

# ENVIRONMENTAL IMPACT ASSESSMENT STUDY

for

Bhaskarpara Open Cast cum Underground Coal Mine with  
Production Capacity of 1.0 MTPA within ML Area of 932.00 ha  
Located in Bhaskarpara, Khadpara, Badsara, Kurridih, Kusmusi,  
Dhanauli Khurd and Kewara villages of Bhaiyathan Tehsil in Surajpur  
District, Chhattisgarh

## EXECUTIVE SUMMARY

*Project Proponent :*


**M/s. Prakash Industries Ltd  
New Delhi**

*Environment Consultant by :*



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(NABET/QCI Accredited EIA Consultancy Organization  
NABL/ISO 17025 Certified Laboratory, Recognized by MoEF, New Delhi)**

**August, 2022**

 <b>PRAKASH INDUSTRIES LTD.</b>	<b><i>Environmental Impact Assessment for Bhaskarpara Open Cast cum Underground Coal Mine with Production Capacity of 1.0 MTPA within ML Area of 932 ha by M/s. Prakash Industries Ltd Located at Bhaskarpara, Khadpara, Badsara, Kurridih, Kusmusi, Dhanauli Khurd and Kewara villages of Tehsil Bhaiyathan, District Surajpur (Chhattisgarh)</i></b>
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## **1.0 EXECUTIVE SUMMARY**

Bhaskarpara open cast cum underground coal mine is proposed with a rated capacity of 1.0 MTPA spread over in an area of 932 ha, located in Jhilimilli Coal field, at Bhaskarpara, Khadpara, Badsara, Kurridih, Kusmusi, Dhanauli Khurd and Kewara villages of Bhaiyathan and Kudripara hamlet of Dharsedhi village of Odgi Tehsil, District Surajpur, State Chhattisgarh. The cost of the project is about Rs. 284 Crores.

Bhaskarpara Coal Block is situated in the eastern continuity in Jhillimili Coalfield. The mine has been allocated by Ministry of Coal (MoC), Government of India (GoI) to M/s Prakash Industries Limited after fulfilling all vesting conditions as mentioned in the Coal Mine Development and Production Agreement. The office of the nominated authority, MoC, GoI has issued the vesting order to M/s Prakash Industries Ltd (PIL) vide ref No. 104/5/2021-NA dated 18<sup>th</sup> November, 2021 which emerged as a successful bidder under clause (b) of sub-rule (2) of rule 7 and sub-rule (I) of rule 13 of the Coal Mines (Special Provisions) Rules 2014 read with clause (b) of sub-section (3) of Section 6 and sub-section (3) of Section 8 of the Coal Mines (Special Provisions).

### **1.1 Purpose of the Report**

As per Environmental Impact Assessment (EIA) Notification dated 14<sup>th</sup> September 2006, proposed project falls under schedule Mining of Minerals- '1(a)' of category- 'A' and requires prior Environmental Clearance (EC) to be obtained from Ministry of Environment, Forest & Climate Change (MoEF&CC).


TOR has been issued by MoEF&CC vide letter reference F.No. IA-J-11015/90/2021-IA-II(M) dated 31<sup>st</sup> January, 2022. Bhaskarpara coal mine is proposed with a rated capacity of 1.0 MTPA (Normative) and 1.5 MTPA (Peak) spread over in an area of 932.00 ha as per the mine plan.

### **1.2 Project Proposal**

The proposed Bhaskarpara coal mine of 1.0 MTPA capacity over the area of 932 ha located at Bhaskarpara, Khadpara, Badsara, Kurridih, Kusmusi, Dhanauli Khurd and Kewara villages of Bhaiyathan tehsil and Kudripara hamlet of Dharsedhi village of Odgi Tehsil of Surajpur district of Chhattisgarh state. The entire coal produced from this mine is proposed to be sold in the market.

