



Scheme for Site Specific Compensatory Afforestation

over **6.07 Ha** or 15.00 Ac of Non-forest Govt. Land Identified
in Village **Daundia** under Gopabandhu Nagar Tahasil in
Mayurbhanj District,
(Baripada Forest Division)

for Construction of **Sono Barrage Project** located in
Kaptipada Sub-division of Mayurbhanj District for
Department of Water Resource, Odisha

October 2015

Prepared by

Divisional Forest Officer, Baripada Forest Division

1. Introduction

Sono Barrage Project is proposed in Budhabalanga Basin on Sono river near village Jaida of Gopabandhu Nagar Block in Mayurbhanj District of Odisha. The project envisages construction of a barrage on Sono river having catchment area of 678 Km². The project will provide irrigation facilities to a CCA of 9900 ha coming in Gopabandhu Nagar, Udala, Khunta and Badasahi Blocks in Mayurbhanj District, Remuna and Nilagiri Blocks in Balasore District. The project is envisaged to divert 14.928 ha of forest land for non-forestry use in Baripada and Balasore Forest Division.

2. Selection of Site

As per guidelines of Forest (Conservation) Act, 1980, equivalent non-forest area is to be identified for raising Compensatory Afforestation over an area of 15.00 Ac. (6.07 ha) out of the total requirement of 37.00 Ac (14.974 ha) of non-forest land identified in Daundia Village, Gopabandhu Nagar Tahasil of Mayurbhanj District under Baripada Forest Division. Remaining 22.00 Ac. (8.90 ha) of non-forest land was not available in Baripada Forest Division. So non-forest land was identified in neighbouring Rairangpur Forest Division over an area 22.00 Ac. (8.90 ha) in Gohira Village, Jamada Tahasil of Mayurbhanj District, which comes under Bahalda Range in Rairangpur Forest Division.

The land schedule is furnished below.

Land schedule of the proposed compensatory afforestation area

Tahasil	Village	Khata no.	Plot no.	Area of the Plot (Ac)	Area considered for Compensatory Afforestation (Ac)	Kisam
Gopabandhu Nagar	Daundia	315	38	21.53	15.00	Gochar
Total					15.00 Ac or 6.07 Ha	

The site is located on survey of India Topo Sheet No F45-014 between Latitude: 21° 36' 39.20" - 21° 36' 49.14", Longitude: 86° 47' 16.56"-86° 47' 34.09"E(Annexure-I) and at a distance of 25 km from Tahasil Headquarters. The area is located south of RF. The proposed area is free from encroachment and encumbrances and suitable for plantation.

The land details jointly verified by Forest and Revenue authorities are enclosed along with the village map showing the above land details for the proposed compensatory afforestation as Annexure -II.

3. Description of the existing vegetation

Though there is no valuable tree growth in the land, but there are some scrubs found out in scattered over the land.

4. Topography & Soil

The topography of area is flat. Prasanna Nala, a tributary of Gangahar river flows adjacent to the land on southern side. The depth of the soil is good and the existing vegetation indicates the PH value.

5. Rainfall & Temperature

The annual rainfall varies from 1200 mm to 1400mm. The maximum rainfall is received during the rainy season from July to September. The average temperature varies from 13.5°C (minimum) in December to 45° C (maximum) during May.

6. Objective of the scheme

The main objectives of the present scheme are to (i) increase vegetation through taking up block plantation, (ii) clearly demarcating the area with posting up RCC pillars, (iii) enforcing protection measures by involving people around under JFM and (iv) above all checking soil erosion and run off which will go in combination for enrichment of the vegetation and soil and building up ecosystem. The total 6.07ha shall be covered under Block plantation with 1600 plants/ha.

7. Items of work to be taken up

To achieve the above objectives, the following item of works are mainly prescribed to be taken up with the full involvement and co-operation of local villagers.

7.1. Survey and Demarcation

The boundary should be surveyed clearly by the User Agency with reference to the village maps and demarcated by posting R.C.C pillars of size 1.25 m x 20 cm x 20 cm, which shall be embedded at every corner / turning points of boundary line. The RCC pillars shall be embedded 0.625 m deep in to the ground with a foundation of 50 cm x 40 cm in C.C. Top of the pillar, shall have a slanting cut facing outside the area for numbering the pillars which will be done in the same sequence as done in the map. Numbering should start from North-Western Corner and proceed in a clock wise direction.

