

PRE-FEASIBILITY REPORT

FOR

**PROPOSED EARTH BRICK SOIL MINING PROJECT LOCATED AT
MAUZA – GORAWAN, MAUZA NO: 406, PS & ANCHAL: SILAO,
DIST-NALANDA , BIHAR OVER AN AREA OF 1.4204 Ha. HAVING A
PRODUCTION CAPACITY OF 4730 CUM/ANNUM.**

PROJECT PROPONENT

M/s PUJA INT UDYOG

**MAUJA-GORAWAN, PO: SITHAURA, PS: RAJGIR, DIST-NALANDA,
BIHAR.**

Category 'B2' as per Project or Activity 1(a).



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PROPOSED EARTH BRICK MINING PROJECT (1.4204 HA.)

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1. EXECUTIVE SUMMARY

1.1 INTRODUCTION

The proposed Earth Brick soil mining project located at Khata No:118 ,119, 120, 121, 122, 123, and 124, Khasra No.: 4300, 4309, 4359, 4366, 4367, 4368, 4369, 4370, 4371, 4377, 4378, 4379, & 4380 , Mauja-Gorawan , Mauja/Thana No.: 406, PS & Anchal: Silao , Dist- Nalanda , Bihar, covering a total area of 1.4204Ha (3.51Acres). The mining lease has been granted to **M/s Puja Int Udyog** , with a factory address at Vill – Gorwan P.O-Gorwan , PS & Anchal –Silao , Nalanda Bihar , 803117. The Mine Plan for the project has been duly approved by the District Mining Office, Nalanda , Bihar, under Letter No. 371, dated 29/03/2025 (enclosed as Annexure-1). The total estimated project cost is Rs. 15,83200,/ INR.

TABLE 1.2 SALIENT FEATURE OF THE PROJECT

S. No.	Detail			
1.	Proposed Earth Brick Soil Mining Project Located Mauja-Gorawan , Mauja/Thana No.: 406, PS & Anchal: Silao, Dist- Nalanda , Bihar , Over an Area Of 1.4204Ha (3.51Acres). Having A Production Capacity of 4730 Cum/Annum			
2.	Mauja- Gorawan , Mauja No: 406, PS & Anchal: Silao , Dist-Nalanda , Bihar			
	Mauza No.	Khata no.	Khasra no.	Area (Ha.)
	406	118 ,119, 120, 121, 122, 123, and 124	4300, 4309, 4359, 4366, 4367, 4368, 4369, 4370, 4371, 4377, 4378, 4379, &4380	1.4204Ha
3.	Total Geological reserves	28408 m ³		
4.	Total Mineable reserves	23650 m ³		
5.	Proposed Production Capacity	4730 cum		
6.	Method of mining	Open cast semi – mechanized method		
7.	Man power requirement	33 persons		
8.	No of working days	54 Days		
9.	Water Demand	6 KLD		
10.	Sources of water	Tanker		
11.	Nearest Village	Sikandra Village is about 700 m in North West direction		

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12.	Nearest School	Middle School ,Gorawan is about 900 m in North West direction
13.	NEAREST COLLEGE	Nalanda University is about 5 Km in North direction.
14.	Nearest Hospital	Govt Hospital , Silao is about 1.3 km in South East direction
15.	Nearest River	Jalwar River is about 1 Km in East direction .
16.	National Highway	NH-20, is about 8.8 km towards SW direction
17.	Neares Railway Station	Biharsharif – Rajgir line is about 2.2 km towards East direction.
18.	Nearest Airport	Jayprakash Narayan International Airport, Patna is about 84 km in NW direction .
19.	Nearest Town	Silao is about 1 Km in East
20.	Seismic Zone	Seismic Zone IV
21.	Project Cost	Rs 15,83200 / INR
22.	EMP	Capital cost: Rs 1.65 Lakhs Recurring cost: Rs 1.20 Lakhs

1.2 PROPOSED PLANNING

Mining method - Open cast semi – mechanized method

Project cost –15,83,200/INR

Proposed production capacity – 4730 m³ for one year

1.3 CONCLUSION

Soil serves as a fundamental raw material in all types of construction and infrastructure projects, playing a crucial role in various developmental activities. The proposed ordinary soil mining project will contribute significantly to the construction sector by ensuring a consistent supply of soil for infrastructure development in the region. Additionally, the project will generate employment opportunities for local labourers, particularly in rural areas, thereby enhancing the livelihoods of nearby villagers and supporting economic growth in the region.

