

# BHARAT COKING COAL LIMITED

(A Subsidiary of Coal India Limited)

## FORM-I of CLUSTER-XI OF BCCL MINES

Sl. No.	Name of Mine	Production Capacity (MTY)		Lease Hold Area (Ha)
		Normative	Peak	
1	Gopalichuck OC Mine	0.50	0.65	241.94
2	Kachi Balihari 10/12 Pit UG Mine	0.09	0.117	60.00
3	PB Project UG	0.8	1.04	89.00
4	Bhagabandh UG Mine	0.08	0.104	581.17
5	Kendwadih OC Mine	0.20	0.26	217.54
6	Pootkee UG Mine (Non-Producing)	Nil	Nil	153.77
7	Kachi Balihari 5/6 Pit UG Mine (Non-Producing)	Nil	Nil	120.71
8	Moonidih UG Mine*	4.0*	5.2*	2063.45
<b>Total</b>			<b>6.604</b>	<b>3527.58</b>
9	Moonidih Washery**	1.60	1.60	25.6 (With in moonidih lease)

*\*Includes proposed XV seam section with normative production of 2.5 MTY and peak production of 3.25 MTY.*

*\*\* Covered in Moonidih UG Project Leasehold*



August, 2017

**Prepared by CMPDI, Regional Institute-II  
Koyla Bhawan, Dhanbad**

**APPENDIX I**  
(See paragraph – 6)  
**FORM 1**

**(I) Basic Information**

1	Name of the Project:	<p>Mines of cluster-XI of BCCL consist of following 9 mines:</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th style="text-align: center;">Name of Mine</th> <th style="text-align: center;">Status</th> </tr> </thead> <tbody> <tr> <td><b>Gopalichuck OC Mine</b></td> <td>Up coming</td> </tr> <tr> <td><b>Kachi Balihari 10/12 Pit UG Mine</b></td> <td>In operation</td> </tr> <tr> <td><b>PB Project UG</b></td> <td>In operation</td> </tr> <tr> <td><b>Bhagabandh UG Mine</b></td> <td>In operation</td> </tr> <tr> <td><b>Kendwadih OC Mine</b></td> <td>Up coming</td> </tr> <tr> <td><b>Pootkee UG Mine (Non-Producing)</b></td> <td>Non-Producing since 2006</td> </tr> <tr> <td><b>Kachi Balihari 5/6 Pit UG Mine (Non-Producing)</b></td> <td>Non-Producing since 2008</td> </tr> <tr> <td><b>Moonidih UG Mine*</b></td> <td>In operation</td> </tr> <tr> <td>Moonidih Washery</td> <td>In operation</td> </tr> </tbody> </table> <p>*Includes proposed XV seam section</p>	Name of Mine	Status	<b>Gopalichuck OC Mine</b>	Up coming	<b>Kachi Balihari 10/12 Pit UG Mine</b>	In operation	<b>PB Project UG</b>	In operation	<b>Bhagabandh UG Mine</b>	In operation	<b>Kendwadih OC Mine</b>	Up coming	<b>Pootkee UG Mine (Non-Producing)</b>	Non-Producing since 2006	<b>Kachi Balihari 5/6 Pit UG Mine (Non-Producing)</b>	Non-Producing since 2008	<b>Moonidih UG Mine*</b>	In operation	Moonidih Washery	In operation																																					
Name of Mine	Status																																																										
<b>Gopalichuck OC Mine</b>	Up coming																																																										
<b>Kachi Balihari 10/12 Pit UG Mine</b>	In operation																																																										
<b>PB Project UG</b>	In operation																																																										
<b>Bhagabandh UG Mine</b>	In operation																																																										
<b>Kendwadih OC Mine</b>	Up coming																																																										
<b>Pootkee UG Mine (Non-Producing)</b>	Non-Producing since 2006																																																										
<b>Kachi Balihari 5/6 Pit UG Mine (Non-Producing)</b>	Non-Producing since 2008																																																										
<b>Moonidih UG Mine*</b>	In operation																																																										
Moonidih Washery	In operation																																																										
2	Serial no. in the schedule	1 (a)																																																									
3	Proposed capacity/ area / length /tonnage to be handled / command area / lease area / no. of wells to be drilled	<table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th rowspan="2" style="text-align: center;">Name of Mine</th> <th colspan="2" style="text-align: center;">Production</th> <th rowspan="2" style="text-align: center;">Leasehold Area (ha)</th> <th rowspan="2" style="text-align: center;">Life of the mine (Years)</th> </tr> <tr> <th style="text-align: center;">Normative (MTY)</th> <th style="text-align: center;">Peak</th> </tr> </thead> <tbody> <tr> <td>Gopalichuck OC Mine</td> <td style="text-align: center;">0.50</td> <td style="text-align: center;">0.65</td> <td style="text-align: center;">241.94</td> <td style="text-align: center;">&gt; 25</td> </tr> <tr> <td>Kachi Balihari 10/12 Pit UG Mine</td> <td style="text-align: center;">0.09</td> <td style="text-align: center;">0.117</td> <td style="text-align: center;">60.00</td> <td style="text-align: center;">09</td> </tr> <tr> <td>PB Project UG</td> <td style="text-align: center;">0.8</td> <td style="text-align: center;">1.04</td> <td style="text-align: center;">89.00</td> <td style="text-align: center;">&gt; 30</td> </tr> <tr> <td>Bhagabandh UG Mine</td> <td style="text-align: center;">0.08</td> <td style="text-align: center;">0.104</td> <td style="text-align: center;">581.17</td> <td style="text-align: center;">05</td> </tr> <tr> <td>Kendwadih OC Mine</td> <td style="text-align: center;">0.20</td> <td style="text-align: center;">0.26</td> <td style="text-align: center;">217.54</td> <td style="text-align: center;">&gt;25</td> </tr> <tr> <td>Pootkee UG Mine (Non-Producing)</td> <td style="text-align: center;">Nil</td> <td style="text-align: center;">Nil</td> <td style="text-align: center;">153.77</td> <td style="text-align: center;">--</td> </tr> <tr> <td>Kachi Balihari 5/6 Pit UG Mine (Non-Producing)</td> <td style="text-align: center;">Nil</td> <td style="text-align: center;">Nil</td> <td style="text-align: center;">120.71</td> <td style="text-align: center;">--</td> </tr> <tr> <td>Moonidih UG Mine*</td> <td style="text-align: center;">4.2</td> <td style="text-align: center;">5.2</td> <td style="text-align: center;">2063.45</td> <td style="text-align: center;">&gt;50</td> </tr> <tr> <td><b>Total</b></td> <td></td> <td style="text-align: center;"><b>6.604</b></td> <td style="text-align: center;"><b>3527.58</b></td> <td></td> </tr> <tr> <td>Moonidih Washery**</td> <td style="text-align: center;">1.60</td> <td style="text-align: center;">1.60</td> <td style="text-align: center;">25.6</td> <td style="text-align: center;">--</td> </tr> </tbody> </table> <p>*Includes proposed XV seam section with normative production of 2.5 MTY and peak production of 3.25 MTY. **covered under leasehold of Moonidih project</p>	Name of Mine	Production		Leasehold Area (ha)	Life of the mine (Years)	Normative (MTY)	Peak	Gopalichuck OC Mine	0.50	0.65	241.94	> 25	Kachi Balihari 10/12 Pit UG Mine	0.09	0.117	60.00	09	PB Project UG	0.8	1.04	89.00	> 30	Bhagabandh UG Mine	0.08	0.104	581.17	05	Kendwadih OC Mine	0.20	0.26	217.54	>25	Pootkee UG Mine (Non-Producing)	Nil	Nil	153.77	--	Kachi Balihari 5/6 Pit UG Mine (Non-Producing)	Nil	Nil	120.71	--	Moonidih UG Mine*	4.2	5.2	2063.45	>50	<b>Total</b>		<b>6.604</b>	<b>3527.58</b>		Moonidih Washery**	1.60	1.60	25.6	--
Name of Mine	Production			Leasehold Area (ha)	Life of the mine (Years)																																																						
	Normative (MTY)	Peak																																																									
Gopalichuck OC Mine	0.50	0.65	241.94	> 25																																																							
Kachi Balihari 10/12 Pit UG Mine	0.09	0.117	60.00	09																																																							
PB Project UG	0.8	1.04	89.00	> 30																																																							
Bhagabandh UG Mine	0.08	0.104	581.17	05																																																							
Kendwadih OC Mine	0.20	0.26	217.54	>25																																																							
Pootkee UG Mine (Non-Producing)	Nil	Nil	153.77	--																																																							
Kachi Balihari 5/6 Pit UG Mine (Non-Producing)	Nil	Nil	120.71	--																																																							
Moonidih UG Mine*	4.2	5.2	2063.45	>50																																																							
<b>Total</b>		<b>6.604</b>	<b>3527.58</b>																																																								
Moonidih Washery**	1.60	1.60	25.6	--																																																							
4	New / expansion / modernization	Modification of Existing EC.																																																									
5	Existing capacity / area etc.	<table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th colspan="6" style="text-align: center; background-color: #d9ead3;">As per Existing EC</th> </tr> <tr style="background-color: #d9ead3;"> <th style="text-align: center;">Sl No.</th> <th style="text-align: center;">Name of the Mine</th> <th style="text-align: center;">Normative Production Capacity (MTY)</th> <th style="text-align: center;">Peak Production Capacity (MTY)</th> <th style="text-align: center;">Lease Area (Ha)</th> <th style="text-align: center;">Mine Life (Years)</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">1</td> <td>Gopalichuck UG Project</td> <td style="text-align: center;">0.11</td> <td style="text-align: center;">0.143</td> <td style="text-align: center;">241.94</td> <td style="text-align: center;">30</td> </tr> <tr> <td style="text-align: center;">2</td> <td>Kachi Balihari 10/12 Pit UG Mine</td> <td style="text-align: center;">0.09</td> <td style="text-align: center;">0.117</td> <td style="text-align: center;">60</td> <td style="text-align: center;">19</td> </tr> <tr> <td style="text-align: center;">3</td> <td>PB Project UG</td> <td style="text-align: center;">0.8</td> <td style="text-align: center;">1.04</td> <td style="text-align: center;">89</td> <td style="text-align: center;">30</td> </tr> <tr> <td style="text-align: center;">4</td> <td>Bhagabandh UG</td> <td style="text-align: center;">0.08</td> <td style="text-align: center;">0.104</td> <td style="text-align: center;">581.17</td> <td style="text-align: center;">10</td> </tr> </tbody> </table>	As per Existing EC						Sl No.	Name of the Mine	Normative Production Capacity (MTY)	Peak Production Capacity (MTY)	Lease Area (Ha)	Mine Life (Years)	1	Gopalichuck UG Project	0.11	0.143	241.94	30	2	Kachi Balihari 10/12 Pit UG Mine	0.09	0.117	60	19	3	PB Project UG	0.8	1.04	89	30	4	Bhagabandh UG	0.08	0.104	581.17	10																					
As per Existing EC																																																											
Sl No.	Name of the Mine	Normative Production Capacity (MTY)	Peak Production Capacity (MTY)	Lease Area (Ha)	Mine Life (Years)																																																						
1	Gopalichuck UG Project	0.11	0.143	241.94	30																																																						
2	Kachi Balihari 10/12 Pit UG Mine	0.09	0.117	60	19																																																						
3	PB Project UG	0.8	1.04	89	30																																																						
4	Bhagabandh UG	0.08	0.104	581.17	10																																																						