7.2. Block Plantation

The total allotted area shall be covered by Block Plantation. Plantation over the area shall be taken up in grid pattern at a spacing of 2.5m x 2.5m taking care of existing forest crops, if any. For protection of the plantation from grazing / browsing, barbed wire fencing with RCC pillars will be provided around the plantation site.

Care should be taken to select only indigenous species as far as possible keeping in view of the existing natural vegetation in and around the area and also the climatic and edaphic factors. The choices of species are as follows:

<i>Local Name</i>	<i>Scientific Name</i>
Amla	<i>Emblica officinalis</i>
Bamboo rhizome	<i>Bambusa arundinacea</i>
Bahada	<i>Terminalia belerica</i>
Karanja	<i>Pongomia pinnata</i>
Teak	<i>Tectona grandis</i>
Sisoo	<i>Dalbergia sisoo</i>
Neem	<i>Azadirachta indica</i>
Arjun	<i>Terminalia belerica</i>

In the peripheral area of the site, which is susceptible to grazing, may be planted with non-browsable species like Teak, Karanja etc.

It is proposed to take up pitting with a pit size of 30cm x 30cm x 30cm at spacing of 2.5m x 2.5m during February / March for allowing weathering of the soil. The planting should be taken up only with two years old seedlings having height more than one meter. The size of Polythene bags will be 12 inch x 9 inch with desired quantity of inputs. The seedlings will be graded and sorted at regular intervals to make those healthy and sound and avoid root coiling. Species like Amla, Bahada, Karanj, Teak, Sisoo, Neem and Arjun shall be planted which will help the tribal to collect the NTFP items for their livelihood and socio-economic uplifting.

7.3. Development of Nursery

A good nursery is the pre-requisite for a successful plantation. Therefore, all care should be taken to raise healthy and sound seedling of required sizes before they are put to the plantation site. The site being subjected to different biotic interference, it is proposed to raise two year old seedlings for plantation. This should be particularly adopted in case of slow growing species like Neem, Amla, Sisoo and Karanja, etc. Accordingly, the nursery programme can be planned out one year in advance. The two years seedling to be raised in poly bags of 12 inch x 9 inch and one year old manual should be taken up at all stages of nursery operation so that a good stock of healthy seedling can be raised. 10% extra seedlings should be raised to cover the short fall due to casualty in nursery stage. In case of all the seedlings, sorting, grading of polythene bags should be done from time to time that do not allow the tap roots to strike the ground. Nursery site should be selected, preferably near to plantation site and in a well-drained locality having water sources.

7.4. Planting

The best time of planting of the potted seedling is soon after the onset of regular monsoon or after a good shower of rain. Before planting, the pits are to be prepared by putting mixture of half cubic feet of alluvial soil and farmyard manure. Basal dose of 30 gm of NPK fertilizer and 5 gm of Aldrin dust or Phorate pesticide are to be applied to the pits before planting as basal dose. The excavated earth from the pits already weathered and free from

stones should be filled in the pits. Before removal of the plants from the Nursery, the following precautions should be taken:

Roots escaping from the container should be trimmed.

- i. Pots containing the plant are watered, if necessary.
- ii. Maximum care should be taken at the time of transportation and handling of seedlings so that the ball of earth of the poly pots does not get disturbed and the primary leading shoots are broken. Manual transportation should be given priority.

Planting should be taken up on rainy/cloudy days by adopting all standard techniques of plantation.

