



**ಕುದ್ರೆಮುಖ್ ಅಮಿಟೆಡ್**

(ಭಾರತ ಸರ್ಕಾರದ ಉದ್ಯಮ)

ನೊಂದಾಯಿತ ಕಾರ್ಯಾಲಯ :  
೨ನೇ ವಿಭಾಗ, ಕೋರಮಂಗಲ  
ಬೆಂಗಳೂರು - ೫೬೦ ೦೩೪.

**के आई ओ सी एल लिमिटेड**

(भारत सरकार का उद्यम)

पंजीकृत कार्यालय :  
II ब्लॉक, कोरमंगला,  
बेंगलूर - 560 034.

**KIOCL LIMITED**

(A Government of India Enterprise)

Registered Office :  
II Block, Koramangala,  
Bengaluru - 560 034.

ISO 9001, 14001 ಮತ್ತು  
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आई एस ओ 9001, 14001 तथा  
ओएचएसएस 18001 कम्पनी  
ISO 9001, 14001 &  
OHSAS 18001 COMPANY

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**KIOCL Limited, Bangalore**

**COST BENEFIT ANALYSIS- DEVADARI IRON ORE MINE**

**Table-A: Cases under which a cost-benefit analysis for forest diversion are required**

Sl. No	Nature of proposal	Applicable/ not applicable	Remarks
1	All categories of proposals involving forest land up to 20 hectares in plains and up to 5 hectares hills	Not applicable	These proposals are to be considered on case by case basis and value judgment.
2	Proposal for defense installation purposes and oil prospecting (prospecting only)	Not applicable	In view of National Priority accorded to these sectors, the proposals would be critically assessed to help as certain that the utmost minimum forest land above is diverted for non-forest use.
3	Habitation, establishment of industrial unit, tourist lodges, complex and other building construction	Not applicable	These activities being detrimental to protection and conservation of forest, as a matter of policy, such proposals would be rarely entertained.
4	All other proposals involving forestland more than 5 hectares in hills including roads, transmission lines, minor, medium and major irrigation projects, mining activity, railway lines, location specific installations like micro wave stations, auto repeater centres, TV towers etc	Applicable	These are cases where a cost benefit analysis is necessary to determine when diverting the forest land to non-forest use is in the overall public interests.

**Table-B: Estimation of cost of forest diversion**

Sl. No	Parameters	Remarks
1	Ecosystem services losses due to proposed forest diversion. Present NPV for 1 Ha of forest land. Present NPV for 484.0733 Ha of forest land	Rs.8.03 Lakh 484.0733X 8.03 = Rs.3887.109 lakh
2	Loss of animal husbandry productivity, including loss of fodder	The loss of fodder estimated for 484.0733 Ha will be (Hill gross cost @ 1 ton/Ha @Rs.50/Ton) 484.0733X1X50X50years = Rs.12.10 Lakh
3	Cost of Human resettlement	There is no human settlement in mining lease area. Hence, the cost of human resettlement does not apply.

ಕ.ವಿ. ಭಾಸ್ಕರ ರೆಡ್ಡಿ / K.V. Bhaskara Reddy  
ಮಹಾ ಪ್ರबंधक (खनन और खनिज अन्वेषण) / General Manager (Mining & ME)  
के आई ओ सी एल लिमिटेड / KIOCL LIMITED

*Handwritten signature and date: 24/11/2019*

ಪರಿಸರ-ನಮ್ಮ ಧ್ಯೇಯ ನಮ್ಮ ಧ್ಯಾನ ಪಾರಿಸ್ಥಿತಿಕಿ-ಹಮಾರಾ ಲಕ್ಷ್ಯ ಇಮಾರಿ ನಿಷ್ಠಾ **ECOLOGY-OUR MISSION OUR OBSESSION**

