

EXECUTIVE SUMMARY OF DRAFT EIA / EMP
FOR THE
ENVIRONMENTAL PUBLIC HEARING OF THE PROPOSED
SAND MINING PROJECT
NEAR KUDURUPALLI & BEERASAGAR VILLAGES
MAHADEVPUR MANDAL,
KARIMNAGAR DISTRICT, A.P.



DEPARTMENT OF ENVIRONMENT
THE SINGARENI COLLIERIES COMPANY LIMITED
(A Government Company)
KOTHAGUDEM - 507 101 (A.P.)

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BRIEF DESCRIPTION OF THE PROPOSED SAND MINING PROJECT OF SCCL

1.0 INTRODUCTION

The Singareni Collieries Company Limited (SCCL) is a Government coal mining company jointly owned by the Government of Andhra Pradesh and Government of India on a 51:49 equity basis. SCCL is the second largest public sector under taking in the state and spread in four districts of Andhra Pradesh viz. Adilabad, Karimnagar, Warangal and Khammam Districts with the man power of 67,578. It is the only coal mining company in South India catering the needs of coal based industries. SCCL produced 51.33 million tonnes of coal in the year 2010-11 and the target for the year 2011-12 is 52.20 million tonnes.

1.1 NEED OF THE PROJECT

SCCL is presently operating five underground coal mines in Bhoopalpalli area. Out of which four underground mines needs sand for stowing purpose. The present proposal of sand excavation is for stowing in underground coal mines which is a mandatory activity under the Coal Mines Regulations of 1957 formed under the Mines Act, 1952 that provide adequate safety regulations in respect of protection of surface structures/features etc. As a result of extraction of coal in the underground workings, the overlying strata will cave in and subsidence occurs over the surface area of the mining operations. The void formed as a result of extraction of coal is immediately filled with stowing material, generally sand due to its characteristics best suited for hydraulic stowing to avoid damage to the surface area, wherever necessary (i.e. under the structures, surface features to be protected).

2.0 PROJECT DESCRIPTION

The project is located in Godavari river bed near Kudurupalli and Beerasagar villages of Mahadevpur Mandal of Karimnagar District in Andhra Pradesh. The total extractable sand reserves in this lease area are 41.76 L. Cu.m with a lease period of 20 years with an annual production capacity of 12.5 L. Cu.m/Annum. The average thickness of sand bed is 13.5 m. The total project Cost is Rs. 82.00 Lakhs. A plan showing sand mining lease area is enclosed as annexure. Details of mining lease area of the proposed sand mining project are furnished hereunder

Details of the Lease Area

District and State	Mandal	Village	Area (Ha.)	Mine Lease Period	Owner of occupancy
Karim Nagar Andhra Pradesh	Mahadevpur	Kudurupalli and Beerasagar	208.80	20 years	A.P. Govt.

2.1 Description of sand mining operations

The sand mining activity involves only extraction or gathering of the sand in the riverbed, loading and transportation to the catering mines, the technology adopted in the proposed operations will be Shovel -Tipper combination. As the core activity of the SCCL is coal mining, it is proposed to extract the sand from the project with off loading agency.

All the sand mining operations will be carried out as per the Statutory Provisions, Acts and Rules for the Safety, Health and Welfare of the employees working at the mine site. SCCL will follow the provisions of AP WALTA, 2002 and also the recommendations of the A.P. State Ground Water Department while extracting the sand during the lease period. Conditions as stipulated by Ministry of Environment and Forests (MoEF) and Andhra Pradesh Pollution Control Board (APPCB) in the process of according Environmental Clearance and Consent of Establishment/Operation will be implemented in the project.

3.0 DESCRIPTION OF THE ENVIRONMENT

Baseline environmental studies were conducted to monitor micro-meteorology, ambient air quality, ground and surface water quality, noise levels, present land use pattern, soil quality, biological environment and socio-economic status within a study area of 10 Km. radius around the project site. Baseline environmental data was monitored by M/s Pragathi Labs & Consultants Pvt. Ltd, Hyderabad, for one full season i.e. winter season, 2009 (December, 2009 to February, 2010). The baseline data conforms to the requirement of EIA Notification, 2006 (as amended on 14.09.2006).

4.0 ANTICIPATED ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

The pollution potential of the proposed project, its possible impacts on the surrounding environment during pre-operational and operational phases and the necessary management actions proposed for control and abatement of pollution are furnished hereunder.