Casualty of seedlings occurs due to various causes, like heavy rain, drought, fire, grazing etc. But in a well-managed plantation, where the planting stock consists of healthy and stout seedlings, say, about 5% may die during the period between planting and 1st weeding. Seedling to be used for casualty replacement should be earmarked and kept reserved at the time of planting. Only healthy and stout seedlings slightly larger than those planted at the time of operation should be used. This is important because only such seedlings can catch up growth with those that have survived and are growing. Before planting for casualty replacement, the following operations are to be taken up:

- a) The failure pits are to be properly opened again
- b) Another dose of fertilizer, and insecticide should be given to the pit
- c) If casualties are due to white ant attack, little more quantity of phorate pesticide may be applied to the pit.
- d) If the casualties are due to water logging and wilting, care should be taken to drain out the pits by making small channels to downhill side.
- e) Watering is to be done generally directly after planting, if the planting is done on a dry day.

Casualty replacement can also be taken up in the 2nd year formation and this time should not exceed 20%.

7.5. Weeding, Manuring & Soil Working

To improve and enhance the growth of plants, it is necessary to see that the plants get as much nutrients as far as possible and that no other wild plants are contesting for space, light and nutrients. Therefore, weeding and soil working must be undertaken in a newly established plantation. Weeding consists of loosening soil around the plant with a hoe or even with a pick-axe and pulling out all unwanted growth along with their roots, rhizomes, stools etc, while doing so, care should be taken to see that the root system of the planted seedling is not damaged. Weeds within a radius of 0.5 meters around the plant should be removed. Under the prevailing conditions, two weeding are considered sufficient, the first to take place a few weeks after the main plantation is over, say, in August and the second weeding in early winter, i.e., in October or November, Strip weeding which involves cutting of weeds flush to the ground may be confined to the place in between the planted lines. The removed material may be placed along the contour between two rows of plantations, which will ultimately help in conservation of soil and moisture. Soil working is equally an important operation and it should be carried out at the time of each weeding. While loosening the soil, it is important to see that the soil is not pulverized but left in clods. This not only helps in improving soil erosion but also helps in moisture conservation by breaking soil capacity.

The best time for application of fertilizer is at the time of soil working and weeding. In organic fertilizer like NPK @50gms/plant shall be applied at the time of soil working. Chemical fertilizer should not be placed too close to the plants, as it may burn the roots and kill the plants. A small dose of urea @20gms/plant may be applied by crow bar hole method before 1st weeding, if possible, for root penetration and growth of seedlings.

It is advisable to apply fertilizer on a rainy day soon after the weeding has been completed.

7.6. Mulching

Mulching is an operation where removed vegetative materials are placed around planted seedling covering the soil around it. This helps soil climate to considerable extent from

desiccation. Mulching affects soil temperature, helps condensation, and prevents soil erosion and loss of soil moisture through evaporation. Further, it is to be carried out at the time of 2nd weeding. Weeds which have not lowered may be pulled out from around the planted seedlings and may be used as mulches around the seedlings.

- a) They allow the plants to be healthy and stout and have knot free stems.
- b) It reduces fire hazards by lessening the chance of ground fire.
- c) The plants will be straight with clear bole.

The detailed cost estimate of various operations to be taken up in block plantation (1600 seedlings) mode has been detailed below.

7.7. Peoples participation

It is experienced that, no scheme shall be effective if the local villagers are not involved in the implementation of the scheme itself. The villagers, who are having a right on the NTFP items in the adjoining forest areas are to be associated with the implementation of the scheme at all different levels. For that, Van Suraksha Samittee (VSS) is proposed to the guidelines of the government of Odisha issued on 3rd July'1993, the villagers are to be motivated and inspired and above all, explained the benefits they will be getting if plantation is protected by them.

7.8. Monitoring and execution

The scheme will be executed by the Forest Department and shall be monitored from time to time by responsible officers including DFO. Nursery, plantation journal and other relevant documents shall be maintained as per the provision of the Plantation Manual. A plantation shed with drinking water facilities may be constructed at the site for execution of different works and from future protection point of view.

8. Total cost of the project

The total cost of the project will be Rs. **1816595/-** as detailed below, which will be deposited in the account as per the direction of the DFO in favour of State CAMPA account.

