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**Raising of 4.60 ha BHA plantation in Ibrahimpur degraded Reserve Forest in Yadadri Bhuvanagiri District**  
(In lieu of diversion of 0.53 Ha. Forest land in Ibrahimpur R.F for use of approach road to access Patta lands in Sy.No.86 to 90 for Agriculture and transportation of materials & farm produce and other farm equipments in favour of Sri.VidyaSagar, Hyderabad)

Sl. No	Item of Work	Unit	2021 - 22			2022 - 23			2023 - 24			2024 - 25			2025 - 26			2026 - 27		
			Phy	Unit Cost	Fin	Phy	Unit Cost	Fin	Phy	Unit Cost	Fin	Phy	Unit Cost	Fin	Phy	Unit Cost	Fin	Phy	Unit Cost	Fin
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
I	<b>Planting activities (Baren Hill Afforestation) 400 plants per Ha</b>																			
1	Advance cum raising		4.600	1.290	5.934															
2	1st Year Maintenance					4.600	0.368	1.693												
3	2nd Year Maintenance								4.600	0.405	1.863									
4	3rd Year Maintenance											4.600	0.051	0.235						
5	4th Year Maintenance														4.600	0.056	0.258			
6	5th Year Maintenance																	4.600	0.053	0.244
7	6th Year Maintenance																			
8	7th Year Maintenance																			
9	8th Year Maintenance																			
10	9th Year Maintenance																			
11	10th Year Maintenance																			
	<b>Sub Total:</b>				5.934			1.693			1.863			0.235			0.258			0.244
II	<b>Administrative Cost - 10%</b>				0.593			0.169			0.186			0.024			0.026			0.024
	<b>Total year wise outlay of the project</b>				6.527			1.862			2.049			0.259			0.284			0.268

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Sl. No	Item of Work	2027 - 28			2028 - 29			2029 - 30			2030 - 31			2031-32			Grand Total	
		Phy	Unit Cost	Fin	Phy	Unit Cost	Fin	Phy	Unit Cost	Fin	Phy	Unit Cost	Fin	Phy	Unit Cost	Fin	Phy	Fin
1	2	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38
<b>I</b>	<b>Planting activities (Baren Hill Afforestation) 400 plants per Ha</b>																	
1	Advance cum raising																4.60	5.934
2	1st Year Maintenance																4.60	1.693
3	2nd Year Maintenance																4.60	1.863
4	3rd Year Maintenance																4.60	0.235
5	4th Year Maintenance																4.60	0.258
6	5th Year Maintenance																4.60	0.244
7	6th Year Maintenance	4.600	0.015	0.069													4.60	0.069
8	7th Year Maintenance				4.600	0.064	0.294										4.60	0.294
9	8th Year Maintenance							4.600	0.018	0.083							4.60	0.083
10	9th Year Maintenance										4.600	0.077	0.354				4.60	0.354
11	10th Year Maintenance													4.600	0.021	0.097	4.60	0.097
	<b>Sub Total:</b>			<b>0.069</b>			<b>0.294</b>			<b>0.083</b>			<b>0.354</b>			<b>0.097</b>		<b>11.124</b>
<b>II</b>	<b>Administrative Cost - 10%</b>			<b>0.007</b>			<b>0.029</b>			<b>0.008</b>			<b>0.035</b>			<b>0.010</b>		<b>1.111</b>
	<b>Total year wise outlay of the project</b>			<b>0.076</b>			<b>0.323</b>			<b>0.091</b>			<b>0.389</b>			<b>0.107</b>		<b>12.235</b>


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## Unit cost estimate for advance cum raising of BHA Plantation (@ 400 plants/ Ha in gaps) 2019-20