2. INTRODUCTION OF THE PROJECT/ BACKGROUND INFORMATION

2.1 IDENTIFICATION OF PROJECT AND PROJECT PROPONENT

The Proposed brick earth mining project located at Khata No: 118 ,119, 120, 121, 122, 123, and 124, Khasra no. 4300, 4309, 4359, 4366, 4367, 4368, 4369, 4370, 4371, 4377, 4378,

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4379, &4380, Mauja-Gorawan , Mauja/Thana No.: 406, PS & Anchal: Silao, Dist- Nalanda , Bihar, covering a total area 1.4204Ha (3.51Acres). The mining lease has been granted to **M/s Puja Int Udyog**, PROPRIETOR- SHRAVAN KUMAR S/O-Late Paras Singh ,VILL-Sithaura PO: Sithaura , DIS-Nalanda, Bihar.

2.2 BRIEF INFORMATION ABOUT THE PROJECT

The land area is 1.4204Ha (3.51Acres). The total mineable reserve is 4730cum of soil.

2.3 NEED FOR THE PROJECT AND ITS IMPORTANCE TO THE COUNTRY OR REGION

Soil is used as a raw material in all type of construction and infrastructure project. The need of brick earth soil is compulsory for all types of construction. Proposed brick earth Soil Mining project will contribute in enhancing the construction activity in the area. Mine will provide employments to the local labour in rural area, thus the villagers of nearby villages have more employment opportunities.

2.4 DEMANDS-SUPPLY GAP

The mined-out Brick Earth will be used for making kachcha bricks i.e. captive consumption which will be subjected to firing in the brick kiln.

2.5 IMPORTS VS. INDIGENOUS PRODUCTION

Not applicable

2.6 EXPORT POSSIBILITY

Not applicable

2.7 DOMESTIC/ EXPORT MARKETS

Domestic Market

The mined-out Brick Earth will be used for making kachcha bricks i.e. captive consumption which will be subjected to firing in the brick kiln.

Export Market

The mined-out Brick Earth will be used for making kachcha bricks i.e. captive consumption, which will be subjected to firing in the brick kiln.

2.8 EMPLOYMENT GENERATION

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The manpower details are given in the Table 2.1.

TABLE 2.1 MANPOWER DETAIL

S. No.	Designation	NUMBER (MECHENISED LOADING)	No. of Person (MANUAL LOADING)
1.	Black Hole Loader Operator	1	1
2.	Tractor Driver	2	2
3.	General Helper	2	28
4.	Supervisor	1	2
TOTAL		6	33

3. PROJECT DESCRIPTION

3.1 TYPE OF PROJECT INCLUDING INTERLINKED AND INTERDEPENDENT PROJECTS, IF ANY.

The Project involves brick earth soil mining and is an independent undertaking, not interlinked with any other project. As per the EIA Notification 2006 and its subsequent amendments, this mining project falls under Category “B2” as per Project or Activity 1(a).