		Mine					
		5	Kendwadih UG Mine (closed)	0	0	217.54	0
		6	Pootkee UG Mine (Closed)	0	0	153.77	0
		7	Kachi Balihari 5/6 Pit UG Mine (Closed)	0	0	120.71	0
		8	Moonidih UG Mine	4	5.2	2063.45	50
			<b>Total</b>	<b>5.08</b>	<b>6.604</b>	<b>3527.58</b>	
		9	Moonidih Washery	1.6	1.6	0.27**	18
		<p><i>*Includes proposed XV seam section with normative production of 2.5 MTY and peak production of 3.25 MTY.</i></p> <p><i>**covered under leasehold of Moonidih project</i></p>					
6	Category of the project i.e. 'A' or 'B'	'A'					
7	Does it attract the general conditions? If yes, please specify.	No					
8	Does it attract the specific conditions? If yes, please specify.	Yes, Specific condition number iii.					
9	Location						

Plot/Survey/Khasra No.		Sl. No.	Name of the Mine	Name of the mouza	Mouza No.
		1	Gopalichuck UG Mine	▪ Kirkend	73
		2	Kachhi Balihari 10/12 Pit UG Mine	▪ Balihari (P)	76
		3	PB UG Project	▪ Aralgaria (P) ▪ Balihari (P)	77 26
		4	Bhagabandh UG Mine	▪ Bhagaband ▪ Kenduadih ▪ Aralgaria (P) ▪ Dhobni (P) ▪ Futaha (P) ▪ Balihari (P)	100 101 77 96 99 76
		5	Kendwadih UG Mine (Non-Producing)	▪ Kenduadih ▪ Gansadih ▪ Kirkend (P) ▪ Khaira (P) ▪ Alkusa (P)	63 62 73 74 76
		6	Pootkee UG Mine (Non-Producing)	▪ Chhota Putkee ▪ Bara Putkee ▪ Balihari (P) ▪ Siyal Gudari (P) ▪ Pander Kanali	79 78 76 81 80
		7	Kachi Balihari 5/6 Pit UG Mine (Non-Producing)	▪ Balihari ▪ Aralgaria (P)	76 77
		8	Moonidih UG Mine	▪ Manjhiadih ▪ Karitand ▪ Bardubhi ▪ Parsia ▪ Baludih ▪ Garbudih ▪ Dhandabar ▪ Gopinathdih ▪ Pandarkanali ▪ Chirudih ▪ Chakfutih ▪ Rajeshbera ▪ Futaha ▪ Sabaldih ▪ Jarma ▪ Lakarkhawali ▪ Tatangabad ▪ Gansadih ▪ Sarihdaha	91 89 348 84 93 86 82 97 80 83 98 102 99 103 106 88 90 105 87
		9	Moonidih Washery	Covered under Moonidih UG Mine leasehold	

Village	The name of the villages are as under:		
	Sl. No.	Name of the Mine	Name of the mouza
	1	Gopalichuck UG Mine	▪ Kirkend
	2	Kachhi Balihari 10/12 Pit UG Mine	▪ Balihari (P)
	3	PB UG Project (Non-Producing)	▪ Aralgaria (P) ▪ Balihari (P)
	4	Bhagabandh UG Mine	▪ Bhagaband ▪ Kenduadih ▪ Aralgaria (P) ▪ Dhobni (P) ▪ Futaha (P) ▪ Balihari (P)
	5	Kendwadih UG Mine (Non-Producing)	▪ Kenduadih ▪ Gansadih ▪ Kirkend (P) ▪ Khaira (P) ▪ Alkusa (P)
	6	Pootkee UG Mine (Non-Producing)	▪ Chhota Putkee ▪ Bara Putkee ▪ Balihari (P) ▪ Siyal Gudari (P) ▪ Pander Kanali
	7	Kachi Balihari 5/6 Pit UG Mine (Non-Producing)	▪ Balihari ▪ Aralgaria (P)
	8	Moonidih UG Mine	▪ Manjhiadih ▪ Karitand ▪ Bardubhi ▪ Parsia ▪ Baludih ▪ Garbudih ▪ Dhandabar ▪ Gopinathdih ▪ Pandarkanali ▪ Chirudih ▪ Chakfutih ▪ Rajeshbera ▪ Futaha ▪ Sabaldih ▪ Jarma ▪ Lakarkhawali ▪ Tatangabad ▪ Gansadih ▪ Sarihdaha
9	Moonidih Washery	Covered under Moonidih UG Mine leasehold	
Tehsil	Dhanbad		
District	Dhanbad		
State	Jharkhand		
10	Nearest railway station / airport along with distance in kms.	Railway Station: Dhanbad at a distance of 12 kms Airport : Ranchi at a distance of 165 kms	
11	Nearest town, city, district headquarters along with distance in kms	Dhanbad at a distance of 12 kms	

12	Village Panchayats, Zilla Parishad, Municipal Corporation, Local Body (Complete postal address with telephone nos. to be given)	Dhanbad Zila Parishad Hatia More Dhanbad – 826 001, (Jharkhand) Telephone No. 0326-223178
13	Name of the applicant	Shri J S Mahapatra, General Manager, Western Jharia Area Office the General Manager, Western Jharia Area, Moonidih PO: Moonidih, District – Dhanbad JHARKHAND – 828 129
14	Registered Address	Office the General Manager, Western Jharia Area, Moonidih PO : Moonidih, District – Dhanbad, JHARKHAND – 828 129
15	Address for correspondence	
	Name	Shri J S Mahapatra
	Designation (owner/partner/CEO)	General Manager (Western Jharia Area)
	Address	Office the General Manager, Western Jharia Area, Moonidih PO: Moonidih, District – Dhanbad JHARKHAND – 828 129
	Pin Code	828129
	E-mail	<a href="mailto:gmwj.bccl@coalindia.in">gmwj.bccl@coalindia.in</a>
	Telephone no.	0326-2273445 / 09470596225
	Fax No.	0326-2273445
16	Details of alternative sites examined, if any. Location of these sites should be shown on a topo sheet.	Not required as the coal mining is site specific in nature.
17	Interlinked projects	None
18	Whether separate application of interlinked project has been submitted	Not applicable
19	If yes, date of submission	Not applicable
20	If no, reason	Not applicable
21	Whether the proposal involves approval / clearance under: a) The Forest (Conservation) Act, 1980 b) The Wildlife (Protection) Act, 1972 c) The C.R.Z. Notification, 1991 If yes, details of the same and their status be given	No
22	Whether there is any Government Order/ Policy relevant / relating to the site?	Jharia Master Plan
23	Forest land involved (in hectares)	No
24	Whether there is any litigation pending against the project and/or land in which the project proposed to be set up? a) Name of the Court b) Case No. c) Orders/ directions of the	No litigation is pending

	Court, if any and its relevance with the proposed project	
--	---	--

**(II) Activity**

**1. Construction, operation or decommissioning of the Project involving actions, which will cause physical changes in the locality (topography, land use, changes in water bodies, etc.)**

SI.No.	Information/ Checklist confirmation	Yes/ No	Details thereof (with approximate quantities /rates, wherever possible) with source of information data.
--------	-------------------------------------	---------	--

