



Government of West Bengal

Directorate of Forests

Office of the Chief Conservator of Forests, Hill Circle, West Bengal

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No. 1608/C2-268/2022,

Dated, Darjeeling the 6 / December / 2022.

To The Divisional Forest Officer,
Kalimpong Forest Division

Sub : Approval of estimates for Compensatory Afforestation against the
proposal diversion of 2.939 ha of forest land.

Ref : Your letter No. 4231/9-46 dated 29.11.2022

With reference to aforementioned letter, the estimates of Compensatory Afforestation against the proposal diversion of 2.939 ha (Kalimpong Forest Division) of forest land for Muck Dumping for construction Rehabilitation and upgrading of two lane paved shoulders of NH717A is hereby approved and duly countersigned by the undersigned.

A copy of the same is returned herewith for taking necessary action.

[Handwritten signature]
04/12/2022

(S. Gajamer IFS)
Chief Conservator of Forests
Hill Circle, West Bengal



Government of West Bengal
Directorate of Forests

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Office of the CCF
Hill Circle, W.B.,
Reg. No. 3228
Case No. C2-268
Date 1.12.22



Memo No. 4231/9-46

Dated, Kalimpong, the 29.11.2022

To,
The Chief Conservator of Forests,
Hill Circle, West Bengal.


Sub: Approval for Details estimates of Compensatory Afforestation against the proposal No FP/WB/Road/154398/2022

Sir/Madam

With reference to the above, kindly find herewith the details estimates of Compensatory Afforestation against diversion of 2.939 ha of forest land for Muck Dumping for Construction Rehabilitation and upgrading of two lane paved shoulders of NH717A under the jurisdiction of Kalimpong Forest Division.

This is for your kind Approval and taking necessary action.

Enclosed: As Stated


Divisional Forest Officer,
Kalimpong Forest Division

Compensatory Afforestation against Diversion of 2.939 ha of forest land for Muck Dumping for Construction Rehabilitation and upgrading of two lane paved shoulders of NH717A

Sl No	Particulars of Work	Ha/PHY	@	Amount(Rs)
1	Advance Work	5.8780	35274	207,341
2	Creation Work	5.8780	114190	671,209
3	1st Year Maint Work	5.8780	56230	330,520
4	2nd Year Maint Work	5.8780	46004	270,412
5	3rd Year Maint Work	5.8780	36989	217,421
6	4th Year Maint Work	5.8780	39852	234,250
7	5th Year Maint Work	5.8780	40808	239,869
8	6th Year Maint Work	5.8780	33590	197,442
9	7th Year Maint Work	5.8780	40235	236,501
10	8th Year Maint Work	5.8780	48290	283,849
11	9th Year Maint Work	5.8780	57930	340,513
12	10th Year Maint Work	5.8780	69500	408,521
13	Erection of Elephant proof power fencing		256822.00	256,822
14	Construction of Watch Tower for crop protection cum wildlife depredation tower /	1.0000	236693.00	236,693
Total				4,131,362

Rs (Forty one lakh thirty one thousand three hundred sixty two) Only


Divisional Forest Officer
Kalimpong Forest Division

Countersigned

Chief Conservator of Forests
Hill Circle, West Bengal
01/12/2022

**Compensatory Afforestation against Diversion of 2.939 ha of forest land for Muck Dumping
for Construction Rehabilitation and upgrading of two lane paved shoulders of NH717A**

Spacing= 2 m X 2m

Species : Miscellaneous

CA Area under Kallimpong Forest Division				
Sl no	Range	Beat	Block/Comptt	Area in Ha
1	Chel	Mongpong	Mongpong-7 & 9	5.8780
Total				5.8780

(I) Advance Work

Sl no	Particulars of works	Period	Labour	Materials
1	Preparation of Mother bed	Dec	1	
2	Collection of seeds/Purchase of seeds	Dec-June	5	
3	cost of big polypots in field nurseries/extra hycopots in central nurseries.			1250
4	Cost of sand,compost and top soil			7500
5	sowing of seeds in mother bed	Dec-June	5	
6	Transplanting of seedlings to polypots/hycopots	Jan-Jul	15	
7	weeding,forking,sorting,shifting,watering,pesticide and nutrients application	17 months	51	2500
	Total Labour Component @ Rs 312/-		24024	
	Total Material Component			11250
	Total for Advance Work / Ha			35274

