

कार्यालय वन परिक्षेत्राधिकारी छाल, धरमजयगढ़ वन मंडल

E.Mail ID - Rangechhal123@gmail.com

क्रमांक / 750

दिनांक 12/05/2017

प्रति,

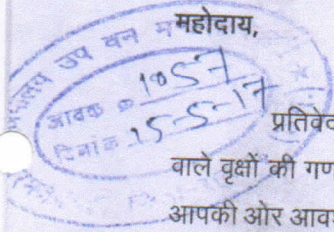
श्रीमान् वनमंडलाधिकारी

धरमजयगढ़ वनमंडल

प्रति :- श्रीमान् उपवनमंडलाधिकारी धरमजयगढ़ उपवनमंडल

विषय:- SECL को छाल खुली खदान वन क्षेत्र कक्ष क्र. 478 एवं राजस्व वन क्षेत्र में आने वाले वृक्षों की गणना पत्रक।

संदर्भ:- व.म.अ. धरमजयगढ़ का पत्र क्र./मा.चि./485 दिनांक 31.01.2017.



प्रतिवेदन है कि संरक्षित वन भूमि 176.710 हे. एवं राजस्व वन भूमि 8.307 हे. का स्थल निरीक्षण कर क्षेत्र में आने वाले वृक्षों की गणना कर गणना पत्रक एवं प्रभावित हो रहे COST BENEFIT ANALYSIS वृक्ष विदोहन विवरण तैयार कर आपकी ओर आवश्यक कार्यवाही हेतु संलग्न प्रस्तुत है।

कुल वृक्ष संख्या

74284

ई. घ.मी.

933.495

जलाऊ घ.मी.

2949.679

योग घ.मी.

3883.174

COST BENEFIT :- 485.70 लाख।

संलग्न:- 1. COST BENEFIT ANALYSIS गणना पत्रक।

2. वृक्ष गणना पत्रक।

652
15-5-017

वन परिक्षेत्राधिकारी
छाल परिक्षेत्र

मूलतः वन क्षेत्र के धरमजयगढ़ की ओर सूचनाएं एवं आवश्यक कार्यवाही हेतु संलग्न है।

उपवन मंडलाधिकारी

धरमजयगढ़, उपवन मंडल

ANNEXTURE
ATION OF LOSS OF FOREST OF DHARAMJAIGARH DIVISION FOR ACTUAL DIVERSION OF 185.017 HAC. OF
FOREST & REVENUE FOREST LAND
(W . R . T . ANNEXTURE - II OF COST BENEFIT ANALYSIS - PERFORMA)
FOR SECL CHHAL OC SEAM-III (6MTY) , VILLAGES - ADU (Chhal)

Calculation Details

Project: CHHAL OC SEAM-III (6MTY)

| | | |
|--------------------|----------------------------------|---------------|
| Forest land Needed | P.F. | 176.71 Hect. |
| | Bade Jhar, Chotte Jhar ke Jangal | 8.307 Hect. |
| | Total | 185.017 Hect. |

Average quality of Forest : IV A,
Average density of Forest : 0.5 to 0.6

Total no. of trees : 74284 NOS.
(As per enumeration list)

| | | |
|-------------------------|----------|-----|
| Estimated total volume | 3883.174 | Cum |
| Estimated timber volume | 933.495 | Cum |
| Estimated Fuel volume | 2949.679 | Cum |

(A) ITEM - Evaluation of loss of timber fuel minor forest produce mandays and expectation potential value of soil.

| | | |
|-----------------------------------|---------------------|---------------|
| (a) Value of timber @12921/- Cum. | : 933.495 X 12921 = | 12,061,688.90 |
| (b) Value of Fule @ 900/- Cum. | : 2949.285X900 = | 2654711.10 |

| | | |
|---|----------------------------|-------------|
| (c) value of Minor Forest produce (M.F.P) | : | |
| (i) Toatl annual Revenue from MFP in the division | : 419545700 | |
| (ii) Total Forest arae in the Division | : 108493 Hect. | |
| (iii) Average annual revenue per hect. From MFP | : Rs. 419545700 / 108493 = | 3867.030131 |
| Average annual revenue per hect. From MFP | Rs. 3867 X 185.017 | 715461.00 |

(d) Value of man days : Man days X area applied X Daily wages

| | | |
|--|---------------------|---------|
| (i) Cost of Coupe working @ Rs. 35907 per Cu.m. | : 185.017 X 35907 = | 6643405 |
| @ , Rs. 1246/- Cum Rs. 6643405/- therefore per ha. Cost of Rs. | 5332.00 | |
| Mandays = cost per ha/daily wage 5332/238 = 23 mandays | | |

| | |
|---------|---------|
| Total = | 6643405 |
|---------|---------|

| | | |
|---|----------------------|---------|
| (ii) Cost of MFP collection per Hect. Is about 60% of Gross revenue per Hect. | : Rs.3867 (60/100) = | 2320.00 |
|---|----------------------|---------|

| | | |
|------------------------|--|--|
| Cost of MFP collection | : MFP collection per ha. cost X Area Applied = | |
|------------------------|--|--|

| | | |
|--|--------------------------------|----|
| Therefore mandays = Cost per hect.from MFP / daily wages | : 2320/238 = 9.74 days say Md. | 10 |
|--|--------------------------------|----|

| | | |
|-------------------------|---------|----|
| Therefore total mandays | : 23+10 | 33 |
|-------------------------|---------|----|

(e) (i) Expectation of potential value & soil
(Faustman's formula)

$$CO = R/n - 11.00$$

Where :

$$R = \text{Upset price of Forest Growth Rs. } (14000 \times 185.017) = 2590238$$

P = rate of interest 4%

n = Period of Rotation 40 years.