Sl.No	SR Item No.	Item of work	Units	Qty	Rate (Rs.)	Per	Amount (Rs.)
1		Cost of plants of 8"X12" size bag plants including transportation upto planting site (including 10% casualties)	Nos	440	150.00	1	66000
2	02.15.03	Digging of pits 60 cm <sup>3</sup> manually and an inspection report regarding the correctness of the pit shall be submitted by FRO to DFO concerned. During June-July i) 60 cm <sup>3</sup> size (0.216 cum) in Ordinary Soil (Manual)	Nos	400	46.25	1	18500
3	02.15.07	Internal transport of bag plants to planting points on head loads. 20 X 30 cm (8"X12") bag plants	Nos	400	198.80	100	795
4	02.20.01	Application of 50gm of SSP per pit (1 day before planting) for root growth and early establishment of plant after planting.	Nos	400	37.40	100	150
5	02.20.02	Cost of SSP, Chloridine dust (50gm) or	Nos	400	0.50	1	200
6	02.20.04	Planting in 60 cm <sup>3</sup> pit	Nos	400	924.65	100	3699
7	02.20.05	Watering (8 waterings) Waterings immediately after planting - 2. Watering from Jan to March @ 2 waterings / month - 6.	Nos	400	2018.00	100	8072
8	02.20.06	<b>Replacement of Casualties:</b> 10% during Raising Year . The casualty replacement should be done in 3 stages at an interval of 15 days immediately after planting during raising year.	50% of unit rate of original pitting during raising year and 100% during maint. year. Planting, transportation and internal transportation same as adopted during raising year				
9	02.15.03	60 cm cube size in hard gravelly and moram Soil (Manual)	Each	40	23.13	Each	925
10		Internal transportation	Nos	40	198.80	100	80
11		Planting in 60 cm <sup>3</sup> pit	Nos	40	924.65	100	370
12	02.20.07	<b>Application of fertilizer</b>					
13		(a) Cost of DAP @ 25gm/planting point	Nos	400	0.70	1	280
14		(b) Application of fertilizer in August (30days after planting) by making 3 holes of 10cm depth with crow bar holes at a distance of 10cm away from plant and putting fertilizers and closing.	Nos	400	37.40	100	150
15		<b>Weeding &amp; Soil working</b>					
16	02.20.08	1 <sup>st</sup> circular weeding to a radius of 0.50 m around the plant after 30 days of planting	Nos	400	119.00	100	476

Sl.No	FSR Item No.	Item of work	Units	Qty	Rate (Rs.)	Per	Amount (Rs.)
17	02.20.09	2 <sup>nd</sup> circular weeding to a radius of 0.50 m around the plant 90 days after planting (i.e. Sept - Oct)	Nos	400	119.00	100	476
18	02.20.10	Deep soil working to a radius of 0.5 m and to a depth of 10 cm (to be done by pick-axe only) without damaging plant (to be carried out during Nov - Dec) (b) For hard gravelly soil	Nos	400	625.00	100	2500
19	03.01.04	Formation of New Fire lines of 5.00 m width and cleaning of old fire lines if not maintained for last 5 years including burning	Rmt	500	783.15	100 Rmt	3916
		<b>Total</b>					<b>106589.00</b>
Unit Rate for 2019 -20							<b>106589</b>
Unit Rate for 2020 -21							<b>117248</b>
Unit Rate for 2021 -22							<b>128973</b>

  
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**Unit cost estimate for 1 year maint. of BHA Plantation (@ 400 plants/ Ha in gaps) 2019-20**