3.2 LOCATION

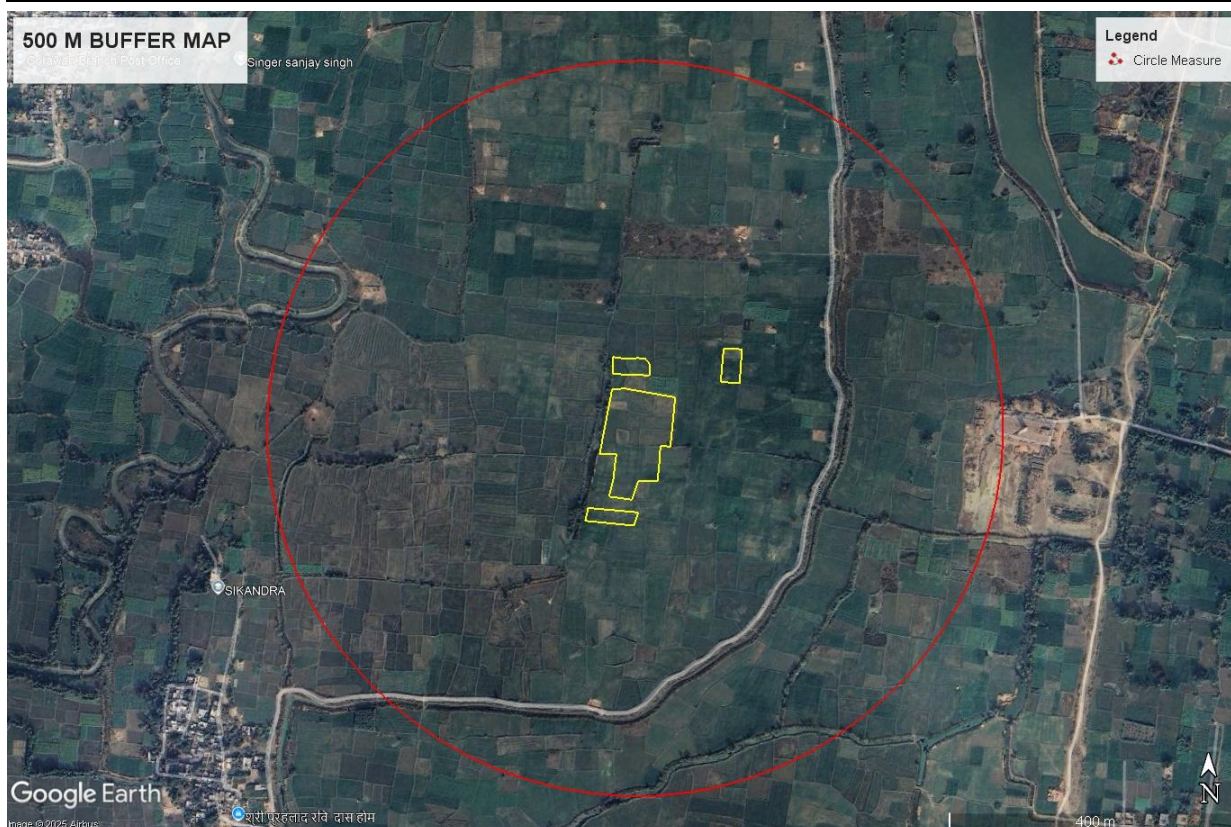
The Proposed brick earth mining project located at Thana No 406, Khata No 118 ,119, 120, 121, 122, 123, and 124,Khasra No4300, 4309, 4359, 4366, 4367, 4368, 4369, 4370, 4371, 4377, 4378, 4379, &4380 , Mauja-Gorawan , Mauja/Thana No.: 406, PS & Anchal: Silao, Dist- Nalanda , Bihar, covering a total area of 1.4204Ha (3.51Acres).

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FIGURE 3.1: LOCATION PLAN

PROPOSED EARTH BRICK MINING PROJECT (1.4204 HA.)



