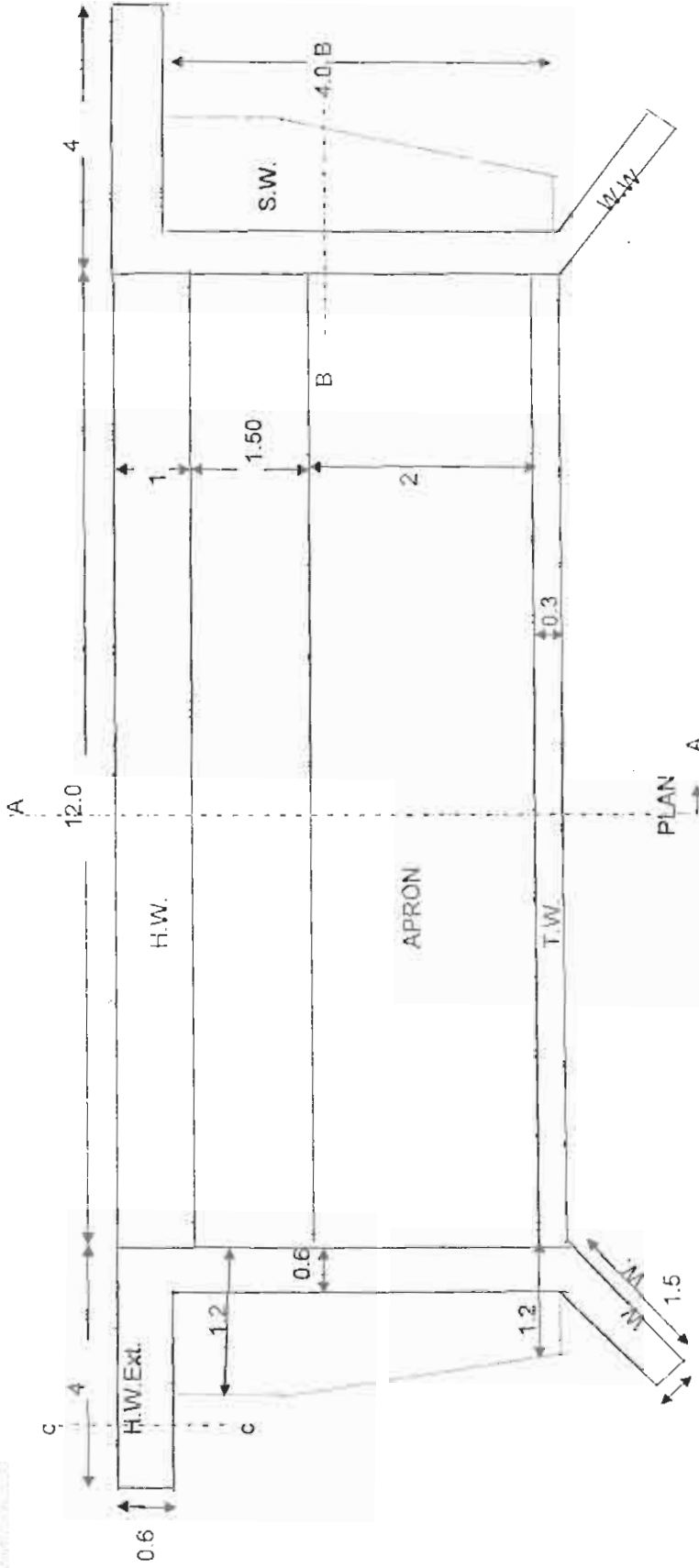
Net vertical Force $V =$	5.1625 T	
Restorin force $= uV =$	0.78 X 5.1625 (u=0.65 to 0.75)	
	4.0319125 T	
Sliding force Net horizontal force $=$	$F_a + F_b$	
	1.5 + 1.125 = 2.625 T	
Factor of safety $=$	$\frac{\text{Restoring force}}{\text{Sliding force}} = \frac{4.032}{2.625} = 1.536 > 1.3$	Hence

Hence it is safe

IWMP WATERSHED PROJECT KHOLAHERA
 Village - Bachhola
 Tehsil - Nainwa, District - Bundi, State: Rajasthan, India