4.1 Impact due to Air Pollution and its Management

Air pollution is likely to be caused at various stages of sand mining operations such as excavation, loading, transportation and screening of material. Particulate Matter (PM₁₀) is the main pollutants during Sand mining operations. Most of the dust will be generated from loading, screening and transportation operations. This dust becomes air borne and gets carried away to surrounding areas. The impact on air is mainly localized in nature as the dust particles are not carried to longer distances and the effect is felt within the core zone of the project involving active Sand mining operations.

In order to mitigate fugitive dust emissions and other air emissions from the project activities, the following measures are proposed to be adopted.

1. To avoid fugitive dust emissions at the time of excavation, the mining area will be wetted by water spraying and two 3 KL mobile sprinklers have been provided for the purpose.
2. To avoid fugitive dust emissions at the time of Sand Screening activity, Sand screening activity will be carried out at mines so as to prevent spreading of dust.
3. Effective dust suppression arrangements will be made at the ground level sand bunkers at the mines.
4. Sand is transported to the coal mine sites by road through trucks. The sand will be wetted after loading in to the truck and shall be covered by tarpaulin sheets.
5. To minimize the vehicular pollution from the sand transporting vehicles, the following conditions are insisted to permit the vehicles of the transporters:
 - The vehicles should be with good engine condition and should maintain pollution control certificate issued by appropriate authorities.
 - Regular maintenance of transport vehicles and monitoring of vehicular emission levels at periodical intervals.
6. Black topping and regular maintenance of sand transportation roads
7. Ambient Air quality Monitoring will be carried out at four stations on fortnightly basis to assess the air quality in and around the project for taking necessary control measures.
8. Green belt development along the access roads at mine premises and near the sand mining site.

4.2 Impact due to Noise Pollution and its Management

Noise environment in this project will be affected only by the equipment at the site and vehicular transportation. Since mining is done mechanically, slight increase in noise levels can be expected. Noise pollution can cause significant impact on the environment and subsequently on the humans.

Baseline Noise levels are observed to be well within the limits in the monitored villages. However, after applying the mitigation measures noise pollution will be reduced further.

In order to mitigate noise generation from the project activities, the following mitigation measures are proposed:

- 1 Since the noise generating is only through mechanical equipment and movement of vehicles, strict compliance to periodical maintenance of the vehicle conditions will be insisted.
2. Further, to protect the employees and workmen at the sites of Loading and use of Backhoe, necessary safety wear like ear plugs will be provided.
3. Noise monitoring at the work places shall be carried out on fortnightly basis to ensure the compliance.

4.3 Impact due to Water Pollution and its Management

As the project activity is carried out in the meandering part of the river bed, none of the project activities will affect the water environment or riverian habitats. In this project, it is not proposed to divert or truncate any stream. In the lean months, the proposed sand mining will not expose the base flow of the river and hence there will not be any adverse impact on surface hydrology and ground water regime due to this project. Thus, the project activities will not have any adverse effect on the physical components of the environment and therefore may not have any effect on the recharge of ground waters or affect the water quality. A.P. State Ground Water Department (APSGWD) has recommended to extract the sand in riverbed up to 2.0 m depth only so that not intersecting the flow level.

In order to ensure that the project activities shall not affect the Water environment, the following measures will be taken up:

1. Mining is avoided during the monsoon season and at the time of floods. This will help in replenishment of sand in the river bed.
2. Mining below subterranean water level will be avoided as safe guard against environmental contamination and over exploitation of resources.
3. River stream will not be diverted to form in active channels.
4. Ground water levels will be monitored regularly in and around sand mining project.
5. Mining schedule is synchronized with the river flow direction and the gradient of the land.
6. Mining at the concave side of the river channel was avoided to prevent bank erosion. Meandering segment of river was selected for mining in such a way to avoid natural eroding banks and to promote mining on naturally building meander components.
7. Mining depth shall be maintained as per the guidelines and rules of Andhra Pradesh Water, Land & Trees Act, 2002 and recommendations of A.P. State Ground Water Department for extraction of sand during the lease period.
8. Water Quality Monitoring for the ground waters, river water and other surface waters shall be carried out seasonally to ensure that the water quality is not affected by the project activities.

