

रोहतास वन प्रमंडल, सासाराम।

जिला अंतर्गत NH-101 छपरा(01.50 कि.मी.-15.500 एवं 30.000-34.075 कि.मी.) पथांस के चौड़ीकरण एवं सुदृढीकरण हेतु कुल लम्बाई 11.00 हे० वनभूमि में क्षतिपूरक वनरोपण का प्रस्तावित प्राक्कलन का सारांश।

वन प्रक्षेत्र का नाम	वनरोपण स्थल	क्षेत्रफल (हेक्टेयर)	पौधों की संख्या	वर्ष 2019-20 अग्रिम कार्य (रु० में)	वर्ष 2020-21 समापन (रु० में)	वर्ष 2021-22 प्रथम वर्ष संपोषण (रु० में)	वर्ष 2022-23 द्वितीय वर्ष संपोषण (रु० में)	वर्ष 2023-24 तृतीय वर्ष संपोषण (रु० में)	वर्ष 2024-25 चतुर्थ वर्ष संपोषण (रु० में)	वर्ष 2025-26 पंचम वर्ष संपोषण (रु० में)	वर्ष 2026-27 षष्ठम वर्ष संपोषण (रु० में)	वर्ष 2027-28 सप्तम वर्ष संपोषण (रु० में)	वर्ष 2028-29 अष्टम वर्ष संपोषण (रु० में)	कुल (रु० में)	अभ्युक्ति
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
सासाराम	रेडिया	11	27500	820598.17	344661.17	284166.00	259220.00	131327.00	140707.50	150088.00	159468.50	168849.00	178229.50	2637314.84	
कुल योग :-		11	27500	820598.17	344661.17	284166.00	259220.00	131327.00	140707.50	150088.00	159468.50	168849.00	178229.50	2637314.84	

✓
20/11/18

वन प्रमंडल पदाधिकारी,
रोहतास वन प्रमंडल, सासाराम।

जिला अन्तर्गत NH-101 छपरा (01.50 कि.मी.-15.500 एवं 30.000-34.075 कि.मी.) पथांस के चौड़ीकरण एवं सुदृढ़ीकरण हेतु 11.00 हे० वन भूमि में क्षतिपूरक वनरोपण के प्राक्कलन का प्रस्ताव।

ROHTAS FOREST DIVISION, SASARAM (Sasaram Range, Sasaram)

FROM FINANCIAL YEAR 2019-20 TO THE FINANCIAL YEAR 2028-29

Name of the Compensatory Afforestation Scheme:-- Plantation. Gross Area in hectare:-- 14

Duration of From F.Y.2019-20 TO the Scheme:-- F.Y.2028-29. Net Area in hectare:-- 11

Name of the Rohtas Forest Division:-- Division, Sasaram. Length of Soil Trench Fencing in Chain in hard Soil:-- 55

Name of the Range:-- Sasaram Range, Sasaram. Length of Stone wall fencing Fencing in Chain :-- 40

Name of the Beat:-- Tilouthu. Area in hectare for normal density bush:-- 10

Name of the Site/P.F.:-- Rediya P.F. Area in hectare for dense bush:-- 4

Revenue 288 No. of Plants per hectare:-- 2500

Thana No:-- 3(p) Total No. of Plants:-- 27500

Plot No:-- 3(p) Wages Rate in Rupees per Mandays:-- 257.00

Name of the Revenue Tilouthu.

Block:--

G.P.R.S readings:--	NW- 24 ⁰ 47'912"N 84 ⁰ 00'770"E	SW- 24 ⁰ 47'867"N 84 ⁰ 00'705"E		NE- 24 ⁰ 47'892"N 84 ⁰ 00'683"E		SE- 24 ⁰ 47'866"N 84 ⁰ 00'780"E				
Advance Work (F.Y.2019-20)		Rate per hectare/Chain					Amount of Work	Total Estimated Amount		
Item No.	Details of Works	Unit	Manday s	Wages (Rs.)	Material	Total Amount		Total Wages (Rs.)	Total Material	Total Amount
1	2	3	4	5	6	7	8	9	10	11
17.1	Survey & Demarcation	hac.	3.00	771.00	25.00	796.00	14.00	10794.00	350.00	11144.00

