Pre Feasibility Report

Proposed Soil Excavation Project is at

Gata No: 510, 758Kha, 868Mi, 508, 546, 778, 882,

Village: Baraipar Pandey

Tehsil: Bhatpar Rani

District: Deoria

Uttar Pradesh.

PROJECT PROPONENT

MR. BYASH YADAV

S/O MR. DHARAM DEO YADAV

Executive summary:

Name of the applicant	Mr. Byash Yadav S/o Mr. Dharam Deo Yadav
Name & Address	Mr. Byash Yadav S/o Mr. Dharam Deo Yadav **M/s YADAV BRICK FIELD** Village: Bagra Bazar District: Deoria. Uttar Pradesh.
Project Area	4.533 Ha.
Location of excavation site **BARAIPAR PANDEY**	Latitude : 26°18.334" N Longitude : 83°6'.508" E
Elevation	72 Meter
Gata No.	510, 758Kha, 868Mi, 508, 546, 778, 882.
Topography	Agricultural land
Minerals of excavation site	Soil excavation
Proposed production of excavation site	38,532 cubic meters.
Method of mining	Manual/ Semi Mechanized **(With The Help OF motorable machine)**
Drilling/Blasting	No drilling and blasting is proposed
Water demand	9.0 KLD
Sources of water	Water will be supplied from potable water from tanker supplier.
Ultimate depth of excavation site	1.7 Meters
Man power	45
Solid Waste	Small amount of sachet/gutka/pan masala pouches used by the labourer would be generated.
Nearest railway station	Nearest Railway Station is Bhatpar Rani Railway Station at an aerial distance of 7.5 km in East direction from project site.

1 INTRODUCTION OF THE PROJECT/ PROJECT BACKGROUND

India is the second Salempur gest producer of clay fired bricks after China, accounting for more than 10 percent of global production. India's brick sector is characterized by traditional firing technologies; environmental pollution; reliance on manual labour and low mechanization rate; dominance of small scale brick kilns with limited financial, technical and managerial capacity; dominance of single raw material (clay) and product (solid clay brick).

A brick is a block, or a single unit of a ceramic material used in masonry construction. Bricks are made from dried earth, usually from clay-bearing subsoil. It is an activity that can take place in many forms, in Salempur gest modern factories to small rural businesses.

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1.1 Conditions Needed for Brick making

The minimum conditions necessary to begin a brick making production are as follows:

1.1.1 Materials:

The following materials required for manufacturing of bricks:

Clay:

Clay soils are compounds of silica and alumina. It takes approximately $3m^3$ of clay soil to make 1500 bricks.

Water:

There will need to be enough water for the clay, a source of water must be available during brick production. It takes approximately 300 litres of water to produce 500 bricks.

Sand:

Sand can be used to make minor adjustments to the quality of soil-it can be added to soil when drying to prevent the soil from becoming too brittle. Sand is also be used as a stabilizer in a mixture. An important use of sand is in the brick making process, where it is used

to keep the bricks from sticking to the molds. If no sand is available in a location where brick making is going to start up, sawdust, ash and fine dry soil can also be used to keep the clay from sticking to the mold.

Fuel:

Firewood and coal are the most common fuel sources used for firing bricks.

1.1.2 Site Characteristics and Access

Space:

It is recommended that a brick production of 500 bricks per day will require 300-500 m^3 of space.

Transport

Brick production requires transport for supplies and the finished bricks. Depending on the rate of production, frequent transportation will be required so there will need to be reliable tractors or trucks, etc. Also, access must be good for where the completed bricks will be transported.

Tools and Equipment

The following is a sample list of tools and equipment recommended for person:

- Hoes
- Pick axes
- Shovels
- Axes
- Machetes
- Wheelbarrows
- Empty fuel drums
- Buckets or pails
- Hinge molds
- Molding tables
- Bow cutters
- Pallets
- Carrying boards

1.1.3 Organization and Management

Motivation

Brick making is labour intensive. It will be tedious and tiring. Workers, therefore, must be motivated to produce good quality bricks.