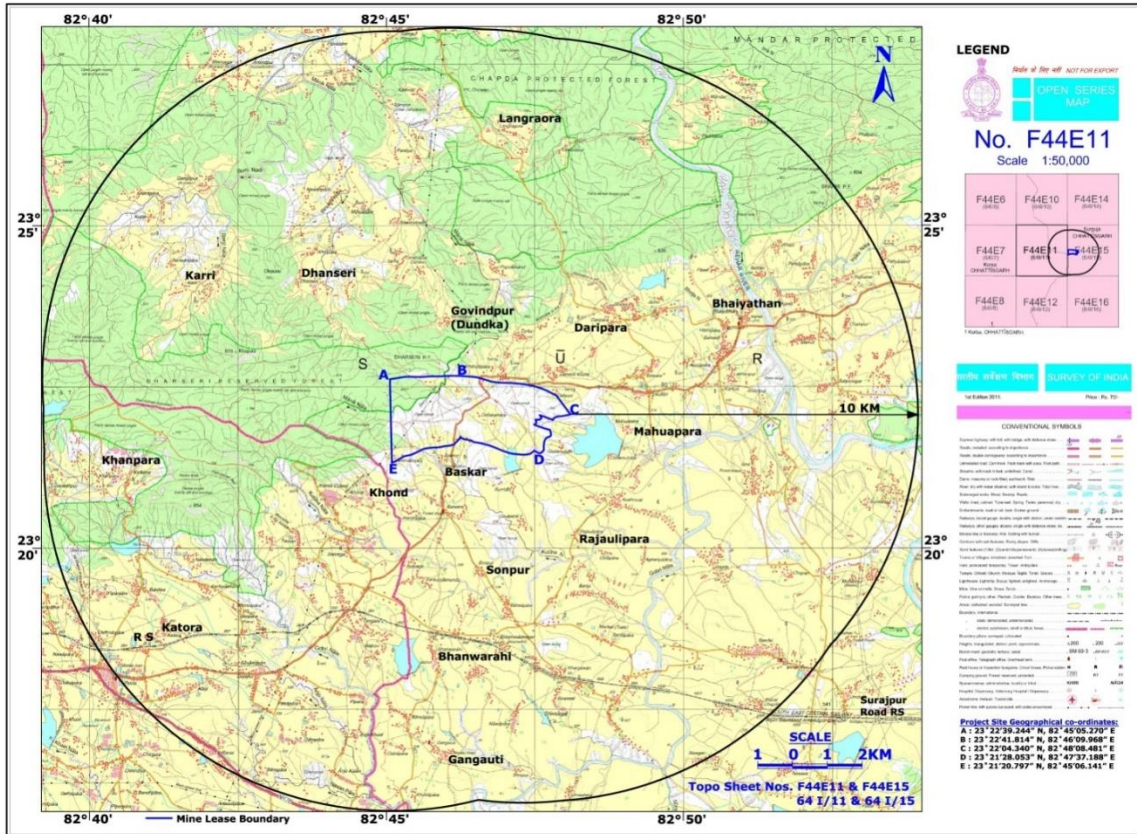
### **1.3 Environmental Setting**

The environmental setting around the proposed coal-mining project is given in **Figure-1**.


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The key geo-physical aspects related to the project environmental settings are highlighted below:

- The geographical coordinates of the project area lie within Latitude: 23°21'20" N - 23°22'42" N and Longitude: 82°45'05" E - 82°48'09" E;
- Land use of ML area includes Forest: 515.581 ha and Non-Forest: 416.419 ha;
- Two seasonal nalas are passing in ML area. Manik Nala flowing over Quarry NW join Gokhani nala in the north and Kalua nala with south eastern flow drains into Rehar river in the east;
- The SH-12 originating from Baikunthpur to Bhaiyathan passing through the mine lease area. NH-78 passes at 10.5 km S of the project site;
- Nearest railway stations are Shiv Prasad Nagar RS (7 km, S), Katora RS (8.6 km, SW) and Surajpur Road RS (11.6 km, SE);
- There are 4 Reserve Forests (RFs) identified within the study area (Dharseri RF, Temari RF, Kyontali RF and Kanai RF) and 3 Protected Forests (PFs) identified within the study area i.e. Chapda PF, Bhanri PF and Mandar PF;
- There are no National parks/Wildlife sanctuaries within the 10 km radius of the project site;
- Tamor Pingla Wildlife Sanctuary is located at about 15.3 km from the mine lease boundary in NE direction;



**FIGURE-1**  
**ENVIRONMENTAL SETTINGS IN STUDY AREA ( 10 KM RADIUS )**

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## 1.4 Brief Description of the Project

ML area is spread over an area of 932 ha. It is proposed to produce about 1.0 MTPA ROM coal through a combination of opencast & underground mining methods. Out of 932 ha ML area, open cast mining will be done in an area of 552.296 ha and the remaining 379.704 ha will be for underground mining.