(II) Creation of Plantation

S.No	Particulars of works	Period	Labour (md)	Material cost(Rs.)
1	Survey and Demarcation of plantation area including GPS survey	Nov-Dec	1	
2	Making soil profile for 2 ft X2 ftX 5 ft at a random point, collection of soil samples for the	Nov-Dec	3	
3	Preparation of site and 1st round of preparatory cleaning of all weeds(controlled burning/ manual and mechanical Cleaning and burial for composting/spraying of non selective systemic herbicides)	Dec-Jan	30	
	Alignment of planting lines and stacking the pit position	Mar-Apr	4	
5	Cost of digging pits	Mar-Apr	33	
7	Maintenance of seedlings in nursery (sorting,shifting, weeding,forking, hardening, spraying	Mar-May	4	
8	Cost of carriage of seedlings from nursery to plantation site	Mar-May	18	
9	Barbed wire fencing with alternate bamboo and Iron posts in plains and foothills	Mar-May	...	14000
10	Brushwood fencing with additional cost on transportation of seedlings and additional	Mar-May	30	4000
11	2nd round of preparatory Cleaning of all weeds(controlled burning/ manual and mechanical	Apr-May	8	
12	Filling of pits with application of organic manures,biofertilizers and biocontrol agents inside	Apr-May	4	1200
13	Planting of seedlings with staking/Dibbling of Sal seeds,seed cost with cleaning of weeds	May-Jun	18	
14	1st time cleaning with soil mulching/earthing up with min 1 ft radius earth basins with	May-Jun	18	
15	Spraying of Pesticides and nutrients on the plants	May-Jun	1	1000
16	2nd time cleaning with soil mulching/earthing up with min 1 ft radius earth basins with	Jul-Aug	15	800
17	3rd time cleaning with soil mulching/earthing up with min 1 ft radius earth basins with	Sep-Oct	12	600
18	4th time cleaning with soil mulching/earthing up with min 1 ft radius earth basins	Dec-Jan	8	
19	5th time cleaning with soil mulching/earthing up with min 1 ft radius earth basins	Feb-Mar	6	
20	Watch and ward	Jun-Mar	18	
21	Creation of fireline-min 1.5 m all along the periphery and 1.2 m within the plantation	Dec-Jan	5	
22	Signages			1000
23	Other contingencies 3%			3326
	Total Labour Component @ Rs 374		88264	
	Total Material Component			25926
	Total for Creation Work / Ha			114190

Countersigned

**Chief Conservator of Forests
Hill Circle, West Bengal**

B
Division of Forest Officer
Kallimpong Forest Division
Kallimpong

1st year maintenance of Plantation

S.No	Particulars of works	Period	Labour(m)	Material cost(Rs.)
1	Repair of Barbed wire fencing with alternate bamboo and iron posts in plains and foothills	Apr-May	...	5000
2	Repair of Brushwood fencing and additional cost on transportation of seedlings and	Apr-May	10	2620
3	Infilling with 2 years old tall seedlings including transportation cost	Apr-May	10	
4	1st time cleaning with soil mulching/earthing up with min 1 ft radius earth basins with	May-Jun	20	
5	Spraying of Pesticides and nutrients on the plants	May-Jun	3	1000
6	2nd time cleaning with soil mulching/earthing up with min 1 ft radius earth basins with	Jul-Aug	12	1000
7	3rd time cleaning with soil mulching/earthing up with min 1 ft radius earth basins with	Sep-Oct	8	1000
8	4th time cleaning with soil mulching/earthing up with min 1 ft radius earth basins	Dec-Jan	8	
9	Watch and ward	Apr-Mar	24	
10	Creation of fireline-min 1.5 m all along the periphery and 1.2 m within the plantation	Dec-Jan	4	
11	Repair of Signages			1000
12	Other contingencies			159
	Total Labour Component @ Rs 449/-		44451	
	Total Material Component			11779
	Total for 1st year Maint Work / Ha			56230