1.1	Permanent or temporary change in land use, land cover or topography including increase in intensity of land use (with respect to local land use plan)	Yes	Total leasehold area of the cluster is 3527.04 Hectares.																																																																													
			<p><b>GOPALICHUCK OC MINE</b></p> <table border="1"> <thead> <tr> <th>SI.No.</th> <th>Type of land use</th> <th>Present mining land use (in Ha)</th> <th>Post-mining land use (in Ha)</th> </tr> </thead> <tbody> <tr> <td rowspan="3">1</td> <td>Running Quarry</td> <td></td> <td><b>Running Quarry</b></td> </tr> <tr> <td>Backfilled</td> <td>Nil</td> <td><b>Nil</b></td> </tr> <tr> <td>Not Backfilled</td> <td>Nil</td> <td><b>Nil</b></td> </tr> <tr> <td rowspan="3">2</td> <td>Abandoned quarry</td> <td></td> <td></td> </tr> <tr> <td>Backfilled</td> <td>Nil</td> <td><b>Nil</b></td> </tr> <tr> <td>Not Backfilled</td> <td>8.00</td> <td><b>Nil</b></td> </tr> <tr> <td>3</td> <td>External OB dump</td> <td>Nil</td> <td><b>Nil</b></td> </tr> <tr> <td>4</td> <td>Service building/ Mine Infrastructure</td> <td>3.89</td> <td><b>Nil</b></td> </tr> <tr> <td>5</td> <td>Coal dump</td> <td>0.75</td> <td><b>Nil</b></td> </tr> <tr> <td>6</td> <td>Homestead Land</td> <td>92.25</td> <td><b>Nil</b></td> </tr> <tr> <td>7</td> <td>Agricultural Land</td> <td>Nil</td> <td><b>Nil</b></td> </tr> <tr> <td>8</td> <td>Forest Land</td> <td>Nil</td> <td><b>Nil</b></td> </tr> <tr> <td>9</td> <td>Plantation / reclamation</td> <td>72.56</td> <td><b>198.74</b></td> </tr> <tr> <td>10</td> <td>Water Body</td> <td>2.58</td> <td><b>26.2</b></td> </tr> <tr> <td>11</td> <td>Barren Land</td> <td>34.06</td> <td><b>Nil</b></td> </tr> <tr> <td>12</td> <td>Fire</td> <td>0.36</td> <td><b>Nil</b></td> </tr> <tr> <td>13</td> <td>Others (rail/road/siding)</td> <td>27.49</td> <td><b>17*</b></td> </tr> <tr> <td></td> <td><b>Total</b></td> <td><b>241.94</b></td> <td><b>241.94</b></td> </tr> </tbody> </table> <p><b>KB 10/12 PIT UG</b></p> <table border="1"> <thead> <tr> <th>SI. No.</th> <th>Type of land use</th> <th>Present mining land use (in Ha)</th> <th>Post-mining land use (in Ha)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Running Quarry</td> <td></td> <td></td> </tr> </tbody> </table>	SI.No.	Type of land use	Present mining land use (in Ha)	Post-mining land use (in Ha)	1	Running Quarry		<b>Running Quarry</b>	Backfilled	Nil	<b>Nil</b>	Not Backfilled	Nil	<b>Nil</b>	2	Abandoned quarry			Backfilled	Nil	<b>Nil</b>	Not Backfilled	8.00	<b>Nil</b>	3	External OB dump	Nil	<b>Nil</b>	4	Service building/ Mine Infrastructure	3.89	<b>Nil</b>	5	Coal dump	0.75	<b>Nil</b>	6	Homestead Land	92.25	<b>Nil</b>	7	Agricultural Land	Nil	<b>Nil</b>	8	Forest Land	Nil	<b>Nil</b>	9	Plantation / reclamation	72.56	<b>198.74</b>	10	Water Body	2.58	<b>26.2</b>	11	Barren Land	34.06	<b>Nil</b>	12	Fire	0.36	<b>Nil</b>	13	Others (rail/road/siding)	27.49	<b>17*</b>		<b>Total</b>	<b>241.94</b>	<b>241.94</b>	SI. No.	Type of land use	Present mining land use (in Ha)	Post-mining land use (in Ha)	1
SI.No.	Type of land use	Present mining land use (in Ha)	Post-mining land use (in Ha)																																																																													
1	Running Quarry		<b>Running Quarry</b>																																																																													
	Backfilled	Nil	<b>Nil</b>																																																																													
	Not Backfilled	Nil	<b>Nil</b>																																																																													
2	Abandoned quarry																																																																															
	Backfilled	Nil	<b>Nil</b>																																																																													
	Not Backfilled	8.00	<b>Nil</b>																																																																													
3	External OB dump	Nil	<b>Nil</b>																																																																													
4	Service building/ Mine Infrastructure	3.89	<b>Nil</b>																																																																													
5	Coal dump	0.75	<b>Nil</b>																																																																													
6	Homestead Land	92.25	<b>Nil</b>																																																																													
7	Agricultural Land	Nil	<b>Nil</b>																																																																													
8	Forest Land	Nil	<b>Nil</b>																																																																													
9	Plantation / reclamation	72.56	<b>198.74</b>																																																																													
10	Water Body	2.58	<b>26.2</b>																																																																													
11	Barren Land	34.06	<b>Nil</b>																																																																													
12	Fire	0.36	<b>Nil</b>																																																																													
13	Others (rail/road/siding)	27.49	<b>17*</b>																																																																													
	<b>Total</b>	<b>241.94</b>	<b>241.94</b>																																																																													
SI. No.	Type of land use	Present mining land use (in Ha)	Post-mining land use (in Ha)																																																																													
1	Running Quarry																																																																															

	Backfilled	Nil	Nil
	Not Backfilled	Nil	Nil
2	Abandoned Quarry		
	- Backfilled	Nil	Nil
	- Not Backfilled	Nil	Nil
3	External OB dump	Nil	Nil
4	Service building/ Mine Infrastructure	0.42	0.42
5	Coal dump	0.18	Nil
6	Homestead Land	5.87	5.87
7	Agricultural Land	34.14	34.14
8	Forest Land	Nil	Nil
9	Plantation / reclamation	Nil	3.91
10	Water Body	1.62	1.62
11	Barren Land	7.73	4
12	Fire area	Nil	Nil
13	Others (rail/road)	10.04	9.84
	<b>Total</b>	<b>60</b>	<b>60</b>

#### **BHAGABAND UG MINE**

Sl.No.	Type of land use	Present mining land use (in Ha)	Post-mining land use (in Ha)
1	Running Quarry		
	Backfilled	Nil	Nil
	Not Backfilled	Nil	Nil
2	Abandoned Quarry		
	- Backfilled	Nil	Nil
	- Not Backfilled	5.45	Nil
3	External OB dump	Nil	Nil
4	Service building/ Mine Infrastructure	19.35	19.35
5	Coal dump	3.52	Nil
6	Homestead Land	142.34	142.34
7	Agricultural Land	220.73	220.73
8	Forest Land	Nil	Nil
9	Plantation	58.81	70.43
10	Water Body	7.83	13.28
11	Barren Land	96.1	88
12	Fire area	Nil	Nil
13	Others (rail/road/siding etc.)	27.04	27.04



	<b>Total</b>	<b>581.17</b>	<b>581.17</b>
--	--------------	---------------	---------------

**PB PROJECT UG**

Sl.No.	Type of land use	Present mining land use (in Ha)	Post-mining land use (in Ha)
1	Running Quarry		
	Backfilled	Nil	Nil
	Not Backfilled	Nil	Nil
2	Abandoned Quarry		
	- Backfilled	1.8	Nil
	- Not Backfilled	0.98	Nil
3	External OB dump	Nil	Nil
4	Service building/ Mine Infrastructure	1.5	1.5
5	Coal dump	Nil	Nil
6	Homestead Land	26.29	26.29
7	Agricultural Land	33.4	33.4
8	Forest Land	Nil	Nil
9	Plantation / reclamation	5.5	9.55
10	Water Body	1.1	2.08
11	Barren Land	5.25	3
12	Fire area	Nil	Nil
13	Others (rail/road/siding etc.)	13.18	13.18
	<b>Total</b>	<b>89</b>	<b>89</b>

**KENDWADIH OC MINE**

Sl.No.	Type of land use	Present mining land use (in Ha)	Proposed mining land use (in Ha)
1	Running Quarry		
	Backfilled	Nil	Nil
	Not Backfilled	10.61	67.16
2	Abandoned Quarry		
	Backfilled	15.74	15.74
	Not Backfilled	12.66	12.66
3	External OB dump	Nil	Nil

4	Service building/ Mine Infrastructure		3.89	3.89
5	Coal dump		1.5	1.5
6	Homestead Land		104.39	47.835
6	Road and rail		19.46	19.46
7	Agricultural Land		Nil	Nil
8	Forest Land		Nil	Nil
9	Plantation		Nil	Nil
10	Water Body		2.04	2.04
11	Barren Land		26.75	26.75
12	Fire		20.5	20.5
	<b>Total</b>		<b>217.54</b>	<b>217.535</b>

**MOONIDIH UG PROJECT**

Sl. No.	Type of land use	Present mining land use (in Ha)	Post-mining land use (in Ha)
1	Running Quarry		
	Backfilled	Nil	Nil
	Not Backfilled	Nil	Nil
2	Abandoned Quarry		
	- Backfilled	Nil	Nil
	- Not Backfilled	Nil	Nil
3	External OB dump	Nil	Nil
4	Service building/ Mine Infrastructure	114.4	114.4
5	Coal dump	Nil	Nil
6	Homestead Land	128.5	128.5
7	Agricultural Land	480.75	480.75
8	Forest Land	80.44	80.44
9	Plantation	33.93	52.45
10	Water Body	74.25	74.25
11	Barren Land	1118.52	1100
12	Fire area	Nil	Nil
13	Others (rail/road)	32.66	32.66
	<b>Total</b>	<b>2063.45</b>	<b>2063.45</b>

**POOTKEE UG PROJECT (Non-Producing)**

Sl.No.	Type of land use	Present mining land use (in Ha)	Post-mining land use (in Ha)
1	Running Quarry		
	Backfilled	Nil	Nil
	Not Backfilled	Nil	Nil
2	Abandoned Quarry		
	- Backfilled	Nil	Nil
	- Not Backfilled	Nil	Nil
3	External OB dump	Nil	Nil
4	Service building/ Mine Infrastructure	3.34	3.34
5	Coal dump	1.22	Nil
6	Homestead Land	83	83
7	Agricultural Land	16.04	16.04
8	Forest Land	Nil	Nil
9	Plantation / reclamation	14.4	22.22
10	Water Body	1.78	1.78
11	Barren Land	18.6	12
12	Fire area	0.32	0.32
13	Others (rail/road etc.)	15.07	15.07
	<b>Total</b>	<b>153.77</b>	<b>153.77</b>

**KB 5/6 PIT UG (Non-Producing)**

Sl.No.	Type of land use	Present mining land use (in Ha)	Post-mining land use (in Ha)
1	Running Quarry		
	Backfilled	Nil	Nil
	Not back filled	Nil	Nil
2	Abandoned quarry		
	- Backfilled	Nil	Nil
	- Not Backfilled	Nil	Nil
3	External OB dump	Nil	Nil
4	Service building/ Mine Infrastructure	2.71	2.71
5	Coal dump	0.6	Nil