Sl. No	FSR Item No.	Item of work	Units	Qty	Rate	Per	Amount (Rs.)
1	Procurement	Cost of plants of 8"X12" size bag plants including transportation upto planting site (including 10% casualties)	Nos	40	150.00	Each	6000
2	02.21.01	<b>Replacement of Casualties:</b> 10% during 1 <sup>st</sup> year. The casualty replacement should be done in 3 stages at an interval of 15 days immediately after planting during raising year.	100% of unit rate of original pitting during raising year and 100% during maint. year. Planting, transportation and internal transportation same as adopted during raising				
3	02.15.03	Pitting	Nos	40	46.25	Each	1850.00
4	02.15.07	Internal transportation	Nos	40	198.80	100 Nos.,	80.00
5	02.20.04	Planting in 60 cm <sup>3</sup> Pit	Nos	40	924.65	100 Nos.,	370.00
6	02.21.02	1st Circular weeding to a radius of 0.5 Mts around the plant after 30days of planting (July - Aug)	Nos	400	119.00	100	476.00
7	02.21.03	2nd Circular weeding to a radius of 0.5 Mts around the plant after 90days of planting (Sept-Oct)	Nos	400	119.00	100	476.00
8		Deep soil working to a radius of 0.5 m and to a depth of 10cm (to be carried out during Nov - Dec)					
9	02.21.04	For hard gravelly soil	Nos	400	625.00	100	2500.00
10	02.20.05	Watering (12 waterings) Waterings from April to June @ 2 waterings / month - 6. Watering from Jan to March @ 2 waterings / month - 6.	Nos	400	252.25	100	12108.00
11	02.20.07	<b>Application of fertilizer</b>					
12		(a) Cost of DAP @ 25gm/planting point	Nos	400	0.70	1	280.00
13		(b) Application of fertilizer in August (30days after planting) by making 3 holes of 10cm depth with crow bar holes at a distance of 10cm away from plant and	Nos	400	37.40	100	150.00
14	02.21.05	Pruning of lower branch initials by scicature upto 1/3 rd height (to be undertaken during October)	Nos	400	118.35	100	473.00
15	03.03.07	Maintenance of fire lines (5.00 mtr width) including cutting back of rank growth and burning - propotionate cost - 0.60 times	Rmt	500	579.30	100 Rmt	2897
		<b>Total</b>					<b>27660.00</b>
		Unit Rate for 2019 -20					<b>27660.00</b>
		Unit Rate for 2020 -21					<b>30426.00</b>
		Unit Rate for 2021 -22					<b>33469.00</b>
		Unit Rate for 2022 -23					<b>36816.00</b>

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**Unit cost estimate for II year maint of BHA Plantation (@ 400 plants/ Ha in gaps) 2019-20**

Sl.No	FSR Item No.	Item of work	Units	Qty	Rate (Rs.)	Per	Amount (Rs.)
1		Cost of plants of 8"X12" size bag plants including transportation upto planting site (including 10% casualties)	Nos	40	150.00	cum	6000
2	02.21.01	<b>Replacement of Casualties:</b> 10% during 1 <sup>st</sup> year. The casualty replacement should be done in 3 stages at an interval of 15 days immediately after planting during raising year.	100% of unit rate of original pitting during raising year and 100% during maint. year. Planting, transportation and				
3	02.15.03	Pitting		40	46.25	Each	1850.00
4	02.15.07	Internal transportation		40	198.80	100 Nos.,	80.00
5	02.20.04	Planting in 60 cm <sup>3</sup> Pit		40	924.65	100 Nos.,	370.00
6	02.22.01	Weeding and saucer formation to a radius of 0.5 mts around the plant immediately after planting (i.e) during June	Nos	400	119.00	100	476.00
7	02.22.02	Circular weeding to a radius of 0.50 m around the plant (i.e. Aug - Sept)	Nos	400	119.00	100	476.00
8		Deep soil working to a radius of 0.5 m and to a depth of 10cm (to be carried out during Nov - Dec)					
9	02.22.03	For hard gravelly soil	Nos	400	625.00	100	2500.00
10	02.20.05	Watering (12 waterings) Waterings from April to June @ 2 waterings / month - 6. Watering from Jan to March @ 2 waterings / month - 6.	Nos	400	3027.00	100	12108.00
11	02.22.07	<b>Application of fertilizer</b>					
12		(a) Cost of DAP @ 25gm/planting point	Nos	400	0.70	1	280.00
13		(b) Application of fertilizer in August (30days after planting) by making 3 holes of 10cm depth with crow bar holes at a distance of 10cm away from plant and putting fertilizers and closing.	Nos	400	37.40	100	150.00
14	02.21.05	Pruning of lower branch initials by scicature upto 1/3 rd height (to be undertaken during October)	Nos	400	118.35	100	473.00
15	03.04.01	Maintenance of fire lines (5.00 mtr width) including cutting back of rank growth and burning - propotionate cost - 0.60 times	Rmt	500	579.30	100 Rmt	2897
		<b>Total</b>					<b>27660.00</b>
Unit Rate for 2019 -20							<b>27660.00</b>
Unit Rate for 2020 -21							<b>30426.00</b>
Unit Rate for 2021 -22							<b>33469.00</b>
Unit Rate for 2022 -23							<b>36816.00</b>
Unit Rate for 2023 -24							<b>40498.00</b>
Unit Rate for 2024 -25							<b>44548.00</b>