2nd Year maintenance of Plantation

S.No	Particulars of works	Period	Labour(m)	Material cost(Rs.)
1	Repair of Barbed wire fencing with alternate bamboo and iron posts in plains and foothills	Apr-May	...	2500
2	Repair of Brushwood fencing with additional cost on transportation of seedlings and	Apr-May	5	1310
3	Infilling with 2 years old tall seedlings including transportation cost	Apr-May	5	
4	1st time cleaning with soil mulching/earthing up	May-Jun	20	
5	2nd time cleaning with soil mulching/earthing up	Sep-Oct	12	
6	3rd time cleaning with soil mulching/earthing up	Dec-Jan	8	
7	Watch and ward	Apr-Mar	24	
8	Fireline-min 1.5 m all along the periphery and 1.2 m within the plantation	Dec-Jan	4	
9	Other contingencies			152
	Total Labour Component @ Rs 539/-		42042	
	Total Material Component			3962
	Total for 2nd year Maint Work / Ha			46004

3rd Year maintenance of Plantation

S.No	Particulars of works	Period	Labour(m)	Material cost(Rs.)
1	Infilling with 2 years old tall seedlings including transportation cost	Apr-May	5	
2	1st time cleaning with soil mulching/earthing up	May-Jun	15	
3	2nd time cleaning with soil mulching/earthing up	Dec-Jan	15	
4	Watch and ward	Apr-Mar	18	
5	Fireline-min 1.5 m all along the periphery and 1.2 m within the plantation	Dec-Jan	4	
6	Other contingencies			167
	Total Labour Component @ Rs 646/-		36822	
	Total Material Component			167
	Total for 3rd year Maint Work / Ha			36989

4th Year maintenance of Plantation

S.No	Particulars of works	Period	Labour(m)	Material cost(Rs.)
1	Infilling with 2 years old tall seedlings including transportation cost	Apr-May	5	
2	1st time cleaning with soil mulching/earthing up	May-Jun	15	
3	2nd time cleaning with soil mulching/earthing up	Dec-Jan	15	
4	Watch and ward	Apr-Mar	12	
5	Fireline-min 1.5 m all along the periphery and 1.2 m within the plantation	Dec-Jan	4	
6	Other contingencies			276
	Total Labour Component @ Rs 776/-		39576	
	Total Material Component			276
	Total for 4th year Maint Work / Ha			39852

Countersigned

Chief Conservator of Forests
HNI Circle, W. Bengal

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DIVISIONAL FOREST OFFICER
Kalinpong Forest Division
Kalinpong

5th Year maintenance of Plantation				
S.No	Particulars of works	Period	Labour(mo)	Material cost(Rs.)
1	Infilling with 2 years old tall seedlings including transportation cost	Apr-May	5	
2	1st time cleaning with soil mulching/earthing up	May-Jun	15	
3	2nd time cleaning with soil mulching/earthing up	Dec-Jan	15	
4	Watch and ward	Apr-Mar	12	
5	Fireline-min 1.5 m all along the periphery and 1.2 m within the plantation	Dec-Jan	4	
6	Other contingencies			
	Total Labour Component @ Rs 796/-			212
	Total Material Component		40596	
	Total for 5th year Maint Work / Ha			212
				40808

6th Year maintenance of Plantation				
S.No	Particulars of works	Period	Labour(mo)	Material cost(Rs.)
1	Fire protection (Fire watcher)	Jan-Mar	30	
2	Mulching and repairing of fence etc	Dec-May	5	
6	Other contingencies			
	Total Labour Component @ Rs 955/-			165
	Total Material Component		33425	
	Total for 6th year Maint Work / Ha			165
				33590

7th Year maintenance of Plantation				
S.No	Particulars of works	Period	Labour(mo)	Material cost(Rs.)
1	Fire protection (Fire watcher)	Jan-Mar	30	
2	Mulching and repairing of fence etc	Dec-May	5	
6	Other contingencies			
	Total Labour Component @ Rs 1146/-			125
	Total Material Component		40110	
	Total for 7th year Maint Work / Ha			125
				40235