COST ESTIMATE FOR BLOCK PLANTATION OF 1600 SEEDLINGS/HECT. AT 2.5M x 2.5M SPACING

1	Nature/Mode of the Plantation.	Block Plantation.
2	No. of seedlings to be planted.	1600 Nos. per hect.
3	Spacing to be adopted.	2.5m x 2.5m
4	Size of pits.	30cm x 30cm x 30cm
5	Wage rate.	Rs.200.00 per manday.
6	Species to be planted.	Amla, Bahada, Bambo, Karanja, Teak, Sissoo, Neem and Arjun
7	Implementing Agency	Divisional Forest Officer, Baripada Forest Division

Remarks:- The user agency will pay the enhanced wage rate as and when required.

SI No	Items of work	Person- days	Basing on @ 200/- per MD		
			Labour cost @ Rs. 200/-day	Material cost (Rs.)	Total Cost (Rs.)
1	2	3	4	5	6
0th Year (Advance Work) Pre-planting operation					
1	Survey, demarcation & Pillar posting	2	400	-	400
2	Site preparation	8	1600	-	1600
3	Alignment & stacking of pits	2	400	-	400
4	Digging of pits (30 cm ³)	40	8000	-	8000
5	Nursery cost (8 months old seedling) part	0	0	11739	11739
6	Barbed wire fencing 198.51 rmt	129	25800	131000	156800
Total		181	36200	142739	178939
1st Year / Planting Year					
7	Nursery cost (8 months old seedling) balance	0	0	4839	4839
8	Carriage & planting, CR, manuring, insecticide application	21	4200	-	4200
9	Cost of insecticide & fertilizer	-	-	4200	4200
10	1 st weeding (complete weeding)	7	1400	-	1400
11	Manuring	5	1000	-	1000
12	2 nd weeding (complete weeding)	5	1000	-	1000
13	Soil working (50 cm. Radius around plants)	7	1400	-	1400
14	Fire line Tracing & Inspection path	3	600	-	600
15	Soil conservation measures in the form of staggered trenches of 2m(L) X 50 cm(D) X 50 cm(B)	10	2000	-	2000
16	Watch & ward	7	1400	-	1400
Total		65	13000	9039	22039
2nd Year Maintenance					
17	Casualty replacement with nursery cost	12	2400	-	2400
18	Weeding (complete weeding)	6	1200	-	1200
19	Application of fertilizer	4	800	-	800
20	Cost of fertilizer (NPK @70 gms/plant) (Rs24/- per kg & insecticide @5 gms/plant for 160 plants 800 gms @ Rs 80/- per kg)	-	-	2752	2752
21	Soil working (50 Cms. Radius around plants)	7	1400	-	1400
22	Fire line Tracing (2m, Wide fire line over 400m long)	3	600	-	600
23	Watch & Ward	15	3000	-	3000
Total		47	9400	2752	12152

3 rd Year Maintenance					
24	Weeding & application fertilizer	7	1400	-	1400
25	Cost of fertilizer	-	-	1920	1920
26	Soil working (50 cms. Radius around plants)	7	1400	-	1400
27	Fire line Tracing (2m. Wide fire line over 400m long)	3	600	-	600
28	Watch & ward	15	3000	-	3000
Total		32	6400	1920	8320
4 th Year Maintenance					
29	Fire line Tracing (2m. wide fire line over 400 m long), Pruning etc.	3	600	-	600
30	Watch & ward	15	3000	-	3000
Total		18	3600	-	3600
5 th Year Maintenance					
31	Fire line Tracing (2m. Wide fire line over 400m long), Pruning etc.	3	600	-	600
32	Watch & ward	15	3000	-	3000
Total		18	3600	-	3600
6 th Year Maintenance					
33	Fire line Tracing (2m. Wide fire line over 400m long), Pruning etc.	3	600	-	600
34	Watch & ward	15	3000	-	3000
Total		18	3600	-	3600
7 th Year Maintenance					
35	Fire line Tracing (2m. Wide fire line over 400m long), Pruning etc.	3	600	-	600
36	Watch & ward	15	3000	-	3000
Total		18	3600	-	3600
8 th Year Maintenance					
37	Fire line Tracing (2m. Wide fire line over 400m long), Pruning etc.	3	600	-	600
38	Watch & ward	15	3000	-	3000
Total		18	3600	-	3600
9 th Year Maintenance					
39	Fire line Tracing (2m. Wide fire line over 400m long), Pruning etc.	3	600	-	600
40	Watch & ward	15	3000	-	3000
Total		18	3600	-	3600
GRAND TOTAL (0 th + 1 th + 2 th + 3 th + 4 th + 5 th + 6 th + 7 th + 8 th + 9 th Yr)		433	86600	156450	243050

