

GOVERNMENT OF RAJASTHAN

RURAL DEVELOPMENT & PANCHAYATI RAJ DEPARTMENT
Watershed Development & Soil Conservation Department
Rajasthan, Jaipur

DETAILED PROJECT REPORT

INTEGRATED WATERSHED MANGEMENT PROGRAMME
JODHPUR (IWMP) - 10/2009-10,
BHOPALGARH BLOCK

PROJECT IMPLEMENTING AGENCY
ASSISTANT ENGINEER,
PANCHAYAT SAMITI –
BHOPALGARH

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CHAPTER –I

1. INTRODUCTION :

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

In order to assess the performance of various ongoing programmes of watershed development, series of evaluation studies were conducted Indian Council of Agricultural Research, State Agriculture Universities, National Remote Sensing Agency etc. After series of evaluation studies and impact assessment studies, in coordination with the Planning Commission, in the year 2008, Common Guidelines for Watershed Development Projects was formulated in order to have a unified perspective by all Ministries. This Common Guideline is applicable to all Watershed Development Projects in all Departments/Ministry of Government of India concerned with Watershed Development Projects. These guidelines coupled with the flexibilities, would provide an enabling framework for the planning, design, management and implementation of all watershed development projects in the country. The entire watershed projects are being implemented in accordance with these Common Guidelines with effect from 1.4.2008 for interpretation of the provision of these guidelines, the National Rainfed Area Authority

(NRRA), which has been set up in November 2006, will be the final authority. The common Guidelines for watershed development projects are based on equity and gender sensitivity; decentralization; facilitating agencies; community participation; capacity building and technology inputs; monitoring evaluation and learning and organizational restructuring.

1.1 Sanction of IWMP project;

During the year 2009-10 under the centrally Sponsored Scheme Integrated Watershed Management Programme (IWMP) for implementation in accordance with the Common Guideline for Watershed Development Projects, 2008, the 6000ha Watershed Project IWMP-XVIII has been sanctioned in BHOPALGARH Block of JODHPUR District. The Administrative and Financial Sanction of the project has been issued by Rural Development & Panchayati Raj Department, Commissionerate, Watershed Development and Soil Conservation vide letter no. F-18(199)WDSC/PFC/2009/9761-2835, Dated 04/01/2010.

The BHOPALGARH Block is distributed in 36 Gram Panchayat. The proposed watershed area is covered in 3villages of 2 Gram Panchayats. The distance/vicinity of the watershed area from BHOPALGARH panchayat Samiti Headquarter is 30-40 Km. The area includes the sandy soil, in which rainwater flows in Nallas/Nadi. The water level is regularly decreasing due to increasing leak of rainwater and increaments of population. Due to various significant problems, the area has been selected for integrated development.

As per the social survey and by interviewing the people of the area, shows that in the area water table is decreasing, land degradation due to soil erosion, increase in population, poor livestock productivity, fodder shortage and marketing opportunities. Therefore the area has been selected for integrated development with focus on integrated farming system for increasing productivity, livelihood and regular income in a regular way. As various researches conducted for rainfed areas shows that the efficient water management through soil and water conservation measures is the key sustainable development. The

integrated watershed approach i.e. conserving natural resources of water. Soil and vegetation has been accepted as major theme for development of rainfed areas.

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

1.2 Institutional Arrangements ;

As per Common Guidelines for effective execution and management of watershed development appropriate institutional arrangements has been made at National, State and District levels for effective and professional management of watershed development projects.

The institutional arrangements at State, District and projects level are as follows:

- a. State Level Nodal Agency (SLNA)** : At State level
- b. District Watershed Development Unit (DWDU)** : To ensure coordination at district level, a DWDU have been constituted. Executive Engineer (Land Resources), Zila Parishad, Jodhpur, (Rajasthan)
- c. Project Implementing Agency (PIA)** : Assistant Engineer, Panchayat Samiti, Bhopalgarh, District Jodhpur (Rajasthan)

d. Watershed Development Team (WDT)

The WDT is an integral part of the PIA having at least four members, broadly with the knowledge and experience in Agriculture, Social Science, Water Management (Engineering) and Animal Husbandry/Live Stock. Following four WDT members have been selected at PIA level with open advertisement:

S.No.	Subject Specialist	Name	Qualification
1	Engineering	Hema ram Choudhary	D.E. (Civil)
2	Agriculture	Ramavtar	B.Sc.(Agriculture)
3	Animal Husbandry	Kapil	LSA(2 yrs Diploma)
4	Social Science	Smt. Seema	Sociology

e. User Groups:

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

f. Self Help Groups :

In the Gram Panchayat the SHG groups have been constituted. The groups have been formed according to interest of their work. The homogeneous groups have been formed having common identity, which are dependent on the watershed area such as agricultural laborers, landless persons, women, scheduled caste/scheduled tribe's persons.

Watershed Committee:

In the Gram Sabha, after constitution of UG's and SHG's the watershed committee for each gram panchayat has been formed separately. The committee comprises of 10-20 members. In the committee all the presidents of user and self help groups, representation of SC/ST, land less persons and female representation have been considered. In the formation of committee it was also considered that the members of all the villages of Gram Panchayat are included, so that they can take care of work/need of their village After constitution of watershed committee the chairman/president and Secretary has been selected/ elected. The Gram Panchayat wise detail of Watershed Committee is enclosed at **Annexure-III**

g. President and Secretary of Watershed Committee :

The each watershed committee has been registered under society registration act-1958. The gram Panchayat wise elected president and secretary are as follows:

S.N	Gram Panchayat	Name Watershed Committee	Sarpanch	President	Secretary	Registration No.
1	Bada Kalla	Bada Kalla	Jiya Ram	Shakti Singh	Multana Ram	390/2010-11
2	Salwa khurd	Salwa Khurd	Om Prakash	Mohan Singh	Ashok Kumar	

1.3 Details of Bank Account :

For each water shed committee, the separate saving bank account has been opened with the name of Sarpanch, Secretary(Water-Shed Committee) and Junior Engineer. One separate Watershed Development Fund (WDF) account has been opened for each committee. In the WDF Account no transaction will be done only the contribution received from beneficiaries will be deposited. The details of bank account are as follows :

S.No	Watershed Committee	Account No.		Bank Name
		Saving A/C No.	WDF A/C No.	
1.	Bada Kalla	65108015661	-	State bank Of Patiala , Bhopalgarh
2.	Salwa khurd	65108009667	-	State bank Of Patiala , Bhopalgarh

CHAPTER –II

2.1. BASIC FEATURES :

The basic features of the sanctioned watershed project :

Name of the project	:	Jodhpur(IWMP) – X
Local Name of Project	:	Baran Kallan
Macro/ Micro No	:	15/1
Project Area	:	3600Ha.
Cost of project	:	540.00 Lacs
Cost per hectares	:	15000
Year of Sanction	:	2009-10
No. Gram Panchayat	:	2
No. of villages in Project area	:	3
Major Streams	:	-
Latitude/ Longitude	:	26° 22' N/ 73° 35' E

2.1.1. Present Land use :

The village wise present land use of project area with net sown area is shown in **Table 1**. The village wise Account holder wise details of land are shown in **Table 2**. According to revenue record/ Jamabandi the village wise classification of land for each Gram Panchayat have been shown in **Table 3 to 9**. The Village wise details of Irrigated, Unirrigated, Waste Land, Pasture Land area is shown at **Table 10**.

2.1.2. Existing Horticulture and Fodder Availability:

In the proposed watershed area the horticulture and quantity are not available to some extent. The village wise existing area under horticulture and fodder is as follow :

S.N.	Name of Village	Existing Area under Horticulture		Existing Area under Fodder
		Vegetable	Orchard	
I.	G.P. : Bada Kalla			
1.	Bada Kalla	-	-	19
2.	Bada Khurd	-	-	22
3.				
4.				
II.	G.P. : Salwa Khurd			
1.	Salwa Khurd	-	-	27
2.				
3.				
4.				

2.1.4. Milk Production :

The average Milk Production of different animals in the project area is:

Cow : 3.5 kg per Cow

Buffalo : 6 kg per Buffalo

Goat : 1.0 kg per Goat

2.1.5. Demography :

As per census record 2002, the village wise House Hold, Population and other details are presented in **Table 11**. The Total population of the project area is 7293. The total male population is 52% and female population is 47%. The Overall SC and ST population is 19% and 15% respectively. The Total Household in the area is 1509.

Survey conducted in the year 2002 and subsequent orders issued by Sub Divisional Officer, Jodhpur in the project area the village wise BPL are as follows:

S. No.	Gram Panchayat/ Village	No. of BPL
I.	G.P. – Bada Kalla	
1.	Bada Kalla	37
2.	Bada Khurd	12
3.		
4.		
II.G.P. : Salwa Khurd		
1.	Salwa Khurd	37
2.		
3.		
4.		
5.		

2.1.6 Infrastructure Facilities Available

The Details of infrastructures in the project area are as follows:

S.No.	Parameters	Status			
1.	No. of villages connected to the main road	All 3 Villages			
2.	No. of villages provided with electricity are provided with	All 3 Villages			
3.	Noctificeducational Institutions	Middle School	Aangan Badi	Hospital In 1 village	Post office
4.	No. of villages with access to primary health Center	1			
5.	No. of villages with access Veterinary Dispensary	0			
6.	No. of villages with access to Post office	Sub Post office in Salwa Khurd			
7.	No. of villages with access to Market /Mandis.	0			
8.	No. of villages with access to Anganwadi Centres	2			
9.	Nearest KVK	Mandore Jodhpur			
10.	No. of villages with access to Agro Industry	0			

11	Total Quantity of Surplus Milk	0
12	No. of Milk Collection Centers	1
13	Cooperative Society	1
14	NGO's	0
15	Credit Institutions	Rural Bank
16	IT Center	0

2.1.7 NREGS Status:

In NREGS scheme various activities like Farm ponds/Talai, Anicuts and Gravel/earthen roads have been taken so far. As per demand by the card holders they are engaged on the work. In the project area, Gram panchayat wise details of number of card holder are as follows:

S. No.	Gram Panchayat	Village	No. of Card Holders
1.	Bada Kalla	Bada Kalla	380
		Bada Khurd	180
2.	Salwa Khurd	Salwa Khurd	880

2.1.8 Land Holding Details :

The land holding details i.e. irrigated and rainfed for large, small and marginal farmers is enclosed at Table 12.

2.1.9. Other Development Schemes in the Project Area :

The Mahatma Gandhi National Rural Employment Guarantee Act is the main scheme which is being implemented in the project area.

2.2. Technical Features :

The various technical features of the area are as follows:

2.2.1. Collection of Revenue Record :

For all the villages of the project area the revenue map and details of cultivators/ revenue record/ Jamabandi have been from revenue department.

2.2.2. Maps of the Area

The Natural Resource Management component requires scientific and technical data. As per Common Guidelines -2008, the detailed project report is to be prepared with complete GIS and Remote Sensing application. Therefore, in the context the State Remote Sensing Application Center (SRSAC), Jodhpur has been directed by department to prepare the various thematic layers i.e. present land use, land cover, topographical details, slope groups, ground water status, contour drainage line, macro boundary of the project area on 1:10,000 scale. The SRSAC has submitted all the above required maps. enclosed herewith.

2.2.3. Slope Details of Area:

The proposed area includes snady soil. The area in various slope groups of the proposed water shed area is as follows:

S.No.	Slope Percentage	Area in hectares
1.	0 to 3 %	3600
2.	3 to 8 %	0
3.	8 to 25 %	0
4	> 25 %	0

The SRSAC Jodhpur has generated the map (MAP 2), showing the slope groups 0–1 %, 1-3 %, 3–5 %, 5-10 %, 10-15 %, 15–35 %, 35–70 % and >70 %.

2.2.4. Water Budgeting:

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

Good Catchment : Where runoff is maximum and infiltration is minimum like hillocks, plateau etc

Average Catchment : Cultivated land, forest land with vegetation

Bad Catchment :Where runoff is minimum and infiltration is maximum e.g. sandy soil

Average Annual Rainfall for the block is 556 mm (21.89 inch)

By interpolation method the proportion of estimated runoff of 21.89 inch rainfall have been calculated from Strange's Table as follows:

Monsoon Rainfall in inches	Yield of Runoff from Catchment (MCft/sq. mile)		
	Good Catchment	Average Catchment	Bad Catchment
21 inch	7.855	5.891	3.927
22 inch	8.842	6.631	4.421
For inch	0.987	0.740	0.494
For 0.89 inch	0.88	0.66	0.44
For 21.89 inch	8.735	6.551	4.367

Note : $1 \text{ MCft/sq. mile} = 1000000 * 0.0283/258.99 = 109.271 \text{ cum /ha}$
(1 Cft = 0.0283 cu m, 1 sq. mile = 258.99 ha)

A. Calculation of Expected Yield

Type of Water Shed	Area of Water Shed (ha)	Factor	Expected Yield (cu m)
Good			
Average			
Bad			
Total (A)			

B. Present Storage By Existing Structure

S.No.	Name of Structure	No	Storage Capacity (cum)
1.			