Advance Work		Rate per					Amount of Work	Total Estimated		
Item No.	Details of Works	Unit	Mandays	Wages (Rs.)	Material	Total Amount		Total Wages (Rs.)	Total Material	Total Amount
1	2	3	4	5	6	7	8	9	10	11
17.2.1	Bush Clearance- bush of normal density	ha.	8.00	2056.00	0.00	2056.00	10.00	20560.00	0.00	20560.00
17.2.2	Bush Clearance- dense bush	ha.	16.00	4112.00	0.00	4112.00	4.00	16448.00	0.00	16448.00
Details Estimate attached below	SMC Checkdam			0.00	0.00	226180.00	0.00	226180.00	0.00	226180.00
17.4.3	Soil Trench (i) By machines in hard soil of the size of 1.83mx1.22mx1.22m 70% of the Manual	chain	0.00	0.00	0.00	3000.00	55.00	165000.00	0.00	165000.00
	(II) Making bund of the dug up soil @ 15% of (i)	chain	3.00	771.00	0.00	771.00	55.00	42405.00	0.00	42405.00
17.5.1	Stone Trench of the size of 0.90mx0.90mx0.30m	chain	21.00	5397.00	0.00	5397.00	40.00	215880.00	0.00	215880.00
17.7.2	Soil Work pit digging of the size of 30cmx30cmx30cm in hard soil	Per 1000 pit	26.50	6810.50	0.00	6810.50	11.00	74915.50	0.00	74915.50
17.9	Nursery Work	per 1000	8.158	2096.61	1773.00	3869.61	11.00	23062.67	19503.00	42565.67

17.10	Purchase of material (Nursery Work)	per 1000 plt.	0.00	0.00	500.00	500.00	11.00	0.00	5500.00	5500.00
	TOTAL		77.50	19917.50	525.00		200.00	795245.17	25353.00	820598.17
Completion Work (F.Y.2020-21)		Rate per hectare/Chain					Amount of Work	Total Estimated Amount		
Item No.	Details of Works	Unit	Mandays	Wages (Rs.)	Material	Total Amount		Total Wages (Rs.)	Total Material	Total Amount
1	2	3	8	5	6	7	8	9	10	11
17.11	Nursery Completion	1000 plt	10.92	2806.44	280.00	3086.44	11.00	30870.84	3080.00	33950.84
17.12	Plantation	1000 plt	32.00	8224.00	450.00	8674.00	11.00	90464.00	4950.00	95414.00
17.13.2.2	Two Hoeing & Weeding in hard soil	1000 plt	35.00	8995.00	300.00	9295.00	11.00	98945.00	3300.00	102245.00
17.14	Seed sowing on the trenches .	chain	0.50	128.50	40.00	168.50	55.00	7067.50	2200.00	9267.50
17.15.1	Protection (For more than 0-30 hac.)	L.S.	243.00	62451.00	0.00	62451.0		62451.00	0.00	62451.00
17.21.1	Misslaneous Work (Sign Board)	Plantation	0.00	0.00	0.00	0.00	0.00	0.00	10000.00	10000.00
	TOTAL		321.42	82604.94	1070.00	83674.94		289798.34	23530.00	313328.34
WITH	10% hike in the cost due to possible hike in wages rate.									344661.17
1st Maintenance Work (F.Y.2021-22)										
17.16.2	Two Hoeing & Weeding in hard soil	1000 plt	35.00	8995.00	150.00	9145.00	11.00	98945.00	1650.00	100595.00
17.17.1	Protection (For more than 0-30 hac.)	L.S.	365.00	93805.00	0.00	93805.00		93805.00	0.00	93805.00
17.17.5	Trench Repair	chain	3.00	771.00	0.00	771.00	55.00	42405.00	0.00	42405.00
	TOTAL		403.00	103571.00	150.00	103721.00		235155.00	1650.00	236805.00