			<table border="1"> <tbody> <tr> <td>6</td> <td>Homestead Land</td> <td>42.23</td> <td>42.23</td> </tr> <tr> <td>7</td> <td>Agricultural Land</td> <td>9.51</td> <td>9.51</td> </tr> <tr> <td>8</td> <td>Forest Land</td> <td>Nil</td> <td>Nil</td> </tr> <tr> <td>9</td> <td>Plantation / reclamation</td> <td>Nil</td> <td>8.24</td> </tr> <tr> <td>10</td> <td>Water Body</td> <td>Nil</td> <td>Nil</td> </tr> <tr> <td>11</td> <td>Barren Land</td> <td>45.64</td> <td>38</td> </tr> <tr> <td>12</td> <td>Fire area</td> <td>Nil</td> <td>Nil</td> </tr> <tr> <td>13</td> <td>Others (rail/road etc.)</td> <td>20.02</td> <td>20.02</td> </tr> <tr> <td></td> <td><b>Total</b></td> <td><b>120.71</b></td> <td><b>120.71</b></td> </tr> </tbody> </table> <p>Plantation has been identified as one of the important measures for reclamation during post mining land use of degraded areas. Plantation will be done along the side of the roads, office complex, workshop, barren land and in the subsided areas in future.</p> <p><i>(Source = As per details and record available at Colliery Office)</i></p>	6	Homestead Land	42.23	42.23	7	Agricultural Land	9.51	9.51	8	Forest Land	Nil	Nil	9	Plantation / reclamation	Nil	8.24	10	Water Body	Nil	Nil	11	Barren Land	45.64	38	12	Fire area	Nil	Nil	13	Others (rail/road etc.)	20.02	20.02		<b>Total</b>	<b>120.71</b>	<b>120.71</b>
6	Homestead Land	42.23	42.23																																				
7	Agricultural Land	9.51	9.51																																				
8	Forest Land	Nil	Nil																																				
9	Plantation / reclamation	Nil	8.24																																				
10	Water Body	Nil	Nil																																				
11	Barren Land	45.64	38																																				
12	Fire area	Nil	Nil																																				
13	Others (rail/road etc.)	20.02	20.02																																				
	<b>Total</b>	<b>120.71</b>	<b>120.71</b>																																				
1.2	Clearance of existing land, vegetation and buildings?	No	<p>Four mines (including one washery) in the cluster are in operation, two upcoming mines and two mines are non-producing. No additional land is required for continuing the mining operation. No building/structures are to be removed.</p> <p><i>(Source = As per details and record available at Colliery Office)</i></p>																																				
1.3	Creation of new land uses?	Yes	<p>Land use of the cluster is as per details given in Point No. 1.1. No change in land use pattern is envisaged.</p> <p><i>(Source = As per details and record available at Colliery Office)</i></p>																																				
1.4	Pre-construction investigations e.g. bore holes, soil testing?	Yes	<p>The details of pre-construction investigations are as under:</p> <table border="1"> <thead> <tr> <th>Name of Mine</th> <th>No. of boreholes</th> <th>Borehole Density</th> </tr> </thead> <tbody> <tr> <td>Gopalichak OC Mine</td> <td>10</td> <td>4.13 nos /sq. km.</td> </tr> <tr> <td>Kachi Balihari 10/12 Pit UG Mine</td> <td>06</td> <td>6.74 nos /sq. km.</td> </tr> <tr> <td>PB Project UG</td> <td>07</td> <td>8.0 nos /sq. km.</td> </tr> <tr> <td>Bhagabandh UG Mine</td> <td>25</td> <td>4.30 nos /sq. km.</td> </tr> <tr> <td>Kendwadih OC Mine</td> <td>07</td> <td>3.22 nos /sq. km.</td> </tr> <tr> <td>Pootkee UG Mine (Non- Producing)</td> <td>06</td> <td>3.90 nos /sq. km.</td> </tr> <tr> <td>Kachi Balihari 5/6 Pit UG Mine (Non- Producing)</td> <td>06</td> <td>5.0 nos /sq. km.</td> </tr> <tr> <td>Moonidih UG Mine*</td> <td>86</td> <td>5.70 nos /sq. km.</td> </tr> <tr> <td>Moonidih Washery</td> <td>-</td> <td>-</td> </tr> </tbody> </table> <p>*Includes proposed XV seam section</p> <p>A total of 153 boreholes had been drilled for pre-construction investigation for the operating mines of the cluster.</p> <p><i>(Source = As per details and record available at Colliery Office)</i></p>	Name of Mine	No. of boreholes	Borehole Density	Gopalichak OC Mine	10	4.13 nos /sq. km.	Kachi Balihari 10/12 Pit UG Mine	06	6.74 nos /sq. km.	PB Project UG	07	8.0 nos /sq. km.	Bhagabandh UG Mine	25	4.30 nos /sq. km.	Kendwadih OC Mine	07	3.22 nos /sq. km.	Pootkee UG Mine (Non- Producing)	06	3.90 nos /sq. km.	Kachi Balihari 5/6 Pit UG Mine (Non- Producing)	06	5.0 nos /sq. km.	Moonidih UG Mine*	86	5.70 nos /sq. km.	Moonidih Washery	-	-						
Name of Mine	No. of boreholes	Borehole Density																																					
Gopalichak OC Mine	10	4.13 nos /sq. km.																																					
Kachi Balihari 10/12 Pit UG Mine	06	6.74 nos /sq. km.																																					
PB Project UG	07	8.0 nos /sq. km.																																					
Bhagabandh UG Mine	25	4.30 nos /sq. km.																																					
Kendwadih OC Mine	07	3.22 nos /sq. km.																																					
Pootkee UG Mine (Non- Producing)	06	3.90 nos /sq. km.																																					
Kachi Balihari 5/6 Pit UG Mine (Non- Producing)	06	5.0 nos /sq. km.																																					
Moonidih UG Mine*	86	5.70 nos /sq. km.																																					
Moonidih Washery	-	-																																					
1.5	Construction works?	Yes	<p>Minor construction works such as Ventilation stoppings, isolation stoppings, sectionalization stoppings, haulage foundations, pump foundations etc will be undertaken for carrying out routine operations in the mines/collieries.</p> <p><i>(Source: As per details and record available at Colliery Office)</i></p>																																				
1.6	Demolition works?	No	<p>NA</p> <p><i>(Source = As per details and record available at Colliery Office)</i></p>																																				

1.7	Temporary sites used for construction works or housing of construction workers?	No	NA																																														
1.8	Above ground buildings, structures or earthworks including linear structures, cut and fill or excavations	Yes	<table border="1"> <thead> <tr> <th rowspan="2">Name of Mine</th> <th colspan="2">Residential Building (Ha)</th> <th rowspan="2">Service Building* (ha)</th> </tr> <tr> <th>BCCL</th> <th>Private</th> </tr> </thead> <tbody> <tr> <td>Gopalichak OC Mine</td> <td>70.50</td> <td>5.81</td> <td>3.89</td> </tr> <tr> <td>Kachhi Balihari 10/12 Pit UG Mine</td> <td>2.90</td> <td>2.97</td> <td>0.42</td> </tr> <tr> <td>PB UG Project</td> <td>18.52</td> <td>7.77</td> <td>1.50</td> </tr> <tr> <td>Bhagabandh UG Mine</td> <td>82.14</td> <td>60.20</td> <td>19.35</td> </tr> <tr> <td>Kendwadih OC Mine</td> <td>117.14</td> <td>--</td> <td>3.89</td> </tr> <tr> <td>Pootkee UG Mine (Closed)</td> <td>70.02</td> <td>12.98</td> <td>3.34</td> </tr> <tr> <td>Kachi Balihari 5/6 Pit UG Mine (Closed)</td> <td>33.40</td> <td>8.83</td> <td>2.71</td> </tr> <tr> <td>Moonidih UG Mine</td> <td>99.795</td> <td>28.780</td> <td>114.375</td> </tr> <tr> <td>Moonidih Washery</td> <td>--</td> <td>--</td> <td>--</td> </tr> <tr> <td><b>Total</b></td> <td><b>494.415</b></td> <td><b>127.34</b></td> <td><b>149.475</b></td> </tr> </tbody> </table> <p>(*Existing Workshop, Store, Feeder, Magazine, Siding)</p> <p>(Source = As per details and record available at Colliery Office)</p>	Name of Mine	Residential Building (Ha)		Service Building* (ha)	BCCL	Private	Gopalichak OC Mine	70.50	5.81	3.89	Kachhi Balihari 10/12 Pit UG Mine	2.90	2.97	0.42	PB UG Project	18.52	7.77	1.50	Bhagabandh UG Mine	82.14	60.20	19.35	Kendwadih OC Mine	117.14	--	3.89	Pootkee UG Mine (Closed)	70.02	12.98	3.34	Kachi Balihari 5/6 Pit UG Mine (Closed)	33.40	8.83	2.71	Moonidih UG Mine	99.795	28.780	114.375	Moonidih Washery	--	--	--	<b>Total</b>	<b>494.415</b>	<b>127.34</b>	<b>149.475</b>
Name of Mine	Residential Building (Ha)		Service Building* (ha)																																														
	BCCL	Private																																															
Gopalichak OC Mine	70.50	5.81	3.89																																														
Kachhi Balihari 10/12 Pit UG Mine	2.90	2.97	0.42																																														
PB UG Project	18.52	7.77	1.50																																														
Bhagabandh UG Mine	82.14	60.20	19.35																																														
Kendwadih OC Mine	117.14	--	3.89																																														
Pootkee UG Mine (Closed)	70.02	12.98	3.34																																														
Kachi Balihari 5/6 Pit UG Mine (Closed)	33.40	8.83	2.71																																														
Moonidih UG Mine	99.795	28.780	114.375																																														
Moonidih Washery	--	--	--																																														
<b>Total</b>	<b>494.415</b>	<b>127.34</b>	<b>149.475</b>																																														
1.9	Underground works including mining or tunneling?	Yes	<p>Manual/SDL development with conventional Bord &amp; Pillar. Depillaring with caving in all the underground mines of the cluster except Moonidih UG Mine.</p> <p>In Moonidih underground mine, mine access of the seam already exists for extraction of coal by underground method of mining, no new tunneling is therefore required. Development by road header &amp; extraction by long wall caving method.</p> <p>( Source = As per the data and records available in colliery office)</p>																																														
1.10	Reclamation works?	Yes	<p>Cracks and subsidence area will be filled up and graded properly. Plantation will be done over such areas. Physical and biological reclamation of the OB dumps in the cluster will be carried out.</p> <p>(Source = As per details and record available at Colliery Office)</p>																																														
1.11	Dredging?	No	---																																														
1.12	Offshore structures?	No	---																																														
1.13	Production and manufacturing processes?	Yes	<p>Coal is being produced through underground mining with development and depillaring (<i>semi-mechanized method</i>) longwall method in underground mines. Coal will be transported from face to surface underground tigger haulage and belt conveyor in UG mines. In Moonidih, longwall method is being used for extraction of coal. Extraction of coal will be done by drilling and blasting. In Moonidih washery, the washing of coal is being carried out to bring the ash content up to the desired grade.</p> <p>(Source = As per details and record available at Colliery Office)</p>																																														
1.14	Facilities for	Yes	(a) Existing regional store and colliery store will be utilized for material storage.																																														