2.			
3.			
Total (B)			

Balance Runoff (C) = Expected Yield – Present Storage

$$C = 3234573.94 - 1130000 = 2104573.94 \text{ cu m}$$

75 % of balance runoff may be stored by constructing new structure

$$0.75 * C = 1578430 \text{ cu m}$$

Proposed New Structures:

S.No.	Name of Structure	No./length	Storage Capacity (cum)
1.	Water harvesting Structure	25 no.	14062.5
2.	Contour bunds	248888 m	1493328
Total			1507390.

For Contour Bunding:

$$\text{Area} : \frac{1}{2} * 0.30 * 40 = 6 \text{ sqm}$$

For 248888 m, total Quantity/Capacity = 1493328 cum

For WHS

$$\text{Average Capacity} = \frac{1}{2} * 1.50 * 50 * 15 = 562.50 \text{ cum}$$

For 25 structure = 14062.50 cum

.

2.2.3. Soil Profile and Soil Fertility Status :

The major soil classes of the area are sandy loam and loam. The project area in the major soil classes are as follows :

S.No.	Major Soil Classes	Area in hectares
1.	Sandy Loam	2864
2.	Loam	2150

The average soil fertility status i.e. N,P,K, Micronutrients in the watershed project area are :

N	50-70 Kg/ha
P	20-30 Kg/ha
K	10-15 Kg/ha
Micro Nutrients	PPM 100-500

2.2.4. Climatic Details :

The Agro climatic Zone of proposed watershed area is III A. The average annual rainfall of the block is 556 mm. The Year Wise Annual Rainfall for the last 10 yr is as follows :

Year wise annual rainfall in mm										
2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010 (up to sept)
312.4	383	294	652	591	601	295.5	402	548	348	880.4

The average annual rainfall of the block is 556 mm. The average monthly rainfall of the block is as follows:

S.No.	Month	Rainfall(mm)
1.	June	59 (6 days)
2.	July	112 (11 days)
3.	August	176 (13 days)

4.	September	34 (days)
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The maximum and minimum temperature of the block is as follows :

S.No.	Season	Maximum	Minimum
1.	Summer	46	32
2.	Winter	28	4
3.	Rainy	37	28

2.3. Problems, Demand and Scope for development :

2.3.1. Natural Resource Management :

While socially surveying the area, it was realized that various water harvesting structures mostly talai's have been constructed in the area for storing the water. But due to non availability of outlets/ waste weirs the water was released by cutting the banks. The main problem of the area is availability of stored water. For further development, it has been planned that all the structures will be provided with waste weirs, so that the water can be stored up to the design level without any fear. At the present time no new talai/ tanks have been proposed.

During the rainy season it was found that the rain water from the higher areas flows down and spread in the lower area and damaging the fields. As per need and suggestions given by the beneficiaries/ public representative, the diversion channels have been proposed to convey water to nearby tanks. This will certainly solve the problems of the area and sufficient water will also be stored for live stock will help in recharging the nearby wells.

The agriculture land of the area is affected by sheet erosion and forming the rills/ gullies. The problem can be solved by bunding the fields. Therefore to protect the land, the main thrust is given on contour bunding with proper outlets.

2.3.2. Agriculture and Horticulture Productivity :

In the watershed area the production of Agriculture and Horticulture Plants are not to that extent due to lack of improved variety and techniques. The Agriculture production of different crops grown in Kharif/ Rabi seasons of the proposed watershed area is shown in **Table 13**. The production will be increased by introduction of new varieties of different crop. The existing horticulture area is shown above.

2.3.3. Live Stock –gap of fodder Availability :

The existing fodder area in the villages of proposed area is shown above. The availability of fodder in the proposed watershed area is less. To meet the requirement, the farmers of the area have to purchase from other places. The fodder area has to be increased to reduce the demand.

2.3.4. Livelihood and Micro enterprises :

The people of the area are dependent on Agriculture. In the proposed area the landless families are fully dependent on work. After introduction of NREGA, these families are getting job in the area. But it is not to the extent to increase the livelihood. For development of their livelihood, the various meetings were organized to know their interest and skills. According to social survey conducted in different villages of the project area, different individual and group works/ activities like Ara Tari, Masala Udhyog, Tomato Sauce Preparation, Carpentry, Mobile Repairing, Motor Cycle Repairing, Compute Hardware/ Software work and Compost Pit/ Vermi compost were identified. According to their interest homogeneous groups have been made. The main thrust was given for land less persons.

CHAPTER – III

3.1 Preparatory phase activities :

The main objective of the preparatory phase is to create appropriate mechanism for adoption of participatory approach with the help of watershed development team. To establish the credibility of WDT team and to create a rapport with the villagers the entry point activities have been executed.

3.1.1. Entry point Activities :

To find the urgent need of the local communities, the Gram Sabhas have been conducted at each Gram Panchayat. So that different works could be identified according to their need. The main theme of Entry Point Activities is to establish credibility of the Watershed Development Team and create a rapport with the village community. After identifying the different works in Gram Sabhas, the following works were executed:

S.No	Gram Panchayat	Name of works	
I.	Bada Kalla	1.	Solar light
		2.	Water tank
II.	Salwa Khurd	1	Solar light
		2	Water tank

3.1.2. Capacity Building :

Capacity building is an important aspect for the successful implementation of watershed development programmes. The relevant training programme will be organized for all the functionaries involved in water shed development. It will be ensured at every level that a majority of the members of SHGs/UGs would be given basic training involving skill up gradation and orientation on the technical on the technical and organizational aspects.. Besides training on application on Remote Sensing Technology for generating database for watershed development will be included in the training programme. It has been finalized that the training will be organized by WDT members with the help of local officials of the technical departments. SHGs&UGs would also be taken for visits to Research Stations, demonstration of successful technologies that are relevant to them.

For participatory approach, water shed committee, user groups and self help groups have been formed at each gram panchayat level. During the phase, the watershed development team (4 members) which is also constituted and engaged in the project earlier will facilitate. The Gram Panchayat wise details of user groups, self help groups and water shed committee is shown in **Annexure I to III**. The capacity building of these different stakeholders on institutional and work related aspects are important part of the project.

3.1.3. PRA Exercise:

Participatory Rural Appraisal (PRA) is one of the most important exercises in Watershed Development projects before preparation pf Action Plan.. For the preparation of detailed project report Participatory Rural Appraisal exercise is very important part. The village wise PRA have been conducted with the help of WDT member For village separate maps have been prepared, showing all special features such as nallas, pasture land, roads, dhani's etc. The works have been identified according to beneficiaries need. The proposed works have been marked on these maps.

3.2. Natural Resource Management (PRA)

With the help of WDT, on the basis of the information generated from the bench mark survey of the watershed area and detailed PRA exercise, the detailed watershed development plan for each Gram Panchayat have been prepared. Watershed treatment/development plan have been prepared for all the arable and non arable land including degraded lands, government and community lands and private lands.

3.2.1. Conservation measures for arable lands :

The main problem of the area is the low and erratic rainfall. The conservation measures meant to reduce or prevent sheet erosion. The important principles to be kept in view while planning measures for proper conservation of water are increasing the time of concentration and thereby allowing more runoff water to be absorbed, intercepting the long slope into short ones and protection against damage and to excessive runoff. Bunding is the most effective and widely practiced field measures for controlling or preventing erosion. In broader way it can be defined as series of mechanical barriers to reduce the slope percentage. Different types of bunds are contour bund, side bunds, lateral bund, and graded bunds.

a. Contour Bund: Contour bunds are constructed along the contours. For the area having slope less than 6 percent and flatter lands with scanty /erratic rainfall contour bund is practiced to intercept the runoff by embankment whose ends may be closed or open to conserve moisture as well as to reduce the soil erosion. AS per past experience the contour bund can be adopted on all types of relatively permeable soils except the clayey or deep blank cotton soils. The main criterion for spacing of bunds is to intercept the water before it reaches the erosive velocity. The most important factor of it is slope, cropping pattern, soil and conservation practice adopted. While planning of contour bund few things, which should be considered are: area is bifurcated according to slope, if distance between two bund is more than additional bund should be provided in between them, lateral bunds/ hooking should be extended up to the submerged length at both ends and vertical interval may be adjusted according to field boundaries.

- Side bund: bunds constructed at extreme ends of the contour bund, which are running along the slope and up to the submerged length.
- Lateral bund : bund constructed along the slope in between two side bunds, to prevent concentration of water along one side and to break the length of contour bund.

b. Waste weirs: In order to protect the contour bund from breaching and the standing crop from damage, masonry outlet structures which can drain away excess water, are constructed. The proper outlet/ waste weirs are provided in the contour bunds alternate, to avoid gully formation and also to increase the travel path. Generally waste weirs are constructed at depressions with the crest of their body walls constructed at 0.3 m above the contour.

c. Graded bunds : Graded bunds are constructed to guide water towards nallas. These bunds are constructed along longitudinal grade. These bunds primarily act drainage channels for inducing and regulating the excess runoff water and draining with non erosive velocity.

d. Gully control structure : In arable lands, where small rills/ gullies have been formed, then the earthen bunds are constructed at regular intervals.

e. Diversion channels : Soil conservation measures are implemented on a whole catchment or watershed Dudu. In case if the watershed area falls below the unprotected area or hilly area from which uncertain of water comes and entered in the area, then the diversion channel is excavated to intercept the runoff from the area situated above and to conduct it safely to outlet.

3.2.2. Conservation measures for non arable lands:

The area which is unsuited to cultivation for agricultural crops and limits their use largely to pasture, forest requires the conservation measures. These waste lands have a great potential for producing fodder, fuel, fiber etc. To protect these lands from further degradation suitable soil and water conservation measures supplemented with proper afforestation is required.

a. Contour trenches: Contour trenches are excavated along a uniform level across of the slope of the land. Bunds are constructed downstream along the trenches with material taken out of them. The main objective is to create more favorable moisture condition. The contour trenches break the velocity of runoff. Plants are put in the trench along the berm.

b. Ditch cum bund: In the watershed area, the available pasture land will be protected by ditch cum bund. From the excavate soil of the trench the bund will be prepared inside the area along the trench, so that the animals cannot step up from the trench and enter the area. From the point of view of cost and theft, the barbed wire fencing and stone fencing is avoided.

3.2.3. Drainage line treatment :

The drainage line treatment is very important part of the project.

a. Gully control structures : Gully control structures consist of constructing bunds of suitable dimension across the nala or gullies to hold the runoff water. Depending upon the slope of the gully, these bunds are constructed in the series. The main thumb rule is the bottom of the structure should coincide with the top of the downstream one. The temporary storage of runoff against these bunds carries deposition of silt and water is drained off in a controlled manner. The impounding of water facilitates the percolation of water, which otherwise will flow with intense velocity. The water released from the bunds will be free from silt and velocity to erode. Before it can acquire erosive velocity, it will meet the next bund below in the catchment.

d. Loose stone check dam : The gully control structure will be constructed by locally available stone without any binding material. So these structures are called Loose Stone Check Dam. The gullies will be plugged by stone with height not more than 1m with upstream slope, nearly vertical and downstream slope 1.5 : 1. The depth of foundation will be kept about 0.4 m and with about 0.6 m inside the natural ground on

each side to prevent flood water out flanking the structure. Upstream side of the structure will be filled by the soil at slope 2:1 with grasses.

C. MMS : In some places where vegetative measures and simple practice alone are inadequate to handle the concentration of water, permanent masonry structures structure are provided. In the project area with the loose stone check dam these permanent masonry gully control structures will be provided.

d. Bank stabilization : The bank stabilization is very important part of controlling the gullies. The water from the side area/ gully from widening and protecting the side land converting into the gullies, the marginal bund will he made on each side of the nalla. The loose stone check dam and masonry structures will be constructed at proper places for safe disposal of surplus water. In some places of the side of nalla, loose stone pitching have been provided to protect the sides from scouring.