FIGUR 3.2 : 500 M BUFFER MAP

Geo-coordinate of the project site:						
AREA	KHATA NO	KHESRA NO	AREA (ACR)	POINT	LATITUDE	LONGITUDE
	118	4300	0.28	A1	25.09380805	85.41971145
				A2	25.0938233	85.41952045
				A3	25.09362111	85.41955284
				A4	25.09360299	85.42002246
				A5	25.09374513	85.42002273
				A6	25.09380874	85.41997166
				A7	25.0931831	85.41985906
	119	4309	0.29	B1	25.09390271	85.42121565
				B2	25.09392869	85.42128417
				B3	25.09393744	85.42094452
				B4	25.09352485	85.42093793
	124	4359	1.85	C1	25.0932495	85.41951366
	123	4366	0.23	C2	25.09295316	85.41955384
	119	4367	0.03	C3	25.09263871	85.41957452
				C4	25.09245826	85.41959288
				C5	25.09241103	85.4195398

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	119	4368	0.11	C6	25.09232439	85.41957686
	120	4369	0.10	C7	25.09229493	85.41987661
	122	4370	0.11	C8	25.09227548	85.41989874
	118	4371	0.21	C9	25.09229761	85.4200068
				C10	25.09273837	85.42004388
				C11	25.09273607	85.4201373
				C12	25.09323341	85.4203733
				C13	25.0933341	85.42037738
				C14	25.09344366	85.41956142
	120	4377	0.10	D1	25.09341831	85.49510811
	121	4378	0.10	D2	25.0934424	85.49501686
	120	4379	0.05	D3	25.09345447	85.49495731
	120	4380	0.05	D4	25.09344381	85.49495789

TABLE 3.1: SITE CO-ORDINATE

3.3 DETAIL OF ALTERNATE SITES

Not Applicable as project is site specific.

3.4 SIZE OR MAGNITUDE OF OPERATION

The maximum proposed production is 4730 cum/annum, covering a total mine lease area of 1.4204Ha (3.51Acres). The extraction depth is planned to reach a maximum of 2.0 meters. A 1.5 meter layer of topsoil will be carefully scraped and stored on a designated berm or an earmarked area. Upon completion of mining activities, the stored topsoil will be redistributed over the mining pit to restore land fertility or utilized for plantation purposes, ensuring environmental sustainability.

3.5 PROJECT DESCRIPTION WITH PROCESS DETAILS

The proposed mining will be semi-mechanized, Cutting and loading of clay will be with the help of excavator and Back Hoe Loader (Commonly known as JCB). Mining operations will be carried out exclusively within the applied land area (as per land documents), ensuring that nearby plots remain unaffected.

3.5.1 METHODOLOGY OF MINING / PROPOSED MINING METHOD

The proposed clay the proposed mining will be opencast and semi-mechanized, with a preference for manual mining using hand tools such as shovels, spades, sieves, etc. Mining activities will be confined to the applied field, as specified in the land documents, ensuring that nearby plots remain unaffected.

- The following geo-scientific methods are proposed to carry out the mining activity:
- Mining will be restricted to the applied fields up to a maximum depth of 2 m from the surface.
- The mining shall be done during daytime only.
- Only 54 working days in a year have been assumed for calculation purpose.
- Before start mining the top fertile soil of each proposed mining field (up to 27-centimeter depth) shall be scraped & stacked on the berm or any earmarked place which will be spread over the mining pit, after completing mining activity, Thus the fertility of land will be restored or used beside the road where plantation is to be done.

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- The width and height of final benches shall be 1m x 0.75 m.
- A ramp/connecting path shall be developed to join next level.
- There will be No drilling and blasting.
- The operation will remain manual, using tools like shovel, spade, sieve etc.
- The water required for casting for bricks will be arranged near the mining site and only casted
- Bricks will be carried to kiln through cart/tractor or by hand loads. The water will be required either the drinking proposed or for casting of bricks.
- 33 laborers will be required for the proposed project.
- Soil mining shall strictly be undertaken as per Bihar Minerals (Concession, Prevention of Illegal Mining, Transportation & Storage) Rules, 2019, M.C. Rules 1960, MMRD Act 1957& permissions obtained from District Administration /Mining Department.

3.5.2 PRODUCTION PLANNING

Mining excavation will be started after obtaining Mining approval from District Mining Office, Nalanda, Bihar. Though application is being applied for 5 years

Yearly production = 4730 CUM.