ABSTRACT

Year	Person days (in nos.)	Labour Cost (in Rs)	Material Cost (in Rs)	Total Cost (in Rs)
0 th Year (including barbed wire fencing)	181	36200	142739	178939
1st year	65	13000	9039	22039
2nd year	47	9400	2752	12152
3rd year	32	6400	1920	8320
4th year	18	3600	-	3600
5th year	18	3600	-	3600
6th year	18	3600	-	3600
7th year	18	3600	-	3600
8th year	18	3600	-	3600
9th year	18	3600	-	3600
Total	433	86600	156450	243050

Budgetary Allotment to be required for 6.07 ha of Block Plantation as detail below with barbed wire fencing by using RCC pillars around the periphery of the plantation over 1205 rmt.

Year	Person days (in nos.)	Labour Cost (in Rs)	Material Cost (in Rs)	Total Cost (in Rs)
0 th Year (including barbed wire fencing over 1205 rmt.)	1099	219734	866426	1086160
1st year	396	78910	54870	133780
2nd year	285	57060	16700	73760
3rd year	194	38850	11650	50500
4th year	109	21850		21850
5th year	109	21850		21850
6th year	109	21850		21850
7th year	109	21850		21850
8th year	109	21850		21850
9th year	109	21850		21850
Total	2628	525654	949646	1475300

Provision of Blower as fire extiguisher, 2Nos, 60000 X 2	120000
Overhead charges :@ 5%, of rupees 1475300/.	73765
Contingency:@ 10%, of rupees 1475300/.	147530
Total	1816595

(Total rupees Eighteen Lakh Sixteen Thousand Five Hundred Nintyfive only)


 Divisional Forest Officer
 Baripada Forest Division
 Baripada
DIVISIONAL FOREST OFFICER
BARIPADA DIVISION



Scheme for Site Specific Compensatory Afforestation

Over **8.90 Ha** or 22.00 Ac of Non-forest Govt. Land Identified
in Village **Gohira** under Jamada Tahasil in Mayurbhanj District,
(Rairangpur Forest Division)

For Construction of **Sono Barrage Project** located in
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Department of Water Resource, Odisha

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1. Introduction

The Sono Barrage Project is a Barrage project proposed in Burhabalanga Basin on Sono river near village Jaida of Gopabandhu Nagar Block in Mayurbhanj District of Odisha. The project envisages construction of a barrage on Sonoriver having catchment area of 678 Km². The project will provide irrigation facilities to a CCA of 9900 ha laying in Gopabandhu Nagar, Udala, Khunta and Badasahi Blocks of Mayurbhanj District and Remuna and Nilagiri Blocks of Balasore District. The project is envisaged to divert 14.928 ha of forest land for non-forest use in Baripada and Balasore Forest Division.

2. Selection of Site

As per guidelines of Forest (Conservation) Act, 1980, non-forest area equivalent to the forest land to be diverted is to be identified for raising Compensatory Afforestation. Initially 15.00 Ac. (6.07 ha) out of the total required 37.00 Ac. (14.974 ha) of non-forest land for raising Compensatory Afforestation was identified in Daundia Village, Gopabandhu Nagar Tahasil of Mayurbhanj District under Baripada Forest Division. As remaining 22.00 Ac. (8.90 ha) of non-forest land was not available in Baripada Forest Division, the land was searched in neighbouring Rairangpur Forest Division. The 22.00 (8.90 ha) land was identified in Gohira Village, Jamada Tahasil of Mayurbhanj District, the land is coming under Bahalda Range of Rairangpur Forest Division. The land schedule is detailed below.