PLAN AND SECTION OF ANICUT

Name of Village :- Bachhola
 Name of Site :- 0

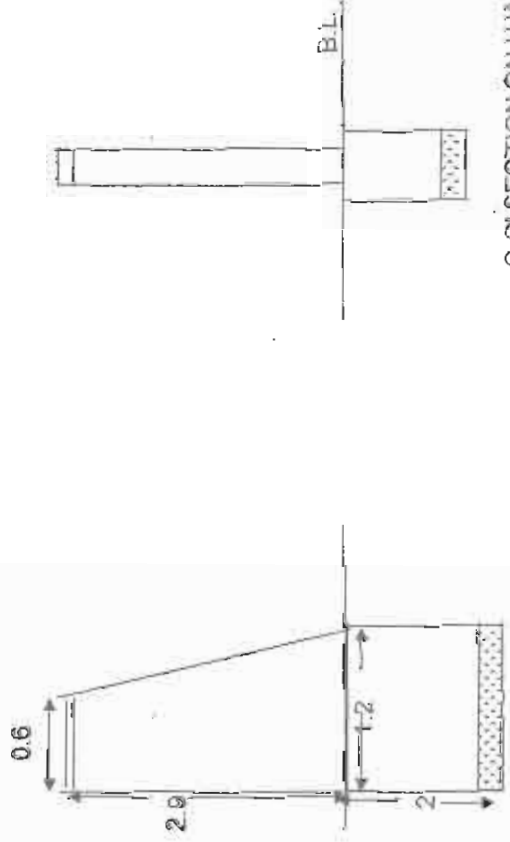
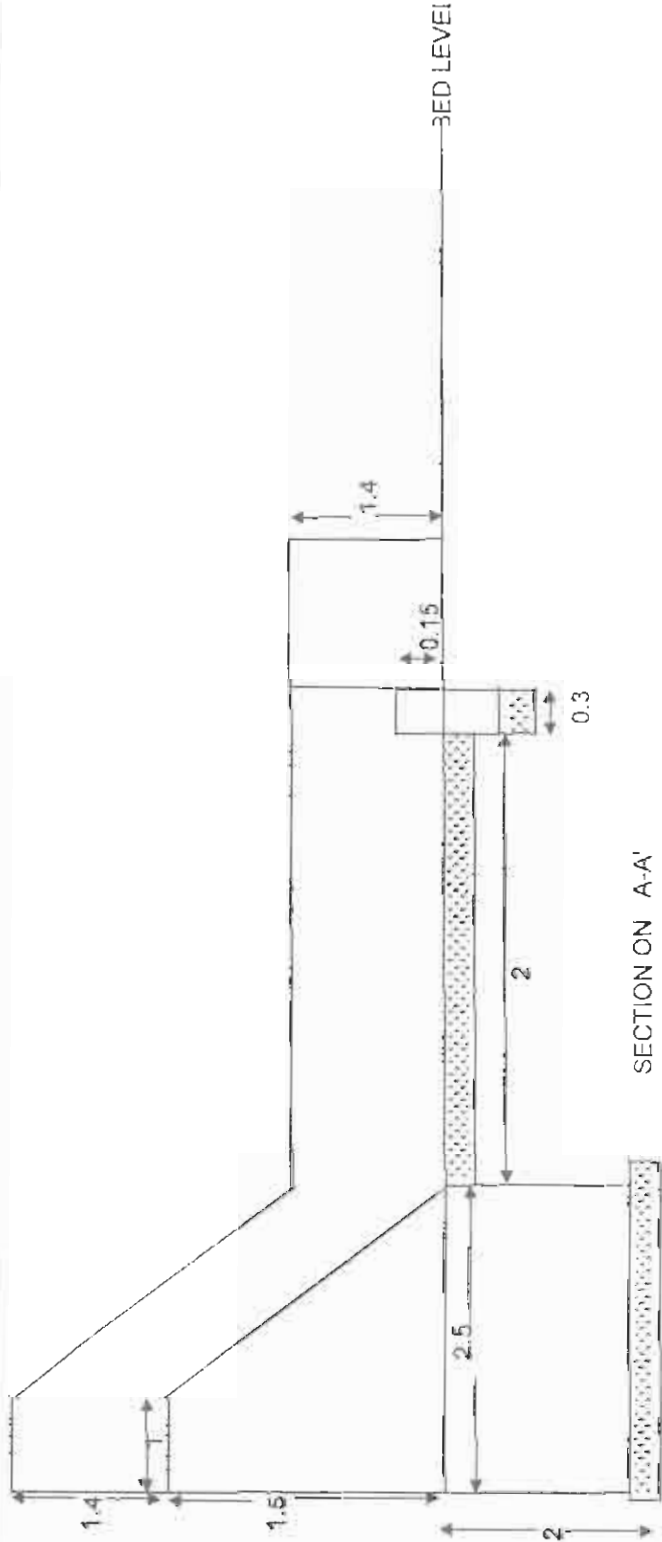