Management

Although brick making may be considered a simple or low technology, good management is important for successful brick production. This includes providing an adequate supply of raw materials for the workers, keeping the equipment maintained and providing suitable facilities for the workers. It also involves checking the quality of the product regally, Salempur setting up smooth flow of production and having adequate financial arrangements for purchases and Sais Salempur. Also, it is important to make sure there are skilled personnel, and that the workers have all the tools and information needed.

Assistance

Assistance may be financial, technical or managerial.

1.2 The Brick making Process

The brick making involves the following process:

- Clay Preparation
- Molding
- Drying
- Firing

2. Introduction of the Project

The Proposed Soil Mining for making Brick Kiln are at Gata No: 510, 758Kha, 868Mi, 508, 546, 778, 882, Village: Baraipar Pandey, Tehsil: Bhatpar Rani, District: Deoria U.P. has been leased to MR. BYASH YADAV. The mine lease area is 4.533 ha. The total capacity has been anticipated to be 24.50 brick per Year that will be extracted and transported to clients directly from the mining site. Soil mining activity in lease area will be carried out in most period of the year except the rainy season.

2.1. Identification of project and project proponent:

The Proposed Soil Mining for making Brick Kiln are at Gata No: 510, 758Kha, 868Mi, 508, 546, 778, 882, Village: Baraipar Pandey, Tehsil: Bhatpar Rani, District: Deoria U.P. has been leased to MR. BYASH YADAV. The mine lease area is 4.533 ha.

2.2. Brief description of nature of the project:

The Proposed Soil Mining for making Brick Kiln are at Gata No 510, 758Kha, 868Mi, 508, 546, 778, 882, Village: Baraipar Pandey, Tehsil: Bhatpar Rani, District: Deoria U.P. has been leased to MR. BYASH YADAV. The mine lease area is 4.533 ha.

TABLE 1 SHOWS THE MINE LEASE AREA ALONG WITH ITS DIMENSIONS.

Sl No.	Gata No.	Total Area (ha)	Area Left for berm	Area Consider during Mining (h)	Depth as per Agreement (m)	Top Soil (0.20m)	Mineable depth as per (m)	Extractable Quantity of Soil (cum)	Agreement Period
1	510	0.3880	0.0582	0.3298	1.2	659.6	1.0	3298	5 years
2	758kha	0.1700	0.0255	0.1445	1.2	289	1.0	1445	5 years
3	868mi	0.0530	0.0079	0.0451	1.2	90.2	1.0	451	5 years
4	508	0.0570	0.0085	0.0485	1.2	97	1.0	485	5 years
5	546	0.9950	0.1492	0.8458	1.2	1691.6	1.0	8458	5 years
6	778	1.4080	0.2112	1.1968	1.2	2393.6	1.0	11968	5 years
7	882	1.4620	0.2193	1.2427	1.2	2485.4	1.0	12427	5 years
	Total	**4.533**	**0.6799**	**3.8532**		**7706.4**		**38532**	

2.3. Need for the project and its importance to the country:

The economy of India is the eleventh Salempur gest in the world by nominal GDP and the third Salempur gest by purchasing power parity. The country is one of the G-15 major economies and a member of BRICS. The primary reason for the economic growth can be attributed to the growth in infrastructure. Infrastructural growth is directly proportional to the availability of raw materials such as bricks, cement, sand etc. with the growing infrastructural requirement of the India, the demand of raw materials have increased geometrically.

The demand of clay bricks in India due to increasing urbanization many houses and industries to be constructed as per the requirement of the people.

2.4. Demand – supply gap

The growth in India's economy and population, coupled with urbanization, has resulted in an increasing demand for residential, commercial, industrial, and public buildings as well as other physical infrastructure. Building construction in India is estimated to grow at a rate of 3.5% per year. The building stock is expected to multiply five times during this period, resulting in a very Salempur gest increased demand for building materials.