Land schedule of the proposed compensatory afforestation area

Tahasil	Village	Khata no	Plot.no	Total Area(Ac)	Land Suitable for Compensatory Afforestation (Ac)	Kisam
Jamada	Gohira	152	357	14.80	11.32	Gochar
			401	1.05	1.05	Gochar
			539	9.83	9.63	Gochar
Total					22.00 or 8.90 ha	

The site is located on survey of India Topo Sheet No F45-13 between Latitude: 22° 20' 40.98" - 22° 21' 15.23", Longitude: 86° 04' 52.23" - 86° 04' 37.84" E (Annexure-I) and at a distance of 10 KM from Tahasil Headquarters. The proposed area is free from encroachment and encumbrances and suitable for plantation.

The land details jointly verified by Forest and Revenue authorities are enclosed along with the village map showing the above land details for the proposed compensatory afforestation as Annexure -II.

3. Description of the existing vegetation

Though there is not any valuable tree growth in the land but there is scrub scattered over the land.

4. Topography & Soil

The topography of area is flat. Khadkai river is flowing adjacent to the land on eastern side. The depth of the soil is good and the existing vegetation indicates the PH value.

5. Rainfall & Temperature

The annual rainfall varies from 1200 mm to 1400mm. The maximum rainfall is received during the rainy season from July to September. The average temperature varies from 13.5°C minimum in December to 45° C maximum in May.

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It is proposed to take up pitting with a pit size of 30cm x 30cm x 30cm at spacing of 2.5m x 2.5m during February / March for allowing weathering of the soil. The planting should be taken up only with two years old seedlings having height more than one meter. The size of P. bags will be 12inch x 9 inch with desired quantity of inputs. The seedlings will be graded and sorted at regular intervals to make those healthy and sound and avoid root coiling. Species like Amla, Khair, Karanj, Teak, Sisoo, Neem and Arjun shall be planted which will help the tribal to collect the NTFP items for their livelihood and socio-economic uplifting.

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Roots escaping from the container should be trimmed.

- i. Posts containing the plant are watered, if necessary.
- ii. Maximum care should be taken at the time of transportation and handling of seedling so that the ball of earth of the poly pots does not get disturbed and the primary leading shoots are broken. Manual transportation should be given preference.

Planting should be taken up on rainy/cloudy days by adopting all standard techniques of plantation. As far as possible, Bamboo should be put as a fourth plant in the row and planting up other species should be mixed with poly culture design.

Casualty of seedlings occurs due to various caused like heavy rains, drought, fire, grazing etc. But in a well-managed plantation, where the planting stock consists of healthy and stout seedlings, say, about 5% may die during the period between planning and 1st weeding. Seedlings to be used for casualty replacement should be earmarked and kept reserved at the time of planting. Only healthy and stout seedlings slightly larger than those planted at the time of operation should be used. This is important because only such seedlings can catch up growth with those that have survived and are growing. Before planting for casualty replacement, the following operations are to be taken up:

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7.5. Weeding, Manuring & Soil Working

To improve and enhance the growth of plants, it is necessary to see that the plants get as much nutrients as far as possible and that no other wild plants are contesting for space, light and nutrients. Therefore, weeding and soil working must be undertaken in a newly established plantation. Weeding consists of loosening soil around the plant with a hoe or even with a pick-axe and pulling out all unwanted growth along with their roots, rhizomes, stools etc, while doing so, care should be taken to see that the root system of the planted seedling is not damaged. Weeds within a radius of 0.5 meters around the plant should be removed. Under the prevailing conditions, two weeding are considered sufficient, the first to take place a few weeks after the main plantation is over, say, in August and the second weeding in early winter, i.e., in October or November, Strip weeding which involves cutting of weeds flush to the ground may be confined to the place in between the planted lines. The cut material may be placed along the contour between two rows of plantations, which will ultimately help in conservation of soil and moisture. Soil working is equally an important operation and it should be carried out at the time of each weeding. While loosening the soil, it is important to see that the soil is not pulverized but left in clods. This not only helps in improving soil erosion but also helps in moisture conservation by breaking soil capacity.

The best time for application of fertilizer is at the time of soil working and weeding. In organic fertilizer like NPK @50gms/plant shall be applied at the time of soil working. Chemical fertilizer should not be placed too close to the plants as it may burn the roots and kill the plants. A small dose of urea @20gm/plant may be applied by crow bar hole method before 1st weeding, if possible for root penetration and growth of seedlings.