WITH	20% hike in the cost due to possible hike in wages rate.									284166.00
2nd Maintenance Work (F.Y.2022-23)		Rate per hectare/Chain					Amount of Work	Total Estimated Amount		
Item No.	Details of Works	Unit	Mandays	Wages (Rs.)	Material	Total Amount		Total Wages (Rs.)	Total Material	Total Amount
1	2	3	8	5	6	7	8	9	10	11
17.18.2	Two Hoeing & Weeding in hard soil	1000 plt	35.00	8995.00	150.00	9145.00	11.00	98945.00	1650.00	100595.00
17.19.1	Protection (For more than 0-30 hac.)	L.S.	365.00	93805.00	0.00	93805.00		93805.00	0.00	93805.00
17.21.3	Misslaneous Work (Sign Board)	Plantation	0.00	0.00	0.00	0.00	0.00	0.00	5000.00	5000.00
	TOTAL		400.00	102800.00	150.00	102950.00		192750.00	6650.00	199400.00
WITH	30% hike in the cost due to possible hike in wages rate.									259220.00
3rd Maintenance Work (F.Y.2023-24)										
17.20.1	Protection (For more than 0-30 hac.)	L.S.	365.00	93805.00	0.00	93805.00		93805.00	0.00	93805.00
	TOTAL		365.00	93805.00	0.00	93805.00		93805.00	0.00	93805.00
WITH	40% hike in the cost due to possible hike in wages rate.									131327.00

7th Maintenance Work (F.Y.2027-28)										
17.25.1	Protection (For more than 0-30 hac.)	L.S.	365.00	93805.00	0.00	93805.00		93805.00	0.00	93805.00
	TOTAL		365.00	93805.00	0.00	93805.00		93805.00	0.00	93805.00
WITH	80% hike in the cost due to possible hike in wages rate.									168849.00
8th Maintenance Work (F.Y.2028-29)										
17.26.1	Protection (For more than 0-30 hac.)	L.S.	365.00	93805.00	0.00	93805.00		93805.00	0.00	93805.00
	TOTAL		365.00	93805.00	0.00	93805.00		93805.00	0.00	93805.00
WITH	90% hike in the cost due to possible hike in wages rate.									178229.50

ABSTRACT :-

Work and Year		Amount in Lakhs
		8.21
1.	Advance Work (2019-20)	3.45
2.	Completion Work (2020-21)	2.84
3.	1st Maintenance Work (2021-22)	2.59
4.	2nd Maintenance Work (2022-23)	1.31
5.	3rd Maintenance Work (2023-24)	1.41
6.	4th Maintenance Work (2024-25)	1.50
7.	5th Maintenance Work (2025-26)	1.59
8.	6th Maintenance Work (2026-27)	1.69
9.	7th Maintenance Work (2027-28)	1.78
10.	8th Maintenance Work (2028-29)	26.37
Or		26.35

(Total Rupees twenty six lakhs thirty five thousand only)

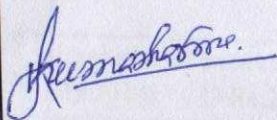
1. It is certified that last ten years Plantation has not been done in this Site.

2. It is certified that this estimate is based on the Rates approved by Additional PCCF(DEVELOPMENT) of Bihar for the Rehabilitation of the Degraded Forest(RDF).

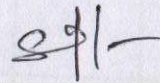
T.S. is accorded for Rs.2635000.00 (Rupees twenty six lakhs thirty five thousand only)

Submitted

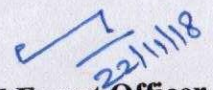
Countersigned



R O F
Sasaram.



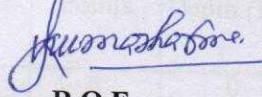
Assistant Conservator of Forest
Rohtas Forest Division, Sasaram.


Divisional Forest Officer
Rohtas Forest Division, Sasaram.