2.5. Imports vs. Indigenous Production

There will be no imports for the proposed project. All production of brick making is earmarked for the indigenous demand/ local market.

2.6. Export Possibility

The present project does not seek the export possibility.

2.7. Domestic/Export Markets

The bricks will be only for domestic market.

2.8. Employment generation (direct and indirect) due to the project.

The proposed brick making activity is envisaged to improve the socio-economic condition on a micro-economic scale by generating local 45 employments.

3. Project Description:

3.1. Type of project including interlinked and interdependent projects, if any.

The present project is a fresh application for environmental clearance and not interlinked or interdependent. The Proposed Soil Mining for making Brick Kiln are at Gata No: 510, 758Kha, 868Mi, 508, 546, 778, 882, Village: Baraipar Pandey, Tehsil: Bhatpar Rani, District: Deoria U.P. has been leased to MR. BYASH YADAV. The mine lease area is 4.533ha.

3.2. Location (map showing general location, specific location, and project boundary & project site layout) with coordinates

BARAIPAR PANDEY Latitude : 26°18.334" N

Longitude : 83°6'.508" E

The present project is a fresh application for environmental clearance and not interlinked or interdependent. The Proposed Soil Mining for making Brick Kiln are at Gata No: 510, 758Kha, 868Mi, 508, 546, 778, 882. Village: Baraipar Pandey, Tehsil: Bhatpar Rani, District: Deoria U.P, has been leased to MR. BYASH YADAV. The mine lease area is 4.533 ha.

3.3. Details of alternate sites considered and the basis of selecting the proposed site, particuly Salempur the environmental considerations gone should be highlighted.

No alternate site was considered as the project is mineral specific.

3.4. Size and Magnitude of operation

The maximum rated capacity of the project will be 24.50 bricks per Year production and the mine leased area is spread over 4.533 ha.

3.5. Project description with process details

Soil excavation will be done at the proposed site. The brick making involves the following process:

Clay Preparation

Molding

Drying

Firing

It is also proposed that the excavation of clay would be done maximum up to 1.7 Meter.

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.

The main constituents for brick making are clay soil, water, sand & fuel. Along with this constituents tools, equipment and transportation are also required for brick making.

3.7. Resource optimization/recycling and reuse envisaged in the project, if any, should be briefly outlined.

Not envisaged.

3.8. Availability of water its source, energy/power requirement and source should be given.

Total 9.0 KLD Water is required for brick making process. Water is sourced from Berewell & Tubewell. Water for drinking shall be brought from nearby villages. Additionally a water tanker may be used for supply of water to mine working place. There is no requirement of Power & Energy for Brick making Process.

3.9. Quantity of wastes to be generated (liquid and solid) and scheme for their management /disposal.

Only domestic waste water in small quantities will be generated from the mine office toilets, which will be disposed in soak pit.

4. Site Analysis

4.1. Connectivity

Connectivity details are given in Table-

Table-3: Connectivity details from Proposed project site:

1.	Nearest Railway Station	Nearest Railway Station is Bhatpar Rani Railway Station at an aerial distance of 7.5 km in East direction from project site.
2.	Road connectivity	The nearest road is Chanuki - Phulwari road at distance of 4.5 km. in South - West direction.
3.	Nearest Town	Bhatpar Rani is a town at an aerial distance of 7.5 km in East direction from project site.
4.	Nearest Village	Nearest village is Bhatparni is approximately 7.5 km East direction from the project site.