  
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**Unit cost estimate for III year maint of BHA Plantation (@ 400 plants/ Ha in gaps) 2019-20**

Sl. No	FSR Item No.	Item of work	Unit	Qty	Rate	Per	Amount (Rs.)
1	02.22.02	Circular weeding to a radius of 0.50 m around the plant (i.e. Aug - Sept)	Nos	400	119	100	476
2	02.22.03	Deep soil working to a radius of 0.5 m and to a depth of 10cm (to be carried out during Nov - Dec)					
3		For hard gravelly soil	Nos	400	625.00	100	2500
4	02.21.05	Pruning of lower branch initials by scicature upto 1/3 rd height (to be undertaken during October)	Nos	0	118.35	100	0
5	03.05.01	Maintenance of fire lines (5.00 mtr width) including cutting back of rank growth and burning - propotionate cost - 0.60 times	Rmt	36	579.30	100 Rmt	209

**Total 3185**

Unit Rate for 2019 -20 **3185**


Unit Rate for 2020 -21 **3504**

Unit Rate for 2021 -22 **3854**

Unit Rate for 2022 -23 **4239**

Unit Rate for 2023 -24 **4663**

Unit Rate for 2024 -25 **5129**

  
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**Unit cost estimate for IV year maint of BHA Plantation (@ 400 plants/ Ha in gaps) 2019-20**

SLN o	FSR Item No.	Item of work	Unit	Qty	Rate (Rs.)	Per	Amount (Rs.)
1	02.22.02	Circular weeding to a radius of 0.50 m around the plant (i.e. Aug - Sept)	Nos	400	119	100	476
2	02.22.03	Deep soil working to a radius of 0.5 m and to a depth of 10cm (to be carried out during Nov - Dec)					
		For hard gravelly soil	Nos	400	625.00	100	2500
3	02.21.05	Pruning of lower branch initials by scicature upto 1/3 rd height (to be undertaken during October)	Nos	0	118.35	100	0
4	03.05.01	Maintenance of fire lines (5.00 mtr width) including cutting back of rank growth and burning - propotionate cost - 0.60 times	Rmt	36	579.30	100 Rmt	209
		<b>Total</b>					<b>3185</b>
		Unit Rate for 2019 -20					<b>3185</b>
		Unit Rate for 2020 -21					<b>3504</b>
		Unit Rate for 2021 -22					<b>3854</b>
		Unit Rate for 2022 -23					<b>4239</b>
		Unit Rate for 2023 -24					<b>4663</b>
		Unit Rate for 2024 -25					<b>5129</b>
		Unit Rate for 2025 -26					<b>5642</b>

  
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**Unit cost estimate for V year maint of BHA Plantation (@ 400 plants/ Ha in gaps) 2019-20**


