

FOREST LAND DIVERSION OF TAWA UNDERGROUND PROJECT WCL  
EVALUATION OF LOSS OF FORESTS

**CALCULATION DETAILS**

Sl. No.	Details	Description
1	Project	Tawa Underground Project WCL Tehsil : Ghodadongri District : Betul State : Madhya Pradesh
2	Forest Range	Ranipur Reserve Forest
3	Forest Compartment	340, 342, 341, 343
4	Forest land needed (in Ha.)	107.816 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 107.816 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 UG Project (MR- 107.816 Ha )
a	Value of Timber @ Rs.12000/-	Rs. 0.00/
	Value of Timber @ Rs.1500/-	Rs. 0.00/
	Total market price Per hectore value	Rs. 0.00/
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 $(1.04P^n - 1)$ 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	0.00

  
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	Reciprocal value)	
	Revenue obtained from intermediate yield	Rs. 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 107.816Ha.	0
	<b>Total (a+b+c+d+e)</b>	<b>Rs. 0.00/</b>

**FORM B**

**DETAILS OF EXPENDITURE**

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

**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
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<b>(B) ITEM – 2 Loss Value of Fodder (Grass)</b>
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

<b>(C) ITEM – 3 Cost of Human Re-Settlement</b>
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.

  
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**(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 Outstees**

Suffering to Outstees = nil

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**Tawa UNDERGROUND PROJECT**

Site Quality								
Compartment No. 340, 342, 341, 343 Area 107.816 Ha.								
Revenue Forest : Nil								
Compartment No. 340, 342, 341, 343 Area 107.816 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		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

  
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5	unsound	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 107.816 Ha. Proposed for Underground mining.

### TAWA 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 24.85 Million Tonnes of coal will be produced having market value of Rs. 39263 Crs. As per present rate.	24.85 (MT) x 1580(NSV) = 39263	39263
2	Benefits to economy	A total of 24.85 Million Tonnes of coal from Tawa Underground Project worth Rs. 39263 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. 5693.13 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	5889.45
3	Benefit in terms of electricity generation A	A total of 1.23 Million tones of coal will be produced annually from Tawa-III Underground Project will be used for power generation, taking average consumption of 0.6 Kg. of coal per KWH of	$7.38 \times 10^8$ (units) x 30yrs x rs. 3.00 (Cost per unit)	6642

  
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		electricity generation. The total generation from 1.23 Million Tes. of coal will be $7.38 \times 10^8$ units		
4	Employment potential	About 1373 direct employment in mine & 750 in-direct employment through other services.	$(1373+750)$ Manpower X 30 yrs.X365 (days)X8 (Shifts/Hr.)X Rs.30/man Hour	5579.24
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			52072.69Cr
A	Loss of Forest			0
B.1	Cost benefit ratio in terms of cost of Coal produced	(Benefit/loss of forest)= Rs. 52072.69 crores/ Rs. 0. Crores	Infinitive	Huge profit
B.2	Cost benefit ratio in terms of royalty/taxes to govt.	(benefit of taxes/loss of forest)=Rs.5889.45Cr/ Rs. 0.Cr	infinitive	Huge profit
B.3	Cost benefit ratio in terms of electricity generation	(Benefit/loss of forest)= Rs. 6642.00 crores/ Rs. 0.Crores =	Infinitive	Huge profit
B.4	Cost benefit ratio in terms of employment generation	(Benefit/loss of forest)= Rs. 5579.24 crores/ Rs. 0 Crores =	Infinitive	Huge profit
B.5	Cost benefit ratio in terms of Total Benefits	(Benefit/loss of forest)= Rs. 52072.69 crores/ Rs.0. Crores =	infinitive	Huge profit

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