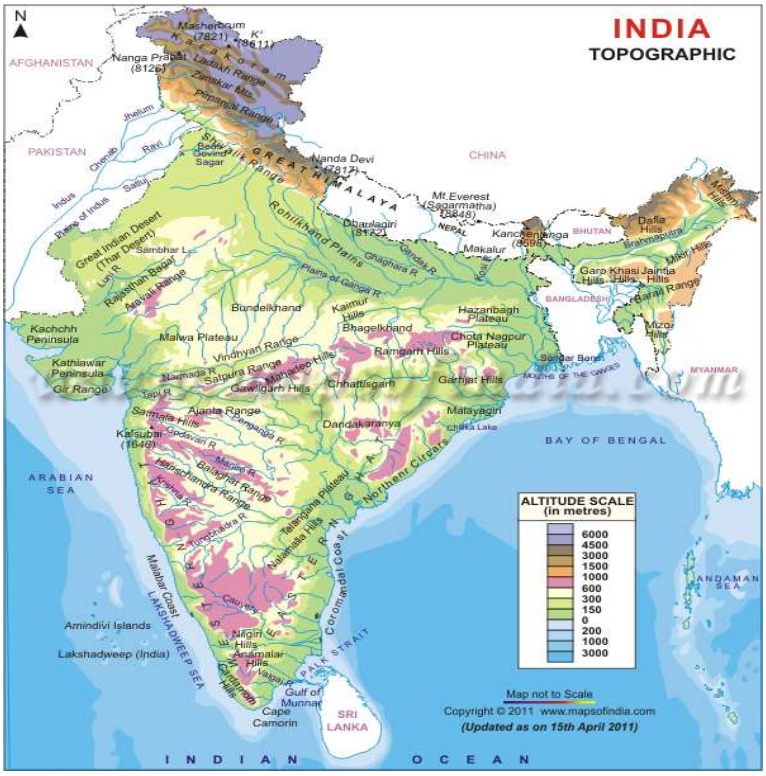
4.2. Land form, land use and land ownership

The land parcel on which has been leased to MR. BYASH YADAV of or soil mining.

4.3. Topography

This district is located between 26 degree & 28 degree north lattitude and 83 degree & 85 degree east longitude out of which district Kushinagar was created in 1994 by taking north & east portion of Deoria district.District deoria is surrounded by district kushinagar in North, district Gopalganj & Siwan (Bihar state) in East, district Mau & district Ballia in south and district Gorakhpur in North-East. Deoria district headquarter is situated at 53 km. milestone from Gorakhpur by road towards east. District headquarter is situated at 50 km from Gorakhpur on Gorakhpur-Siwan broadgauge railway line towards Siwan. Ghaghara, Rapti & Chhoti Gandak are the main rivers in this district. Besides these, Gorra , Bathua , Kurna ,Majhne ,Nakta are small river/nala which originate from above mentioned rivers. Climate of the district is 'SAMSITOSN' .May & June are hot and December & January months of the year are cold. Soil of different types is found in the district. Domat, Bhat , Matiyar & Balui Domat is found commonly. Productive & densely populated this district of Uttar Pradesh is situated at the north-east end

of the state. Currently,Deoria district has five tehsils namely Deoria sadar , Bhatpar Rani , Rudrapur , Berhaj & Bhatparrani



4.4. Existing land use pattern (agriculture, non-agriculture, forest, water bodies (include area under CRZ), shortest distances from the periphery of the project to periphery of the forests, national park, wild life sanctuary, eco sensitive areas, water bodies (distance from the HFL of the river), CRZ. In case of notified industrial area, a copy of the Gazette Notification should be given.

Not applicable

4.5. Existing Infrastructure

Nearest Railway Station is Bhatpar Rani Railway Station at an aerial distance of 7.5 km in East direction from project site. Chanuki - Phulwari road at distance of 4.5 km. in South - West direction.

4.6. Soil classification

The project area is primarily well drained coarse loamy..

Soil type	Area in ha.	Area (%)
Sandy soil	Poor in soil fertility	12,321
Sandy loam	Low in fertility, well drained	68,234

4.7. Climate data from secondary sources

Deoria district is located in 26°41'30.69" N & 83°51'07.79" E Longitude. It is surrounded by Siwan in the east and Gorakhpur in the North-East and Kushinagar in the north, Balia in the south. Deoria falls under tropical climate region in eastern plain zone, with high variation between summer and winter temperature and precipitation. Summer starts early April and peak in May. Winters are from November to Feb/March. The average temperature ranges from minimum of 4^0C to a maximum 44.6^0C, occasional extremes may in the range of 0.6^0C to 47^0C, Annual average rainfall varies from 800mm to 1034mm.