Sl. No	FSR Item No.	Item of work	Units	Qty	Rate (Rs.)	Per	Amount (Rs.)
1	02.22.03	Deep soil working to a radius of 0.5 m and to a depth of 10cm (to be carried out during Nov - Dec) - For hard gravelly soil - upto 0.75 m - 1 time	Nos	400	625.00	100	2500
2	03.05.01	Maintenance of fire lines (5.00 mtr width) including cutting back of rank growth and burning - proportionate cost - 0.60 times	Rmt	36	579.30	100 Rmt	209
<b>Total</b>							<b>2709</b>
			Unit Rate for 2019 -20				<b>2709</b>
			Unit Rate for 2020 -21				<b>2980</b>
			Unit Rate for 2021 -22				<b>3278</b>
			Unit Rate for 2022 -23				<b>3606</b>
			Unit Rate for 2023 -24				<b>3966</b>
			Unit Rate for 2024 -25				<b>4363</b>
			Unit Rate for 2025 -26				<b>4799</b>
			Unit Rate for 2026 -27				<b>5279</b>

  
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**Unit cost estimate for VI year maint of BHA Plantation (@ 400 plants/ Ha in gaps) 2019-20**


Sl.No	FSR Item No.	Item of work	Units	Qty	Rate (Rs.)	Per	Amount (Rs.)
1	02.21.05	Pruning of lower branch initials by scicature upto 1/3 rd height (to be undertaken during October)	Nos	400	118.35	100	473
2	03.05.01	Maintenance of fire lines (5.00 mtr width) including cutting back of rank growth and burning - propotionate cost - 0.60 times	Rmt	36	579.30	100 Rmt	209
<b>Total</b>							<b>682</b>
Unit Rate for 2019 -20							<b>682</b>
Unit Rate for 2020 -21							<b>751</b>
Unit Rate for 2021 -22							<b>826</b>
Unit Rate for 2022 -23							<b>908</b>
Unit Rate for 2023 -24							<b>999</b>
Unit Rate for 2024 -25							<b>1099</b>
Unit Rate for 2025 -26							<b>1209</b>
Unit Rate for 2026 -27							<b>1330</b>
Unit Rate for 2027 -28							<b>1463</b>

  
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## Unit cost estimate for VII year maint of BHA Plantation (@ 400 plants/ Ha in gaps) 2019-20


Sl.No	FSR Item No.	Item of work	Units	Qty	Rate	Per	Amount (Rs.)
1	02.22.03	Deep soil working to a radius of 0.5 m and to a depth of 10cm (to be carried out during Nov - Dec) - For hard gravelly soil - upto 0.75 m - 1 time	Nos	400	625.00	100	2500
2	03.05.01	Maintenance of fire lines (5.00 mtr width) including cutting back of rank growth and burning - proportionate cost - 0.60 times	Rmt	36	579.30	100 Rmt	209
<b>Total</b>							<b>2709</b>
Unit Rate for 2019 -20							<b>2709</b>
Unit Rate for 2020 -21							<b>2980</b>
Unit Rate for 2021 -22							<b>3278</b>
Unit Rate for 2022 -23							<b>3606</b>
Unit Rate for 2023 -24							<b>3966</b>
Unit Rate for 2024 -25							<b>4363</b>
Unit Rate for 2025 -26							<b>4799</b>
Unit Rate for 2026 -27							<b>5279</b>
Unit Rate for 2027 -28							<b>5807</b>
Unit Rate for 2028 -29							<b>6388</b>
Unit Rate for 2029 -30							<b>7026</b>

  
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**Unit cost estimate for VIII year maint of BHA Plantation (@ 400 plants/ Ha in gaps) 2019-20**

Sl. No	FSR Item No.	Item of work	Units	Qty	Rate (Rs.)	Per	Amount (Rs.)
1	02.21.05	Pruning of lower branch initials by scicature upto 1/3 rd height (to be undertaken during October)	Nos	400	118.35	100	473
2	03.05.01	Maintenance of fire lines (5.00 mtr width) including cutting back of rank growth and burning - propotionate cost - 0.60 times	Rmt	36	579.30	100 Rmt	209
<b>Total</b>							<b>682</b>
Unit Rate for 2019 -20							<b>682</b>
Unit Rate for 2020 -21							<b>751</b>
Unit Rate for 2021 -22							<b>826</b>
Unit Rate for 2022 -23							<b>908</b>
Unit Rate for 2023 -24							<b>999</b>
Unit Rate for 2024 -25							<b>1099</b>
Unit Rate for 2025 -26							<b>1209</b>
Unit Rate for 2026 -27							<b>1330</b>
Unit Rate for 2027 -28							<b>1463</b>
Unit Rate for 2028 -29							<b>1609</b>
Unit Rate for 2029 -30							<b>1770</b>
Unit Rate for 2030 -31							<b>1947</b>
Unit Rate for 2031 -32							<b>2142</b>