4.4 Impact on Land and its Management

Movement of heavy vehicles sometimes cause problems to agricultural land, human habitations, borehole users due to dust, noise and movement of public and also cause traffic hazards. The impacts include damage of river bank due to access ramps to river bed, soil erosion, micro disturbance to ground water, possible inducement of changed river course, contamination of sand aquifer water due to ponding.

Proposed Mitigation Measures

1. Minimum number of access roads to river bed for which cutting of river banks will be avoided and ramps are to be maintained. Access points to the river bed will be decided basing on least steepness of river bank and least human activity.
2. Haulage roads parallel to the river bank and roads connecting access to river bed will be made away from bank, preferably 100 m. away.
3. Mining at the concave side of the river channel should be avoided to prevent bank erosion. Similarly meandering segment of a river was selected for mining in such a way so as to avoid natural eroding banks.
4. Care will be taken to ensure that ponding is not formed in the river bed.
5. Access roads from public roads and up to river bank will be aligned in such a way that it would cause least environmental damage.
6. Green belt will be developed along the access roads at mine premises and near the sand mining site. While selecting the plant species, preference will be given for planting native species of the area. SCCL will also supply saplings to surrounding villagers for green belt development in their villages and encourage the plantation by means of social forestry.

4.5. Impact on Socio Economic Environment

The project activities shall not have any adverse impacts on any of the common property resources of the village communities, as the sand mine lease area is not being used for any purpose by any section of the society in this region. There is no R & R involvement in this project. There is no land acquisition in this project.

Particularly, Kudurupalli & Beerasagar villages shall be benefited in several ways like, protected water supply, health camps, improved infrastructure facilities etc., besides enhancing the local economy through the benefits from the project activities and personnel. The Project is expected to yield a positive impact on the socio-economic environment. It helps sustain the development of this area including further development of infrastructure facilities.

5.0 ADDITIONAL STUDIES

Additional studies have been conducted to study the impact of sand mining operations on surrounding environment and to take suitable mitigation measures.

Flora and Fauna study including aquatic fauna in riverine system was conducted to assess the impact on flora and fauna due to sand mining project. Hydrological studies have been carried out for the study area of the project to assess the present hydrological conditions. Also, air quality impact prediction studies have been conducted to predict the expected rise in Particulate Matter levels after commencement of the project and necessary control measures have been proposed in the EMP.

6.0 ENVIRONMENT MANAGEMENT PLAN AND MONITORING PROGRAMME

SCCL has prepared an Environmental Management Plan for the proposed sand mining project. The final EIA/EMP of the proposed project will be submitted to Ministry of Environment and Forests (MoEF), New Delhi, for obtaining environmental clearance for the project, in accordance with Environment Impact Assessment (EIA) Notification No. 1533 dt. 14.09.2006. The approved Environment Management Plan will be implemented through out the life of the project and half-yearly monitoring report showing the compliance status of conditions stipulated in Environmental Clearance letter will be submitted to MoEF in every six months.

An Environmental monitoring programme has been prepared for the proposed project for periodical assessment of effectiveness of implementation of Environment Management Plan and to take corrective measures in case of any degradation in the surrounding environment.

7.0 PROJECT BENEFITS

This project is located in the rural areas of Mahadevpur Mandal of Karimnagar district of Andhra Pradesh. The project will upgrade the road facilities from the mine lease area to the sand stowing sites. It is evident from the past history of SCCL that it is putting on continuous efforts and instrumental in enhancing the living conditions of the mining and surrounding communities. Sand mining and agriculture is the basic sector of employment for the local people in this area.

This project will lead to indirect employment opportunity. Employment is expected during sand excavation, sand transportation, in trade and other ancillary services. Employment in these sectors will be primarily temporary or contractual and involvement of unskilled labor will be more. A major part of this labor force will be mainly from local villagers who are expected to engage themselves both in agriculture and project activities. This will enhance their income and lead to overall economic growth of the area.

Particularly, Kudurupalli and Beerasagar villages shall be benefited in several ways like, protected water supply, health camps, improved infrastructure facilities etc., besides enhancing the local economy through the benefits from the project activities and personnel.

8.0 FUND PROVISION FOR ENVIRONMENT PROTECTION AND MANAGEMENT

In order to implement the environmental protection measures, a capital fund provision of Rs. 82.00 Lakhs is made in the project. A recurring cost of Rs. 56.69 Lakhs per annum will also be spent on environmental management, which works out to Rs. 4.54 per Cu.m of sand production and this expenditure is in-built in the cost of sand excavation.

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