Ground water recharge structure : Ground water recharge structure has been propose to be constructed in the project area.

3.3. Production System and Micro Enterprises :

3.3.1. Production measures for arable :

To get the more benefit from agriculture crop, it is very important to decrease the cost of cultivation and increase the production. To decrease the cost of cultivation, it is necessary to use complete available land for cultivation, use of latest implements so that time and cost is reduced. Good agriculture management by taking more than one crop in a year can also increase the production. Optimum quantity of fertilizer, insecticides and pesticides should be used. The reduction of chemical fertilizer will also increase the production.

For increasing production of crop, water management also plays an important role. The water should be used according to its quality and also crop should be irrigated according

to need/ requirement. The practice of Drip and Sprinkler irrigation will lead to optimum utilization of water.

In the State and Centre Sector schemes, for improvement in production level of different crops and minimize cost of cultivation, various schemes are organized by Agriculture/ Horticulture Department. The various schemes are :

- a. Free seed minikit distribution :** Seed minikits of newly released varieties are distributed to small and marginal farmers for 0.1 to 0.2 hectare area with the purpose to increase in productivity of cereals, pulses and oilseeds and to increase Seed Replacement Rate by certified seeds. Minikits are distributed in Kharif season are improved hybrid varieties of Bajra, Guar and Groundnut, whereas in Rabi Season are Wheat, Barley, Gram and Mustard.
- b. Crop demonstration :** Crop Demonstrations are layout for adoption of full package of technology practices in rural areas. The demonstration are organized for 0.4 hectare at each farmers field which have adequate irrigation facilities and take interest to show all technology practices recommended by agriculture Department. The seed of improved quality are provided at 50% cost to the farmers through RSSC/NSC and other inputs like fertilizers and plant protection chemicals are provided through KVSS or GSS on payment of 50% on total cost of all inputs up to Rs. 2000 per demonstration. In Kharif season demonstration are taken for Guar, Bajra and in Rabe season demonstration are taken for wheat, Barley and Mustard.
- c. Certified seed distribution :** Certified seed from RSSC /NSS are distributed in the area to improve SRR and ultimately increase in productivity of crops. The main aim is to increase in production level of different crops in yielding varieties instead of local varieties. This is taken through KVSS/ GSS and private dealers.
- d. Subsidy on pipeline :** Presently the irrigation methods used by farmers are not so scientifically as flow system in which wastage pf water are very high. The subsidies are given to the farmers on purchasing ISI- approved HDPE/PVC pipe

line of 63 mm to 90 mm diameter. The subsidies are given to all categories of farmers at the rate of Rs. 18.75 per meter up to 800 meter per farmer.

- e. Subsidy on gypsum :** To all categories of farmers, on the basis of soil testing report for reclamation of alkaline soils, the 50% subsidy are given on total cost of Gypsum. Gypsum subsidy should also be given to the farmers growing Wheat, Pulses and Oilseed.
- f. Establishment of farmers field school (FFS) :** The farmers Field School is to be established on the compact block of 5 demonstration each of 0.4 hectare. In the FFS out of 5 demonstration farmers 25 other farmers are to be included. The total of 30 farmers group which have interest to learn full scientific package of practices of crop production. Each FFS have five training days: before sowing of demonstration crop; after sowing and germination of demonstration crops; at the time of irrigation and weed control; at grain filling stage of crop. Training is given by Agriculture Officer, Scientist and Lecturer. Farmers problem are given to research stations and improved practices of scientific Agriculture are given to the farmers.
- g. Soil and water testing :** Before every crop season like Kharif and Rabi, soil and water testing are to be done for evaluating the actual fertility position of field and requirement of fertilizer for irrigation. So that fertilizer quantity and quality are used as per recommendations given by laboratory for taking maximum production level in particular field and crop. Soil health card are given to the farmer having all recommendation of fertilizer for a whole year as they take all crop in Kharif and Rabi season.
- h. Subsidy on plant protection equipments :** 50% subsidy given to all categories of farmers on Plant Protection equipments like Knapsack Sprayer, Dusters, Foot Sprayer and Power Operated Sprayers of ISI mark and approved qualities.
- i. Subsidy on Agricultural Implements :** The subsidy are given to all categories of farmers on purchasing improved and new Agriculture Implements, 25-50%

subsidy are given according to quality of implement like hand operated hoeing implement, bullock drawn bund farmer, tractor drawn seed drill machine, chaff cutter, harrows, 2 and 3 disc plow having 25% subsidy whereas three row bullock drawn seed drill, tractor drawn seed cum fertilizer drill, etc have 50% Subsidy.

- j. Horticulture (National Horticulture Mission) :** Subsidy are given on inputs like seed, fertilizers and plant protection chemicals for growing spices and medicinal crops in the National Horticulture Mission by Horticulture Department. Such demonstrations are laid out in Methi, Chilli and Allovera crops. 50% Subsidies are given on total cost of input used in the demonstration.

- k. Subsidy on sprinkler set :** For the effective irrigation in the sandy soils the sprinkler system were recommended to the farmers. From 0.5 to 5.0 hectares land holding, subsidy of 50% on the cost of sprinkler set are given. Sprinkler set model vary according to land like for 1.0 hectare land there are 30 HDPE ISI approved pipe pf 6 meter long and 3 meter pipe along 5 nozzle set and other accessories. Subsidy is given on the sprinkler set is 50% or Rs. 7150, whichever is less. For 5.0 hectare land holding farmer, can purchase 60 pipes of 6 meter and 15 nozzle set with accessories having subsidy 50% or Rs. 15500/- whichever is less.

- l. Subsidy on drip irrigation :** The drip irrigation is most effective and water saving irrigation method. Drip irrigation system can be installed for fruit orchard and for vegetable farming from 0.5 to 5.0 hectare land area. The subsidy is given up to 70% of the total cost up to Rs. 23000 per hectare in orchard plantations and Rs. 114000 per hectares for vegetable farming.

- m. Subsidy on fruit orchard plantation :** Subsidy is given to the farmers for establishment of a new orchard systematically and in scientific way. There are 6 fruit plant can be taken in NHM, which are Aomla, Ber, Papaya, Citrus, Beel and Anar. The grafted seedlings are provided to the farmers on 75% subsidy after which 75% subsidy are given for given for fertilizer, Plant Protection Chemicals and for digging pits for planting. This subsidy varies from Rs. 22000 to 40000 per

hectares for different fruit crops. Drip set subsidy is given separate for establishment in orchard.

- n. Establishment of Nursery :** Subsidy is given for establishing a module nursery in scientifically and propagation of fruit plant and sold to the farmers. 50% on total cost, subsidies are given, which varies from Rs 1.5 to 9.0 lacs for 4.0 hectares land area.
- o. Training for horticulture works :** The training are given to youth farmers interesting to learn horticulture works like grafting, budding and other horticulture works. Three months to one year training programme is held, according to the farmer's choice and interest. The expenditure of the training is borne by horticulture
- p. Vermicompost :** Vermicompost is an organic manure (bio-fertilizer) produced as the vermicast by earth worm biological waste material; plant residues. This compost is an odorless, clean, organic material containing adequate quantities of N,P,K, and several micronutrients essential for plant growth. Vermicompost is a preferred nutrient source for organic farming. It is eco-friendly, non-toxic, consumes low energy input for composting and is a recycled biological product.

In each Gram Panchayat of project area, 8-10 farmers will be selected. They will be trained with installing the vermicompost unit in their field.

3.3.2. Production measures for non arable lands :

In government pasture land is developed by fencing the area by ditch cum bund and constructing the staggered trenches. In between the trenches grasses are grown and on downstream side of the trenches the forestry/ fuel plants are grown. Along the ditch cum bund the forestry plants are also grown. In the area various plants like Khejdi, Ardo, and Shessam etc are grown.

The fuel plants on the bunds of the private lands are also with the consultation of the owner, so that cultivators can also get the fuel for his use. Similarly on the bunds the grasses are also grown so the beneficiaries can have the fodder for the livestock.

3.3.3. Livelihood activities particularly for asset less person:

In the project area according to the interest and need livelihood activities will be followed. In individual livelihood activity training of masson, motchi, carpentry, tailoring, bike repairing etc work will be taken up so that their lives could be improved. The training programme of computer hardware/ software, mobile repairing work will also be planned according to the interest and education level of the educated young generation, so that with the seasonal agriculture income of their family, they can supplement the income during non agriculture season.

In every gram panchayat of the project area, the self help groups of land less persons have also been formed. These groups will be trained according the their interest on different activities like Ara Tari, Tomato Sauce Preparation, Honey Bee Production, Compost Pit, Pottery etc, so that their livelihood can be increased. The groups will be trained on agriculture based activities like compost pit, vermi compost, pasture development etc according to their interest, so that they can prepare the product and can use on their own need and cat sell surplus. At the time of PRA, the people of the area have been acquainted with livestock based activities like milk collection booth, dairy, poultry etc.

CHAPTER IV

4. Technical Designs and Estimates for Proposed Activities:

Design of Contour Bunds:

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

Spacing of Contour Bunds:

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

$$\text{V.I.} = 0.305 (XS + Y)$$

Where

V. I. = Vertical Interval (m)

X = Rainfall factor (as per following table)

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

S = Slope (%)

Value of X, the Rainfall Factor

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

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

Value of Y, the Infiltration and Crop Cover Factor

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

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

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

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

The height of impounding is calculated from following formulae:

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

Where

He = Depth of impounding near the bund (m)

Re = 24 hours rainfall excess (cm)

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

With the help of elevation data of the area, water shed area is divided into different slope groups. The slope group wise map (**Map 2**), showing the different categories of slope has been prepared by SRSAC, Jodhpur. Generally the Contour bund is provided on land having slope up to 6 %. As per demand and need of the area, the contour bunds in arable

land have been proposed up to 10 % slope. The Gram Panchayat wise area according to the slope range is calculated as follow:

S.No.	Gram Panchayat	Slope Range (%)	Area (ha)
1.		0 -1	
		1 -3	
		3 – 5	
		5 -10	
2.		0 -1	
		1 -3	
		3 – 5	
		5 -10	

Scheme : IWMP
Watershad : Bara Kallan

Panchayat Samiti : Bhopalgarh
District : Jodhpur

Componentwise & Yearwise Distribution of Budget

II . Production system and Micro Enterprises

Village -Salwa Khurd(G.P. - Salwa Khurd)

(Rs. in Lacs)

S.No.	Activity	Unit	Rate	Qty.	Amount	1st Year		2nd Year		3rd Year		4th Year		5th Year		6th Year	
						Physical	Financial	Physical	Financial	Physical	Financial	Physical	Financial	Physical	Financial	Physical	Financial
A.	<u>Conservation measures for arable land</u>																
1	Horticulture	Ha.	0.272	30	8.16	5	1.36	5	1.36	5	1.36	5	1.36	5	1.36	5	1.36
2	Crop demonstration	No.	0.01172	531	6.22	100	1.172	100	1.172	100	1.172	100	1.172	100	1.172	31	0.36332
3	Homestred Garden	Ha.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	Vermi Compost	No.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Drip Irrigation System	No.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	New Technology Viz. APSA-80 etc.	Lit.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total				14.38		2.532		2.532		2.532		2.532		2.532		1.72332
B.	<u>Conservation measures for nonarable land</u>																
1	Plantation	Ha.	0.285	10	2.85	0	0	10	2.85	0	0	0	0	0	0	0	0
2	Pasture Development	Ha.	0.01617	10	0.1617	0	0	10	0.1617	0	0	0	0	0	0	0	0
	Total				3.0117		0		3.0117		0		0		0		0
C.	<u>Animal Health</u>	No.															
1	Animal Health camp	No.	0.2	51	10.2	6	1.2	9	1.8	9	1.8	9	1.8	9	1.8	9	1.8
2	Vaccination		-	-	0.0733	0	0	0	0.04	0	0.0333	0	0	0	0	0	0
3	Const of Sand Ghar		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	Purchase of Sand / Padma		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Artificial Insumentation		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Castration		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total		0	0	10.2733		1.2		1.84		1.8333		1.8		1.8		1.8
D.	<u>Micro Enterprises</u>	-	-	0	8.11		2.11		2		1		1		1		1
	Grand Total (A+B+C+D)				35.775		5.842		9.3837		5.3653		5.332		5.332		4.52332

Scheme : IWMP
Watershad : Bara Kallan

Panchayat Samiti : Bhopalgarh
District : Jodhpur

Componentwise & Yearwise Distribution of Budget

II . Production system and Micro Enterprises Village - Bada kalla & Khurd (G.P. -Salwa Khurd)