The proposed mine will be operated by both opencast and underground mining methods. Based on the geo-mining conditions investigated at ML area, the mining system has been worked out for achievement of rated capacity in shorter period i.e. low gestation period as well as reduction of inter-mixing of coal with stone bands and starting of internal dumping as soon as sufficient de-coaled area is created. Extraction of coal and removal of OB is proposed by conventional systems.

- Opencast mining method will be carried out by, 3.2 m<sup>3</sup> Hydraulic shovel and Rear Dumper (35T) combination. Extraction of coal is planned in opencast mine by Shovel – Dumper combination. 10 T capacity magazine will be utilized for blasting of coal and waste.
- Underground mining method is proposed to work by Bord and Pillar method with introduction of medium technology like loading of coal by low height Load Haul Dumper (LHDs) / Side Discharge Loaders (SDLs) on to flexible light duty chain conveyor (LDCC). Conventional drilling and blasting method will be adopted for coal breaking.

## 1.5 Resource Requirement


### Water Requirement

Total requirement of water is estimated as 490 KLD for the block (Potable – 18 KLD; Industrial – 472 KLD).

The total demand of water for the project has been estimated to be 490 KLD. It is envisaged that to meet the requirement of water for construction, drinking and sanitation as well as mine operation, at the initial stage the bore wells will be used and at later stage the water harvested from pits from mine will be used. A void is proposed in the open pit after the end of operation, which will be used as collection pond for the rainwater. The rainwater will be used for industrial purpose for HEMM washing, sprinkling on haul roads for dust suppression and for watering the mine site plantations.

- Power Requirement

The proposed mining block is virgin. Based on the rated capacity of ROM Coal for Bhaskarpara coal block and assuming certain parameters for coal extraction, transportation, loading, handling pumping etc. the tentative power requirement will be about 2 MVA which will be met from Power grid. A Substation equipped with Switch yard and step-down transformer facilities will be commissioned near

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the site services and power at 33 kV, 11 kV, 3.3 kV and 400 V will be made available for the mine. All HEMM are proposed to be diesel operated. A standby DG set of 1 MW capacity will also be provided for emergency use.

- Employment Generations

Employment generation due to the proposed project activity is approximately 479. This manpower includes persons employed from direct and indirect employment.

## 1.6 Description of Environment

The baseline studies were carried during 1<sup>st</sup> October 2021 to 31<sup>st</sup> December 2021, covering post-monsoon and part winter season in the various domains of environment.

### 1.6.1 Meteorology

The maximum and minimum temperatures recorded at site during study period were 5.9°C to 31.6°C. The relative humidity was observed to range from 52% – 78% during the study period. Predominant winds are mostly from N followed by NW and NE. Calm conditions prevailed for 35.9 % of the total time.

### 1.6.2 Ambient Air Quality

Ambient Air Quality Monitoring (AAQM) was carried out at 10 locations with a frequency of two days per week for three months during post monsoon (October to December 2021) as per CPCB standards.

**Particulate Matter (PM<sub>2.5</sub>):** The minimum and maximum concentrations for PM<sub>2.5</sub> were recorded as 20.8 µg/m<sup>3</sup> and 29.4 µg/m<sup>3</sup> respectively.

**Particulate Matter (PM<sub>10</sub>):** The minimum and maximum concentrations for PM<sub>10</sub> were recorded as 42.8 µg/m<sup>3</sup> and 59.8 µg/m<sup>3</sup> respectively.

**Sulphur Dioxide (SO<sub>2</sub>):** The minimum and maximum SO<sub>2</sub> concentrations were recorded as 14.0 µg/m<sup>3</sup> and 20.3 µg/m<sup>3</sup>.


**Nitrogen dioxide (NO<sub>2</sub>):** The minimum and maximum NO<sub>2</sub> concentrations were recorded as 16.2 µg/m<sup>3</sup> and 23.5 µg/m<sup>3</sup>.

**Carbon Monoxide (CO):** The minimum and maximum CO concentrations were recorded as 270 µg/m<sup>3</sup> and 422 µg/m<sup>3</sup>.

**Ozone (O<sub>3</sub>):** The minimum and maximum O<sub>3</sub> concentrations were recorded as 2.1 µg/m<sup>3</sup> and 8.2 µg/m<sup>3</sup>.