8th Year maintenance of Plantation				
S.No	Particulars of works	Period	Labour(mo)	Material cost(Rs.)
1	Fire protection (Fire watcher)	Jan-Mar	30	
2	Mulching and repairing of fence etc	Dec-May	5	
6	Other contingencies			
	Total Labour Component @ Rs 1376/-			130
	Total Material Component		48160	
	Total for 8th year Maint Work / Ha			130
				48290

9th Year maintenance of Plantation				
S.No	Particulars of works	Period	Labour(mo)	Material cost(Rs.)
1	Fire protection (Fire watcher)	Jan-Mar	30	
2	Mulching and repairing of fence etc	Dec-May	5	
6	Other contingencies			
	Total Labour Component @ Rs 1651			145
	Total Material Component		57785	
	Total for 9th year Maint Work / Ha			145
				57930

10th Year maintenance of Plantation				
S.No	Particulars of works	Period	Labour(mo)	Material cost(Rs.)
1	Fire protection (Fire watcher)	Jan-Mar	30	
2	Mulching and repairing of fence etc	Dec-May	5	
6	Other contingencies			
	Total Labour Component @ Rs 1981			165
	Total Material Component		69335	
	Total for 10th year Maint Work / Ha			165
				69500

Countersigned

Chief Conservator of Forests

D
DIVISIONAL FOREST OFFICER
Kalinpong Forest Division
Kalinpong

ESTIMATE FORM Year: 2021-2022
FOREST DIRECTORATE, WEST BENGAL, KALIMPONG DIVISION

Compensatory Afforestation against Diversion of 2.939 ha of forest land for Muck Dumping for Construction Rehabilitation and upgrading of two lane paved shoulders of NH717A

Nature of Works :: Erection of Elephant proof power fencing


SL	Description of Item	Qty	Rate	Unit	Amount
1	Energizer Super 600 (Make -Ashish Enterprise)	1	28000.00	no.	28000.00
2	Solar PV Module 12V X 80W Solar, Maintenance free solution for permanent fencing. 12V X 80 W solar Pv module to charge the 130 Ah battery.(Make-TATA)	1	6000.00	no.	6000.00
3	Battery 12V 100 Ah(Make Exide with 5 years warrentee)	1	12000	no.	12000.00
4	Lightening Diverter kit,helps divert lightening from the fence to earth saving the Energizer in most cases and increases shockbilty.	1	1700.00	set	1700.00
5	Super Earth Kit-Augar a hole 1 metre deep and 100 mm (4") in diameter in moist area. Place stainless steel rod in center of hole and drive 50 mm in to ground. Mix bentonite and salt and pour mixture into hole around rod. Top up hole with coarse sand or gravel. water well. Connect s/ steel rod 0 energizer and test earth. if inadegate install another earth kit 10 metres away.	2	2210.00	set	4420.00
6	Digital Volt Meter : DVM (Imorted), pocket size 66 mm X 1.36 mm (3 1/2" X 5 1/4") helps trance to fence line short - circuit and faults powered by one 9 volt battery displays fence voltage in 100 volt increments under 10 KV displays voltage from 10 KV to 15 KV in 1000 volts increments activated when fence pluse is detected auto run display to show low battery condition, earth stake for easy of ground connection, improved temperate stability, water resistant etc (Make Ashish Enterprises Gallager etc)	1	4000.00	No.	4000.00
7	Double Insulated wire heavily hot dip galvanized cable extrea long life increased conductivity ideal for bending wire easy to handle	25	85.00	mtr	2125.00
8	Neon Tester, 5 nos indicator lights show approximate voltage reading, Excellent greater than 4800 volt. Good 3800 volt to 4800 volt. Fair 2500 volt to 3800 volt. Poor 1800 volt to 2500 volt. Very poor 1000 volt to 2800 volt. No llights less than 1000 volts.	1	980.00	no.	980.00
9	Tool kit, Inculdes, spanner, wire Twisting tools, permanent wire tightner handle etc.	1	1120.00	set	1120.00
10	1/2" P.V.C. flexible pipe for protection double insulated wire heavily hot dip galvanized wire	25	12.00	mtr	300.00
11	Conrrner Post Conrrner Post 2500 mm X 50 mm with support post 2500 mm X 25 mm plpe Galvaxized / Epoxy coated wth brakect.	10	2800.00	stes	28000.00
12	Intermidiate Post 2500 mm X 25 mm X 25 mm X 3 mm T section or L angle Galvaxized / Epoxy coated.	30	470.00	nos.	14100.00
13	H.T.G.I. wire heavily hot dlp galvanized high carbon high tenslle confirming to International specificalton extra long life increased conductivity Ideal for fencing wire easy to handle	50	145.00	kg	7250.00