(Rs. in Lacs)

S.No.	Activity	Unit	Rate	Qty.	Amount	1st Year		2nd Year		3rd Year		4th Year		5th Year		6th Year	
						Physical	Financial	Physical	Financial	Physical	Financial	Physical	Financial	Physical	Financial	Physical	Financial
A.	<u>Conservation measures for arable land</u>																
1	Horticulture	Ha.	0.272	40	10.88	5	1.36	7	1.904	7	1.904	7	1.904	7	1.904	7	1.904
2	Crop demonstration	No.	0.01172	623	7.30156	73	0.85556	110	1.2892	110	1.2892	110	1.2892	110	1.2892	110	1.2892
3	Homestred Garden	Ha.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	Vermi Compost	No.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Drip Irrigation System	No.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	New Technology Viz. APSA-80 etc.	Lit.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total				18.18156		2.21556		3.1932		3.1932		3.1932		3.1932		3.1932
B.	<u>Conservation measures for nonarable land</u>																
1	Plantation	Ha.	0.285	10	2.85	0	0	10	2.85	0	0	0	0	0	0	0	0
2	Pasture Development	Ha.	0.01617	10	0.1617	0	0	10	0.1617	0	0	0	0	0	0	0	0
	Total				3.0117		0		3.0117		0		0		0		0
C.	<u>Animal Health</u>																
1	Animal Health camp	No.	0.2	68	13.6	8	1.6	12	2.4	12	2.4	12	2.4	12	2.4	12	2.4
2	Vaccination		-	-	0.1733	0	0.1	0	0.0733	0	0	0	0	0	0	0	0
3	Const of Sand Ghar		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	Purchase of Sand / Padma		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Artificial Insumentation		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Castration		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total		0	0	13.7733		1.7		2.4733		2.4		2.4		2.4		2.4
D.	<u>Micro Enterprises</u>	-	-	0	10.26		1.26		2		2		3		1		1
	Grand Total (A+B+C+D)				45.22656		5.17556		10.6782		7.5932		8.5932		6.5932		6.5932

Scheme : IWMP
Watershad : Bara Kallan

Panchayat Samiti : Bhopalgarh
District : Jodhpur

Componentwise & Yearwise Distribution of Budget

II . Production system and Micro Enterprises

(Rs. In Lacs)

S.No.	Activity	Unit	Rate	Qty.	Amount	1st Year		2nd Year		3rd Year		4th Year		5th Year		6th Year	
						Physical	Financial	Physical	Financial	Physical	Financial	Physical	Financial	Physical	Financial	Physical	Financial
A.	<u>Conservation measures for arable land</u>																
1	Horticulture	Ha.	0.272	70	19.04	10	2.72	12	3.264	12	3.264	12	3.264	12	3.264	12	3.264
2	Crop demonstration	No.	0.01172	1154	13.52156	173	2.02756	210	2.4612	210	2.4612	210	2.4612	210	2.4612	141	1.65252
3	Homestead Garden	Ha.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	Vermi Compost	No.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Drip Irrigation System	No.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	New Technology Viz. APSA-80 etc.	Lit.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total			0	32.56156		4.74756		5.7252		5.7252		5.7252		5.7252		4.91652
B.	<u>Conservation measures for nonarable land</u>																
1	Plantation	Ha.	0.285	20	5.7	0	0	20	5.7	0	0	0	0	0	0	0	0
2	Pasture Development	Ha.	0.01617	20	0.3234	0	0	20	0.3234	0	0	0	0	0	0	0	0
	Total				6.0234		0		6.0234		0		0		0		0
C.	<u>Animal Health</u>	No.															
1	Animal Health camp	No.	0.2	119	23.8	14	2.8	21	4.2	21	4.2	21	4.2	21	4.2	21	4.2
2	Vaccination		-	-	0.2466	0	0.1	0	0.1133	0	0.0333	0	0	0	0	0	0
3	Const of Sand Ghar		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	Purchase of Sand / Padda		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Artificial Insumentation		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Castration		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total			24.0466	0	2.9	0	4.3133	0	4.2333	0	4.2	0	4.2	0	4.2	0
D.	<u>Micro Enterprises</u>	-	-	18.37	0	3.37	0	4	0	3	0	4	0	2	0	2	0
	Grand Total (A+B+C+D)				81.00156		11.01756		20.0619		12.9585		13.9252		11.9252		11.11652

Componentwise Distribution of Budget II . Production system and Micro Enterprises

S.No.	Activity	Unit	Unit Cost	Salwa Khurd		Bada Kalla & Khurd		Total		
				Area (Ha)	1590	Area (Ha)	2010	Area (Ha)	3600	
				Physical	Financial	Physical	Financial	Physical	Financial	
A.	Conservation measures for arable land									
1	Horticulture	Ha.	0.272	30	8.16	40	10.88	70	19.04	
2	Crop demonstration	No.	0.01172	531	6.22	623	7.3	1154	13.52	
3	Homestead Garden	Ha.	0	0	0	0	0	0	0	
4	Vermi Compost	No.	0	0	0	0	0	0	0	
5	Drip Irrigation System	No.	0	0	0	0	0	0	0	
6	New Technology Viz. AFSA-80 etc.	Lit.	0	0	0	0	0	0	0	
	Total				14.38		18.18		32.56	
B.	Conservation measures for nonarable land									
1	Plantation	Ha.	0.285	10	2.85	10	2.85	20	5.7	
2	Pasture Development	Ha.	0.01617	10	0.1617	10	0.1617	20	0.3234	
	Total				3.0117		3.0117		6.0234	
C.	Animal Health									
1	Animal Health camp	No.	0.2	51	10.2	68	13.6	119	23.8	
2	Vaccination	L.S.	-	-	0.0733	-	0.1733	-	0.2466	
3	Const of Sand Ghar	0	0	0	0	0	0	0	0	
4	Purchase of Sand / Padma	0	0	0	0	0	0	0	0	
5	Artificial Insumentation	0	0	0	0	0	0	0	0	
6	Castration	0	0	0	0	0	0	0	0	
	Total		0	0	10.2733	0	13.7733	0	24.0466	
D.	Micro Enterprises		-	-	0	8.11	0	10.26	-	18.37
	Grand Total (A+B+C+D)				35.775		45.225		81	

Scheme : IWMP
Watershad : BARA KALLA

Panchayat Samiti : BHOPALGARH
District : Jodhpur

ACTIVITYWISE TOTAL ABSTRACT OF COST

Excluding Convergence with MNREGA

S.NO.	Activities	Villages		
		SALWA KHURD	BADA KALLA & KHURD	TOTAL
A.	Area In Hac.	1590	2010	3600
	Natural Resource Management 60%			
	1. Conservation Measures for arable land	121.32	166.5	287.82
	2. Conservation Measures for nonarable land	21.78	14.4	36.18
	TOTAL "A"	143.1	180.9	324
B.	Production system and micro enterprises 15%			
	1. Production Measures for arable land	14.38	18.18	32.56
	2. Production Measures for nonarable land	7.785	9.835	17.62
	3. Animal health	5.5	6.95	12.45
	4. Micro enterprises	8.11	10.26	18.37
TOTAL "B"	35.775	45.225	81	
C.	1. Administration 10%	23.85	30.15	54
	2. Monitoring 1%	2.385	3.015	5.4
	3. Evolution 1%	2.385	3.015	5.4
	4. E. P. A. 4%	9.54	12.06	21.6
	5. Institution & capacity Building 5%	11.925	15.075	27
	6. DPR 1%	2.385	3.015	5.4
	7. Consolidation 3%	7.155	9.045	16.2
TOTAL "C"	59.625	75.375	135	
Grand Total (A+B+C)	238.5	301.5	540	

Scheme : IWMP
Watershad : BARAN KALLAN

Panchayat Samiti : Bhopalgarh
District : Jodhpur

Componentwise Distribution of Budget Excluding Convergence with MNREGA

S.No.	Gram Panchayat	Name of Villages	Area (Ha.)	Sanctioned Amount (Lacs)	Budget Component (Lacs)								
					Administrative Cost (10%)	Monitoring (1%)	Evolution (1%)	EPA (4%)	Institution & Capacity Building (5%)	DPR (1%)	Watershad development works (60%)	Livelihood Activities for the assetless Person, Production system and microenterprises (15%)	Consolidation Phase (3%)
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	SALWA KHURD	SALWA KHURD	1590	238.5	23.85	2.385	2.385	9.54	11.925	2.385	143.1	35.775	7.155
			0	0	0	0	0	0	0	0	0	0	0
		TOTAL	1590	238.5	23.85	2.385	2.385	9.54	11.925	2.385	143.1	35.775	7.155
2	BARAN KLLA	BARA KALLAN & KHURD	2010	301.5	30.15	3.015	3.015	12.06	15.075	3.015	180.9	45.225	9.045
			0	0	0	0	0	0	0	0	0	0	0
			0	0	0	0	0	0	0	0	0	0	0
			0	0	0	0	0	0	0	0	0	0	0
		TOTAL	2010	301.5	30.15	3.015	3.015	12.06	15.075	3.015	180.9	45.225	9.045
		GRAND TOTAL	3600	540	54	5.4	5.4	21.6	27	5.4	324	81	16.2

Scheme : IWMP
Watershad : Baran Kalla

Panchayat Samiti : **Bhopalgarh**
District : Jodhpur

Componentwise Distribution of Budget Excluding Convergence with MNREGA

I. Natural Resource Management

S.No.	Activity	Unit	Unit Cost	Salwa Khurd		Bada Kalla & Khurd		Total	
				Area (Ha)	1590	Area (Ha)	2010	Area (Ha)	3600
				Physical	Financial	Physical	Financial	Physical	Financial
A. Conservation measures for arable land									
1	Khadeen work	Ha.	2.97	2	5.94	3	8.91	5	14.85
2	Tanka	No.	0.51	125	63.75	160	81.6	285	145.35
3	Bunding Work	Ha.	0.0655	704	46.112	1060	69.43	1764	115.542
4	Gully Plugging	No.	0.06	25	1.5	29	1.74	54	3.24
5	Waste Weir	No.	0.16	25	4	30	4.8	55	8.8
Total					121.3		166.48		287.782
B. Conservation measures for nonarable land									
1	Ditch Cum Bund Fencing	Length in meter	102 Per Meter	1000	1.02	1000	1.02	2000	2.04
2	CONTOUR TRENCH	Ha.	0.055	10	0.55	10	0.55	20	1.1
3	Nala Bunding Work (LSCD)	No.	0.16	64	10.24	49	7.84	113	18.08
4	Anicut Work	No.	According to Design	-	-	-	-	-	-
5	Nadi Work	No.	According to Design	2	10	1	5	3	15
Total					21.81		14.41		36.22
Grand Total (A+B)					143.11		180.89		324

Scheme : IWMP
Watershad : Bara kalla

Panchayat Samiti : Bhopalgarh
District : Jodhpur

Component wise & year wise Financial Breakup of Watershed Activities

S.No.	Activity	1st Year		2nd Year		3rd Year		4th Year		5th Year		6th Year		Total	
		%	Financial (Rs. In Lacs.)	%	Financial (Rs. In Lacs.)	%	Financial (Rs. In Lacs.)	%	Financial (Rs. In Lacs.)	%	Financial (Rs. In Lacs.)	%	Financial (Rs. In Lacs.)	%	Financial (Rs. In Lacs.)
1	Administration	1	5.4	2	10.8	2	10.8	2	10.8	2	10.8	1	5.4	10	54
2	Monitoring	0.1	0.54	0.2	1.08	0.2	1.08	0.2	1.08	0.2	1.08	0.1	0.54	1	5.4
3	Evalution	0	0	0.3	1.62	0	0	0.35	1.89	0	0	0.35	1.89	1	5.4
4	E.P.A.	4	21.6	0	0	0	0	0	0	0	0	0	0	4	21.6
5	Institution & Capacity Building	1.5	8.1	1.5	8.1	0.5	2.7	1	5.4	0	0	0.5	2.7	5	27
6	Detail Project Report	1	5.4	0	0	0	0	0	0	0	0	0	0	1	5.4
7	Consolidation	0	0	0	0	0	0	0	0	0	0	3	16.2	3	16.2
	<u>TOTAL</u>	7.6	41.04	4	21.6	2.7	14.58	3.55	19.17	2.2	11.88	4.95	26.73	25	135

Componentwise & Yearwise Distribution of Budget Excluding Convergence with MNREGA