*Lead (Pb), Ammonia (NH<sub>3</sub>), Benzene (C<sub>6</sub>H<sub>6</sub>), BAP, Arsenic (As), Nickel values are observed to be well within permissible limits*

The ambient air quality has been observed to be within permissible limits.

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### 1.6.3 Land Use

The land use pattern of the study area indicates that 54.1% of the study area is under agricultural lands, followed by dense forests 16.6% and waterbodies of about 7.3%. Percentage of built-up area is about 3.4 % respectively. Wastelands are about 18.8 % of study area.

### 1.6.4 Soil Characteristics

The pH of the soil in the study area ranged from 5.38 to 7.15. The electrical conductivity was observed to be in the range of 129  $\mu$ mhos/cm to 361  $\mu$ mhos/cm. The nitrogen values range between 89.7 to 169.9 kg/ha. The phosphorus values range between 92.6 to 131.9 kg/ha. The potassium values range between 282.9 –459.7 kg/ha. The chlorides were found to be in the range of 92.1–255.1 mg/kg of soil.

### 1.6.5 Water Quality


The baseline water quality status in the region is established by analysing samples at 10 locations consisting of five ground water samples and five surface water samples. The ground and surface water samples were analysed and found that ground water quality is well within the drinking water quality limits.

#### *Surface Water Quality*

The pH value was observed to be in the range of 7.32 to 7.88, which are well within the specified standards of 6.5 to 8.5. Electrical conductivity of surface water samples was observed to be in the range of 145  $\mu$ S/cm to 280  $\mu$ S/cm. The dissolved oxygen was observed in the range of 5.1 mg/l to 5.7 mg/l. The total hardness was found to be in the range of 54.6 mg/l to 103.9 mg/l. The chloride concentration was observed in the range of 9.4 mg/l to 18.2mg/l and the sulphates were found to be in the range of 8.9 mg/l to 17.4 mg/l. Fluoride content was found to be in the range of 0.3 mg/l to 0.7 mg/l. Cyanides and phenolic compounds found to be below detection limits. The total coliform counts are 980-1460 in all the samples against the standard limit of 10 MPN/100 ml.

#### *Ground Water Quality*

The pH is in range of 6.63 -8.06 which are in line with the specified standard limits of 6.5 to 8.5. Color and turbidity of the samples ranged from 1 Hazen and 2-5 NTU. Electrical conductivity of the samples ranged from 360-1165  $\mu$ S/cm. The total hardness of the samples ranged from 159.6 -196.5 mg/l. Calcium and magnesium concentrations ranged from 36.3 - 56.2 mg/l and 13.6 - 16.8 mg/l respectively. The total dissolved solids of the samples ranged from 197 -735 mg/l. Range of chlorides and sulphates concentrations at all the locations 14.9 - 231.5 mg/l and 6.7 - 109.4 mg/l respectively. Fluoride concentration ranged from 0.5-0.9 mg/l and is found to be within the permissible limits. Similarly, nitrates are also found to be ranging in between 3.1–7.3 mg/l. Iron concentrations in ground water varied from 0.01-0.28 mg/l. Zinc levels varied from 0.02 mg/l to 3.46 mg/l respectively.

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Aluminum concentration in ground water is <0.01 mg/l which are within the limits stipulated. All other metal concentrations are observed to be below detectable limits. The total coliform counts are absent in all the samples against the standard limit of 10 MPN/100 ml.

#### 1.6.6 Noise Levels

The noise monitoring has been conducted for determination of noise levels at fifteen locations in the study area. The daytime noise levels were ranged in between 44.7 dB(A) to 72.0 dB(A). The nighttime noise levels were ranged in between 41.5 dB (A) to 68.8 dB (A). Noise monitoring results reveal ambient noise levels in all the locations are well within the limits as per CPCB ambient noise standards.

#### 1.6.7 Flora and Fauna

The study area comprises the mine lease area (Core Zone- CZ) and the area within 10 km radius (Buffer Zone- BZ) of the project boundaries. Four major habitat types were identified in the study area, even by combining certain LULC types. They are (i) Forest land (ii) Barren land (iii) Agricultural land (iv) and Water systems.

