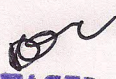


**FOREST LAND DIVERSION OF TANDSI MINE UNDERGROUND PROJECT -
WCL
EVALUATION OF LOSS OF FORESTS
CALCULATION DETAILS**


SO.NO.	Details	Description
1	Project	Tandsi mime Underound Project-WCL
		Tehsil: Junnardeo
		District:Chhindwara
		State: Madhay Pradesh
2	Forest Range	Damua
3	forest Compartment	P400,P411,P412,P413,P422,P423,P424
4	Forest land needed(in hector	181.442ha.
5	Quality	(underground Project)
6	Total No. of tress(Annexure A&B)	(underground Project)
7	Average density forest	(underground Project)
8	Estimated total volume(cmt)(Annexure A&B)	(underground Project)
9	Total Timber volume (cmt)	(underground Project)
10	Total Fuel volume(cmt)(Annexure A&B)	(underground Project)

Note- Applied foest land181.442 ha proposd to Underground mining


Manager (Survey)
Tandsi Mine
W.C.L. Kanhan Area


MANAGER
TANDSI COLLIERY



SUB AREA MANAGER
TANDSI SUB AREA


Area General Manager
W.C.L. Kanhan Area


FORM (A)
Evaluations of loss Timber Fuel Minor Forests Produce Mandays
Expectation or Potential Value of soil for forest land


S.No	Particulars	Tandsi underground project
a	value of Timber@ Rs.12000/-	Rs.0.000
	value of Timber@ Rs.1500/-	Rs.0.000
	Total market price	Rs.0.000
	per hector valua	Rs.0.000
b	value of Minor forest produce (Revenue per hect.Xarea applied in hect.)	Rs.0.000
c	Cost of coupe working (Mandays per ha X atea X 190	Rs.0.000
	Total cost per ha.	Rs.0.000
	Mandays per ha (cost per hector/Daily Wages	Rs.0.000
	Reciprocal value $(1.04Pn-1)$ where P=rate of interest =12, N= period of rotation=30 years	Rs.0.000
	Upset price of fores growth $(R=5/6M-F)$	
	where M=Market price and	
	E= Expenditure	Rs.0.000
d	Expectation of Potential value of Soil (upset price X	Rs.0.000
	Reciprocal value)	
e	Fire protection charges (C)	
	($C=25*R"A$) where R= fire protection Expenditure per ha ie	
	760 per ha. A=Area in 55.618 ha	Rs.0.000
	Total (a+b+c+d+e)	Rs.0.000

Note- Applied forest land 181.442 ha proposed to Underground Mining


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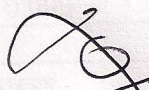
FORM-B
Details of Expenditure


Particular of work	Quantity	unit	Rate per Unit (in Rs.)	Cost in Rs.
i) Felling of timber, dedarking and other	0.000	cmt	2280	0.000
ii) Filling of fuel wood	0.000	cmt	2280	0.000
Recording				
Other Expenditure Material, EP, W & ward etc				
i). Timber	0.000	cmt	760	0.000
ii) Fuel Wood	0.000	cmt	760	0.000
Transportation upto market/forest office including loading unloading				
i). Timber	0.000	cmt	500	0.000
ii) Fuel Wood	0.000	cmt	500	0.000
Depot Expenditure				
i). Timber	0.000	cmt	760	0.000
ii) Fuel Wood	0.000	cmt	760	0.000
			10% extra for labour rate charges	0.000
			Total Expenditure (.E)	0.000
			Expenditure per Hectare	0.000

Note- Applied forest land 181.442 ha proposed to Underground Mining


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UPSET PROCE FORM.C.

Upset Price = 5/6 M=E M= Market price E=Expenditure

(A) ITEM-1 Upset Price in Rs.

(B) ITEM-2 Loss Value of Fodder (Grass)

Estimate quantity of grass in metrick tones vased on the consideration than on closer an area is complete of yielding an average 2 to 4 mt of grass per ha.	Annual production X Area Applied = Rs.0.000
Loss of fodder average in local market @ Rs. 1080 per mt	.=Rs 0.000

(c) ITEM-3 Cost of Human Re- Settlement

The forest land in not to be used for the Re- settlement of displased persons. Hence the cost of human Re- Settlement in Nil. There is no Habitation therfore no sttlement will applied

(D) ITEM-4 loss of public facilities and Administrative Infrastructure

There is no loss of forest road,nakas and other construction in the area applied.

(E) ITEM-5 Valuation of Environment losses

Environmental loss over a period of 50 years	Standard loss per year ha in fully stocked forest x Area applid for X avg.forest density .=Rs 0.000
Environmental loss per years	.=Rs 0.000

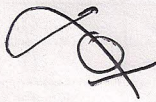
(F) ITEM-6 Suffering to Qutstees


Suffering to Qutstees Nil

Note-Applied forest land 181.442 ha proposed to Underground Mining


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W.C.L. Kanhan Area



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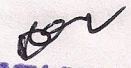