I . Natural Resource Management

(Rs. in Lacs)

S.No.	Activity	Unit	RATE	QUANTITY	AMOUNT	1st year		2nd year		3rd year		4th year		5th year		6th year	
						Physical	Financial	Physical	Financial	Physical	Financial	Physical	Financial	Physical	Financial	Physical	Financial
A.	Conservation measures for arable land																
1	Khadeen work	Ha.	2.97	5	14.85	0	0	2	5.94	2	5.94	1	2.97	0	0	0	0
2	Tanka	No.	0.51	285	145.35	40	20.4	60	30.6	55	28.05	55	28.05	55	28.05	20	10.2
3	Bunding Work	Ha.	0.0655	1764	115.542	260	17.03	305	19.9775	305	19.9775	305	19.9775	305	19.9775	284	18.602
4	Gully Plugging	No.	0.06	54	3.24	7	0.42	17	1.02	20	1.2	5	0.3	5	0.3	0	0
5	Waste Weir	No.	0.16	55	8.8	10	1.6	15	2.4	15	2.4	10	1.6	5	0.8	0	0
	Total				287.782		39.45		59.9375		57.5675		52.8975		49.1275		28.802
B.	Conservation measures for nonarable land																
1	Ditch Cum Bund Fencing	No.	102/- per running meter	2000	2.04	0	0	2000	2.04	0	0	0	0	0	0	0	0
2	CONTOUR TRENCH	Ha.	0.055	20	1.1	0	0	20	1.1	0	0	0	0	0	0	0	0
3	Nala Bunding Work	No.	0.16	113	18.08	8	1.28	24	3.84	24	3.84	24	3.84	18	2.88	15	2.4
4	Anicut Work	No.	according to design	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Nadi Work	No.	according to design	3	15	0	0	2	10	1	5	0	0	0	0	0	0
	Total				36.22		1.28		16.98		8.84		3.84		2.88		2.4
	Grand Total (A+B)				324.002		40.73		76.9175		66.4075		56.7375		52.0075		31.202

Scheme : IWMP
Watershad : Bara Kalla

Panchayat Samiti : Bhopalgarh
District : Jodhpur

Componentwise & Yearwise Distribution of Budget Excluding Convergence with MNREGA
I. Natural Resource Management for village Salwa Khurd (G.P. - Salwa Khurd)
(Rs. in Lacs)

S.No.	Activity	Unit	RATE	QUANTITY	AMOUNT	1st year		2nd year		3rd year		4th year		5th year		6th year	
						Physical	Financial	Physical	Financial	Physical	Financial	Physical	Financial	Physical	Financial	Physical	Financial
A.	Conservation measures for arable land																
1	Khadeen work	Ha.	2.97	2	5.94	0	0	1	2.97	1	2.97	0	0	0	0	0	0
2	Tanka	No.	0.51	125	63.75	15	7.65	25	12.75	25	12.75	25	12.75	25	12.75	10	5.1
3	Bunding Work	Ha.	0.0655	704	46.112	100	6.55	125	8.1875	125	8.1875	125	8.1875	125	8.1875	104	6.812
4	Gully Plugging	No.	0.06	25	1.5	5	0.3	5	0.3	5	0.3	5	0.3	5	0.3	0	0
5	Waste Weir	No.	0.16	25	4	5	0.8	5	0.8	5	0.8	5	0.8	5	0.8	0	0
	Total				121.302		15.3		25.0075		25.0075		22.0375		22.0375		11.912
B.	Conservation measures for nonarable land																
1	Ditch Cum Bund Fencing	Length in meter	102/- per running meter	1000	1.02	0	0	1000	1.02	0	0	0	0	0	0	0	0
2	CONTOUR TRENCH	Ha.	0.055	10	0.55	0	0	10	0.55	0	0	0	0	0	0	0	0
3	Nala Bunding Work	No.	0.16	64	10.24	4	0.64	12	1.92	12	1.92	12	1.92	12	1.92	12	1.92
4	Anicut Work	No.	according to design	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Nadi Work	No.	according to design	2	10	0	0	1	5	1	5	0	0	0	0	0	0
	Total				21.81		0.64		8.49		6.92		1.92		1.92		1.92
	Grand Total (A+B)				143.112		15.94		33.4975		31.9275		23.9575		23.9575		13.832

0

Scheme : IWMP
Watershad : Bara kalla & Khurd

Panchayat Samiti : Bhopalgarh
District : Jodhpur

Componentwise & Yearwise Distribution of Budget Excluding Convergence with MNREGA

I . Natural Resource Management for village Bada Kalla & Khurd (G.P. - Bada Khurd)

(Rs. in Lacs)

S.No.	Activity	Unit	RATE	QUANTITY	AMOUNT	1st year		2nd year		3rd year		4th year		5th year		6th year	
						Physical	Financial	Physical	Financial	Physical	Financial	Physical	Financial	Physical	Financial	Physical	Financial
A.	Conservation measures for arable land																
1	Khadeen work	Ha.	2.97	3	8.91	0	0	1	2.97	1	2.97	1	2.97	0	0	0	0
2	Tanka	No.	0.51	160	81.6	25	12.75	35	17.85	30	15.3	30	15.3	30	15.3	10	5.1
3	Bunding Work	Ha.	0.0655	1060	69.43	160	10.48	180	11.79	180	11.79	180	11.79	180	11.79	180	11.79
4	Gully Plugging	No.	0.06	29	1.74	2	0.12	12	0.72	15	0.9	0	0	0	0	0	0
5	Waste Weir	No.	0.16	30	4.8	5	0.8	10	1.6	10	1.6	5	0.8	0	0	0	0
	Total				166.48		24.15		34.93		32.56		30.86		27.09		16.89
B.	Conservation measures for nonarable land																
1	Ditch Cum Bund Fencing	No.	102/- per running meter	1000	1.02	0	0	1000	1.02	0	0	0	0	0	0	0	0
2	CONTOUR TRENCH	Ha.	0.055	10	0.55	0	0	10	0.55	0	0	0	0	0	0	0	0
3	Nala Bunding Work	No.	0.16	49	7.84	4	0.64	12	1.92	12	1.92	12	1.92	6	0.96	3	0.48
4	Anicut Work	No.	according to design	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Nadi Work	No.	according to design	1	5	0	0	1	5	0	0	0	0	0	0	0	0
	Total				14.41		0.64		8.49		1.92		1.92		0.96		0.48
	Grand Total (A+B)				180.89		24.79		43.42		34.48		32.78		28.05		17.37

9	सीमेंट प्लास्टर दीवार पर 1:6 अनुपात में सीमेंट-बजरी मिलाकर कर जोड़ों को कुरेदने तथा तराई सहित 20 मि.मी. में।	3.14	10.5	--	11.5	379.16								
						0.00								
						0.00								
		योग				379.16	35.22	व.मी.	21.60	41.10	79.00	760.75	1447.54	2782.38
10	पत्थर की चुनाई पर सीमेण्ट मसाला 1:3 से टीपो का कार्य	3.14	13	--	2	81.64								
						0.00								
		योग				81.64	7.58	व.मी.	13.80	39.80	48.00	104.6	301.68	363.84
11	22 गेज की सादा एम. एस. चद्दर के दो पल्ले वाले दरवाजे, जिसमें लोहे की 40x40x3 मि.मी. के कोनिया लोहे की चौरवट तथा पल्लो में 25x25x3 मि.मी. के कोनिया लोहे(Angle Iron) के किनारे दिए गए नक्शे के अनुसार मय अर्गल चिटकनी तथा पकड़ पट्टियों के आपूर्ति व लगान	1	2	--	2	4.00								
						0.00								
						0.00								
						0.00								
						0.00								
						0.00								
		योग				4.00	0.37	व.मी.	33.80	115.00	1133.00	12.51	42.55	419.21
12	ग्रिल/गेट आदि में लोहे का कार्य जिसमें सपाट, कोनिया, टी तथा नालीदार (चेनल), को काटना, चढ़ाना तथा लगाना आदि।	2	5	1	1	10.00								
						10.00	10.00	Kg.	2.70	9.20	47.40	27	92	474
		योग				635.85	635.85							
13	Aagor Around the tanka of 9 feet width	1	1	1										
		योग				635.85	59.09	व.मी.	33.60	37.00	37.00	1985.42	2186.33	2186.33

अतिरिक्त जोड़े कन्टीजेन्सी के

	10931.6	19984	49902
(3 % कुल योग के)	0	0	1497
महायोग	10931.6	19984	51399

राशि				
श्रम	अकुशल	(a)	0.11	लाख
सामग्री		(b)	0.40	लाख
योग	(a+b)	(c)	0.51	लाख

31415.00

श्रम 21.57 %
सामग्री 78.43 %

CAPACITY :---- 27579 लीटर

TANKA					
S.NO.	ITEM	QUANTITY	QUANTITY	QUANTITY	QUANTITY
1	CONCRETE	1:06:12	1:05:10	1:04:08	
				1.88	
2	FOUNDATION	1:06	1:08	1:03	

मॉडल एस्टीमेट
DETAILS OF WORK AND ABSTRACT OF COST

कार्य का नाम :- मेढबन्धी निर्माण (FIELD BOUNDRY on arable land)
लागत :- FOR PER RUNNING METER

क.सं.	कार्य का विवरण	सं.	विशेष विवरण			मात्रा		ईकाई	दर			राशि	
			ल.	चौ.	ऊं/ग.	फीट	कुल मी.		अकुशल	कुल श्रम	कुल	अकुशल	कुल श्रम
1	जंगल की सफाई, साधारण वनस्पति तथा झाड़ियों को काटने सहित।	1	32.28	—	—	32.28							
					योग	32.28	3.00	व.मी.	1.40	1.40	1.40	4.2	4.2
2	मिट्टी का कार्य बन्ध मे (सूखी या गीली), 15 से.मी. परत मे डालना, ढेलों को तोड़ना, घास—पात तथा कंकर बीनकर अलग करना तथा मिट्टी की दरेसी करना , 1.5 मी उठान तथा 50 मी. दूरी के लिए। सख्त मिट्टी में	1	3.28	5.412	2.952	52.40							
					योग	52.40	1.48	घ.मी.	81.50	83.60	85.00	120.62	123.73
3	बिछाई हुई मिट्टी हस्त दुरमुट से कूटना	52.40	—	—	—	52.40							
					योग	52.40	1.48	घ.मी.	18.90	18.90	19.30	27.97	27.97

अतिरिक्त जोडे कन्टीजेन्सी के

(3% कुल योग के)
महायोग

153 **156**
0 **0**
153 **156**

COST OF BUNDING PER RUNNING METER= **163.77**
COST OF BUNDING PER HACTARE= 6550.80



कुल
4.2
125.8
28.56

159
4.77
163.77

कुल
0.69
80.75
18.34
100
2
102
लाख
लाख
लाख

	मय बगल का झर्रा बन्द करना तथा तराई आदि।	2	11.5	1.5	5	172.50								
		योग				412.50	11.67	घ.मी.	236.30	554.80	1641.00	2757.62	6474.52	19150.47
7	कोपिंग का कार्य 50 मी. मी. मोटाई में सीमेंट कंक्रीट 1:2:4 मिश्रण जिसमें 1 सीमेंट 2 बजरी 4 पत्थर की 12 . मी. नाभीय गिट्टी के साथ मिलाकर डालना, कूटना, दबाना तथा तराई आदि समेत।	1	75	2	—	150.00								
		4	6.5	1.5	—	39.00								
		2	4	1.5	—	12.00								
						0.00								
						0.00								
		योग				201.00	18.67	व.मी.	31.10	79.80	186.00	580.64	1489.87	3472.62
8	सीमेंट प्लास्टर दीवार पर 1:6 अनुपात में सीमेंट-बजरी मिलाकर कर जोड़ों को कुरेदने तथा तराई सहित 20 मि.मी. में।	2	75	—	1	150.00								
		2	5	—	3	30.00								
		1	11.5	—	5	57.50								
		योग				237.50	22.06	व.मी.	21.60	41.10	79.00	476.5	906.67	1742.74
9	वेरद्धा पत्थर का 15 से 23 से.मी. ऊंचाई में खडंजा लगाना तथा खंडजे का होदा में से निकली अतिरिक्त मिट्टी का 50 मी. तक निस्तारण करना। 1:6 सीमेंट मसाले में	1	75	7	—	525.00								
						0.00								
						0.00								
						0.00								
		योग				525.00	48.77	व.मी.	43.20	108.20	302.00	2106.86	5276.91	14728.54

183606 203959 288236

0 0 0

0 0 0

0 0 0

0 0 0

कुल योग

183606 203959 288236

(3 % कुल योग के)

0 0 8647

0 0 0

महायोग

183606 203959 296883

अतिरिक्त जोड़े कर्न्टीजेन्सी के

क.सं.	कुल सामग्री आवश्यकता	ईकाई	मात्रा	दर	राशि	ईकाई	मात्रा
1	बजरी	घ.मी.	23.18	380.00	8807.00	घ.फीट	819
2	गिट्टी पत्थर की 40 मि.मी.	घ.मी.	14.63	400.00	5854.00	घ.फीट	517
3	गिट्टी पत्थर की 12 मि.मी.	घ.मी.	0.84	550.00	462.00	घ.फीट	30
4	पत्थर	घ.मी.	61.60	575.00	35418.00	घ.फीट	2177
5	सीमेंट	कि.ग्रा.	6485.82	220.00	28538.00	थेले	130
	सोलिंग पत्थर	घ.मी.	#REF!	375.00	#REF!	घ.फीट	#REF!
6	कारीगर		0	275	0.00		
		योग			#REF!		
					0.0		
7	अन्य/पानी				8647		
		कुल योग			#REF!		
8	T & P व अन्य				#REF!		