Reciprocal value of $(R)(1.0P^{n-1})$ w.o

$$: 0.2632$$

Co - upset price X Reciprocal value

$$: \text{Rs. } 2590238 \times 0.2632 = \text{Rs. } 681751.00$$

(ii) Revenue obtained from intermediate yield

$$: C = T/a + n$$

$$1.01 - 1.0 P^n$$

Where

$$: T = \text{Revenue obtained from Thinning (per Hect.) } 543/\text{ha}$$

P = rate of interest 4%

A = year of thinning 40 years

Reciprocal value of $1/(aPa+n) = 1.0P^n$

$$: 0.6760$$

C = Revenue per hect. X reciprocal value Area of Transfer

$$: 61 \times 0.6760 \times 185.017 = 7629.00$$

(iii) Fire protection charges

$$: C = R \times A$$

Where

R = fire protection expenditure per Ha. 880/-

$$C = 880 \times 185.017 = \text{Rs. } 162815.00$$

Total (e) = (i+ii+iii)

$$: 681751.00 + 7629.00 + 162815.00 = 852195.0$$

Total item (a+b+c+d+e)

$$: 1206076 + 2654711 + 715461 + 6643405 + 852195 = 22927461$$

(B) ITEM : 2 LOSS OF VALUE OF FODDER GRASS

(i) Estimated quantity if (grass in metric tonnes) is based

on the consideration that on closure an area is capable

of yielding on an average 2-4 MT of grass per Ha.

$$: \text{Average production X Area applied} = 6 \text{ MT} \times 185.017 = 1110.102 \text{ mt.}$$

(ii) Loss of Value of Fodder

: Estimated quantity X Market Rate

Average local market rate Rs. 2500/- ha. Hence

$$1110.102 \times 5000 = \text{Rs. } 5550510$$

(C) ITEM : 3 COST OF HUMAN SETTLEMENT

The forest land is not to be used for the rehabilitation of the

displaced persons hence cost of human settlement is

: NIL

(C) ITEM : 4 LOSS OF PUBLIC FACILITIES AND ADMINISTRATIVE INFRASTRUCTURE

(i) Cost of construction of road including incidental cost : NIL

(ii) Cost of construction of forest guard quarter : NIL

(C) ITEM : 5

VALUE OF ENVIRONMENTAL LOSSES

Environmental losses =

Standard loss X area applied X actual per Ha. in a
for density in the fully stocked area forest (density :

Note required vide GOVT.OF INDIA

MINISTRY OF AGRICULTURE (DEPT)

AGRICULTURE & COOP) New Delhi

The 23/25/2/1983 vide page No 7(3)

181 X 185.017 X 0.6 X 1000 = Rs.

20092846

(C) ITEM : 6

SUFFERING OF OUSTEES

NIL

CALCULATION OF LOSSES

| Item No. | Amount Rs. |
|----------|-------------|
| 01 | 22927461 |
| 02 | 5550510 |
| 03 | NIL |
| 04 | NIL |
| 05 | 20092846 |
| 06 | NIL |
| Total | 48570817 |
| | 485.70 Lakh |

ProKey
परिस्तर रक्षक

Shrothia
वन परिक्षेत्राधिकारी
छाल परिक्षेत्र

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वन परिक्षेत्राधिकारी
छाल परिक्षेत्र
वनमण्डल, धरमजयगढ़

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उपवन मण्डलाधिकारी
परमजयगढ़, उपवन मण्डल

COST BENEFIT ANALYSIS FOR

(Applied by SECL CHHAL OC SEAM-III)

| | | | |
|---|---|--|-----------------------|
| 1 | Cost of Project (Loss of forest as per Annexure II) | | 4.85 Crore |
| 2 | BENEFIT OF THE PROJECT | | 610.63 Crores |
| 3 | BENEFIT COST RATIO Worth of Benefit Net Worth of Loss | | <u>610.63</u> 4.85 |
| 4 | BENEFIT COST RATIO | | 125:9 |

| S.No. | Parameters | Rs. |
|-------|---|----------------------|
| 1 | Loss of Value of timber, Fule, wood and other minor forest produce on an annual basis including loss of man hours wages form the harvest of these commodities | 22,927,461.00 |
| 2 | Loss of animal husbandry productivty including loss of fodder | 5,550,510.00 |
| 3 | Cost of human resettlement | - |
| 4 | Loss public facilities and administration infastructure (road, bulding. School, dispensary, electric lines raailways etc. on forest land or whitch would required forest land if these facilities were diverted due to the Project) | - |
| 5 | Environmental losses (Soil erosion) efforts on hydrological cycle wildlife habitat, microclimate upsetting of ecological balances | 20,092,846.00 |
| 6 | Suffering to outsee | - |
| | Total Loss | 48,570,817.00 |

Prakash
परिसर रक्षक

J.R. Singh
सहायक परिक्षेत्र अधिकारी

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वन परिक्षेत्राधिकारी
छाल परिक्षेत्र
वनमण्डल, धरमजयगढ़

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