37 tree species belonging to 22 families were observed in the core zone during field assessment. 51 tree species belonging to 24 families were observed in the buffer zone during field assessment. Other than the common domesticated animals, the study area was identified with 9 mammals, 66 birds, 14 reptiles, 6 amphibians and 35 fishes.


Based on both the primary survey and on the reliable secondary data such as the working plans of the forest department as well as the references cited in the reference section, any Schedule I species and/or RET (Rare, Endangered and Threatened) species of flora/fauna are NOT found either in core zone or buffer zone.

### **1.7 Anticipated Environmental Impacts and Mitigation Measures**

#### 1.7.1 Impact on Soil Quality

- The top soil is nutrient rich i.e. fertile soil containing NPK in high quantities and removal of top soil causes loss of fertile land.
- Top soil will be scrapped by dozer / shovel before the ground preparation for drilling and blasting causing soil erosion and disturbing soil ecosystem.
- During initial period of mining the top soil will be directly utilized for plantation of saplings along the proposed roads and barren land.
- Top soil is susceptible to local weather conditions i.e. dispersion of dust due to wind speed and direction, heavy rainfall and runoff etc.



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### 1.7.2 Impact on Topography and Drainage Pattern

Coal mining activity involves large number of land resources with presence of coal reserves and process of extracting coal will disturb the existing landforms. The block is characterized by highly undulating topography with mounds as well as elevated and flat land. General elevation of the block varies between 530 m and 597 m and the average elevation being around 565 m above Mean Sea Level.

By using scientific way of mining and better management technique, it is possible to reclaim the mined-out land by utilising OB dump and convert it into greenery.

### 1.7.3 Impact on Land Use

The mine lease area (932.00 ha) is encompassed in seven villages, namely Badsara, Bhaskarpara, Kurridih, Khadapara, Dhanauli, Kevara and Kusmusi in Bhaiyathan tehsil, and Kudripara hamlet of Dharsedhi village of Odgi Tehsil Surajpur District in Chhattisgarh State. Approximately 55 % of the mine field falls under forest land which include about 148.795 ha under Dharseri Forest compartment No. 1618, 1619 & 1620. About 5 % of the area is Government revenue land and rest of the area is private land mostly under cultivation. The southern part of the coal field is mainly comprised of paddy fields.

After the proposed changes during mining, the changed land uses will be subjected to reclamation, rehabilitation, during ongoing period and then in post mining period at final mine closure activities. The post mining land use area is as follows: Backfilled areas: 312.796 ha; excavated void: 144.57 ha; external dump: 94.93 ha; safety zone: 13.33 ha; roads and infrastructure: 10.60 ha and Others: 355.899 Ha.


Prakash Industries Limited will ensure that the protective measures contained in the mine closure plan including reclamation & rehabilitation works will be carried out in line with approved mine closure plan.

### 1.7.4 Impact on Climate

The climatic conditions including temperature variations, wind direction and speed, rainfall and humidity are governed by regional factors and the monsoons. As such the mining and other allied activities will not tend to influence any macro climatic changes.

### 1.7.5 Impact on Air Quality

Opencast mining operations leads to increment of air pollutants and dust (PM<sub>10</sub> & PM<sub>2.5</sub> levels) due to mining activity. Major gaseous pollutant levels incremented due to mining activity include NO<sub>2</sub>, SO<sub>2</sub> and CO are basically generated from the burning of fossil fuel in mobile and stationary sources. The dust levels may be increased due to physical activities mechanization, movement of vehicles, handling of solids and fugitive emissions from storage areas.

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Ten ambient air quality locations were monitored in and around project site. The modelling results indicate that the maximum incremental concentration of PM<sub>10</sub> without controlled measures will be about 45.66 µg/m<sup>3</sup> within the mine lease area and with controlled measures the predicted air emission levels are observed to be about 18.30 µg/m<sup>3</sup>.

Similarly, that the maximum incremental concentration of PM<sub>2.5</sub> without controlled measures will be about 13.70 µg/m<sup>3</sup> within the mine lease area and with controlled measures the predicted air emission levels are observed to be about 5.48 µg/m<sup>3</sup>.

The resultant GLC concentration of PM<sub>10</sub> & PM<sub>2.5</sub> were found to be 78.10 µg/m<sup>3</sup> and 34.88 µg/m<sup>3</sup> occurring within the mine site. The predicted incremental concentrations (Max GLC's) when superimposed over the existing baseline concentrations, the resultant concentrations are observed to be within the NAAQ's Standards.