		राशि		
श्रम	अकुशल	(a)	1.84	लाख
सामग्री		(b)	1.13	लाख
योग	(a+b)	(c)	2.97	लाख

श्रम 61.95 %

सामग्री 38.05 %

		महायोग		113277
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मॉडल एस्टीमेट
DETAILS OF WORK AND ABSTRACT OF COST

कार्य का नाम :- नाडी खुदाई तथा धाट निर्माण
लागत :- 9.69 लाख

क्र.सं.	कार्य का विवरण	सं.	विशेष विवरण			मात्रा		ईकाई	दर			राशि			
			ल.	चौ.	ऊं/ग.	फीट	कुल मी.		अकुशल	कुल श्रम	कुल	अकुशल	कुल श्रम	कुल	
1	15 से.मी. तक औसत मिट्टी काट कर, जमीन की सतह को संवारना (Dressing) तथा वनस्पति तथा छोटे पौधों को हटाना तथा तुच्छ पदार्थ और कूड़ा करकट को 1.5 मीटर उठान तथा 50 मीटर दूरी तक डालना।	1	1150	31.75	—	36512.50									
							0.00								
							0.00								
							0.00								
							0.00								
					योग	36512.50	3392.01	व.मी.	5.10	5.18	5.18	17299.25	17575.02	17575.02	
2	मिट्टी का कार्य बन्ध में (सूखी या गीली), 15 से.मी. परत में डालना, ढेलों को तोड़ना, घास-पात तथा कंकर बीनकर अलग करना तथा मिट्टी की दरेसी करना , 1.5 मी उठान तथा 50 मी. दूरी के लिए। सख्त मिट्टी में	1	1150	42	12	579600.00									
							0.00								
							0.00								
							0.00								
							0.00								
							योग	579600.00							
							कटोटियां								
		1	1150	22.5	8	207000.00									
					योग	207000.00									
					शेष	372600.00									
(अ)	सख्त मिट्टी में	279450	—	—	—	279450.00	7908.44	घ.मी.	6.10	6.10	6.11	48241.48	48241.48	48320.57	
(ब)	कंकर मिली मिट्टी में	93150	—	—	—	93150.00	2636.15	घ.मी.	0.00	0.00	0.00	0	0	0	
3	आईटम 1 में 1.5 मीटर 2 अतिरिक्त उठान (Lift)	372600.00	—	—	—	372600.00									
						0.00									
						योग	372600.00	10544.58	घ.मी.	21.60	21.60	21.60	227762.93	227762.93	227762.93
4	आईटम 1 में 50 मीटर 1 अतिरिक्त दूरी तक फेंकने के लिए	186300.00	—	—	—	186300.00									
						0.00									
						योग	186300.00	5272.29	घ.मी.	33.80	33.80	33.80	178203.4	178203.4	178203.4
5	बिछाई हुई मिट्टी हस्त दुरमुट से कूटना	372600.00	—	—	—	372600.00									
						0.00									
						योग	372600.00	10544.58	घ.मी.	18.90	18.90	19.30	199292.56	199292.56	203510.39
6	क्वैरी रविश की आपूर्ति	1	1150	43.75	0.333	16770.83									
						0.00									
						योग	16770.83	474.61	घ.मी.	0.00	0.00	37.00	0	0	17560.57
7	क्वैरी रविश का परिवहन। 4 km, lead	16770.83	—	—	—	16770.83									
						0.00									

			योग	16770.83	474.61	घ.मी.			0.00	0	0	0
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8	क्वैरी रविश को 15 से.मी. से (बिना कुटी) कम मोटाई में बिछाना, फेलाना पानी खर्च तथा औजार, सहित ।	16770.83	-	-	-	16770.83								
						0.00								
					योग	16770.83	474.61	घ.मी.	32.40	33.90	35.00	15377.36	16089.28	16611.35
9	नींव, खाई, परनाला में 1.5 गहराई तक मिट्टी की खुदाई करना, तल को कूटना, पानी डालना, बगल को संवारना, खुदी मिट्टी को बाहर निकालना, नींव भरने के बाद खाली स्थानों को पुनः मिट्टी से भरना तथा बची हुई मिट्टी को 50 मीटर की दूरी तक निस्तारण करना। सख्त मिट्टी म	2	30	2	2	240.00								
		2	30	2	2	240.00								
		2	30	2	2	240.00								
		2	30	2	2	240.00								
		2	30	2	2	240.00								
		2	30	2	2	240.00								
		2	54	2	2	432.00								
		2	54	2	2	432.00								
		2	54	15	0.75	1215.00								
		2	54	15	0.75	1215.00								
		1	30	31.75	0.50	476.25								
		1	30	28.75	0.75	646.88								
					योग	5857.13	165.76	घ.मी.	83.70	92.00	92.00	13874.11	15249.92	15249.92
10	सीमेंट काक्रीट नींव में 40 मि.मी. नामीय माप की पत्थर की गिट्टी सीमेंट रेत मसाला 1सीमेंट : 4 रेत : 8गिट्टी अनुपात में मिलाकर, डालना तथा कुटाई करना, तराई समेत।	2	30	2	0.5	60.00								
		2	30	2	0.5	60.00								
		2	30	2	0.5	60.00								
		2	30	2	0.5	60.00								
		2	30	2	0.5	60.00								
		2	30	2	0.5	60.00								
			योग	360.00	10.19	घ.मी.	287.60	320.10	1586.00	2930.64	3261.82	16161.34		
11	फिल्टर में धुले वेलास्ट तथा ग्रेबल को चाहे गए प्रोफाईल में डालना तथा आपूर्ति करना समस्त उठान के साथ।	2	54	2	2	432.00								
		2	54	2	2	432.00								
					योग	864.00	24.45	घ.मी.	0.00	0.00	0.00	0	0	0
12	नींव तथा कुर्सी में पत्थर की वे रद्धा-ढोका चिनाई सीमेंट-बजरी 1 : 6 मसाले में, मय बगल की झिरी बन्द करना तथा तराई आदि।	2	30	1.5	1.5	135.00								
		2	30	1.5	1.5	135.00								
		2	30	1.5	1.5	135.00								
		2	30	1.5	1.5	135.00								
		2	30	1.5	1.5	135.00								
		2	30	1.5	1.5	135.00								
			योग	810.00	22.92	घ.मी.	189.00	419.80	1503.00	4331.88	9621.82	34448.76		
13	अधिरचना में पत्थर की वे रद्धा-ढोका चिनाई सीमेंट-बजरी 1 : 6 मसाले में, मय बगल की झिरी बन्द करना तथा तराई आदि।	2	30	1.375	4	330.00								
		2	30	1.25	2	150.00								
		2	30	1.375	4	330.00								
		2	30	1.25	2	150.00								
			योग	960.00	27.17	घ.मी.	236.30	554.80	1641.00	6420.27	15073.92	44585.97		

14	पत्थर के सिरदल 15 से.मी. मोटाई तक की आपूर्ति कर, चिनाई में उपयोग की गई मसाले में उसे लगाना।	1	30	34.25	0.5	513.75									
		2	30	1.25	0.5	37.50									
						0.00									
					योग		551.25	15.60	घ.मी.	300.00	1022.20	3598.00	4680	15946.32	56128.8
15	सीमेन्ट मसाले में जोधपुर चापों का फर्श/खडंजा	1	30	10	--	300.00									
		1	30	10	--	300.00									
					योग		600.00	55.74	व.मी.	27.00	124.50	342.00	1504.98	6939.63	19063.08
16	कोपिंग का कार्य 50 मी. मी. मोटाई में सीमेंट कंक्रीट 1:2:4 मिश्रण जिसमें 1 सीमेंट 2 बजरी 4 पत्थर की 12 . मी. नाभीय गिट्टी के साथ मिलाकर डालना, कूटना, दबाना तथा तराई आदि समेत।	2	30	1.25	--	75.00									
		2	30	1.25	--	75.00									
		2	30	1.25	--	75.00									
		2	30	1.25	--	75.00									
					योग		300.00	27.87	व.मी.	31.10	79.80	186.00	866.76	2224.03	5183.82
17	पत्थर की चुनाई पर सीमेन्ट मसाला 1:3 से टीपो का कार्य	4	30	--	4	480.00									
		4	30	--	2	240.00									
		4	30	--	4	480.00									
		2	30	--	2	120.00									
					योग		1320.00	122.63	व.मी.	13.80	39.80	48.00	1692.29	4880.67	5886.24
18	रद्धा कतार ढोका चिनाई (कोर्स खल) सेकिण्ड सोर्ट की अतिरिक्त दर।	1320.00	--	--	--	1320.00									
						0.00									
					योग		1320.00	122.63	व.मी.	21.60	93.00	93.00	2648.81	11404.59	11404.59
19	फर्श के नीचे सूखे पत्थरों का खरंजा लगाना व आपूर्ति करना	1	30	31.75	0.50	476.25									
						0.00									
					योग		476.25	13.48	घ.मी.	40.50	138.00	553.00	545.94	1860.24	7454.44
20	वेरद्धा पत्थर का 15 से 23 से.मी. ऊंचाई में खडंजा लगाना तथा खडंजे का होदा में से निकली अतिरिक्त मिट्टी का 50 मी. तक निस्तारण करना। 1:6 सीमेंट मसाले में	1	30	28.75	--	862.50									
						0.00									
						0.00									
					योग		862.50	80.13	व.मी.	43.20	108.20	302.00	3461.62	8670.07	24199.26
21	15 से 23 से.मी. मोटे, हथोड़े से तरासे हुए एकल पत्थर की पिचिंग समस्त उदान के साथ, आपूर्ति के साथ।	2	54	15	0.75	1215.00									
		2	54	15	0.75	1215.00									
					योग		2430.00	68.77	घ.मी.	7.50	7.50	7.50	515.78	515.78	515.78

729650 782813 949826

0 0 0

0 0 0

0 0 0

0 0 0

0 0 0

0 0 18996.52

अतिरिक्त जोड़े कन्टीजेन्सी के

(2 % कुल योग के)

	0	0	0
महायोग	729650	782813	968822.5

क्र.सं.	कुल सामग्री आवश्यकता	ईकाई	मात्रा	दर	राशि	ईकाई	मात्रा
1	बजरी	घ.मी.	25.89	380.00	9837.00	घ.फीट	915
2	गिट्टी पत्थर की 40 मि.मी.	घ.मी.	33.62	400.00	13448.00	घ.फीट	1188
3	गिट्टी पत्थर की 12 मि.मी.	घ.मी.	1.25	550.00	690.00	घ.फीट	44
4	पत्थर	घ.मी.	75.37	575.00	43339.00	घ.फीट	2663
5	सीमेन्ट	कि.ग्रा.	7605.93	220.00	33466.00	थेले	152
6	पत्थर के सिरदल 15 से.मी. मोटाई	घ.मी.	15.60	2400.00	37440.00	घ.फीट	551
7	सोलिंग पत्थर	घ.मी.	90.48	375.00	33928.00	घ.फीट	3197
8	कारीगर		193	275	53163.00		
9	चाप	व.मी.	64.10	110	7051.00	व.फीट	690
10	क्वैरी रविश	घ.मी.	474.61	37	17561.00	घ.फीट	16771
11	क्वैरी रविश का परिवहन	घ.मी.	474.61	0.00	0.00	घ.फीट	16771
			योग		249923.00		
13	अन्य/पानी						
14			कुल योग		249923.0		
14	T & P व अन्य						
			महायोग		239173		