	storage of goods or materials?		<p>(b) Explosives are stored in the magazine provided for the purpose in accordance with the Indian Explosives Act &amp; DGMS guidelines.</p> <p>c) Coal is stored in the coal dump provided.</p> <p>d) Facilities for storage of fuel at the projects.</p> <p><i>(Source = As per the data and records available in colliery office)</i></p>								
1.15	Facilities for treatment or disposal of solid waste or liquid effluents?	Yes	<p>No solid waste is generated in UG mines. Physical and biological reclamation of the OB dumps existing is being carried out. The reject from washery is being dumped at designated place within the premises.</p> <p>Suitable treatment of mine water/workshop effluent is carried out. The treated water is reused and excess water is discharged into natural streams.</p> <p><i>(Source = As per the data and records available in colliery office)</i></p>								
1.16	Facilities for long term housing of operational workers?	Yes	<p>Housing facility has already been provided to the operational workers in all the operating projects in accordance with the company norms.</p> <p><i>(Source = As per details and record available at Colliery Office)</i></p>								
1.17	New road, rail or sea traffic during construction or operation?	Yes	<table border="1"> <thead> <tr> <th>Name of the Mine</th> <th>Construction involved</th> </tr> </thead> <tbody> <tr> <td>Gopalichak Colliery</td> <td>Local pucca road</td> </tr> <tr> <td>Bhagaband Colliery</td> <td>Nil</td> </tr> <tr> <td>Kendwadih OC Mine</td> <td>0.4 km of Local pucca road</td> </tr> </tbody> </table>	Name of the Mine	Construction involved	Gopalichak Colliery	Local pucca road	Bhagaband Colliery	Nil	Kendwadih OC Mine	0.4 km of Local pucca road
Name of the Mine	Construction involved										
Gopalichak Colliery	Local pucca road										
Bhagaband Colliery	Nil										
Kendwadih OC Mine	0.4 km of Local pucca road										
1.18	New road, rail, air waterborne or other transport infrastructure including new or altered routes and stations, ports, airports etc?	No	----								
1.19	Closure or diversion of existing transport routes or infrastructure leading to changes in traffic movements?	No	----								
1.20	New or diverted transmission lines or pipelines?	No	----								
1.21	Impoundment, damming, culverting,	No	----								

	realignment or other changes to the hydrology of watercourses or aquifers?																																										
1.22	Stream crossings?	No	----																																								
1.23	Abstraction or transfers of water from ground or surface waters?	Yes	<table border="1"> <thead> <tr> <th>Name of Mine</th> <th>Mine water discharge (GPM)</th> <th>Water Consumption (KLD)</th> <th>Additional Water Requirement</th> </tr> </thead> <tbody> <tr> <td>Gopalichak OC Mine</td> <td>4600</td> <td>4600</td> <td>Nil</td> </tr> <tr> <td>Kachhi Balihari 10/12 Pit UG Mine</td> <td>5800</td> <td>1800</td> <td>Nil</td> </tr> <tr> <td>PB UG Project</td> <td>3800</td> <td>500</td> <td>Nil</td> </tr> <tr> <td>Bhagabandh UG Mine</td> <td>4600</td> <td>540</td> <td>Nil</td> </tr> <tr> <td>Kendwadih OC Mine</td> <td>1200</td> <td>500</td> <td>Nil</td> </tr> <tr> <td>Pootkee UG Mine (Non-Producing)</td> <td>9800</td> <td>5274</td> <td>Nil</td> </tr> <tr> <td>Kachi Balihari 5/6 Pit UG Mine (Non-Producing)</td> <td>13075</td> <td>4350</td> <td>Nil</td> </tr> <tr> <td>Moonidih UG Mine</td> <td>4127 KLD</td> <td>878</td> <td>Nil</td> </tr> <tr> <td>Moonidih Washery</td> <td>--</td> <td>315</td> <td>Nil</td> </tr> </tbody> </table> <p>Excess mine water is discharged into the local drainage system. (Source = As per details and record available at Colliery Office)</p>	Name of Mine	Mine water discharge (GPM)	Water Consumption (KLD)	Additional Water Requirement	Gopalichak OC Mine	4600	4600	Nil	Kachhi Balihari 10/12 Pit UG Mine	5800	1800	Nil	PB UG Project	3800	500	Nil	Bhagabandh UG Mine	4600	540	Nil	Kendwadih OC Mine	1200	500	Nil	Pootkee UG Mine (Non-Producing)	9800	5274	Nil	Kachi Balihari 5/6 Pit UG Mine (Non-Producing)	13075	4350	Nil	Moonidih UG Mine	4127 KLD	878	Nil	Moonidih Washery	--	315	Nil
Name of Mine	Mine water discharge (GPM)	Water Consumption (KLD)	Additional Water Requirement																																								
Gopalichak OC Mine	4600	4600	Nil																																								
Kachhi Balihari 10/12 Pit UG Mine	5800	1800	Nil																																								
PB UG Project	3800	500	Nil																																								
Bhagabandh UG Mine	4600	540	Nil																																								
Kendwadih OC Mine	1200	500	Nil																																								
Pootkee UG Mine (Non-Producing)	9800	5274	Nil																																								
Kachi Balihari 5/6 Pit UG Mine (Non-Producing)	13075	4350	Nil																																								
Moonidih UG Mine	4127 KLD	878	Nil																																								
Moonidih Washery	--	315	Nil																																								
1.24	Changes in water bodies or the land surface affecting drainage or run-off?	No	----																																								
1.25	Transport of personnel or materials for construction, operation or decommissioning?	Yes.	<p>Transport of materials will be done through tippers, trucks, jeep etc. Personnel are transported by the public / personal conveyance or conveyance provided by the Company.</p> <p>(Source = As per the data and records available in colliery office)</p>																																								
1.26	Long-term dismantling or decommissioning or restoration works?	No	A Progressive Mines Closure Plan & Final Mines Closure Plan will be prepared for each Projects for the purpose of long-term dismantling and/or decommissioning.																																								
1.27	Ongoing activity during decommissioning which could have an impact on the environment?	No.	<p>The decommissioning activities will not have any adverse environmental effect.</p> <p>(Source = As per details and record available at Colliery Office)</p>																																								
1.28	Influx of people to an area in either temporarily or permanently?	No	Coal mining is going on for more than 100 Years in the Jharia coal fields. The existing population is largely dependent on the mining activities in the area. Hence, no more influx of people is expected apart from the manpower required for the projects in the cluster.																																								

			<i>(Source = As per details and record available at Colliery Office)</i>
1.29	Introduction of alien species?	No	----
1.30	Loss of native species or genetic diversity?	No	----
1.31	Any other actions?	No	----

2. Use of Natural resources for construction or operation of the Project (such as land, water, materials or energy, especially any resources which are non-renewable or in short supply):

Sl. No.	Information/checklist confirmation	Yes/No	Details thereof (with approximate quantities /rates, wherever possible) with source of information data																																			
2.1	Land especially undeveloped or agricultural land (ha)	Yes	<table border="1"> <thead> <tr> <th rowspan="2">Name of the Mine</th> <th colspan="2">Land involved</th> </tr> <tr> <th>Barren Land</th> <th>Agriculture Land</th> </tr> </thead> <tbody> <tr> <td>Gopalichak OC Mine</td> <td>34.06</td> <td>-</td> </tr> <tr> <td>Kachhi Balihari 10/12 Pit UG Mine</td> <td>7.73</td> <td>34.14</td> </tr> <tr> <td>PB UG Project</td> <td>5.25</td> <td>33.4</td> </tr> <tr> <td>Bhagabandh UG Mine</td> <td>96.1</td> <td>220.73</td> </tr> <tr> <td>Kendwadih OC Mine</td> <td>26.75</td> <td>-</td> </tr> <tr> <td>Pootkee UG Mine (Non-Producing)</td> <td>18.6</td> <td>16.04</td> </tr> <tr> <td>Kachi Balihari 5/6 Pit UG Mine (Non-Producing)</td> <td>45.64</td> <td>9.51</td> </tr> <tr> <td>Moonidih UG Mine</td> <td>1118.52</td> <td>480.75</td> </tr> <tr> <td>Moonidih Washery</td> <td>-</td> <td>-</td> </tr> <tr> <td><b>Total</b></td> <td><b>1352.65</b></td> <td><b>794.57</b></td> </tr> </tbody> </table> <p><i>(Source = As per details and record available at Colliery Office)</i></p>	Name of the Mine	Land involved		Barren Land	Agriculture Land	Gopalichak OC Mine	34.06	-	Kachhi Balihari 10/12 Pit UG Mine	7.73	34.14	PB UG Project	5.25	33.4	Bhagabandh UG Mine	96.1	220.73	Kendwadih OC Mine	26.75	-	Pootkee UG Mine (Non-Producing)	18.6	16.04	Kachi Balihari 5/6 Pit UG Mine (Non-Producing)	45.64	9.51	Moonidih UG Mine	1118.52	480.75	Moonidih Washery	-	-	<b>Total</b>	<b>1352.65</b>	<b>794.57</b>
Name of the Mine	Land involved																																					
	Barren Land	Agriculture Land																																				
Gopalichak OC Mine	34.06	-																																				
Kachhi Balihari 10/12 Pit UG Mine	7.73	34.14																																				
PB UG Project	5.25	33.4																																				
Bhagabandh UG Mine	96.1	220.73																																				
Kendwadih OC Mine	26.75	-																																				
Pootkee UG Mine (Non-Producing)	18.6	16.04																																				
Kachi Balihari 5/6 Pit UG Mine (Non-Producing)	45.64	9.51																																				
Moonidih UG Mine	1118.52	480.75																																				
Moonidih Washery	-	-																																				
<b>Total</b>	<b>1352.65</b>	<b>794.57</b>																																				