Countersigned

Chief Conservator of Forests
Hill Circle, West Bengal

B
DIVISIONAL FOREST OFFICER
Kalimpung Forest Division
Kalimpung

14	Strain Insulator large tracking distance for minimum poor age. Made from super strength, UV resistant glass filled polyester recommended for all tensions of fence, ensure drain is from centre of Insulator when tying suitable for long strans of fence.	30	40.00	nos.	1200.00
15	P.P. Reel Insulator made from high density, sunlight resistant polypropylene plastic tapered hole at the centre allows quick run off of rain water U.V. resistant used in all junction of iron structure fence and earth line etc.	200	15.00	nos.	3000.00
16	Atlas / Permanent Wire Tightner, Strong, lightweight, rust resistant construction. The larger number clip position allow correct wire tensions to be obtained (Make Ashish Enterprises / Gallagher etc)	50	100.00	nos.	5000.00
17	Permanent Tension Spring, eliminates regular tensioning helps fence with stand loads and sudden pressure also tensioning short lengths of fence use with high tensile wire etc.	50	320.00	nos.	16000.00
18	Joint Clamp used in all section for jumber connection etc.	50	9.00	nos.	450.00
19	Galvanized steel rope or combination of rope and spring for length greater than 3 mtrs can be used on up to 3 mtrs (10.5 ft) gateway without over standing. Insulator gate handles has large protective shields and a heavy galvanized hook. Retracts to hanging position 5.5 mtrs (21.5 ft) kit include insulated gate handles, insulated gate spring anchor and insulated hook receptact.	2	1350.00	set	2700.00
20	Warning Slings: Sufficient number of warning signs has to be placed all along the fence as per statutory regulations, warning signs are provided in local languages apart from hindi and english, they are made to specified demension and colour.	10	45.00	each	450.00
21	14 SWG G.I. wire heavily hot dip galvanized extra long life increased conductivity ideal for bending wire easy to handle	10	148.00	kg	1480.00
22	Post Protection / Toupee for Elephant	60	100.00	set	6000.00
23	Installation / Labour Charges including 1st year maintenance				20000.00
24	2nd Year Maintenance				20000.00
25	3rd Year Maintenance				20000.00
	Contengency				3000.00
	Total amount				209275.00
	GST@18%			18%	37669.50
	Grand Total				246944.50
	Add Labour cess 1%				2469.45
	Add Contingency 3%				7408.34
Say					256822.28
Total Cost Rs					256822


 Divisional Forest Officer,
 Kalimpong Forest Division.

Countersigned

 Chief Conservator of Forests
 Hill Circle, West Bengal

KALIMPONG FOREST DIVISION
WORK ESTIMATE FORM

Place of work : Mongpong-7, Chel Range Kalimpung Forest Division

of work : Construction Watch Tower for crop protection cum wildlife depreadation tower / Watch Tower tower at JFMC area for Protection of Crop from Elephant & assist Regular Staff for protection of Forest and Wildlife

Compensatory Afforestation against Diversion of 2.939 ha of forest land for Muck Dumping for Construction Rehabilitation and upgrading of two lane paved shoulders of NH717A