The following measures will be observed to reduce the increment of dust levels during operation of mine:

- Surfacing of all service roads/permanent roads by asphalt;
- The length of haul road will be reduced to the minimum possible. The permanent haul roads will be boulder pitched and maintained properly;
- The unmetalled roads will be kept free of ruts, potholes, etc;
- Regular maintenance of HEMM engines to limit emission of harmful exhaust fumes;
- Regular maintenance of gas filter for exhaust fumes from HEMM;
- Frequent and at regular intervals, water will be sprayed on haul roads, service roads. Mobile water sprinklers of 12 KLD capacity each will be provided in the project;
- Provision of auto-start, time cycle controlled, fine nozzle mounted fixed sprinklers at siding and haul roads;
- Greenbelts around quarry, industrial sites, service building area besides avenue plantation along roads;
- Coal transport through rail will be explored after the rail line gets commissioned in the vicinity; and
- Dispatch trucks will be adequately covered with locking system and weighing will be monitored to avoid overweight.

#### 1.7.6 Impact on Surface Water and Groundwater Quality

The likely sources of water pollution from Bhaskarpara coal mine are as follows:

- Wastewater from work shop: suspended solids, oil & grease;
- Wastewater from mine: suspended solids of coal, clay and oil; and
- Surface run off passing through coal stock piles: suspended solids.

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- **Rain Water Harvesting**

Water available in the ML area is in the form of rain water accumulation in mine pits, water pumped out from mine seepage and rain water harvested. Rain water harvesting from roof tops and roads and paved area will be established during the 1<sup>st</sup> year and water from these will be available from 2<sup>nd</sup> year onwards.

#### 1.7.7 Impact on Noise Levels

Major sources of noises from mining activity are delineated below:


- Drilling operations;
- Blasting in coal & O.B;
- Operation of HEMM like shovels, dumpers, dozers, graders, LHDs/SDLs etc.;
- Vehicular movement and
- Operation of equipment in workshop and underground mining activity etc.

Controlled blasting technique will be adopted in the project. So, there will be no adverse effects on life, property and ambient noise. The following measures will be taken:

- Proper designing of CHP & machinery by providing in-built mechanisms like silencers, mufflers and enclosures for noise generating parts and shock absorbing pads at the foundation of vibrating equipment;
- Routine maintenance of equipment. A rational deployment of noise generating CHP and machinery;
- Greenbelt around the quarry, infrastructure sites and service building area besides avenue plantation on both sides of the roads;
- To maintain noise level at night time within the limit for the inhabited localities situated at a very close proximity;
- HEMMs with sound proof cabins;
- Personal protective devices to all the persons working in high noise areas; and
- Regular monitoring of noise levels at various points;

➤ *Vibration Control*

- Proper measures for safe blasting as mentioned above, to avoid damage to any structure or annoyance to the people in the adjoining areas;
- Proper design factor will be taken while constructing various structures for stability against vibration;
- A safe blasting zone will be kept around the periphery of the quarry. This zone is kept free from village habitation and community infrastructure and thus impact of vibration after blasting on the surface structures is avoided; and
- Controlled blasting will be done near built-up areas and surface features, as and when required.

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### 1.7.8 Impact on Ecology

The mining activity will lead to loss of vegetation cover. Coal mining activities have the potential to cause considerable changes in the biodiversity of an area, both faunal & floristic, and further directly, indirectly and cumulatively in addition to those of induced in nature. The open cast mining activities involve development of approach roads, haulage roads, excavation, development of benches, storage & transportation of mined material, loading and unloading etc.

The adverse impacts on flora may be mainly due to vegetation removal, dust emanation and NO<sub>x</sub> emissions. The impacts due to vegetation removal are likely to overcome by the extensive plantation proposed in green belt development which will serve not only as a pollution sink but also noise barrier. Further, all the conditions likely to be stipulated in the Forest Clearance, sought for, shall be scrupulously followed. In order to control dust, mined material transportation shall be done only in covered trucks. The transportation route shall be provided with water sprinklers also. Therefore, significant adverse impacts on flora on the surrounding agro-ecosystem is not envisaged due to environment management plan implementations.