2.2	Water (expected source & competing users) unit: KLD	Yes	<table border="1"> <thead> <tr> <th data-bbox="509 184 735 289">Name of the Mine</th> <th data-bbox="735 184 1062 289">Water Consumption in KLD with source</th> <th data-bbox="1062 184 1235 289">Additional Water requirement in future</th> </tr> </thead> <tbody> <tr> <td data-bbox="509 289 735 394">Gopalichak UG Mine</td> <td data-bbox="735 289 1062 394"> <ul style="list-style-type: none"> <li>▪ Industrial – 15 KLD</li> <li>▪ Domestic – 9000 KLD (mine water) + 185 KLD (MADA)</li> </ul> </td> <td data-bbox="1062 289 1235 394">Nil</td> </tr> <tr> <td data-bbox="509 394 735 478">Kachhi Balihari 10/12 Pit UG Mine</td> <td data-bbox="735 394 1062 478"> <ul style="list-style-type: none"> <li>▪ Industrial - 15 KLD</li> <li>▪ Domestic – 5625 KLD (mine water) + 41 KLD (MADA)</li> </ul> </td> <td data-bbox="1062 394 1235 478">Nil</td> </tr> <tr> <td data-bbox="509 478 735 562">PB UG Project</td> <td data-bbox="735 478 1062 562"> <ul style="list-style-type: none"> <li>▪ Industrial – 10 KLD</li> <li>▪ Domestic – 2500 KLD (mine water)</li> </ul> </td> <td data-bbox="1062 478 1235 562">Nil</td> </tr> <tr> <td data-bbox="509 562 735 646">Bhagabandh UG Mine</td> <td data-bbox="735 562 1062 646"> <ul style="list-style-type: none"> <li>▪ Industrial - 10 KLD</li> <li>▪ Domestic – 8000 KLD (mine water) + 194 KLD (MADA)</li> </ul> </td> <td data-bbox="1062 562 1235 646">Nil</td> </tr> <tr> <td data-bbox="509 646 735 730">Kendwadiah OC Mine</td> <td data-bbox="735 646 1062 730"> <ul style="list-style-type: none"> <li>▪ Domestic – 2000 KLD (mine water) + 340 KLD (MADA)</li> </ul> </td> <td data-bbox="1062 646 1235 730">Nil</td> </tr> <tr> <td data-bbox="509 730 735 898">Pootkee UG Mine (Non-Producing)</td> <td data-bbox="735 730 1062 898"> <ul style="list-style-type: none"> <li>▪ Domestic – 5000 KLD (mine water) + 274 KLD (MADA)</li> </ul> </td> <td data-bbox="1062 730 1235 898">Nil</td> </tr> <tr> <td data-bbox="509 898 735 982">Kachi Balihari 5/6 Pit UG Mine (Non-Producing)</td> <td data-bbox="735 898 1062 982"> <ul style="list-style-type: none"> <li>▪ Domestic – 4350 KLD (mine water)</li> </ul> </td> <td data-bbox="1062 898 1235 982">Nil</td> </tr> <tr> <td data-bbox="509 982 735 1066">Moonidih UG Mine</td> <td data-bbox="735 982 1062 1066"> <ul style="list-style-type: none"> <li>▪ Industrial – 300KLD</li> <li>Domestic : 860 KL</li> </ul> </td> <td data-bbox="1062 982 1235 1066"></td> </tr> <tr> <td data-bbox="509 1066 735 1119">Moonidih Washery</td> <td data-bbox="735 1066 1062 1119"> <ul style="list-style-type: none"> <li>▪ Industrial – 108 KLD</li> </ul> </td> <td data-bbox="1062 1066 1235 1119"></td> </tr> <tr> <td data-bbox="509 1119 735 1171"><b>Total</b></td> <td data-bbox="735 1119 1062 1171"> <ul style="list-style-type: none"> <li>▪ <b>Industrial – 458 KLD</b></li> <li>▪ <b>Domestic – 38369 KLD</b></li> </ul> </td> <td data-bbox="1062 1119 1235 1171"><b>Nil</b></td> </tr> </tbody> </table>	Name of the Mine	Water Consumption in KLD with source	Additional Water requirement in future	Gopalichak UG Mine	<ul style="list-style-type: none"> <li>▪ Industrial – 15 KLD</li> <li>▪ Domestic – 9000 KLD (mine water) + 185 KLD (MADA)</li> </ul>	Nil	Kachhi Balihari 10/12 Pit UG Mine	<ul style="list-style-type: none"> <li>▪ Industrial - 15 KLD</li> <li>▪ Domestic – 5625 KLD (mine water) + 41 KLD (MADA)</li> </ul>	Nil	PB UG Project	<ul style="list-style-type: none"> <li>▪ Industrial – 10 KLD</li> <li>▪ Domestic – 2500 KLD (mine water)</li> </ul>	Nil	Bhagabandh UG Mine	<ul style="list-style-type: none"> <li>▪ Industrial - 10 KLD</li> <li>▪ Domestic – 8000 KLD (mine water) + 194 KLD (MADA)</li> </ul>	Nil	Kendwadiah OC Mine	<ul style="list-style-type: none"> <li>▪ Domestic – 2000 KLD (mine water) + 340 KLD (MADA)</li> </ul>	Nil	Pootkee UG Mine (Non-Producing)	<ul style="list-style-type: none"> <li>▪ Domestic – 5000 KLD (mine water) + 274 KLD (MADA)</li> </ul>	Nil	Kachi Balihari 5/6 Pit UG Mine (Non-Producing)	<ul style="list-style-type: none"> <li>▪ Domestic – 4350 KLD (mine water)</li> </ul>	Nil	Moonidih UG Mine	<ul style="list-style-type: none"> <li>▪ Industrial – 300KLD</li> <li>Domestic : 860 KL</li> </ul>		Moonidih Washery	<ul style="list-style-type: none"> <li>▪ Industrial – 108 KLD</li> </ul>		<b>Total</b>	<ul style="list-style-type: none"> <li>▪ <b>Industrial – 458 KLD</b></li> <li>▪ <b>Domestic – 38369 KLD</b></li> </ul>	<b>Nil</b>	(Source = As per details and record available at Colliery Office)
Name of the Mine	Water Consumption in KLD with source	Additional Water requirement in future																																			
Gopalichak UG Mine	<ul style="list-style-type: none"> <li>▪ Industrial – 15 KLD</li> <li>▪ Domestic – 9000 KLD (mine water) + 185 KLD (MADA)</li> </ul>	Nil																																			
Kachhi Balihari 10/12 Pit UG Mine	<ul style="list-style-type: none"> <li>▪ Industrial - 15 KLD</li> <li>▪ Domestic – 5625 KLD (mine water) + 41 KLD (MADA)</li> </ul>	Nil																																			
PB UG Project	<ul style="list-style-type: none"> <li>▪ Industrial – 10 KLD</li> <li>▪ Domestic – 2500 KLD (mine water)</li> </ul>	Nil																																			
Bhagabandh UG Mine	<ul style="list-style-type: none"> <li>▪ Industrial - 10 KLD</li> <li>▪ Domestic – 8000 KLD (mine water) + 194 KLD (MADA)</li> </ul>	Nil																																			
Kendwadiah OC Mine	<ul style="list-style-type: none"> <li>▪ Domestic – 2000 KLD (mine water) + 340 KLD (MADA)</li> </ul>	Nil																																			
Pootkee UG Mine (Non-Producing)	<ul style="list-style-type: none"> <li>▪ Domestic – 5000 KLD (mine water) + 274 KLD (MADA)</li> </ul>	Nil																																			
Kachi Balihari 5/6 Pit UG Mine (Non-Producing)	<ul style="list-style-type: none"> <li>▪ Domestic – 4350 KLD (mine water)</li> </ul>	Nil																																			
Moonidih UG Mine	<ul style="list-style-type: none"> <li>▪ Industrial – 300KLD</li> <li>Domestic : 860 KL</li> </ul>																																				
Moonidih Washery	<ul style="list-style-type: none"> <li>▪ Industrial – 108 KLD</li> </ul>																																				
<b>Total</b>	<ul style="list-style-type: none"> <li>▪ <b>Industrial – 458 KLD</b></li> <li>▪ <b>Domestic – 38369 KLD</b></li> </ul>	<b>Nil</b>																																			
2.3	Minerals (MT)	Yes	<p>The mineral reserve existing is as under:</p> <table border="1"> <thead> <tr> <th data-bbox="509 1209 915 1255">Name of Mine</th> <th data-bbox="915 1209 1214 1255">Mineable Reserve (MT)</th> </tr> </thead> <tbody> <tr> <td data-bbox="509 1255 915 1293">Gopalichak OC Mine</td> <td data-bbox="915 1255 1214 1293">13.83</td> </tr> <tr> <td data-bbox="509 1293 915 1331">Kachhi Balihari 10/12 Pit UG Mine</td> <td data-bbox="915 1293 1214 1331">1.80</td> </tr> <tr> <td data-bbox="509 1331 915 1369">PB UG Project</td> <td data-bbox="915 1331 1214 1369">32.227</td> </tr> <tr> <td data-bbox="509 1369 915 1407">Bhagabandh UG Mine</td> <td data-bbox="915 1369 1214 1407">0.60</td> </tr> <tr> <td data-bbox="509 1407 915 1444">Kendwadiah OC Mine</td> <td data-bbox="915 1407 1214 1444">124.07</td> </tr> <tr> <td data-bbox="509 1444 915 1482">Pootkee UG Mine (Non-Producing)</td> <td data-bbox="915 1444 1214 1482">83.05</td> </tr> <tr> <td data-bbox="509 1482 915 1558">Kachi Balihari 5/6 Pit UG Mine (Non-Producing)</td> <td data-bbox="915 1482 1214 1558">83.67</td> </tr> <tr> <td data-bbox="509 1558 915 1596">Moonidih UG Mine*</td> <td data-bbox="915 1558 1214 1596">152.75</td> </tr> <tr> <td data-bbox="509 1596 915 1633">Moonidih Washery</td> <td data-bbox="915 1596 1214 1633">--</td> </tr> <tr> <td data-bbox="509 1633 915 1671"><b>Total</b></td> <td data-bbox="915 1633 1214 1671"><b>491.997 MT</b></td> </tr> </tbody> </table> <p>*Includes proposed XV seam section (Source = As per details and record available at Colliery Office)</p>	Name of Mine	Mineable Reserve (MT)	Gopalichak OC Mine	13.83	Kachhi Balihari 10/12 Pit UG Mine	1.80	PB UG Project	32.227	Bhagabandh UG Mine	0.60	Kendwadiah OC Mine	124.07	Pootkee UG Mine (Non-Producing)	83.05	Kachi Balihari 5/6 Pit UG Mine (Non-Producing)	83.67	Moonidih UG Mine*	152.75	Moonidih Washery	--	<b>Total</b>	<b>491.997 MT</b>												
Name of Mine	Mineable Reserve (MT)																																				
Gopalichak OC Mine	13.83																																				
Kachhi Balihari 10/12 Pit UG Mine	1.80																																				
PB UG Project	32.227																																				
Bhagabandh UG Mine	0.60																																				
Kendwadiah OC Mine	124.07																																				
Pootkee UG Mine (Non-Producing)	83.05																																				
Kachi Balihari 5/6 Pit UG Mine (Non-Producing)	83.67																																				
Moonidih UG Mine*	152.75																																				
Moonidih Washery	--																																				
<b>Total</b>	<b>491.997 MT</b>																																				
2.4	Construction material – stone, aggregates, sand / soil (expected source – MT)	Yes	Only minor construction works like ventilation stoppings, Isolation stoppings, Sectionalization stoppings, Pump Foundation, Haulage foundations to be undertaken, the materials will be arranged from local suppliers of the nearby markets.																																		