It is advisable to apply fertilizer on a rainy day soon after the weeding has been completed.

7.6. Mulching

Mulching: is an operation where cut vegetative materials are placed around planted seedling covering the soil around it. This helps soil climate to considerable extent from desiccation. Mulching affects soil temperature, helps condensation, and prevents soil erosion and loss of soil moisture through evaporation. Further, it is to be carried out at the time of 2nd weeding. Weeds which have not lowered may be pulled out from around the planted seedlings and may be used as mulches around the seedlings.

- a) They allow the plants to be healthy and stout and have knot free stems.
- b) It reduces fire hazards by lessening the chance of ground fire.
- c) The plants will be straight with clear bole.

The detailed cost estimate of various operations to be taken up in block plantation (1600 seedlings) mode has been detailed below.

7.7. Peoples participation

It is experienced that, no scheme shall be effective if the local villagers are not involved in the implementation of the scheme itself. The villagers who are having a right on the NPFP items in the adjoining forest area are to be associated with the implementation of the scheme at all different levels. For that, Van Samarakhyana Samittee (VSS) is proposed to the guidelines of the government of Odisha issued on 3rd July'1993, the villagers are to be motivated and inspired and above all, explained the benefits they will be getting if plantation is protected by them.

7.8. Monitoring and execution

The scheme will be executed by the Forest Department and shall monitored from time to time by responsible officers including DFO. Nursery, plantation journal and other relevant documents shall be maintained as per the provision of the Plantation Manual. A plantation shed with drinking water facilities may be constructed at the site for execution of different works and from future protection point of view.

8. Total cost of the project

The total cost of the project will be Rs.2367800/-as detailed below, which will be deposited in an account as per the direction of the DFO in favour of State CAMPA Account.

SCHEME FOR 1 HECTARE OF BLOCK PLANTATION (1600 SEEDLINGS/HECT. AT 2.5M x 2.5M SPACING)

1	Name of the Plantation.	Block Plantation.
2	No.of seedlings to be planted.	1600 Nos. per hect.
3	Spacing to be adopted.	2.5m x 2.5m
4.	Size of pits.	30cm x 30cm x 30cm
5	Wage rate.	Rs.200.00 per manday.
6.	Species to be planted.	Amla, Karanja, teak, Sissoo, Neem , Bahada , Bamboo and Arjun.
7.	Implementing agency	Divisional Forest Officer, Rairangpur Division.

Remarks:-The user Agency will pay the enhanced wage rate as and when required.

Basing on @ 200/- per MD

Sl no.	Item of work	Person days	Labour cost in Rs	Material cost (Rs)	Total cost (Rs)
1	2	3	4	5	6
0TH YEAR (ADVENCE WORK) PRE-PLANTING OPERATION					
1	Survey, demarcation and pillar posting	2	400	-	400
2	Site preparation	8	1600	-	1600
3	Alignment and stacking of pits	2	400	-	400
4	Digging of pits (30 cm cube)	40	8000	-	8000
5	Nursery cost (8 months old seedling) part	40	8000	8000	16000
6	Barbed wire fencing 246.51 rmt	160	32000	163050	195050
	Total	252	50400	171050	221450
1 ST YEAR/ PLANTING YEAR					
7	Nursery cost (8 months old seedling) balance	14	2800	400	3200
8	Carriage & Planting CR, Manuring insecticide appln	21	4200	-	4200
9	Cost of insecticide and fertilizer	-	-	4200	4200
10	1 st weeding (complete weeding)	7	1400	-	1400
11	Manuring	5	1000	-	1000
12	2 nd weeding (complete weeding)	5	1000	-	1000
13	Soil working (50 cms Radius around plants)	7	1400	-	1400
14	Fire line tracing& inspection path	3	600	-	600
15	Soil conservation measures in the form of staggered trenches of 2m.L x 50 cm. D	10	2000	-	2000
16	Watch & Ward	7	1400	-	1400
	Total	79	15800	4600	20400
2ND YEAR MAINTENANCE					
17	Causality replacement with nursery cost	12	2400	-	2400
18	weeding (complete weeding)	6	1200	-	1200
19	Application of fertilizer	4	800	-	800
20	Cost of fertilizer	-	-	2400	2400
21	Soil working (50 cms Radius around plants)	7	1400	-	1400
22	Fire line tracing (2 m wide fire line over 400 m Ward	3	600	-	600
23	Watch & Ward	15	3000	-	3000
	Total	47	9400	2400	11800