#### ➤ **Greenbelt Development Plan**


123.5 ha are tentatively proposed for greenbelt development considering 374.275 ha of private land involved in the project. Changes in greenbelt area are likely to happen so as to be in tune with the conditions that may have in the Forest Clearance applied for. Out of the total Greenbelt area development of 123.5 ha, backfilling reclamation of 74 ha, bench plantation of 2.0 ha and non-forest area plantations of 47.5 ha including the plantation around project boundary shall be made. Altogether in 123.5 hectare of area, 49,400 trees belonging to umbrella species that are having big canopy shall be planted. Intermittently, Shrubs and herbs shall also be planted, so that a three-tier greenbelt is fully developed and made to sustain appropriately.

### 1.7.9 Waste Management

The total top soil generation during the life of mine is 5.25 MT. The topsoil in the active mining area gets adversely affected. The topsoil is to be separately kept. The soil quality of the surrounding area is also likely to get affected due to siltation and run-off from waste dumps. Solid waste includes mostly overburden lying above the coal seam. Total of 161.22 M Cum overburden will be generated during the life of the mine. Out of total volume of overburden, 38.32 M Cum generated for the first five years of mine operation will be dumped in temporary external dump. During this time, once the sufficient void will be created internal dumping will be started.

### 1.7.10 Demography and Socio-Economics

The project will help augment the socio-economic status of the society in the region by extending the direct / indirect employment opportunities. The project

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will also increase the development of ancillary and related small-scale industries in the adjoining areas.

### **1.8 Environmental Monitoring Program**

An environmental management division is proposed to be established for the mining project. Monitoring of important and crucial environmental parameters are of immense importance to assess the status of environment during the operation of coal mining. With the knowledge of baseline conditions, the monitoring program will serve as an indicator for any deterioration in environmental conditions due to mining operations and suitable mitigatory steps could be taken in time to safeguard the environment. The sampling and analysis of the environmental attributes will be as per the guidelines of CPCB/CECB.

### **1.9 Risk Assessment and Disaster Management Plan**

An effective Disaster Management Plan (DMP) is proposed to mitigate the risks involved and the same will be followed till the end of mine. This plan defines the responsibilities and resources available to respond to the different types of emergencies envisaged. Training exercises will be held to ensure that all personnel are familiar with their responsibilities and that communication links are functioning effectively.


Safety equipments such as helmets, mining shoes, hand gloves, goggles are provided for existing mine and the same will be followed after the proposed expansion also. Safety belts are provided when working at height to prevent against danger from falling.

### **1.10 Project Benefits**

The proposed mine will result in improvement of infrastructure as well as overall socio-economic development in the area. The people residing in the nearby areas will be benefited directly and or indirectly due to the proposed project of coal mine. Large number of population of study area will be employed in the operations including tribal people either directly or indirectly earning their livelihood. Upcoming proposed project shall further add to their social and economic upliftment in terms of indirect income generation opportunities. CSR activities will be proposed by PIL and will continue further.

### **1.11 Conclusions**

The proposed opencast and underground coal mine will have impacts on the local environment. However, with proper mitigation measures and with the effective implementation of the environment management measures as suggested in the EIA/EMP report and as recommended by MoEF&CC, CPCB and State Pollution Control Board, the impacts will be minimized to a great extent. However, development of this project has beneficial impact/effects in terms growth in regional economy, social upliftment of local people, increase in Government

 <b>PRAKASH INDUSTRIES LTD.</b>	<p><b><i>Environmental Impact Assessment for Bhaskarpara Open Cast cum Underground Coal Mine with Production Capacity of 1.0 MTPA within ML Area of 932 ha by M/s. Prakash Industries Ltd Located at Bhaskarpara, Khadpara, Badsara, Kurridih, Kusmusi, Dhanauli Khurd and Kewara villages of Tehsil Bhaiyathan, District Surajpur (Chhattisgarh)</i></b></p> <p style="text-align: right;"><b><i>Executive Summary</i></b></p>
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earnings, revenues and accelerate the pace of industrial development in the region.

The proposed project will provide direct employment to a large number of personnel. This project will also generate indirect employment to a considerable number of families, who will render their services for the employees of the project.

The project will also encourage ancillary industries in the region, which will not only increase the employment potential but also the economic base of the region will be further strengthened.

Thus, in view of considerable benefits from the project, the proposed project is most advantageous to the region as well as to the nation.