3.5.3 WORKING DEPTH (BELOW GROUND LEVEL)

Mining will be carried out only up to maximum depth of 2 mbgl.

3.6 RAW MATERIAL REQUIRED ALONG WITH ESTIMATED QUANTITY, LIKELY SOURCE, MARKETING AREA OF FINAL PRODUCT/S, MODE OF TRANSPORT OF RAW MATERIAL AND FINISHED PRODUCT

No raw material will be required.

3.7 RESOURCE OPTIMIZATION/ RECYCLING AND REUSE

Not envisaged

3.8 AVAILABILITY OF WATER ITS SOURCE, ENERGY/ POWER REQUIREMENT AND SOURCE

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The water requirement for the proposed project will be minimal, as operations will be carried out manually. Water will primarily be needed for drinking purposes. It is anticipated that a maximum of 33 labourers will be employed for the project, with a total water requirement of 6 KLD. Out of this, 3.56 KLD will be allocated for drinking water for the workers, sourced from a tanker or nearby water sources and 2.44 KLD for Plantation and dust suppression. As all activities will be manual, no power will be required, and operations will be conducted during the daytime.

3.9 QUANTITY OF WASTES TO BE GENERATED (LIQUID AND SOLID) AND SCHEME FOR THEIR MANAGEMENT/DISPOSAL.

The mining activity is being carried out in proposed fields. Upper 0.15 m thick layer of soil has been considered as top soil which will be kept on the berm safely.

The total generated top soil will be scraped out first. This will be dumped temporarily on the berm or earmarked place near mine working and after removing soil the top soil will be spread over the mined-out area to restore the proposed fields or used beside the place where plantation is to be done. No waste will be generated during mining.

4. SITE ANALYSIS

4.1 CONNECTIVITY

Connectivity details are given below in Table 4.1

TABLE 4.1: CONNECTIVITY DETAILS FROM PROPOSED PROJECT SITE

Nearest Railway Station	Biharsharif – Rajgir line is about 2.2 km towards East direction.
Nearest Airport	Jayprakash Narayan International Airport, Patna is about 84 km in NW direction.
Nearest Highway	NH-20, is about 8.8 km towards SW direction

4.2 LAND FORM, LAND USE AND LAND OWNERSHIP

4.2.1 LAND FORM

The leased mine area is non-Forest land.

4.2.2 LAND USE

The existing land use pattern of the area is Barren land.

4.2.3 LAND OWNERSHIP

PROPOSED EARTH BRICK MINING PROJECT (1.4204 HA.)

Total 1.4204Ha. land has been obtained on lease by **M/s Puja Int Udyog** for 5-year mining period. Land document is enclosed as **Annexure II**.

TABLE 4.2: LAND DETAILS

Mauza No.	Khata no.	Khasra no.	Area (Ha.)
406	118 ,119, 120, 121, 122, 123, and 124	4300, 4309, 4359, 4366, 4367, 4368, 4369, 4370, 4371, 4377, 4378, 4379, &4380	1.4204Ha

4.3 TOPOGRAPHY

PHYSIOGRAPHY

Nalanda district is famous all over the world for the ancient International Monastic University established in 5th century BC, which taught Vedas, Logic, Grammar, Medicine, Meta-Physics, Prose Composition and Rhetoric. Nalanda district is located within the Mid-Ganga basin, in the southern margin of the Gangetic plains with Chotanagpur Gneissic Complex (CGC) and bounded in the north, south, East & west by Patna, Gaya & Nawadah, Sheikhpura and Jehanabad district respectively. Its lie between latitude 24° 57' 57.78" and 25°27' 39.6" and longitude 85° 9' 54.9" and 85° 55' 0.84". Land covers an area of about 2,367 km² and represents mainly flat alluvium terrain except Rajgir Hills in the south.