4.8 Social infrastructure available.

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Some of the Social amenities and basic civic amenities are as follow:

Sl. No.	Medical/School
1.	**School:** Primary School are present in Golautha at an aerial distance of 1.0 km. in South East direction.
2.	**Hospital:** Nearest Hospital are present in Primary Health center Rudrapur at an aerial Distance of 8.0 Km. in North West direction.

5. PLANNING BRIEF

5.1. Planning concept (type of industries, facilities and transportation etc.) town and country planning/development authority classification.

The present project is soil mining for making bricks.

5.2. Population Projection

There are about 03 villages in the study area and most of them are small. Total population in study area is 2600 with approximately 325 Households. The manpower proposed for the project is 45 workers. Local people will be given employment. Hence, there will be no change in the demographic structure of the nearest and farther most village of the project due to the proposed soil mining.

5.3. Land use Planning (Breakup along with green belt etc.)

The soil mining will be carried out on an area of 4.533ha. Green belt will be developed in an area identified by the local Gram Panchayat.

5.4. Assessment of infrastructure demand (physical & social)

5.4.1. Physical

Conditions of roads are moderate and needs to upgrade.

5.4.2. Social

The good numbers of educational facilities are available in the study area.

Medical facilities are lacking.

5.5. Amenities/Facilities

The mine site office, first aid room & rest shelter will be established in the lease area. Clean drinking water will be provided. The toilets will be provided separately for males and females.

6. Proposed Infrastructure

6.1. Industrial area (processing area)

Not applicable

6.2. Residential area (non processing area)

Not applicable

6.3. Green belt

It is proposed to plant trees along the village roads and other area in consultation with local gram panchayat. The details of the plantation are as given on the tabu Salempur form:

Year	Plantation (No of Trees)	Area of Plantation (Green Belt in ha)	Survival Rate	Species to be planted
1st	50	0.2	80%	Neem, kaner, Babul, Peepal, Aam, PopuBhatpar Rani , Bargad, Jungle Jalebi, etc.
2nd	50	0.2	80%	
3rd	50	0.2	80%	
4th	50	0.2	80%	
5th	50	0.2	80%	

6.4. Social Infrastructure.

No social infrastructure is proposed in present project

6.5. Connectivity (Traffic and transportation road/rail/metro/water ways etc.)

Chanuki - Phulwari road at distance of 4.5 km. in South - West direction.

6.6. Drinking water management (source & supply of water)

The daily water demand including for process & domestic water will be generate which will be supplied by the water tanker.

6.7. Sewerage system:

The domestic effluent from the clay/soil mining site and rest shelter will be generated, which will be managed through soak pit.

6.9. Solid waste management

Solid waste generated will be of domestic in nature and separate bins will be used for collection of organic, inorganic and inert waste. No littering will be allowed in the mine site.

6.10. Power requirement & supply/source

The mine would be manually. Electrical power will be required only at the brick kiln site in the office and will be obtained from the state electricity board. Transportation will be done through dumpers or tractor/trucks operating on diesel.

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).

Since the project involves the soil mining for making bricks and no person is residing in the lease area. The resettlement and rehabilitation is 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 project proponent will incur a total project cost of approx Rs 28.0 lacs and may vary from place to place and with magnitude of the clay/soil mining. This will include the rent/lease for land, cost of labor, cost of transportation, fuel charges etc.

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 bring economical benefits to the state by the way of royalty for mineral and people by the way of 45 labors. The mine management will be helping nearby villages by providing aid to school, conducting medical and social awareness camps, helping in formation of self help groups etc especially keeping in the view the tribal and economically backward population in the area as part of its corporate social responsibility. Thus the project will bring out socio-economic improvement of the area and will prove beneficial to the area.

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