राशि				
श्रम	अकुशल	(a)	7.30	लाख
सामग्री		(b)	2.39	लाख
योग	(a+b)	(c)	9.69	लाख

श्रम **75.34 %**
सामग्री **24.66 %**

मॉडल एस्टीमेट
DETAILS OF WORK AND ABSTRACT OF COST

कार्य का नाम :- नाडी खुदाई
लागत :- 10.03 लाख

क्र.सं.	कार्य का विवरण	सं.	विशेष विवरण			मात्रा		ईकाई	दर			राशि			
			ल.	चौ.	ऊं/म.	फीट	कुल मी.		अकुशल	कुल श्रम	कुल	अकुशल	कुल श्रम	कुल	
1	15 से.मी. तक औसत मिट्टी काट कर, जमीन की सतह को संवारना (Dressing) तथा वनस्पति तथा छोटे पौधों को हटाना तथा तुच्छ पदार्थ और कूड़ा करकट को 1.5 मीटर उठान तथा 50 मीटर दूरी तक डालना।	1	1113.5	31.75	—	35353.63									
							0.00								
							0.00								
							0.00								
							0.00								
					योग	35353.63	3284.35	घ.मी.	5.10	5.18	5.18	16750.19	17017.2	17017.2	
2	मिट्टी का कार्य बन्ध में (सूखी या गीली), 15 से.मी. परत में डालना, ढेलों को तोड़ना, घास-पात तथा कंकर बीनकर अलग करना तथा मिट्टी की दरेसी करना , 1.5 मी उठान तथा 50 मी. दूरी के लिए। सख्त मिट्टी में	1	1113.5	42	12	561204.00									
							0.00								
							0.00								
							0.00								
							0.00								
					योग	561204.00									
	कटोटियां	1	1113.5	22.5	8	200430.00									
					योग	200430.00									
					शेष	360774.00									
(अ)	सख्त मिट्टी में	270580.5	—	—	—	270580.50	7657.43	घ.मी.	6.10	6.10	6.11	46710.32	46710.32	46786.9	
(ब)	कंकर मिली मिट्टी में	90193.5	—	—	—	90193.50	2552.48	घ.मी.	0.00	0.00	0.00	0	0	0	
3	आईटम 1 में 1.5 मीटर 2 अतिरिक्त उठान (Lift)	360774.00	—	—	—	360774.00									
						0.00									
						योग	360774.00	10209.90	घ.मी.	21.60	21.60	21.60	220533.84	220533.84	220533.84
4	आईटम 1 में 50 मीटर 1 अतिरिक्त दूरी तक फेंकने के लिए	180387.00	—	—	—	180387.00									
						0.00									
						योग	180387.00	5104.95	घ.मी.	33.80	33.80	33.80	172547.31	172547.31	172547.31
5	बिछाई हुई मिट्टी हस्त दुरमुट से कूटना	360774.00	—	—	—	360774.00									
						0.00									
						योग	360774.00	10209.90	घ.मी.	18.90	18.90	19.30	192967.11	192967.11	197051.07

अकुशल श्रम राशि	9.56 लाख	अतिरिक्त जोड़े 30% टास्क कम करने के	(42.86% अकुशल के)	649509	649776	653936
				278380	278380	278380
				योग	927889	928156
		अतिरिक्त जोड़े पानी पिलाने व आया के	(3 % अकुशल के)	27837	27837	27837
				कुल योग	955726	955993
श्रम	95.31 %	अतिरिक्त जोड़े कर्न्टीजेन्सी के	(2 % कुल योग के)	0	0	19203
सामग्री	4.69 %	अतिरिक्त जोड़े पीने के पानी की व्यवस्था के	(2.5 % कुल योग के)	0	0	24004
				महायोग	955726	955993
						1003360

		राशि	
श्रम	अकुशल	(a)	9.56 लाख
सामग्री		(b)	0.47 लाख
योग	(a+b)	(c)	10.03 लाख

मॉडल एस्टीमेट
DETAILS OF WORK AND ABSTRACT OF COST

कार्य का नाम :- नाडी खुदाई
लागत :- 12.54 लाख

क्र.सं.	कार्य का विवरण	सं.	विशेष विवरण			मात्रा		ईकाई	दर			राशि				
			ल.	चौ.	ऊं/म.	फीट	कुल मी.		अकुशल	कुल श्रम	कुल	अकुशल	कुल श्रम	कुल		
1	15 से.मी. तक औसत मिट्टी काट कर, जमीन की सतह को संवारना (Dressing) तथा वनस्पति तथा छोटे पौधों को हटाना तथा तुच्छ पदार्थ और कूड़ा करकट को 1.5 मीटर उठान तथा 50 मीटर दूरी तक डालना।	1	1391.5	31.75	—	44180.13										
						0.00										
						0.00										
						0.00										
						योग		44180.13	4104.33	व.मी.	5.10	5.18	5.18	20932.08	21265.77	21265.77
2	मिट्टी का कार्य बन्ध में (सूखी या गीली), 15 से.मी. परत में डालना, ढेलों को तोड़ना, घास-पात तथा कंकर बीनकर अलग करना तथा मिट्टी की दरेसी करना , 1.5 मी उठान तथा 50 मी. दूरी के लिए। सख्त मिट्टी में	1	1391.5	42	12	701316.00										
						0.00										
						0.00										
						0.00										
						योग		701316.00								
कटोटियां		1	1391.5	22.5	8	250470.00										
						योग	250470.00									
						शेष	450846.00									
(अ)	सख्त मिट्टी में		338134.5	—	—	338134.50	9569.21	घ.मी.	6.10	6.10	6.11	58372.18	58372.18	58467.87		
(ब)	कंकर मिली मिट्टी में		112711.5	—	—	112711.50	3189.74	घ.मी.	0.00	0.00	0.00	0	0	0		
3	आईटम 1 में 1.5 मीटर 2 अतिरिक्त उठान (Lift)	450846.00	—	—	—	450846.00										
						0.00										
						योग	450846.00	12758.94	घ.मी.	21.60	21.60	21.60	275593.1	275593.1	275593.1	
4	आईटम 1 में 50 मीटर 1 अतिरिक्त दूरी तक फेंकने के लिए	225423.00	—	—	—	225423.00										
						0.00										
						योग	225423.00	6379.47	घ.मी.	33.80	33.80	33.80	215626.09	215626.09	215626.09	
5	बिछाई हुई मिट्टी हस्त दुरमुट से कूटना	450846.00	—	—	—	450846.00										
						0.00										
						योग	450846.00	12758.94	घ.मी.	18.90	18.90	19.30	241143.97	241143.97	246247.54	

अकुशल श्रम राशि

11.94 लाख

अतिरिक्त जोड़े 30% टास्क कम करने के

(42.86% अकुशल के)

811667 812001 817200

347880 347880 347880

योग

1159547 1159881 1165080

(3 % अकुशल के)

34786 34786 34786

कुल योग

1194333 1194667 1199866

(2 % कुल योग के)

0 0 23997

(2.5 % कुल योग के)

0 0 29997

महायोग

1194333 1194667 1253860

श्रम 95.22 %

सामग्री 4.78 %

अतिरिक्त जोड़े कर्न्टीजेन्सी के

अतिरिक्त जोड़े पीने के पानी की व्यवस्था के

		राशि	
श्रम	अकुशल	(a)	11.94 लाख
सामग्री		(b)	0.60 लाख
योग	(a+b)	(c)	12.54 लाख

मॉडल एस्टीमेट
DETAILS OF WORK AND ABSTRACT OF COST

कार्य का नाम :- नाडी खुदाई
लागत :- 2.51 लाख

क्र.सं.	कार्य का विवरण	सं.	विशेष विवरण			मात्रा		ईकाई	दर			राशि				
			ल.	चौ.	ऊं/म.	फीट	कुल मी.		अकुशल	कुल श्रम	कुल	अकुशल	कुल श्रम	कुल		
1	15 से.मी. तक औसत मिट्टी काट कर, जमीन की सतह को संवारना (Dressing) तथा वनस्पति तथा छोटे पौधों को हटाना तथा तुच्छ पदार्थ और कूड़ा करकट को 1.5 मीटर उठान तथा 50 मीटर दूरी तक डालना।	1	278.5	31.75	—	8842.38										
						0.00										
						0.00										
						0.00										
						योग		8842.38	821.46	घ.मी.	5.10	5.18	5.18	4189.45	4256.23	4256.23
2	मिट्टी का कार्य बन्ध में (सूखी या गीली), 15 से.मी. परत में डालना, ढेलों को तोड़ना, घास-पात तथा कंकर बीनकर अलग करना तथा मिट्टी की दरेसी करना , 1.5 मी उठान तथा 50 मी. दूरी के लिए। सख्त मिट्टी में	1	278.5	42	12	140364.00										
						0.00										
						0.00										
						0.00										
						योग		140364.00								
कटोटियां		1	278.5	22.5	8	50130.00										
						योग		50130.00								
						शेष		90234.00								
(अ)	सख्त मिट्टी में		67675.5	—	—	—	67675.50	1915.22	घ.मी.	6.10	6.10	6.11	11682.84	11682.84	11701.99	
(ब)	कंकर मिली मिट्टी में		22558.5	—	—	—	22558.50	638.41	घ.मी.	0.00	0.00	0.00	0	0	0	
3	आईटम 1 में 1.5 मीटर 2 अतिरिक्त उठान (Lift)	90234.00	—	—	—	90234.00										
						0.00										
						योग		90234.00	2553.62	घ.मी.	21.60	21.60	21.60	55158.19	55158.19	55158.19
4	आईटम 1 में 50 मीटर 1 अतिरिक्त दूरी तक फेंकने के लिए	45117.00	—	—	—	45117.00										
						0.00										
						योग		45117.00	1276.81	घ.मी.	33.80	33.80	33.80	43156.18	43156.18	43156.18
5	बिछाई हुई मिट्टी हस्त दुरमुट से कूटना	90234.00	—	—	—	90234.00										
						0.00										
						योग		90234.00	2553.62	घ.मी.	18.90	18.90	19.30	48263.42	48263.42	49284.87

अकुशल श्रम राशि	2.39 लाख	अतिरिक्त जोड़े 30% टास्क कम करने के	(42.86% अकुशल के)	69626	69626	69626
		अतिरिक्त जोड़े पानी पिलाने व आया के	(3 % अकुशल के)	6962	6962	6962
		अतिरिक्त जोड़े कर्न्टीजेन्सी के	(2 % कुल योग के)	0	0	4803
श्रम	95.22 %	अतिरिक्त जोड़े पीने के पानी की व्यवस्था के	(2.5 % कुल योग के)	0	0	6004
सामग्री	4.78 %		महायोग	239038	239105	250952

		राशि	
श्रम	अकुशल	(a)	लाख
सामग्री		(b)	लाख
योग	(a+b)	(c)	लाख

मॉडल एस्टीमेट
DETAILS OF WORK AND ABSTRACT OF COST

कार्य का नाम :- नाडी खुदाई
लागत :- 5.01 लाख

क्र.सं.	कार्य का विवरण	सं.	विशेष विवरण			मात्रा		ईकाई	दर			राशि				
			ल.	चौ.	ऊं/म.	फीट	कुल मी.		अकुशल	कुल श्रम	कुल	अकुशल	कुल श्रम	कुल		
1	15 से.मी. तक औसत मिट्टी काट कर, जमीन की सतह को संवारना (Dressing) तथा वनस्पति तथा छोटे पौधों को हटाना तथा तुच्छ पदार्थ और कूड़ा करकट को 1.5 मीटर उठान तथा 50 मीटर दूरी तक डालना।	1	556.5	31.75	—	17668.88										
						0.00										
						0.00										
						0.00										
						योग		17668.88	1641.44	घ.मी.	5.10	5.18	5.18	8371.34	8504.79	8504.79
2	मिट्टी का कार्य बन्ध में (सूखी या गीली), 15 से.मी. परत में डालना, ढेलों को तोड़ना, घास-पात तथा कंकर बीनकर अलग करना तथा मिट्टी की दरेसी करना , 1.5 मी उठान तथा 50 मी. दूरी के लिए। सख्त मिट्टी में	1	556.5	42	12	280476.00										
						0.00										
						0.00										
						0.00										
						योग		280476.00								
कटोटियां		1	556.5	22.5	8	100170.00										
						योग		100170.00								
						शेष		180306.00								
(अ)	सख्त मिट्टी में		135229.5	—	—	—	135229.50	3826.99	घ.मी.	6.10	6.10	6.11	23344.64	23344.64	23382.91	
(ब)	कंकर मिली मिट्टी में		45076.5	—	—	—	45076.50	1275.66	घ.मी.	0.00	0.00	0.00	0	0	0	
3	आईटम 1 में 1.5 मीटर 2 अतिरिक्त उठान (Lift)	180306.00	—	—	—	180306.00										
						0.00										
						योग		180306.00	5102.66	घ.मी.	21.60	21.60	21.60	110217.46	110217.46	110217.46
4	आईटम 1 में 50 मीटर 1 अतिरिक्त दूरी तक फेंकने के लिए	90153.00	—	—	—	90153.00										
						0.00										
						योग		90153.00	2551.33	घ.मी.	33.80	33.80	33.80	86234.95	86234.95	86234.95
5	बिछाई हुई मिट्टी हस्त दुरमुट से कूटना	180306.00	—	—	—	180306.00										
						0.00										
						योग		180306.00	5102.66	घ.मी.	18.90	18.90	19.30	96440.27	96440.27	98481.34