परियोजना किसानव्यपन पूजेची
 आई. डब्ल्यू. एम. पी.
 न्यायता गांगेति नैनवा
 राजा बुन्दी (राज.)

IWMP WATERSHED PROJECT KHOLAHERA

Village - Bachhola

Tehsil - Nainwa District - Bundel State - Rajasthan, India



C-C' SECTION ON H.W. EXT.

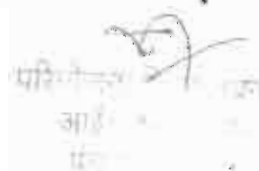
B-B' SECTION OF S.W.

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IWMP WATERSHED PROJECT KHOLAHERA
 Village - Bachhola
 Tehsil - Nainwa, District - Bundi, State: Rajasthan, India

DETAILED ESTIMATE OF ANICUT									
Name of Village		:- Bachhola							
Name of Site		:- 0							
General features of anicut:-									
Height of crest=	1.5 M.								
Length of Crest	12 M.								
Depth of foundation for H.W. =	2.0 M.	Length of wing wall=	1.5 M.						
Bottom width of H.W. =	2.5 M.	Height of Wing wall=	1.4 M.						
Top of H.W. =	1.0 M.	Bottom width of Wing wall=	0.9 M.						
Length of H.W.Ext =	4.0 M.	Depth of foundation for Wing wall =	1.0 M.						
Height of H.W.Ext. at H.W. =	2.9 M.	Height of Toewall=	0.15 M.						
Top Width of H.W.Ext. =	0.6 M.	Top & Bottom width of Toe wall=	0.30 M.						
Bottom width for H.W.Ext.	1.3 M.	Depth of foundation for Toe wall =	0.9 M.						
Depth of foundation for H.W.Ext. =	1.5 M.	Thickness of Apron=	0.8 M.						
Length of side wall=	4.0 M.	Width of Apron =	2.0 M.						
Bottom Width of S.W.	1.20 M.								
Height of side wall at W.W.End=	1.4 M.								
Depth of foundation for side wall =	2.0 M.								
S.No	Item	No	L	B	H	Quantity			
1	Dag belling 5cm. To 7.5cm deep(As per item no. page of G.K.N.2008 BSR of Bhillwara circle					Total			
2	Cutting and clearing of ordinary jungle including bushes shrubs and disposal as per instruction of engineer incharge		30	X	7.0	=	210	Sqm.	
3	Benching of the base and depositing the excavated material for bund for bund canal dressing etc. all components	1	30	2	0.3		18		
						Total		18	Cum.
4	Earth work excavation for bund in hard dry or moist soil including laying in layer of 15cm. Breaking of clods dressing to require profile with manual compaction including initial lift up to 1.5 m and lead up to 30M.	2	30	5	2		600	Cum.	
5	Earth work excavation for foundation in dry or moist soil including ramming of bottom scraping of sides dipodal of soil initial lift up to 1.5 m and lead up to 30M								
						Total			
	Berm						0.00	Cum.	
	Cutting								
	H.W.	1	X	12	X	2.7	X	2.0	= 64.80
	H.W.Ext	2	X	4.0	X	1.3	X	1.5	= 15.00
	S.W.	2	X	4.0	X	1.20	X	2.0	= 19.20
	W.W.	2	X	1.5	X	0.9	X	0.90	= 2.43
	Apron	1	X	12	X	2.0	X	0.75	= 18.00
	T.W.	1	X	12	X	0.30	X	0.9	= 3.24
							Total		122.67
1.	Excavation in Hard soil					20%	24.53		
2.	Excavation in ordinary murrum					30%	36.80		
3.	Excavation in Simple rock					50%	61.34		