A. Construction Watch Tower

Sl N	Item of works	Unit	Quantity	Rate (Rs)	Amount (Rs)
1	Pg 1 Item No 2 (a)				
	Cost for earthwork in excavation over :				
	a) Depth of excavation not exceeding 150 mm $4 \times 1.65 \times 1.65 \times 1.65 = 17.97 \text{ cum}$				
2	Pg 1 Item No 3 (a)	cum	17.97	119.27	2,143.28
	Earth work in filling in foundation trenches or plinth with good earth $1/5 \times 17.97 = 3.59 \text{ cum}$				
	Pg 246 Item No 61	cum	3.59	77.54	278.37
3	Labour for laying 150mm to 200 mm boulder soiling including rough joints with sandy or clayey soil. $4 \times 1.65 \times 1.65 = 10.89 \text{ m}^2$	m2	10.89	64	696.96
	Cost of boulder 3.58				
	Pg 12 Item No 5(b)	cum	3.58	1200	4,296.00
4	Ordinary cement concrete (1:2:4) with graded stone chips (20 mm nominal size) excluding shuttering and reinforcement, if any in ground floor as relevant IS codes				
	Pg 28 Item No 15(a)(i)(I)	cum	8.65	5138	44,443.70
5	Reinfocement for reinforced concrete work in all sorts of structures including distribution bars, stirrup, binders etc 16 gauge black annealed wire at every intersection complete vide item no 4				
	Pg 27 Item No 12(a)	MT	0.52	57622	29,963.44
6	Hire and labour charges for shuttering using plyboard or steel shuttering				
	Column : $4 \times 2 \times 2 \times 6 \times 0.25 = 24 \text{ m}^2$				
	Tie beam : $13 \times 3 \times 1.75 \times 0.2 = 13.65 \text{ m}^2$				
	Platform Slab : $2 \times 2 = 4 \text{ m}^2$				
	$4 \times 2 \times 0.10 = 0.80 \text{ m}^2$				
	Total = 64.58 m2	m2	64.58	344.5	22,247.81
7	Pg 30 Item No 21(b)				
	Brick work with 1st class brick in cement mortar (1:4) $4 \times 2.5 \times 0.125 \times 1.10 = 1.50 \text{ cum}$				
	Pg 164 Item No 2 (ii)(a)	cum	1.5	6599	9,898.50
8	Plaster to wall, floor, ceiling etc) with sand and cement mortar 36sqm				
	Pg 166 Item No 8	m2	36	197	7,092.00
	Net punning about 1.5 mm thick in wall, floor etc $8 \times 1.65 = 13.2 \text{ m}^2$	m2	13.2	34	448.80

Countersigned

[Signature]
01/12/2022

Chief Conservator of Forests
Hill Circle, Kalimpung

[Signature]
DIVISIONAL FOREST OFFICER
Kalimpung Forest Division
Kalimpung

Item No 2 (I)				
Structural works in roof trusses with tubular section beyond the initial 8				
part thereof (1 1/2" = 3.25)				
column : 4x2 = 8 rmt.				
Runner : 2x3 = 6 rmt				
10 Runner : 2x6 = 12 rmt.				
Rafter : 2x6 = 12 rmt				
Purlin : 4x 3 = 12 rmt				
Total = 50 rmt				
1 rmt = 10 Kg mt				
Pg 65 Item No 24 (i) (6)				
Galvanised corrugated iron sheet work (excluding the support frame work)				
fitted minimum side lap 0.63 mm thick sheet				
11 6x3.10 = 25.6 m2				
Add wastage = 0.975 m2				
Pg 65 Item No 30 (A) (b)				
12 Galvanised iron sheet ridging fitted with necessary bolts, washers etc				
complete (225 mm end lapping) 063 mm thick				
Pg 12 Item No 5 (b)				
13 Slabs for iron stair (cc work)				
14 Ladder with iron bar including supply, fitting & fixing all complete				
A Total for Watch Tower				
GST, as applicable @18%				
Cost of civil works excluding Labour welfare cess				
Labour welfare cess @1%				
Cost of civil works including Labour welfare cess				
Contingency charge @3%				
Total cost				
Grand Total Construction Watch Tower				
Rupees (Two lakh thirty six thousand six hundred ninety three)only				

Divisional Forest Officer,
Kalimpong Forest Division.

Countersigned
Chief Conservator of Forests
Hill Circle, West Bengal