

**GOVERNMENT OF INDIA
COAL
LOK SABHA**

UNSTARRED QUESTION NO:3627
ANSWERED ON:19.03.2013
IMPACT OF MINING ON ENVIRONMENT
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Will the Minister of COAL be pleased to state:

- (a) whether the Government has undertaken studies to ascertain the impact of mining, processing, end-use and waste disposal of coal on the environment;
- (b) if so, the details thereof including the impact of mining on groundwater levels, land degradation, air pollution in coal mining areas;
- (c) the reaction of the Government thereto; and
- (d) the remedial measures/action plan taken by the Government to address all environmental issues related to coal mining?

Answer

MINISTER OF STATE IN THE MINISTRY OF COAL (SHRI PRATIK PRAKASHBAPU PATIL)

(a):Before starting any coal mine / project, the impact on existing environment including processing, end-use and waste disposal of coal due to coal mining projects are assessed by an Environmental Impact Assessment (EIA) study for each mine / project and based on the same Environmental Management Plans (EMP) are prepared which are approved by Ministry of Environment and Forests.

(b):The impacts of mining are as follows:

Ground water Levels:

Ground-water level is affected between 150m to 200m beyond the active mining area depending upon the strata condition. This is within the mine lease hold area and well within the safety zone of the mine. Depression of ground water level is noticed in the affected zone due to pumping of ground water to keep the working places workable. This is a temporary feature, which continues for two monsoons and gradually water level goes back to original level. After the closure of the mine, ground water level comes back to original. In fact some of the underground and opencast mines after closure are being used as sweet water reservoirs to neighboring population and subsoil recharging sources.

Land Degradation:

In the case of opencast mines, the overburden, i.e., the rock or soil overlaying the coal seam, are removed before extraction of coal. This overburden is dumped on surface as external dump till the internal dumping spaces are created. Thereafter overburden (OB) is dumped on the mined out & de-coaled areas as internal dump. In that process the excavated area of an Opencast mine gets degraded. For underground mine, a very limited area near the mine openings is degraded.

Air pollution:

Air pollution in coalmines is due to the fugitive emission of particulate matter and gases .The mining operations like drilling, blasting, movement of the heavy earth moving machinery on haul roads, collection, transportation and handling of coal, screening, sizing and segregation units are the major sources of such emissions. For under-ground mine, air pollution is due to handling and transportation of coal.

(c) & (d):The following corrective measures as per Environmental Management Plan (EMP's) of the concerned coal project approved by MOEF as well as the EC conditions given by MoEF are taken up:-

Air pollution control:

Air pollution is being controlled by regular spraying of water on haul & coal transportation roads by fixed as well as portable water sprinklers, Coal Handling Plants, all coal transfer points, coal & overburden (OB) faces, coal stockpiles etc. Other steps include fitting drills with dust collection systems / wet drilling, black topping / concreting of coal transportation roads. Efforts are being made for use of more & more belt conveyors, rail etc. for coal transportation and minimize road transportation to reduce pollution, as per feasibility. Massive trees plantation in and around mines also minimises the impact of air pollution on neighboring areas.

Water pollution control:

Mine water is being passed through sedimentation pond to arrest sediments and clean runoff is being used for beneficial use such as domestic, industrial & agricultural purpose, after treatment to extent possible, before discharging into natural water courses. Effluents from workshops is passed through Oil & Grease Traps and recycled / reused for dust suppression and for cleaning purposes. In major Mines, Domestic effluents are being treated in Domestic Effluent Treatment Plants and in other mines in septic tanks.

Noise pollution control:

Noise pollution is controlled through the careful selection of equipment, proper maintenance and insulation. Persons exposed to high noise level are being provided with ear muffs. This is besides tree plantation between work places and residential areas.

Ecological damage control:

This is being controlled by plantation on physically & biologically reclaimed mined out areas & on the OB dump areas, plantation in & around mines, road sides, township / residential areas, available vacant spaces and implementation of conservation plan for protection of flora & fauna as per EC. This is apart from the payment made for compensatory afforestation to Forest departments.

In addition the environmental protection measures are taken in compliance to condition of consent to operate from respective State Pollution Control Boards. Regular monitoring of various environmental attributes are carried out as per Environment (Protection) Act, 1986 to assess the efficacy of environmental protection measures taken and if required additional measures are taken to keep the various environmental attributes within the prescribed limits of the Regulatory Agencies.

Health protection

Coal India Limited has specific Schemes to protect the health of the people living in and around the coal mining areas/belts. As per the Corporate Social Responsibility Scheme of CIL there is a separate fund allocated @ Rs.5/- per tonne of coal production of last year and the said entire fund is year-marked for expenses towards well being of the people living in and around the coal mining areas/belts and in the state in which projects are situated. From the said fund a lumpsum provision is made for project/schemes for the benefit of Tribal Population in the CSR Policy of Coal India Limited. As per Policy out of total CSR Budget, 8% of the Budget is allocated separately and exclusively in the Annual Plan for undertaking welfare activities for the development of Scheduled Tribes Population.