3RD YEAR MAINTENANCE					
23	Weeding and application of fertilizer	7	1400	-	1400
24	Cost of fertilizer	-	-	2400	2400
25	Soil working (50 cms Radius around plants)	7	1400	-	1400
26	Fire line tracing (2 m wide fire line over 400 m long)	3	600	-	600
27	Watch & Ward	15	3000	-	3000
	Total	32	6400	2400	8800
4TH YEAR MAINTENANCE					
28	Fire line tracing (2 m wide fire line over 400 m long) Pruning	3	600	-	600
29	Watch & Ward	15	3000	-	3000
	Total	18	3600	-	3600
5TH YEAR MAINTENANCE					
30	Fire line tracing (2 m wide fire line over 400 m long) Pruning	3	600	-	600
31	Watch & Ward	15	3000	-	3000
	Total	18	3600	-	3600
6TH YEAR MAINTENANCE					
32	Fire line tracing (2 m wide fire line over 400 m long) Pruning	3	600	-	600
33	Watch & Ward	15	3000	-	3000
	Total	18	3600	-	3600
7TH YEAR MAINTENANCE					
34	Fire line tracing (2 m wide fire line over 400 m long) Pruning	3	600	-	600
35	Watch & Ward	15	3000	-	3000
	Total	18	3600	-	3600
8TH YEAR MAINTENANCE					
36	Fire line tracing (2 m wide fire line over 400 m long) Pruning	3	600	-	600
37	Watch & Ward	15	3000	-	3000
	Total	18	3600	-	3600
9TH YEAR MAINTENANCE					
38	Fire line tracing (2 m wide fire line over 400 m long) Pruning	3	600	-	600
39	Watch & Ward	15	3000	-	3000
	Total	18	3600	-	3600
	GRAND TOTAL(0th+1st+2nd+3rd+4th+5th+6th+7th+8TH+9th Yr)	518	103600	180450	284050

ABSTRACT

Year	No. of person days	Labour cost (In Rs)	Material cost (In Rs)	Total cost (In Rs)
0th year including barbed wire fencing	252	50400	171050	221450
1st year	79	15800	4600	20400
2nd year	47	9400	2400	11800
3rd year	32	6400	2400	8800
4th year	18	3600	0	3600
5th year	18	3600	0	3600
6th year	18	3600	0	3600
7th year	18	3600	0	3600
8th year	18	3600	0	3600
9th year	18	3600	0	3600
Total Labour	518	103600	180450	284050


P/11

Budgetary Allotment to be required for 8.90 Hect of Block Plantation as detail below with barbed wire fencing by using RCC pillars around the periphery of said plantation over 2194 rmt.


Year	No. of person days (In nos.)	Labour cost (In Rs)	Material cost (In Rs)	Total cost (In Rs)	Remarks
0th year (includes barbed wire fencing over 2194 rmt.)	2243	448600	1522300	1970900	(i)Pre Planting cost =Rs 234960 (ii)barbed wire fencing cost =Rs 1735940
1st year	703	140600	40960	181560	-
2nd year	418	83600	21420	105020	-
3rd year	285	57000	21320	78320	-
4th year	160	32000	-	32000	-
5th year	160	32000	-	32000	-
6th year	160	32000	-	32000	-
7th year	160	32000	-	32000	-
8th year	160	32000	-	32000	-
9th year	160	32000	-	32000	-
GRAND TOTAL	4609	921800	160600	2527800	-

(Rupees Twenty five lakh, twenty seven thousand eight hundred) only

Technical sanction accorded.


Divisional Forest Officer,
Rairangpur Division.

Submitted


Divisional Forest Officer,
Rairangpur Division.


Divisional Forest Officer
Baripada Division