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no. page of G.K.N.2008 BSR of Bhilwara										
6	Providing and laying of cement concrete well mixed in cement mortar 1:4:8 laying in position complete excluding curing with maximum size of aggregate up to 50 mm.									
H.W.	1	X	12.0	X	2.7	X	0.3	=	9.72	Cum.
H.W.Ext	2	X	4	X	1.3	X	0.3	=	3.00	Cum.
S.W.	2	X	4	X	1.20	X	0.3	=	2.88	Cum.
W.W.	2	X	1.5	X	0.9	X	0.3	=	0.81	Cum.
Apron	1	X	12.0	X	2.0	X	0.3	=	7.20	Cum.
T.W.	1	X	12.0	X	0.30	X	0.3	=	1.08	Cum.
								Total	24.69	
7	Random rubble stone masonry for foundation & plinth cement sand mortar(1:6) for above 30 cm. Thick wall									
H.W.	1	X	12.0	X	2.5	X	1.7	=	51.00	Cum.
H.W.Ext	2	X	4.0	X	1.3	X	1.2	=	12.00	Cum.
S.W.	2	X	4.0	X	1.20	X	1.7	=	16.32	Cum.
W.W.	2	X	1.5	X	0.9	X	0.6	=	1.62	Cum.
T.W.	1	X	12.0	X	0.15	X	0.6	=	1.08	Cum.
								Total	82.02	Cum.
8	Random rubble stone masonry for Super structure for wall above 30 cm. Thick in cement sand mortar(1:6)									
H.W.	1	X	12.0	X	1.8	X	1.5	=	31.50	Cum.
H.W.Ext	2	X	4.0	X	0.9	X	2.9	=	21.48	Cum.
S.W.	2	X	4.0	X	0.9	X	2.15	=	15.48	Cum.
W.W.	2	X	1.5	X	0.9	X	1.4	=	3.78	Cum.
T.W.	1	X	12.0	X	0.30	X	0.15	=	0.54	Cum.
								Total	72.76	Cum.
9	Stone Kharanja in cement mortar 1:6 for bed and floor including craction etc. complete apron									
Apron	1	X	12.0	X	2.0	X	0.45	=	10.80	Cum.
								Total	10.80	Cum.
10	Providing and laying of cement concrete well mixed in cement mortar 1:2:4 laying in position complete excluding curing with maximum size of aggregate up to 20 mm. etc. complete									
H.W.	1	X	12.0	X	1.0	X	0.05	=	0.60	Cum.
H.W.Ext	2	X	4.0	X	0.6	X	0.05	=	0.24	Cum.
S.W.	2	X	4.0	X	0.6	X	0.05	=	0.24	Cum.
W.W.	2	X	1.5	X	0.9	X	0.05	=	0.14	Cum.
T.W.	1	X	12.0	X	0.30	X	0.05	=	0.18	Cum.
								Total	1.40	Cum.
11	Flush pointing in cement motar (1:3)									
H.W.	1	X	12.0	X	2.1			=	25.48	Sqm.
								Total	25.48	Sqm.
12	25 m.m thick plastering on new surface in cement mortar (1:4)									
H.W.	1	X	12.0	X	5.2			=	62.40	
H.W.Ext	2	X	4.0	X	3.5			=	28.00	
S.S	2	X	4.0	X	3.5			=	28.00	
W.W.	2	X	1.5	X	2.0			=	6.00	
T.W.	2	X	12.0	X	0.2			=	3.60	
								Total	128.00	
13	Dry stone pitching of Hammer dressed witch packing of voids of small stone including all lifts in require profile (23 cm depth)	1	20	-2					40.00	Sqm


 पारियोजना कियान्वयन एजेन्सी
 आई० डब्ल्यू० एम० पी०
 पंचायत समिति मैदान
 जिला कुर्ना (राज.)