Biharsharif, Rajgir and Hilsa are the three sub-divisions of the district with a total of twenty community development blocks namely Giriyaik, Biharsharif, Rahui, Nurserai, Harnaut, Chandi, Islampur, Ekangarsarai, Asthawan, Silao, Bharsarh, Giriak, Ben, Ngrarsarai, Karai Parsurai, Silao, Parwalpur, Katrisarai, Hilsa, and Tharthari (Fig-1). According to the 2011 census Nalanda district has a population of 2872526 of which male and female were 1,497,060 and 1,380,593 respectively, roughly equal to the US state of Kansas. This gives it a ranking of 138th in India (out of a total of 640). There is a growth rate of 21.39 percent in the population compared to population as per 2001 census. The district has a population density of 1,222 inhabitants per square kilometre. Nalanda has a sex ratio of 921 females for every 1000 males and a literacy rate of 66.41 %.

4.3.1 GEOMORPHOLOGY

PROPOSED EARTH BRICK MINING PROJECT (1.4204 HA.)

Geomorphologically, Nalanda district is located within the Mid-Ganga basin, in the southern margin of the Gangetic plains. A series of hills besieged surrounded by Indo-Gangetic alluvium of Pleistocene age are also a notable feature of the district. These inselbergs marks the northern most boundary of the Chotanagpur gneissic shield. The district is bounded in the north, south, East & west by Patna, Gaya & Nawada, Sheikhpura and Jehanabad district, respectively. Nalanda district mainly represents flat alluvium terrain except Rajgir Hill in the south. The maximum elevation of Rajgir Hill is around 388 m above MSL. The Rajgir Hill, forms a part of the long structural hill trending in SE-NW direction. A little south of the present town of Rajgir, the parallel ranges of Rajgir Hill encompasses a valleyS:

Soil

Nalanda district is characterized by four types of soil viz: Clay loam, fine loam, loam and coarse loam, mainly derived from alluvial deposit of southern Ganga Plain.

Rock Types

The crystalline rocks exposed in Rajgir Hills and forming the bedrock sloping towards north consist of phyllites and quartzites along with pegmatitic intrusions. The Precambrian crystallines in the area have undergone intense structural disturbance manifested in the form of multiple folding.

CLIMATE & RAIN FALL

The average annual rainfall of district is 1002.2 mm. About 92.55 % of the rainfall is received during June to October by south-west monsoon (Fig - 2). The climate of the district is sub-tropical to sub-humid in nature. The district experiences severe cold during winter whereas on the other hand in summer it is very hot.

FOREST

Forest Cover in the district is spread over 46.4 Square KM mainly around Rajgir and some part of Giriyak.

VEGETATION

There is no vegetation in the proposed area.

REGIONAL GEOLOGY

Regionally, the area constitutes a part of the Ganga River Basin. The north-eastern part is predominantly characterized by sedimentary lithology in the Sub-Himalayan zone comprising Siwaliks, Subathu, Dagshai, Kasauli and Sivaliks. A general Regional stratigraphic sequence of the area is given below

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Geologically, it represents nearly two third of Bihar is under cover of Ganga basin composed of alluvium and masks the nature of basement rocks.

Geological succession and their Geographic distribution

Age	Geology	Geography
Quaternary	Alluvial deposits (Sand/Clay, Silt, fragments)	North Bihar plain & Centre Bihar Plain
Tertiary	Sand, Stones and Clay stones	North Champaran Hills.