  
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**Unit cost estimate for IX year maint of BHA Plantation (@ 400 plants/ Ha in gaps) 2019-20**

Sl.No	FSR Item No.	Item of work	Units	Qty	Rate (Rs.)	Per	Amount (Rs.)
1	02.22.03	Deep soil working to a radius of 0.5 m and to a depth of 10cm (to be carried out during Nov - Dec) - For hard gravelly soil - upto 0.75 m - 1 time	Nos	400	625.000	100	2500
2	03.05.01	Maintenance of fire lines (5.00 mtr width) including cutting back of rank growth and burning - propotionate cost - 0.60 times	Rmt	36	579.30	100 Rmt	209
<b>Total</b>							<b>2709</b>
			Unit Rate for 2019 -20				<b>2709</b>
			Unit Rate for 2020 -21				<b>2980</b>
			Unit Rate for 2021 -22				<b>3278</b>
			Unit Rate for 2022 -23				<b>3606</b>
			Unit Rate for 2023 -24				<b>3966</b>
			Unit Rate for 2024 -25				<b>4363</b>
			Unit Rate for 2025 -26				<b>4799</b>
			Unit Rate for 2026 -27				<b>5279</b>
			Unit Rate for 2027 -28				<b>5807</b>
			Unit Rate for 2028 -29				<b>6388</b>
			Unit Rate for 2029 -30				<b>7026</b>
			Unit Rate for 2030 -31				<b>7729</b>

  
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**Unit cost estimate for X year maint of BHA Plantation (@ 400 plants/ Ha in gaps) 2019-20**

Sl.No	FSR Item No.	Item of work	Units	Qty	Rate (Rs.)	Per	Amount (Rs.)
1	02.21.05	Pruning of lower branch initials by scicature upto 1/3 rd height (to be undertaken during October)	Nos	400	118.35	100	473
2	03.05.01	Maintenance of fire lines (5.00 mtr width) including cutting back of rank growth and burning - propotionate cost - 0.60 times	Rmt	36	579.30	100 Rmt	209
<b>Total</b>							<b>682</b>
Unit Rate for 2019 -20							<b>682</b>
Unit Rate for 2020 -21							<b>751</b>
Unit Rate for 2021 -22							<b>826</b>
Unit Rate for 2022 -23							<b>908</b>
Unit Rate for 2023 -24							<b>999</b>
Unit Rate for 2024 -25							<b>1099</b>
Unit Rate for 2025 -26							<b>1209</b>
Unit Rate for 2026 -27							<b>1330</b>
Unit Rate for 2027 -28							<b>1463</b>
Unit Rate for 2028 -29							<b>1609</b>
Unit Rate for 2029 -30							<b>1770</b>
Unit Rate for 2030 -31							<b>1947</b>
Unit Rate for 2031 -32							<b>2142</b>

  
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**Unit cost estimate for Planting of (5000 Nos) Agave suckers at Ibrahimpur RF Block during the year 2019-20**

Sl. No	Description of items	FSR Item No.	Qty		Rate	Per	Amount
1	Cost of Agave Suckers	As per tender cost	5000	Nos	1.30	each	6500
2	Digging of crow-bar holes of 23 cm (9") deep and Planting crow-bar holes by end of June to facilitate good sprouting taking advantage of humidity.	03.02.06	5000	Nos	0.55	Each	2750.00
<b>Total</b>							<b>9250.00</b>
<b>Total cost for 2020-21</b>							<b>10175.00</b>
<b>Total cost for 2020-21</b>							<b>11193.00</b>

  
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