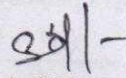
ROHTAS FOREST DIVISION, SASARAM							
DETAIL ESTIMATE FOR CONSTRUCTION OF EARTHEN CHECKDAM(ECD)							
FINANCIAL YEAR 2018-2019							
Dimensional details:-					Wage	Rate Rs.	257.00
Length:-	60'-0"			Slope:-	Key Trench:Slope:- 1:1		
Top Width:-	10'- 0"			U/S:-	2:1	Average Height	7'-0"
Earthen outlet with boulder pitching			D/S:-	2:1			
SL. No.	Item no	Item of works	Unit	Quantity	Rate	Amount	
1	7.1.3.2	Jungle/site clearance & weeding out shrubs including small trees	M2	201.30	5.50	1107	
2	1.4.3 (i)(F)	Earth cutting and filling in checkdam by mechanical means @ 70% of the estimated Mandays required for digging a Soil Trench in hard soil including lead and lift all complete job. $(1.83+1.22)/2 \times 1.22 \times 20 = 37.21$ Cu.M @ Rs.4693.92/37.21 or Rs.126.14/ M3-rate proportionally converted to present wage rate. But the rate in this item no.is printed 3000.00 per chain in the letter issued from the Additional Principal Chief Conservator(Dev.) Bihar, Patna@209.00 per mandays. The earth cutting & filling by mechanical mean remening Rs. 3000/37.21 cum = Rs.80.62/cum	M3	346.52	80.62	27936	
3	1.4.3 (ii)(F)	Dressing of excavated earth -3MD or Rs.771/37.21=Rs.20.72 Per M3	M3	346.52	20.72	7180	
4	5.1.38	Watering and consolidating layers of 150 to 225 mm by mannual labour	M3	346.52	48.70	16876	
5	6.1.24.1	Fine dressing of bonus and turfing with Grass sode including cost of watering upon D/S	M2	125.00	16.05	2006	
6	5.7.41	Collection of Boulder / stone of desired size for Stone Pitching upon U/S	M3	13.33	238.70	3182	
7	4.2	Loading unloading of stone by manual means	M3	13.33	113.70	1516	
8	4.4 (c)	Carriage of boulder from average 5 K.m. distance $26 \times 5 \times 3.6 / 2.25 = 208.00$	M3	13.33	208.00	2773	
9	5.7.18.2	Labour Charge for laying/Stone Pitching of stone boulder in the slope of Structure and outlet with 50 m lead with all complete job	M3	13.33	255.10	3400	
					Total-	65976	
Less C.P. 13.04%			Item 1, 4,5, 6, 7,8 and 9			4024	
Less cess 1%			Item 1 ,4, 5,8 and 9			262	

Added Increment(32.47%) in wages rate from Rs 194 Per Md to current wages rate to Rs. 257 Sl. No. 1,4,5,6,7,8 and 9		10020
	Total	71710
	Or say	71710
(Rupees Seventy one thousand seven hundred ten only)		

Certified that this estimate (Sl.No 1, 4 to 9) is based on scheduled of rates issued by Water Resources Deptt. Govt. of Bihar, enforced from 1.10.2015 and Sl.No. 2 and 3 is S.O.R of Forest department (APPCF(Dey),Bihar) issued by O/ O and is revised proportionally to current wage rate of Rs.257.

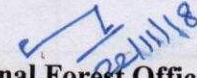


R.O.F.
Sasaram.



A.C.F.

Rohtas Forest Division, Sasaram.



Divisional Forest Officer
Rohtas Forest Division, Sasaram.

