

FOREST LAND DIVERSION OF TAWA – III UNDERGROUND PROJECT WCL
EVALUATION OF LOSS OF FORESTS
CALCULATION DETAILS

Sl. No	Details	Description
1	Project	TAWA –III Underground Project WCL Tehsil : Ghodadongri District : Betul State : Madhya Pradesh
2	Forest Range	Revenue Forest
3	Forest Compartment	Plot No. 11, 174 329, 330
4	Forest land needed (in Ha.)	25.866 Ha.
5	Quality	(Underground Project)
6	Total No. of trees (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&D)	Underground Project

FORM (A)

Evaluation of loss Timber Fuel Minor Forests Produce Mandays Expectation or Potential Value of Soil for forest land

Sl. No	Particulars	Tawa-III UG Project (MR- 25.866 Ha)
a	Value of Timber @ Rs.12000/-	Rs. 0.00/-
	Value of Timber @ Rs.1500/-	Rs. 0.00/-
	Total market price	Rs. 0.00/-
	Per hector value	Rs0.00 /-
b	Value of Minor forest produce (Revenue per hect. X area applied in hect.)	Rs. 0.00/
c	Cost of coupe working (Mandays per ha X area X 190)	0.00
	Total cost per ha.	0.00
	Mandays per ha (cost per ha/Daily wages	0.00
	Reciprocal value $(1.04Pn-1)$ where P=rate of interest=12,N=period of rotation=30 years	0.00
	Upset price of forest growth $(R=5/6 M-E)$	0.00
	Where M=market price and	0.00
	E=Expenditure	0.00
d	Expectation of Potential value of Soil (upset price x Reciprocal value)	0.00
	Revenue obtained from intermediate yield	0.00
e	Fire protection charges (C)	Rs. 0.00/-
	$(C=25*R*A)$ where R=fire protection Expenditure per has ie 760 per has. A=Area in 25.866 Ha.	0
	Total (a+b+c+d+e)	Rs. 0.00/-

Note :- Applied forest land 25.866 Ha. Proposed for Underground mining.

FORM B

DETAILS OF EXPENDITURE

Details of Expenditure			
Particulars of work	Quantity	Unit	Rate per Unit (in
Felling, Collection upto Extraction path			
i) Felling of timber dedarking and other	0	Cmt	2280
ii) Felling of fuel wood recording	0	Cmt	2280
Other expenditure Material, EP, W & ward etc.			
i) Timber	0	Cmt	760
ii) Fuel Wood	0	Cmt	760
Transportation upto market/forest office including loading unloading			
i) Timber	0	Cmt	500
ii) Fuel Wood	0	Cmt	500
Depot Expenditure			
i) Timber	0	Cmt	760
ii) Fuel Wood	0	Cmt	760
10% extra for labour rate charges=0			
Total Expenditure (E)=0			
Expenditure per Hectare=0			

Note :- Applied forest land 25.866 Ha. Proposed for Underground mining.

UPSET PRICE FORM .C.

Upset Price=5/6 M-E

M=Market Price

E=Expenditure

•ITEM – 1 Upset Price in Rs
= Rs. 0.00

•ITEM – 2 Loss Value of Fodder (Grass)

Estimate quantity of grass in metric tones based on the consideration than on closer an area is complete of yielding an average 2 to 4 mt of grass per ha.=00
Loss of fodder average in local market @ Rs.1080 per mt.=00

•ITEM – 3 Cost of Human Re-Settlement

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

•ITEM-4 Loss of public facilities and Administrative Infrastructure

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

•ITEM-5 Valuation of Environment losses
Environmental loss over a period of 50 years=00
Environmental loss per year=00

•ITEM-6 Suffering to Qutstees
Suffering to Outstees=00

Note :- Note :- Applied forest land 25.866 Ha: Proposed for Underground mining.