SUB AREA MANAGER
TANDSI SUB AREA

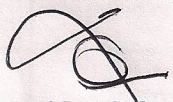

Area General Manager
W.C.L. Kanhan Area

TANDSI								
TANDSI MINE UNDERGROUND PROJECT								
Site Quality								
Compartment No.447,448&Area=18.615 ha								
Revenue forest: Nil								
Compartment No.P400,P411,P412,P413,P422,P423,P424+Revenue Forest 0=181.442ha)								
S.No	speces	Girth class	No.of tress	Timber Ractor	Quantity in cmt	Fuel Factor	Quantity in cmt	Total Quantity
1	Sound	21-30	0	0.010	0	0.0025	0	0
2		31-40	0	0.030	0	0.0075	0	0
3		41-60	0	0.050	0	0.0125	0	0
4		61-80	0	0.120	0	0.0300	0	0
5		81-100	0	0.200	0	0.0600	0	0
6		101-120	0	0.300	0	0.0750	0	0
7		121-150	0	0.410	0	0.1025	0	0
8		151-180	0	0.580	0	0.14.50	0	0
9		180+	0	0.800	0	0.2000	0	0
	Sub total							
1	semi sound	21-30	0	0.010	0	0.0100	0	0
2		31-40	0	0.020	0	0.0300	0	0
3		41-60	0	0.040	0	0.0500	0	0
4		61-80	0	0.090	0	0.6000	0	0
5		81-100	0	0.150	0	0.1000	0	0
6		101-120	0	0.230	0	0.2050	0	0
7		121-150	0	0.310	0	0.2900	0	0
8		151-180	0	0.440	0	0.2900	0	0
9		180+	0	0.600	0	0.4000	0	0
	Sub total							
1	unsound	21-30	0	0.000	0	0.0100	0	0
2		31-40	0	0.010	0	0.0300	0	0
3		41-60	0	0.010	0	0.0500	0	0
4		61-80	0	0.030	0	0.6000	0	0
5		81-100	0	0.050	0	0.1000	0	0
6		101-120	0	0.080	0	0.2050	0	0
7		121-150	0	0.100	0	0.2900	0	0
8		151-180	0	0.150	0	0.2900	0	0
9		180+	0	0.200	0	0.4000	0	0
	Sub total		0		0		0	0
	Total		0		0		0	0
Total timber in cmt from(181.442 ha)								

Note- Applied forest land 181.442 ha proposed to Underground Mining


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**TANDSI UNDERGROUND PROJECT
PARAMETERS FOR EVALUATION OF BENEFITS,
NOTWITHSTANDING LOSS OF FOREST**

S.No.	Parameters	Description	Calculation	Benefit (in Rs.crores)
1	Cost of coal produced over a period proposed in the project report (3 years)	Total 0.425 Million Tonnes of coal will be produced having market value of Rs694.45 Crs .as per present rate	0.425.(MT)x1634 (NSV)=694.45	694.45
2	Benefits to economy	A total of 0.425 million tonnes of coal from Bhaka Underground Project worth Rs 694.45 Crores will be produced which will be benefited to economy. The Govt. will be benefited by Royalty & Taxes will shall be Rs104.17 crores as per rate applicable to day Taxes includes Exice Duty 6%(ED),EDU cess 2% on ED, Higher EDU 1% on ED , SED rs 10/te, Clean Energy Cess Rs 50/te, MPGATSVA 5%VAT 4%,Entry Tax 2% and Royalty 14% of value of coal	Approx. 15% of the sale value	104.17
3	Benefit in terms of electricity generation A	A total of 0.14 Million tonnes of coal will be produced annually from bhakra Underground Project will be used for power generation, taking average consumption of 0.6 kg.of coal per KWH of electricity generation.The total generation from 0.14 Million Tes of coal will be 1.5x10 ⁶ units	3(yr.)x(1.5x10 ⁶) (units) x rs 3.0(Cost per unit)	135
4	Employment potential	About 400 direct employment in mine & 100 in- direct employment throught other services	400+100)(manpower)13(yrs)x 365(days)x8(shift hours)xRs. 30 (per manhour)	13.14
5	Cost of acquisition of facility on non forest land wherver feasible	There is no scope of diversion of the non-forest area as coal deposited laying under forest area can not be left out of mining		
6	Loss of (a) agriculture & (b) animal husbandry production due to diversion of forest land	There is no agriculture of husbandry production in the area.		
7	Cost of rehabilitation of the displaced persons as different from compensatory amount given for displacement	There is no population in the forest land		
8	Cost of supply of free fuel wood to workers residing in or near forest area during the period of constructions.	Not applicable-As free coal is supplied to the workers of company for domestic use.		
9	Total benefits in Crores			946.76
A	Loss of Forest		Rs.Crores.	0.00
B.1	Cost benefit ratio in terms of cost of Coal produced	(Benefit/loss of forest)-Rs694.45 crores/ Rs.0.00 crores=	infinite	100% profit
B.2	Cost benefit ratio in terms of royalty/taxes to govt.	(Benefit /loss of forest)=Rs.104.17crores/Rs.0.00 crores=	infinite	100% profit
B.3	Cost benefit ratio in terms of Electricity Generation	(Benefit /loss of forest)=Rs.135crores/Rs.0.00 crores=	infinite	100% profit
B.4	Cost benefit ratio in terms of employment generation	(Benefit /loss of forest)=Rs.13.14 crores/Rs.0.00 crores=	infinite	100% profit
B.5	Cost benefit ratio in terms of Total benefits	(Benefit /loss of forest)=Rs946.76crores/Rs.0.00 crores=	infinite	100% profit

*Manager (Survey)
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W.C.L. Kanhan Area*

TANDSI

MANAGER

COLLIERY TANDSI SUB AREA

SUB AREA MANAGER

*Area General Manager
W.C.L. Kanhan Area*