ROHTAS FOREST DIVISION, SASARAM
EARTHEN CHECKDAM CONSTRUCTION (ECD) CALCULATION

EARTHEN CHECKDAM CONSTRUCTION (ECD) CALCULATION									
7.1.3.2	S.O.R.	Jungle/site clearance & weeding out shrubs including small trees.				18.3	11	201.3	M ³
2	S.O.R.(F) 1.4.3(i)	E/ W Excavation and Earth filling in check dam all complete job Where:- L=60'-0''(18.30 M), B= Top width=10'-0'' H= Height U/S Slope= S1=2:1, D/S Slope= S2=2:1 C/S area at any point= (10H + 2 H ²).....1 Volume= C/A x Length (Distance).....2							
		Points	Depth (Ft)	C/S Area (Sq.Ft) (10H + 2 H ²)	Average (C/S area (Sq. Ft)	Distance (Ft)	Volume (CFT)		
		A	0	0	0	0	0		
		B	6.5	149.5	75	10	748		
		C	8	208	179	18	3218		
		D	6.5	149.5	179	17	3039		
		E	0	0	75	15	1121		
		F	0	0	0	0	0		
		Total:-				60	8125		
		Additional (10%) settlement Allowance					812.5		
		(i) Total					8937.5		
Add (+) cutting and fillings for key trench 2x(16'+6') x5'x30'=3300 cft 2 or 93.44 m3							or,	253.08	M3
								93.44	M ³
3	S.O.R.(F) 1.4.3(ii)	Dressing of excavated earth as per volume calculated in sl.no.2				Grand Total:-		346.52	M ³
4	S.O.R. 5.1.38	Watering and consolidating layers vide item (2) as above						346.52	M ³
5	6.1.24.1	Fine dressing of bonus and turfing with Grass sode including cost of watering (60'x10'+60'x3'+ 60'x9.39) = 1343.40 sft Or, 125 m2						125.00	M ²
6	S.O.R. 5.7.41	(A) Collection of Boulder / stone for Stone Pitching = (18.30 m x 1.95 m x 0.23 m)=8.21 m3							
		Pitching: Diagonal distance at Points(Ft)							
		A	B	C	D	E	F	Average	
		0	14.53	17.89	14.53	0.00	0.00	9.39	
		Average diagonal distance-3=				6.39			
		(B) Outlet-6.10 x (0.91+1.83+0.91) x 0.23 =5.12 M3							
		Total (A +B)= 8.21 +5.12 =13.33							
7	S.O.R. 4.2	Loading unloading of stone by manual means vide item (6) (A) & (B)						13.33	M ³
8	S.O.R. 4.4 (b)	Carriage of boulder from average 5 K.m. Distance vide item (6) (A) &(B)						13.33	M ³
9	S.O.R 5.7.18.2	Labour Charge for laying/Stone Pitching of stone boulder vide item (4)A&B						13.33	M ³

R.O.F.
R.O.F.
Sasaram.

A.C.F.
A.C.F.
Rohtas Forest Division, Sasaram.

Divisional Forest Officer
Divisional Forest Officer
Rohtas Forest Division, Sasaram.

ROHTAS FOREST DIVISION, SASARAM
DETAIL ESTIMATE FOR CONSTRUCTION OF EARTHEN CHECKDAM(ECD)
FINANCIAL YEAR 2018-2019

Dimensional details:-									
Length:-	100'-0"					Wage	Rate Rs.		257.00
Top Width:-	10'-0"				Slope:-	Key Trench:Slope:- 1:1			
					U/S:-	2:1	Average Height	9'-0"	
					D/S:-	2:1			

SL. No.	Item no	Item of works	Unit	Quantity	Rate	Amount
1	7.1.3.2	Jungle/site clearance & weeding out shrubs including small trees	M2	420.00	5.50	2310.00
2	1.4.3 (i)(F)	Earth cutting and filling in checkdam by mechanical means @ 70% of the estimated Mandays required for digging a Soil Trench in hard soil including lead and lift all complete job. $(1.83+1.22)/2 \times 1.22 \times 20 = 37.21$ Cu.M @ Rs.4693.92/37.21 or Rs.126.14/ M3-rate proportionally converted to present wage rate. But the rate in this item no.is printed 3000.00 per chain in the letter issued from the Additional Principal Chief Conservator(Dev.) Bihar, Patna@209.00 per mandays. The earth cutting & filling by mechanical mean remening Rs. $3000/37.21$ cum = Rs.80.62/cum	M3	736.59	80.62	59383.89
3	1.4.3 (ii)(F)	Dressing of excavated earth -3MD or Rs.771/37.21=Rs.20.72 Per M3	M3	736.59	20.72	15262.14
4	5.1.38	Watering and consolidating layers of 150 to 225 mm by mannual labour	M3	736.59	48.70	35871.93
5	6.1.24.1	Fine dressing of bonus and turfing with Grass sode including cost of watering upon D/S	M2	261.00	16.05	4189.05
6	5.7.41	Collection of Boulder / stone of desired size for Stone Pitching upon U/S	M3	30.58	238.70	7299.45
7	4.2	Loading unloading of stone by manual means	M3	30.58	113.70	3476.95
8	4.4 (c)	Carriage of boulder from average 5 K.m. distance $26 \times 5 \times 3.6 / 2.25 = 208.00$	M3	30.58	208.00	6360.64
9	5.7.18.2	Labour Charge for laying/Stone Pitching of stone boulder in the slope of Structure and outlet with 50 m lead with all complete job	M3	30.58	255.10	7800.96
Less C.P. 13.04%				Total-		141955
Less cess 1%				Item 1, 4,5, 6, 7,8 and 9		8777.09
				Item 1, 4, 5,8 and 9		565.33