अकुशल श्रम राशि	4.78 लाख	अतिरिक्त जोड़े 30% टास्क कम करने के	(42.86% अकुशल के)	324609	324742	326821
			योग	139127	139127	139127
		अतिरिक्त जोड़े पानी पिलाने व आया के	(3 % अकुशल के)	463736	463869	465948
			कुल योग	13912	13912	13912
श्रम	95.41 %	अतिरिक्त जोड़े कन्टीजेन्सी के	(2 % कुल योग के)	477648	477781	479860
सामग्री	4.59 %	अतिरिक्त जोड़े पीने के पानी की व्यवस्था के	(2.5 % कुल योग के)	0	0	9597
			महायोग	0	0	11997
				477648	477781	501454

		राशि		
श्रम	अकुशल	(a)	4.78	लाख
सामग्री		(b)	0.23	लाख
योग	(a+b)	(c)	5.01	लाख

मॉडल एस्टीमेट
DETAILS OF WORK AND ABSTRACT OF COST

कार्य का नाम :- **GULLY PLUGGING**
लागत :- **0.06 लाख**

3.61456

क्र.सं.	कार्य का विवरण	सं.	विशेष विवरण			मात्रा		ईकाई	दर			राशि	
			ल.	चौ.	ऊं/ग.	फीट	कुल मी.		अकुशल	कुल श्रम	कुल	अकुशल	कुल श्रम
1	जंगल की सफाई, साधारण वनस्पति तथा झाड़ियों को काटने सहित।	1	16.728	—	—	16.728							
					योग	16.73	1.55	व.मी.	1.40	1.40	1.40	2.17	2.17
2	मिट्टी का कार्य बन्ध में (सूखी या गीली), 15 से.मी. परत में डालना, ढेलों को तोड़ना, घास-पात तथा कंकर बीनकर अलग करना तथा मिट्टी की दरेसी करना , 1.5 मी उठान तथा 50 मी. दूरी के लिए। सख्त मिट्टी में	1	49.2	9.348	4.92	2262.81							
						0.00							
						0.00							
						0.00							
					योग	2262.81	64.04	घ.मी.	81.50	83.60	85.00	5219.26	5353.74
4	बिछाई हुई मिट्टी हस्त दुरमुट से कूटना	0.00	—	—	—	0.00							
						0.00							
					योग	0.00	0.00	घ.मी.	0.00	0.00	45.00	0	0
4	15 से 23 से.मी. मोटे, हथोड़े से तरासे हुए एकल पत्थर की पिचिंग समस्त उठान के साथ, आपूर्ति के साथ।	1	13.12	4.756	0.6232	38.89	1.10	घ.मी.					
							1.10	घ.मी.	67.50	174.80	590.00	74.40	192.67

अतिरिक्त जोड़े कन्टीजेन्सी के

(3 % कुल योग के)
महायोग

5296 **5552**
0 **0**
5296 **5552**

राशि			
श्रम	अकुशल	(a)	0.05
सामग्री		(b)	0.01
योग	(a+b)	(c)	0.06

कुल
2.17
5443.4
0
650.32
6096
182.88
6278.88
लाख
लाख
लाख

मॉडल एस्टीमेट
DETAILS OF WORK AND ABSTRACT OF COST

कार्य का नाम :- west wier

लागत :- 0.16 लाख

क.सं.	कार्य का विवरण	सं.	विशेष विवरण			मात्रा		ईकाई	दर			राशि				
			ल.	चौ.	ऊं/ग.	फीट	कुल मी.		अकुशल	कुल श्रम	कुल	अकुशल	कुल श्रम	कुल		
1	नींव, खाई, परनाला में 1.5 गहराई तक मिट्टी की खुदाई करना, तल को कूटना, पानी डालना, बगल को संवारना, खुदी मिट्टी को बाहर निकालना, नींव भरने के बाद खाली स्थानों को पुनः मिट्टी से भरना तथा बची हुई मिट्टी को 50 मीटर की दूरी तक निस्तारण करना। सख्त मिट्टी म	2	14.268	2.46	2.46	172.69										
		4	1.968	2.46	2.46	47.64										
					योग	220.33	6.24	घ.मी.	83.70	92.00	92.00	522.29	574.08	574.08		
2	सीमेंट काक्रीट नींव में 40 मि.मी. नामीय माप की पत्थर की गिट्टी सीमेंट रेत मसाला 1सीमेंट : 4 रेत : 8गिट्टी अनुपात में मिलाकर, डालना तथा कुटाई करना, तराई समेत।	2	14.268	2.46	0.492	34.54										
		4	1.968	2.46	0.492	9.53										
					योग	44.07	1.25	घ.मी.	287.60	320.10	1586.00	359.5	400.13	1982.5		
3	नींव तथा कुर्सी में पत्थर की वे रद्धा-ढोका चिनाई सीमेंट-बजरी 1 : 6 मसाले में, मय बगल की झिरी बन्द करना तथा तराई आदि।	2	13.776	1.968	0.984	53.35										
		4	1.968	1.968	0.984	15.24										
		2	13.284	1.476	0.984	38.59										
		4	1.968	1.476	0.984	11.43										
					योग	118.61	3.36	घ.मी.	189.00	419.80	1503.00	635.04	1410.53	5050.08		
4	अधिरचना में पत्थर की वे रद्धा-ढोका चिनाई सीमेंट-बजरी 1 : 6 मसाले में, मय बगल की झिरी बन्द करना तथा तराई आदि।	2	12.792	1.968	0.984	49.54										
		2	7.38	3.28	0.984	47.64										
		4	1.968	1.968	0.984	15.24										
					योग	112.42	3.18	घ.मी.	236.30	554.80	1641.00	751.43	1764.26	5218.38		

5	कोपिंग का कार्य 50 मी. मी. मोटाई में सीमेंट कंक्रीट 1:2:4 मिश्रण जिसमें 1 सीमेंट 2 बजरी 4 पत्थर की 12 . मी. नाभीय गिट्टी के साथ मिलाकर डालना, कूटना, दबाना तथा तराई आदि समेत ।	2	14.76	0.984	-	29.05							
					योग		29.05	2.70	व.मी.	31.10	79.80	186.00	83.97
6	सीमेंट प्लास्टर दीवार पर 1:6 अनुपात में सीमेंट-बजरी मिलाकर कर जोड़ों को कुरेदने तथा तराई सहित 20 मि.मी. में ।	2	12.792	1.968	-	50.35							
		2	7.38	3.28	-	48.41							
		4	1.968	1.968	-	15.49							
					योग		114.25	10.61	व.मी.	21.60	41.10	79.00	229.18
8	15 से 23 से.मी. मोटे, हथोड़े से तरासे हुए एकल पत्थर की पिचिंग समस्त उदान के साथ, आपूर्ति के साथ ।	1	6.9536	16.4	0.75	85.53							
						0.00							
					योग		85.53	2.42	घ.मी.	67.50	174.80	590.00	163.35

2745 5224 15593

0 0 0

0 0 0

0 0 0

0 0 0

कुल योग 2745 5224 15593

(3% कुल योग के) 0 0 468

0 0 0

महायोग 2745 5224 16061

अतिरिक्त जोड़े कन्टीजेन्सी के

क्र.सं.	कुल सामग्री आवश्यकता	ईकाई	मात्रा	दर	राशि	ईकाई	मात्रा
1	बजरी	घ.मी.	#REF!	380.00	#REF!	घ.फीट	#REF!
2	गिट्टी पत्थर की 40 मि.मी.	घ.मी.	1.13	400.00	450.00	घ.फीट	40
3	गिट्टी पत्थर की 12 मि.मी.	घ.मी.	0.12	550.00	67.00	घ.फीट	4
4	पत्थर	घ.मी.	#REF!	575.00	#REF!	घ.फीट	#REF!
5	सीमेन्ट	कि.ग्रा.	#REF!	220.00	#REF!	थेले	#REF!
	सोलिंग पत्थर	घ.मी.	2.66	375.00	998.00	घ.फीट	94
6	कारीगर		0	275	0.00		
			योग		#REF!		
					0.0		
7	अन्य/पानी				468		
			कुल योग		#REF!		
8	T & P व अन्य				#REF!		
			महायोग		13316		

राशि				
श्रम	अकुशल	(a)	0.03	लाख
सामग्री		(b)	0.13	लाख
योग	(a+b)	(c)	0.16	लाख

श्रम 18.75 %

सामग्री 81.25 %

मॉडल एस्टीमेट

DETAILS OF WORK AND ABSTRACT OF COST

कार्य का नाम :- GRASS ON NONARABIC LAND

लागत :- लाख

क.सं.	कार्य का विवरण	सं.	विशेष विवरण			मात्रा		ईकाई	दर			राशि	
			ल.	चौ.	ऊं/ग.	फीट	कुल मी.		अकुशल	कुल श्रम	कुल	अकुशल	कुल श्रम
1	SUPPLY OF SEEDS OF SEMAN/DHAMAN GRASS												
							7	Kg.			61.50		
2	SOWING OF SEMAN / DHAMAN SEEDS IN PALATES BY MIXTURE OF SEEDS , FERTILIZER, SAND, CLAY SOIL (TOTAL 42 Kg.)	1.00	-	-	-	7.00							
						7.00	7.00	Kg.			27.84		
3	SOWING OF SEED ON FURROWS BY DRIBLING												
						7.00	7.00	Kg.	135.00	135.00	135.00	945	945

अतिरिक्त जोडे कन्टीजेन्सी के

(3 % कुल योग के)
महायोग

945	945
945	945

PER HACTARE COST Rs. 1617.4914

कुल
430.5
194.88
945
1570.38
47.1114
1617.49

मॉडल एस्टीमेट
DETAILS OF WORK AND ABSTRACT OF COST

कार्य का नाम :- **VEGITATIVE TRENCH**
लागत :- **PER RUNNING METER AND HACTARE**

क्र.सं.	कार्य का विवरण	सं.	विशेष विवरण			मात्रा		ईकाई	दर			राशि			
			ल.	चौ.	ऊं/ग.	फीट	कुल मी.		अकुशल	कुल श्रम	कुल	अकुशल	कुल श्रम	कुल	
1	LAYOUT OF TRENCH	1	3.28	-	-	3.28	1								
						3.28	1.00	मी.	0.70	0.70	0.70	0.7	0.7	0.7	
2	नीच व ट्रेंचेच मे मिट्टी की खुदाई का कार्य, खुदी हुई मिट्टी का निस्तारण तथा समतल करना।	1	1.64	0.656	1.968	2.12									
						2.12	0.06	घ.मी.	83.70	92.00	92.00	5.02	5.52	5.52	
3	SUPPLY OF SEEDS OF SEMAN/DHAMAN GRASS						0.002	Kg.			61.50				0.123
4	SOWING OF SEMAN / DHAMAN SEEDS IN PALATES BY NOTCHING (2GM PER RUNNING METER) (FROM	1.00	1	-	-	1.00									
						1.00	1.00	मी.			0.40				0.4

अतिरिक्त जोड़े कन्टीजेन्सी के

(3 % कुल योग के)
महायोग

5.72	6.22	6.743
0.20229		
5.72	6.22	6.94529

PER RUNNING METER COST Rs. 6.94529
PER HACTARE COST Rs. 6.94529*800 = 5556.232