Gondwana	Coal Measures forming a series of small outlier basins	Banka district
Vindhya	Sand, stones, shales, Limestone etc.	Geography part of Bhabhua and Rohtas district
Satpura	Slates, Phyllite, Quartzite	Part of Aurangabad, Gaya, Nawada, Nalanda, Sheikhpura and Munger districts of Bihar
Proterozoic	Mica Schist, amphibole, quartzite, Granite, dolerite and pegmatite	Nawada & Jamui districts
Archaean	Gneiss, Granite, Schist, phyllite, amphibolite, quartzite and intrusive rocks of Chotanagpur Sedimentary and Igneous rocks	N. parts of Aurangabad, Gaya, Nawada, Jamui, Banka and Munger

Nearly two third of Bihar is under cover of Ganga basin composed of alluvium and masks the nature of basement rocks

Brief description of prospecting / exploration work done to date vs. geological mapping with the evidence extremely showing about the mineral deposit in the area to be explored:

Brick Earth has been proposed to be taken down to a depth of 1.6 m from the surface level. A soil earth thickness of top soil is considered as 0.15 m. The depth of usable brick earth is considered 1.45 m (i.e., 1.6 m – 0.15 m). The average bulk density of the soil brick earth is calculated to be 1.85 gm/cc. The production will be 1.85 metric ton per m³.

Brief description of exploration proposal

Based on geological observations by the team and over prior visits, for the next 5 years indicating the existing mineral.

Brick Earth deposit has been proposed up to a short depth of 1.5 m from the surface level. Once brick earth is removed, no excavation will be carried in human / forest, no need of a proposal of future prospecting.

Moreover, in the eastern parts of Bihar, laterite soils formed through intense weathering processes contain iron-rich properties, lending bricks a characteristic reddish hue. Along the riverbanks, clayey marshy and deltaic soils also serve as essential raw materials in the brick-making industry.

With an understanding of the region's soil types, Bihar's communities continue to leverage these natural resources, contributing to both agricultural productivity and the growth of local industries.

4.7 RAINFALL & CLIMATE DATA FROM SECONDARY SOURCES

The climate of the district is sub-tropical to sub-humid. Nalanda district experiences a humid subtropical climate characterized by distinct seasonal variations. Summers, spanning from April to June, are notably hot and humid, with temperatures ranging from 28°C to 40°C and relative humidity reaching up to 90%. Winters, occurring between December and February, are pleasantly cool, with temperatures averaging between 6°C and 20°C. The district receives an average annual rainfall of approximately 1168 mm, with about 85% of this precipitation occurring during the southwest monsoon season, which extends from mid-June to the end of September. July and August are typically the wettest months, collectively accounting for around 50% of the total annual rainfall.

5. PLANNING BRIEF

5.1 PLANNING CONCEPT (TYPE OF INDUSTRIES, FACILITIES AND TRANSPORTATION ETC.) TOWN AND COUNTRY PLANNING/DEVELOPMENT AUTHORITY CLASSIFICATION.

Proposed method of mining is Open cast semi – mechanized method.

5.2 LAND USE PLANNING

- The mining activity is being carried out in leased location. Upper 0.15m (thick layer of soil has been considered as top soil, which will be kept on the berm safely.
- This will be dumped temporarily on the berm or earmarked place near mine working and after removing earth the top soil will be spread over the mined-out area to restore the proposed field or used besides, the plant where plantation is to be done
- The final pit will be utilized for plantation.

5.3 ASSESSMENT OF INFRASTRUCTURE DEMAND (PHYSICAL & SOCIAL)

On the basis of the preliminary site visit, the infrastructure demand in the villages was assessed on the basis of need and priority.

5.4 AMENITIES/FACILITIES

For sanitation purpose portable/mobile toilets will be provided by the proponent. Provision of drinking water: Water required for drinking purpose will be obtained through tankers/nearby sources with proper permission.

6. PROPOSED INFRASTRUCTURE

6.1 INDUSTRIAL AREA (PROCESSING AREA)

No infrastructure is proposed.

6.2 RESIDENTIAL AREA (NON-PROCESSING AREA)

As the local person will be given employment, no residential area/ housing is proposed.

6.3 GREEN BELT

It is proposed to have plantation on unworked areas (lease periphery or berm of about 1 m width) and a long-haul road to provides cover against dust dissemination. Plantation will also be carried out as social forestry programmed in village schools and the areas allocated by the Panchayat/ State Authorities. During plantation, local plant species will give preference or in consultation with local forest officials.