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4	Loss of public facilities and administrative infrastructure (Roads, building, schools, dispensaries, electrical lines, railways, etc.) on forest land if these facilities were diverted due to the project.	There is no roads and electrical lines passing in the proposed area. There is no loss of public facility in the area.
5	Possession value of forest land diverted. Possession value for 1Ha of forest land Possession value for 484.0733 Ha of forest land.	30% of NPV 0.3 X 8.03 = Rs. 2.409 Lakh/Ha 484.0733X 2.409 = Rs. 1166.13 Lakh
6	Cost of suffering to oustees	There will not be any losses on this account as diversion of the forest land to this project will not affect any evacuation of house or structure or human settlement.
7	Habitat Fragmentation Cost Value for 1 Ha of forest land Value for 484.0733 Ha of forest land	50% of NPV 0.5 X 8.03 = Rs. 4.015 Lakh /Ha 484.0733 X 4.015= Rs.1943.55 Lakh
8	Compensatory afforestation and soil & moisture conservation cost. Rate of C.A. for 1 Ha of forest land. C.A. for 484.0733 Ha of forest land.	Rs.2.72 Lakh/Ha 484.0733 X 2.72 =Rs.1316.68 Lakh
<b>Total Loss</b>		<b>83.26 Crores</b>

**Table-C – Existing guidelines for estimating benefits of forest-diversion in CBA**

Sl. No	Parameters	Remarks
1	Increase in productivity attributable to the specific project.	1. Total iron ore resources = 33.53 million tones. 2. Cost of the iron ore per ton which the project proponent used to acquire: Rs.5700/ton. Cost for 33.53mt = 33530000XRs.5700=Rs.19112.10 Cr. 3. Estimated Cost of Iron ore ore if produced by the project proponent from proposed project = Rs.3138/ton Cost for 33.53mt = 33530000 X Rs.3138=Rs.10522.38 Cr 4. Total profit realization = (19112.10 -10522.38) = Rs.8589.72 Cr.
2	Benefits to Economy due to the specified project.	A. Total iron ore resource = 33.53 million tones B. Average Sale price of iron ore as per IBM(Karnataka) = Rs 1879 per tone (58 %Fe) C. Statutory Payments i. Payment to GoK -15% of sale price = Rs. 281.85/ton.  ii. Other Levies Royalty = 15 % of IBM Sale price=Rs. 281.85/ton. DMF = 10 % of Royalty =Rs.28.18/ton NMET = 2 % of Royalty= Rs.5.64/ton Grand Total = Rs.597.52/ton.

क.वि. भास्कर रेड्डी / K.V. Bhaskara Reddy  
 महा प्रबंधक (खनन और खनिज अन्वेषण) / General Manager (Mining & ME)  
 के आई ओ सी एल लिमिटेड / KIOCL LIMITED  
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*[Handwritten signature]*  
 24/4/2019



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		Total = 597.52/ton X33.53 million tonnes = Rs.2003.48 Cr. E. Stamp Duty = 378 Cr  Total Benefit to economy of GoK = 2381.48 Cr. (Excluding Corporate Tax)
3	No. of population benefited due to this project	Population benefited due to this project will be around 5000 persons.
4	Economic benefits due to direct and indirect employment due to the project	Direct employment will be about 500 persons and Indirect employment will be about 1000 persons.
5	Economic benefits due to Compensatory afforestation	With the regeneration of fresh forest area by compensatory afforestation, benefit to economy is expected and benefit will lead to society. The ecological value for a 50 years period for the density of 1.0 is INR 126.74 Lakhs per hectare. Considering Compensatory Afforestation in 968.146 Ha (double degraded land), which is down the line would be having a density of minimum 0.7. The ecological value would be 858.92 Crs

Benefit from the project = Rs. 30942.2 Cr  
Loss on forest diversion = Rs. 83.26 Cr.  
Cost Benefit Ratio = 1: 142

Place: Bengaluru.  
Date: 24.04.2019

Signature of user Agency.

Office Seal

ಕೆ.ವಿ. ಭಾಸ್ಕರ ರೆಡ್ಡಿ / K.V. Bhaskara Reddy  
ಮಹಾ ಪ್ರಬಂಧಕ (ಉಣ್ಣೆ ಮತ್ತು ಕಬ್ಬಿಣ ಅನ್ವೇಷಣೆ) / General Manager (Mining & ME)  
ಕೆ ಆರ್ ಐ ಆರ್ ಸಿ ಲಿಮಿಟೆಡ್ / KIOCL LIMITED  
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Counter signed by:

Deputy Conservator of Forest  
Ballari