IWMP WATERSHED PROJECT KHOLAHERA
Village - Bachhota
Tehsil - Nainwa, District - Bundi, State: Rajasthan, India

Abstract of Cost of Anicut							
Name of Village :-		Bachhota					
Name of Site :-		0					
S.No	Item	Quantity	Unit	Rate		Amount	
				Labour	(LC+MC)Total	Labour cost	Total Cost
1	Dag belling 5cm. To 7.5cm deep(As per item no. page of G.K.N.2008 BSR of Bhitwara circle	0.00	Cum.	1.00	1.00	0.00	0
2	Cutting and clearing of ordinary jungle including bushes shrubs and disposal as per instruction of engineer incharge	210	Sqm.	1.40	1.40	294.00	294
3	Benching of the base and depositing the excavated material for bund for bund canal dressing etc. all components	18	Cum.	85.00	85.00	1530.00	1530
4	Earth work excavation for bund in hard dry or moist soil including laying in layer of 15cm. Breaking of clods dressing to require profile	600	Cum.	85.00	85.00	51000.00	51000
5	Earth work excavation for foundation in dry or moist soil including ramming of bottom scrapping of sides dipodal of soil initial lift up to 1.5 m and lead up to 30M	122.67	Cum.				0
	Excavation in Hard soil	24.53	Cum.	91.00	91.00	2232.59	2232.59
	Excavation in ordinary murrum	38.80	Cum.	134.00	134.00	4931.33	4931.33
	Excavation in Simple rock	61.34	Cum.	177.00	177.00	10856.30	10856.295
6	Providing and laying of cement concrete wall mixed in cement mortar 1:4:8 laying in position complete excluding curing with maximum size of aggregate up to 50 mm.	24.69	Cum.	252.55	1952.00	6235.46	48194.88
7	Random rubble stone masonry for foundation & plinth cement sand mortar(1:6) for above 30 cm. Thick wall	82.02	Cum.	357	1590.00	29281.14	130411.8
8	Random rubble stone masonry for Super structure for wall above 30 cm. Thick in cement sand mortar(1:6)	72.78	Cum.	357	1590.00	25975.32	115688.4
9	Stone Kharanja in cement mortar 1:6 for bed and floor including craction etc. complete apron	10.80	Cum.	357	1590.00	3855.60	17172
10	Providing and laying of cement concrete wall mixed in cement mortar 1:2:4 laying in position complete excluding curing with maximum size of aggregate up to 20 mm. etc. complete	1.40	Cum.	315.8	2849.00	440.54	3974.355
11	Flush pointing in cement motar (1:3)	25.46	Sqm.	39.8	50.30	1013.14	1280.429
12	25 m.m thick plastering on new surface in cement mortar (1:4)	128.00	Sqm.	67.9	150.00	8691.20	19200
13	Dry stone pitching of Hammer dressed witch packing of voids of small stone including all lifts in require profile (23 cm depth)	40.00	Sqm.	100.5	262.00	4020.00	10480
				Total		150356.626	417246.09
				Say Rs		150357	417246
				Contingency		3%	12517
TOTAL						150357	429763
Total Cost rounded of							430000
Labour cost						151000	
Material cost						279000	

परिशेषी तमः विमानं च यम १५०


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IWMP WATERSHED PROJECT KHOLAHERA
Village - Bachhola
Tehsil - Nainwa, District - Bundi, State: Rajasthan, India

Material Statement	
Name of Village :-	Bachhola
Name of Site :-	0

S.No.	ITEM	Quantity	Cement	Sand	Aggrigate	Stone
		Cum / Sqm	Begs	Cum	Cum	Cum
1	Cement Concrete (1:4:8)	24.690	79.01	11.60	23.21	
2	Plaster in C.C. (1:4)	128.000	21.76	4.10		
3	Massonary in Cement mortar (1:6)	154.780	216.69	66.25		170.26
4	Pointing in Cement	25.456	1.05	0.11		
5	Stone Kharanja in cement mortar (1:6)	10.800	15.12	4.05		12.96
6	Cement concrete coping(1:2:4)	1.40	8.15	0.63	1.26	
7	Dry Stone Pitching	40.000				44.00
		TOTAL	341.78	86.73	24.46	227.22
		Say Bags	342			
		or	17.10	MT.		
		1 Cement	17.1	MT.		
		2 Sand	86.73	Cum.		
		3 Stones	227.22	Cum.		
		4 Aggregates	24.46	Cum.		


 परियोजना क्रियान्वयन सूची
 आई० डब्ल्यू० एम०पी०
 पंचायत समिति बैरवा
 (बुंदी, राजस्थान)