TAWA -III UNDERGROUND PROJECTS

Site Quality							
Compartment No. 329, 330, Area 25.866 Ha.							
Revenue Forest : Nil							
Compartment No. 329+330 = 25.866 Ha.							
Sl. No	Species	Girth class	No. of trees	Timber Factor	Quantity in cmt.	Fuel Factor	Quantity in cmt.
1	Sound	21-30	0	0.010	0	0.0025	0
2		31-40	0	0.030	0	0.0075	0
3		41-60	0	0.050	0	0.0125	0
4		61-80	0	0.120	0	0.0300	0
5		81-100	0	0.200	0	0.0600	0
6		101-120	0	0.300	0	0.0750	0
7		121-150	0	0.410	0	0.1025	0
8		151-180	0	0.580	0	0.1450	0
9		180+	0	0.800	0	0.2000	0
	Sub Total		0		0		0
1	Semi Sound	21-30	0	0.010	0	0.0100	0
2		31-40	0	0.020	0	0.0300	0
3		41-60	0	0.040	0	0.0500	0
4		61-80	0	0.090	0	0.6000	0
5		81-100	0	0.150	0	0.1000	0
6		101-120	0	0.230	0	0.1500	0
7		121-150	0	0.310	0	0.2050	0
8		151-180	0	0.440	0	0.2900	0
9		180+	0	0.600	0	0.4000	0
	Sub Total		0		0		0
1	unsound	21-30	0	0.000	0	0.0100	0
2		31-40	0	0.010	0	0.0300	0
3		41-60	0	0.010	0	0.0500	0
4		61-80	0	0.030	0	0.0600	0
5		81-100	0	0.050	0	0.1000	0
6		101-120	0	0.080	0	0.1500	0
7		121-150	0	0.100	0	0.2050	0
8		151-180	0	0.150	0	0.2900	0
9		180+	0	0.200	0	0.4000	0
	Sub Total		0		0		0
	Total		0		0		0
	Total timber in cmt. from (Ha.)		0		0		0

TAWA - III UNDERGROUND PROJECT

PARAMETERS FOR EVALUATION OF BENEFITS, NOTWITHSTANDING LOSS OF FOREST

Sl. No.	Parameters	Description	Calculation	Benefit (in Rs. Crores)
1	Cost of coal produced over a period proposed in the project report (13 years)	Total 7.166 Million Tonnes of coal will be produced having market value of Rs. 16704 Crs. As per present rate.	7.166 (MT) x 2331(NSV) = 16704	16704.00
2	Benefits to economy	A total of 7.166 Million Tonnes of coal from Tawa-III Underground Project worth Rs. 16704 Crores will be produced which will be benefited to economy. The Govt. will be benefited by Royalty & Taxes will shall be (14.5% of net project worth) Rs. 2422.08 Crores as per rate applicable today. Taxes includes excise duty 6%(ED), EDU cess 2%, on ED, Higher Edu 1% on ED, SED Rs.10/te, Clean Energy Cess Rs.50/te, MPGATVA 5%, VAT 4%, Entry Tax 2% and Royalty 14% of value of coal	Approx. 15% of the sale value	2505.60
3	Benefit in terms of electricity generation A	A total of 0.48 Million tones of coal will be produced annually from Tawa-III Underground Project will be used for power generation, taking average consumption of 0.8 Kg. of coal per KWH of electricity generation. The total generation from 0.48 Million Tes. of coal will be 5.7328×10^8 units	$7.166 \times 10^5 \times 3 / 0.80$ (units) x rs. 3.00 (Cost per unit)	2687.25
4	Employment potential	About 497 direct employment in mine & 213 in-direct employment through other services.	(497+213) Manpower X 13 yrs. X 365 (days) X 8 (Shifts/Hr.) X Rs.30/man Hour	808.548
5	Cost of acquisition of facility on non-forest land wherever 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.	NIL — There is no agriculture or 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			Rs 22704.798Cr
A	Loss of Forest			Rs 0
B.1	Cost benefit ratio in terms of cost of Coal produced	(Benefit/loss of forest)= Rs. 22704.798 crores/ Rs.0	Infinitive	100% profit
B.2	Cost benefit ratio in terms of royalty/taxes to govt	(benefit of taxes/loss of forest)=Rs.2505.6Cr/ Rs. 0	Infinitive	100% profit
B.3	Cost benefit ratio in terms of electricity generation	(Benefit/loss of forest)= Rs. 2687.25 crores/ Rs. 0	Infinitive	100% profit
B.4	Cost benefit ratio in terms of employment generation	(Benefit/loss of forest)= Rs. 808.548 crores/ Rs. 0	Infinitive	100% profit
B.5	Cost benefit ratio in terms of Total Benefits	(Benefit/loss of forest)= Rs. 22704.798crores/ Rs. 0	Infinitive	100% profit

Note :- Applied forest land 25.866 Ha. (Mining Right) Proposed for Underground mining.


Area Planning officer
Pathakhara . Area . W.C.I