			<i>(Source = As per the data and records available in colliery office)</i>																																	
2.5	Forests and timber (source – MT)	Yes	Timber will be required in the UG mines for the wooden supports and props, sleepers etc. These will be taken from the local State Forest Department of the state. <i>(Source = As per the data and records available in colliery office)</i>																																	
2.6	Energy including electricity and fuels (source, competing users) Unit: fuel (MT), energy (MwH)	Yes	<table border="1"> <thead> <tr> <th>Name of the mine</th> <th>Energy Consumption / Year</th> <th>Fuel Consumption / Year</th> </tr> </thead> <tbody> <tr> <td>Gopalichak OC Mine</td> <td>12484.35 MwH</td> <td>Nil (No departmental vehicle )</td> </tr> <tr> <td>Kachhi Balihari 10/12 Pit UG Mine</td> <td>5389.22 MwH</td> <td>0.025 KLD (diesel)</td> </tr> <tr> <td>PB UG Project</td> <td>11216.22 MwH</td> <td>0.015 KLD (diesel)</td> </tr> <tr> <td>Bhagabandh UG Mine</td> <td>13541.87 MwH</td> <td>0.025 KLD (diesel)</td> </tr> <tr> <td>Kendwadih OC Mine</td> <td>13941.49 MwH</td> <td>Nil (No departmental vehicle )</td> </tr> <tr> <td>Pootkee UG Mine (Non-Producing)</td> <td>10541.97 MwH</td> <td>0.39 KLD (diesel)</td> </tr> <tr> <td>Kachi Balihari 5/6 Pit UG Mine (Non-Producing)</td> <td>12551.02 MwH</td> <td>1.99 KLD (diesel)</td> </tr> <tr> <td>Moonidih UG Mine</td> <td>33600.00 MwH</td> <td>0.195 KLD(diesel)</td> </tr> <tr> <td>Moonidih Washery</td> <td>20991.00 MwH</td> <td></td> </tr> <tr> <td><b>Total</b></td> <td><b>134257 MwH</b></td> <td><b>2.64 KLD (diesel)</b></td> </tr> </tbody> </table> <p><i>(Source = As per details and record available at Colliery Office)</i></p>	Name of the mine	Energy Consumption / Year	Fuel Consumption / Year	Gopalichak OC Mine	12484.35 MwH	Nil (No departmental vehicle )	Kachhi Balihari 10/12 Pit UG Mine	5389.22 MwH	0.025 KLD (diesel)	PB UG Project	11216.22 MwH	0.015 KLD (diesel)	Bhagabandh UG Mine	13541.87 MwH	0.025 KLD (diesel)	Kendwadih OC Mine	13941.49 MwH	Nil (No departmental vehicle )	Pootkee UG Mine (Non-Producing)	10541.97 MwH	0.39 KLD (diesel)	Kachi Balihari 5/6 Pit UG Mine (Non-Producing)	12551.02 MwH	1.99 KLD (diesel)	Moonidih UG Mine	33600.00 MwH	0.195 KLD(diesel)	Moonidih Washery	20991.00 MwH		<b>Total</b>	<b>134257 MwH</b>	<b>2.64 KLD (diesel)</b>
Name of the mine	Energy Consumption / Year	Fuel Consumption / Year																																		
Gopalichak OC Mine	12484.35 MwH	Nil (No departmental vehicle )																																		
Kachhi Balihari 10/12 Pit UG Mine	5389.22 MwH	0.025 KLD (diesel)																																		
PB UG Project	11216.22 MwH	0.015 KLD (diesel)																																		
Bhagabandh UG Mine	13541.87 MwH	0.025 KLD (diesel)																																		
Kendwadih OC Mine	13941.49 MwH	Nil (No departmental vehicle )																																		
Pootkee UG Mine (Non-Producing)	10541.97 MwH	0.39 KLD (diesel)																																		
Kachi Balihari 5/6 Pit UG Mine (Non-Producing)	12551.02 MwH	1.99 KLD (diesel)																																		
Moonidih UG Mine	33600.00 MwH	0.195 KLD(diesel)																																		
Moonidih Washery	20991.00 MwH																																			
<b>Total</b>	<b>134257 MwH</b>	<b>2.64 KLD (diesel)</b>																																		
2.7	Any other natural resources (use appropriate standard units)	No	----																																	

**3. Use, storage, transport, handling or production of substances or materials, which could be harmful to human health or the environment or raise concerns about actual or perceived risks to human health.**

Sl. No.	Information / Checklist confirmation	Yes / No.	Details thereof (with approximate quantities / rates, wherever possible) with source of information data.
3.1	Use of substances or materials, which are hazardous (as per MSIHC Rules) to human health or the environment (flora, fauna and water supplies).	No	Spent / burnt oil and oil soaked filters, old batteries. The aforesaid are being taken care of as per Hazardous Waste (Management & Handling) Rules, 1989 and 2003 and sent to stores for disposal through authorized agents. <i>(Source = As per details and record available at Colliery Office)</i>
3.2	Changes in occurrence of disease or affect disease vectors (e.g. insect or water-borne diseases)	No	----
3.3	Affect the welfare of people e.g. by changing living conditions?	No	The projects in this cluster have positive impact on the welfare of people and resulted into overall development of the area in and around the cluster.
3.4	Vulnerable groups of people who could be affected by the project e.g. hospital patients, children, the elderly etc.,	No	----
3.5	Any other causes.	No	----

#### 4. Production of solid wastes during construction or operation or decommissioning (MT/month).

Sl. No.	Information / Checklist confirmation	Yes / No.	Details thereof (with approximate quantities / rates, wherever possible) with source of information data.
4.1	Spoil, overburden or mine wastes.	Yes	At present, the rejects are not getting generated from the washery operations. 169.239 Mm <sup>3</sup> of OB will be generated from OC mines which will be reclaimed according to the progressive and final mine closure plan.
4.2	Municipal waste (domestic and or commercial wastes).	Yes	This is being disposed off as per provisions of Municipal Solid Waste (Management & Handling) Rules.  Domestic Waste in colony is being treated in septic tank-cum-soak pit. No commercial waste is generated.  <i>(Source = As per details and record available at Colliery Office)</i>
4.3	Hazardous wastes (as per Hazardous Waste Management Rules).	Yes	Spent / burnt oil and oil soaked filters, old batteries. These are being taken care as per Hazardous Waste (Management & Handling) Rules, 2003 and sent to stores for disposal through authorized agents. <i>(Source = As per details and record available at Colliery Office)</i>
4.4	Other industrial process wastes	No	-
4.5	Surplus product	No	-
4.6	Sewage sludge or other sludge from effluent treatment.	Yes	Being treated in septic tank-cum-soak pit.  <i>(Source = As per details and record available at Colliery Office)</i>
4.7	Construction or demolition wastes	No	The construction / demolition waste will be used for filling up of low lying areas or put to other suitable uses.  <i>(Source = As per details and record available at Colliery Office)</i>
4.8	Redundant machinery or equipment	Yes	The redundant machineries or equipments will be transferred to other collieries where required. If outlived their working life, they will be surveyed off and disposed as per Company's Rule.  <i>(Source = As per details and record available at Colliery Office)</i>
4.9	Contaminated soils or other materials	No	-
4.10	Agricultural wastes	No	-
4.11	Other soil wastes	No	-

#### 5. Release of pollutants or any hazardous, toxic or noxious substances to air (Kg/hr)

Sl. No.	Information / Checklist confirmation	Yes / No.	Details thereof (with approximate quantities / rates, wherever possible) with source of information data.
5.1	Emissions from combustion of fossil fuels from stationary or mobile sources.	Yes	Approx. 2.64 KLD of diesel on an average is getting consumed. Individual transport equipment is being maintained to comply with the emission norms. The emissions of SO <sub>2</sub> & NO <sub>x</sub> from diesel operated trucks, tippers are insignificant.  <i>(Source =As per details and record available at Colliery Office)</i>
5.2	Emissions from production processes.	Yes	As per the records of existing mines, the level of pollutants is well within limit of Central Pollution Control Board (CPCB) standard. Protective

Sl. No.	Information / Checklist confirmation	Yes / No.	Details thereof (with approximate quantities / rates, wherever possible) with source of information data.
			measures are being undertaken to take care of the emissions. <i>(Source = As per details and record available at Colliery Office)</i>
5.3	Emissions from materials handling including storage or transport.	Yes	Suspended Particulate Matter (SPM) & Respiratory Particulate Matter (RPM) get generated from coal transportation. They are being taken care of by water sprinkling on the transport routes. <i>(Source = As per details and record available at Colliery Office)</i>
5.4	Emissions from construction activities including plant and equipment.	No	--
5.5	Dust or odors from handling of materials including construction materials, sewage and waste.	Yes	Dust gets generated during transportation, loading, unloading etc. Water sprinkling is done to prevent the dust from becoming air borne. <i>(Source = As per details and record available at Colliery Office)</i>
5.6	Emissions from incineration of waste.	No	-
5.7	Emissions from burning of waste in open air (e.g. slash materials, construction debris).	No	-
5.8	Emissions from any other sources.	No	-

