

FOREST LAND DIVERSION OF Tawa -II UNDERGROUND PROJECT WCL
EVALUATION OF LOSS OF FORESTS

CALCULATION DETAILS

Sl. No	Details	Description
1	Project	Tawa-II Underground Project WCL
		Tehsil : Ghodadongri
		District : Betul
		State : Madhya Pradesh
2	Forest Range	Reserve Forest
3	Forest Compartment	325,327, 329, 330
4	Forest land needed (in Ha.)	201.079 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

Note :- Applied forest land 201.079 Ha. Proposed for Underground mining.

FORM (A)

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

Sl. No	Particulars	Tawa-II UG Project (MR- 201.079 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 201.079 Ha.	0
	Total (a+b+c+d+e)	Rs. 0.00/-

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FORM B**DETAILS OF EXPENDITURE**

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

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UPSET PRICE FORM .C.

Upset Price=5/6 M-E

M=Market Price

E=Expenditure

(A) ITEM – 1 Upset Price in Rs

= Rs. 0.00

(B) 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. = 0

Loss of fodder average in local market @ Rs.1080 per mt. =0

(C) 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.

(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 = 0

Environmental loss per year =0

(F) ITEM-6 Suffering to Qutstees

Suffering to Outstees = nil

Note :- Note :- Applied forest land 201.079 Ha. Proposed for Underground mining.

Tawa-II UNDERGROUND PROJECT

Site Quality								
Compartment No. Reserve Forest – 325,327,329,330								
Revenue Forest : Nil								
Ha. = 201.079 Ha.								
Sl. No.	Species	Girth class	No. of trees	Timber Factor	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	0.1450	0	0
9		180+	0	0.800	0	0.2000	0	0
	Sub Total		0		0		0	0
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	0.1500	0	0
7		121-150	0	0.310	0	0.2050	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		0		0		0	0
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	0.0600	0	0
5		81-100	0	0.050	0	0.1000	0	0
6		101-120	0	0.080	0	0.1500	0	0
7		121-150	0	0.100	0	0.2050	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 (Ha.)		0		0		0	0

Note :- Applied forest land 201.079 Ha. Proposed for Underground mining.

Tawa - II 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 (30 years)	Total 7.504 Million Tonnes of coal will be produced having market value of Rs. 35666.92 Crs. As per present rate.	7.504 (MT) x 2331(NSV) = 17491.82	17491.82
2	Benefits to economy	A total of 7.504 Million Tonnes of coal from Tawa II Underground Project worth Rs.17491.82 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. 2623.77 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. MPGATSVA 5%, VAT 4%, Entry Tax 2% and Royalty 14% of value of coal	Approx. 15% of the sale value	2623.77
3	Benefit in terms of electricity generation A	A total of 0.86 Million tones of coal will be produced annually from Tawa2 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 0.86Million Tes. of coal will be 6.88×10^8 units	30 yrs x 6.88×10^8 units x rs. 3.00 (Cost per unit)	6192

4	Employment potential	About 1106 direct employment in mine & 550 in-direct employment through other services.	(1106+550) Manpower X 30 yrs.X365 (days)X8 (Shifts/Hr.)X Rs.30/man Hour	4351.96
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 30659.55Cr
A	Loss of Forest			Rs 0
B.1	Cost benefit ratio in terms of cost of Coal produced	(Benefit/loss of forest)= Rs. 30659.55 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.2623.77Cr/ Rs. 0	Infinitive	100% profit
B.3	Cost benefit ratio in terms of electricity generation	(Benefit/loss of forest)= Rs. 6192crores/ Rs. 0	Infinitive	100% profit
B.4	Cost benefit ratio in terms of employment generation	(Benefit/loss of forest)= Rs. 4351.96 crores/ Rs. 0	Infinitive	100% profit
B.5	Cost benefit ratio in terms of Total Benefits	(Benefit/loss of forest)= Rs. 30659.55 crores/ Rs 0	Infinitive	100% profit

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Area Planning officer
Pathakhara . Area . W.C.L