The proponent will plant total 20 saplings on the boundary/ berm.

6.4 SOCIAL INFRASTRUCTURE

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The clay mining activity provides employment opportunities to various people. The economic base of the region will also be enhanced, if the mining is allowed. In the case of land use, it is clear that any type of quarrying would drastically change the existing land use. The proponent will take care of all the facilities for workers at the mining site area. For sanitation purpose portable/mobile toilets will be provided by the proponent. Provision of drinking water: Water required for drinking purpose will be obtained through tankers/nearby sources with proper permission.

6.5 CONNECTIVITY

The mine site is well connected to NH-20, is about 8.8 km towards SW direction. Nearest Railway Station is Biharsharif – Rajgir line is about 2.2 km towards East direction. Nearest airport is Jayprakash Narayan International Airport, Patna is about 84 km in NW direction.

6.6 DRINKING WATER MANAGEMENT (SOURCE & SUPPLY OF WATER)

Total Water requirement for drinking and other operations will be Water Tankers is the main sources of water.

TABLE 6.1: WATER REQUIREMENT

S. No.	Purpose	Water Requirement (KLD)
1.	Domestic Use	3.56
2.	Water Sprinkling & Plantation	2.44
Total		6

6.7 SEWERAGE SYSTEM

Domestic wastewater will be sent to septic tank followed by soak pit.

6.8 INDUSTRIAL WASTE MANAGEMEN

Not Applicable

6.9 SOLID WASTE MANAGEMENT

No waste shall be generated during mining activities. Hence, no proposal has been envisaged for separate dumping at mine site.

6.10 POWER REQUIREMENT & SUPPLY/SOURCE

All the activities will be carried out semi mechanically. The operation will be done during day light only hence there is no power requirement for the project at site.

7. REHABILITATION AND RESETTLEMENT (R&R) PLAN

7.1 POLICY TO BE ADOPTED (CENTRAL/STATE) IN RESPECT OF THE PROJECT AFFECTED PERSONS INCLUDING HOME OUSTEES, LAND OUSTEES AND LANDLESS LABORERS (A BRIEF OUTLINE TO BE GIVEN).

The resettlement and rehabilitation are not applicable.

8. PROJECT SCHEDULE & COST ESTIMATES

8.1 LIKELY DATE OF START OF CONSTRUCTION AND LIKELY DATE OF COMPLETION (TIME SCHEDULE FOR THE PROJECT TO BE GIVEN)

The project activity will be taken up in parallel along with the opening of mine, after the Environmental Clearance is granted.

8.2 ESTIMATED PROJECT COST ALONG WITH ANALYSIS IN TERMS OF ECONOMIC VIABILITY OF THE PROJECT

The estimated project cost is Rs 1583200/INR. The EMP budget is given in Table 8.1.

TABLE 8.1 EMP BUDGET

S. No.	Description	Capital Cost Rs. in Lakh (Rs.)	Recurring Cost Rs. in Lakh (Rs.)
1	Dust suppression (Water tanker, sprinkler)	0.50	0.20
2.	Pollution Monitoring • Air • Water • Soil • Noise	0.00	0.30
3.	Plantation	0.15	0.50
4.	Construction and maintenance of haul road	1.00	0.20
Total		1.65	1.20

9. ANALYSIS OF PROPOSAL (FINAL RECOMMENDATIONS)

9.1 FINANCIAL AND SOCIAL BENEFITS WITH SPECIAL EMPHASIS ON THE BENEFIT TO THE LOCAL PEOPLE INCLUDING TRIBAL POPULATION, IF ANY, IN THE AREA

The project will generate significant economic benefits for the state through royalty payments for the mineral, as well as for the local population by creating both direct and

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indirect employment opportunities. It will provide a livelihood to some of the most economically disadvantaged sections of society. Additionally, the project will create job opportunities for people residing in the vicinity, benefiting them directly through employment or indirectly through various associated activities.