#### 6. Generation of Noise and Vibration and Emissions of Light and Heat:

Sl. No.	Information / Checklist confirmation	Yes / No.	Details thereof (with approximate quantities / rates, wherever possible) with source of information data.
6.1	From operation of equipment e.g. engines, ventilation plant, crushers.	Yes	Generation of noise / vibration from HEMM, tippers, ventilation fan, haulages, SDL etc. are within the permissible limit. <i>(Source = As per details and record available at Colliery Office)</i>
6.2	From industrial or similar processes.	No	-
6.3	From construction or demolition.	No	
6.4	From blasting or drilling	No	In UG mines, drilling and blasting do generate noise and vibration but precautions are taken to maintain the level within prescribed standards. <i>(Source=As per the data and record available in colliery office).</i>
6.5	From construction or operational traffic.	Yes	Noise, vibration & heat are generated in course of operation of HEMMs and other coal handling, washing and transportation activities. These are maintained within acceptable limits. <i>(Source = As per details and record available at Colliery Office)</i>
6.6	From lighting or cooling systems	No	-

Sl. No.	Information / Checklist confirmation	Yes / No.	Details thereof (with approximate quantities / rates, wherever possible) with source of information data.
6.7	From any other sources.	No	-

**7. Risks of contamination of land or water from releases of pollutants into the ground or into sewers, surface waters, groundwater, coastal waters or the sea:**

Sl. No.	Information / Checklist confirmation	Yes / No.	Details thereof (with approximate quantities / rates, wherever possible) with source of information data.
7.1	From handling, storage, use or spillage of hazardous materials.	Yes	Hazardous materials like spent oil soaked filters, old batteries are disposed off as per the existing Rules & Guidelines of Hazardous Waste (Management & Handling) Rules, 1989 and 2003 and sent to stores for disposal through authorized agents. <i>(Source = As per details and record available at Colliery Office)</i>
7.2	From discharge of sewage or other effluents to water or the land (expected mode and place of discharge)	Yes	Total Suspended Solid (TSS) in the mine water is being taken care in settling ponds and in mine sumps. The workshop effluent is also treated and treated effluent reutilized. The excess mine water is discharged into natural drains. The liquid effluent from washery is being treated in slurry ponds and zero discharge is maintained. The washery is operating on closed water circuit system. Most of the industrial discharge is being put in closed water circuit and utilized for industrial use and non-drinking purposes. Sewage is being treated in septic tank-cum-soak pits. <i>(Source = As per details and record available at Colliery Office)</i>
7.3	By disposition of pollutants emitted to air into the land or into water.	No	Release of pollutants mainly dust is kept within permissible limit. <i>(Source = As per details and record available at Colliery Office)</i>
7.4	From any other sources.	No	-
7.5	Is there a risk of long term buildup of pollutants in the environment from these sources?	No	-

**8. Risk of accidents during construction or operation of the Project, which could affect human health or the environment.**

Sl. No.	Information / Checklist confirmation	Yes / No.	Details thereof (with approximate quantities / rates, wherever possible) with source of information data.
8.1	From explosions, spillages, fires etc from storage, handling, use or production of hazardous substances.	Yes	Risk exists on account of storage and use of explosives and fuel. Proper safety precautions are taken to avoid such risks. <i>( Source = As per the data and records available in colliery office)</i>
8.2	From any other causes.	Yes	<b>Open Cast Projects</b> <ol style="list-style-type: none"> <li>1. Slope failure in OB dump.</li> <li>2. Slope failure in mine pit.</li> <li>3. Blasting operations.</li> <li>4. Explosives Handling.</li> <li>5. Fire dealing</li> </ol>

Sl. No.	Information / Checklist confirmation	Yes / No.	Details thereof (with approximate quantities / rates, wherever possible) with source of information data.
			<b>UG Projects</b> 1) Inundation 2) Mine fire 3) Mine Explosion 4) Strata Control Precautions are taken as per CMR, 1957 and guidelines and circulars issued by DGMS from time to time. <i>(Source = As per details and record available at Colliery Office)</i>
8.3	Could the project be affected by natural disasters causing environmental damage (e.g. floods, earthquakes, landslides, cloudburst etc.)?	Yes	The cluster is falling within the seismically active Zone-III.  <i>(Source = As per details and record available at Colliery Office)</i>

**9. Factors which should be considered (such as consequential development) which could lead to environmental effects or the potential for cumulative impacts with other existing or planned activities in the locality.**

Sl. No.	Information / Checklist confirmation	Yes / No.	Details thereof (with approximate quantities / rates, wherever possible) with source of information data.
9.1	Lead to development of supporting, facilities, ancillary development or development stimulated by the project which could have impact on the environment e.g. Supporting infrastructure (roads, power supply, waste or waste water treatment etc.).	Yes	Economic growth associated with coal mining activity leads to semi urban like development. This supports development of ancillary and supporting industries and other related activities.  <i>(Source = As per details and record available at Colliery Office)</i>
	<ul style="list-style-type: none"> <li>Housing development</li> <li>Extractive industries</li> </ul>	Yes	Housing, roads, power supply, water supply & other community facility improved.  <i>(Source = As per details and record available at Colliery Office)</i>
	<ul style="list-style-type: none"> <li>supply industries</li> <li>other</li> </ul>	Yes	Housing facility with market and basic amenities is existing.
		Yes	Ancillary & supply industries have developed which in turn generated employment in directly and lead to growth in income generation.  -do- <i>(Source = As per details and record available at Colliery Office)</i>
9.2	Lead to after-use of the site, which could have an impact on the environment.	Yes	Some of the activity enumerated in 9.1 above could assume permanent residency with appropriate facilities.  Community development like health care facilities, educations facilities & Self Employment Scheme will improve the quality of life. Beyond this, physically and biologically reclaimed land would undergo transformation over time which would have positive impact on environment.  <i>(Source = As per details and record available at Colliery Office)</i>

Sl. No.	Information / Checklist confirmation	Yes / No.	Details thereof (with approximate quantities / rates, wherever possible) with source of information data.
9.3	Set a precedent for later developments.	Yes	Activities at 9.1 & 9.2 above do culminate in conjunction with local set up and in a number of cases has set precedence of economic development leading to overall socio-economic growth of the area. (Source = As per details and record available at Colliery Office)
9.4	Have cumulative effects due to proximity to other existing or planned projects with similar effects.	Yes	Coal occurs in layers continuously for long distances. Associated mining activity with numerous such closely located centers as indicated at 9.1, 9.2 and 9.3 along with other activities could have cumulative impact. (Source = As per details and record available at Colliery Office)

### III) Environmental Sensitivity

Sl. No.	Areas	Name / Identity	Aerial distance (within 15 Km.) Proposed project location boundary.
1	Areas protected under international conventions, national or local legislation for their ecological, landscape, cultural or other related value.	Yes	The details of Reserve/Protected forest is as under: <ul style="list-style-type: none"> <li>▪ Brindavanpur PF is 9.0 kms away</li> <li>▪ Mayrakuli protected forest is 9 Kms away.</li> <li>▪ Topchachi Reserve Forest is 5.5 Kms away.</li> <li>▪ Dhangri RF is 14 kms away.</li> </ul> (Source Topo sheet no: 73 I/2, 73 I/6)
2	Areas which are important or sensitive for ecological reasons – wetlands, watercourses or other water bodies, coastal zone, biospheres, mountains, forests.	Yes	<ul style="list-style-type: none"> <li>▪ River Damodar is at the southern periphery.</li> <li>▪ Bansjora nallah at the western boundary.</li> <li>▪ Karijore at the eastern boundary.</li> </ul> (Source Topo sheet no: 73 I/2, 73 I/6)
3	Area used by protected, important or sensitive species of flora or fauna for breeding, resting, foraging, resting, over wintering, migration.	No	
4	Inland, coastal, marine or underground waters.	No	
5	State, National boundaries.	No	
6	Routes or facilities used by the public for access to recreation or other tourist, pilgrim areas.	Gomoh-Adra line (SER) NH-2 NH-32	2.0 kms  11 Kms Passes through the cluster (Source Topo sheet no: 73 I/2, 73 I/6)
7	Defense installations	No	
8	Densely populated or built-up area	Jharia Dhanbad	4.0 kms 6.0 kms (Source Topo sheet no: 73 I/2, 73 I/6)
9	Areas occupied by sensitive man-made land uses (hospitals, schools, places of	Yes	Hospitals, Schools, Places of warship, Community facilities exist in general in and around the cluster.

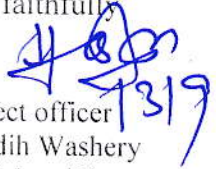
Sl. No.	Areas	Name / Identity	Aerial distance (within 15 Km.) Proposed project location boundary.
	worship, community facilities).		
10	Areas containing important, high quality or scarce resources (ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals).	No	--
11	Areas already subjected to pollution or environmental damage. (those where existing legal environmental standards are exceeded)	No	--
12	Areas susceptible to natural hazard which could cause the project to present environmental problems. (earthquakes, subsidence, landslides, erosion, flooding or extreme or adverse climatic conditions).	No	--


I hereby give undertaking that the data and information given in the application and enclosures are true to the best of my knowledge and belief and I am aware that if any part of the data and information submitted is found to be false or misleading at any stage, the project will be rejected and clearance given, if any to the project will be revoked at our risk and cost.


Date:

Place:

Yours faithfully,

  
Project officer  
Moonidih Washery  
P.O - Moonidi  
Dist. - Dhanbad  
828129

  
General Manager  
Addl. General Manager  
P.B Area  
Post- Kusunda  
Dist. - Dhanbad  
828116

  
General Manager  
W.J.Area  
P.O - Moonidih  
Dist. - Dhanbad  
828129