GOVERNMENT OF INDIA
COAL
LOK SABHA

UNSTARRED QUESTION NO:4270
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FIRE IN COAL MINES
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Will the Minister of COAL be pleased to state:

(a) whether several coal mines are under fire in the country;

(b) if so, the details thereof;

(c) the area in square kilometers covered under the said fire; and

(d) the reasons as to why the fire could not be extinguished in the said coal mines even after several decades and the steps taken /being taken by the Government to prevent such fires in coal mines?

Answer

MINISTER OF STATE (INDEPENDENT CHARGE) IN THE MINISTRY OF COAL, POWER AND NEW AND RENEWABLE ENERGY (SHRI PIYUSH GOYAL)

(a)to(c): Some mines of Jharia coalfield (JCF) in Dhanbad District of Jharkhand under command area of Bharat Coking Coal Limited (BCCL) and Ranigunj Coalfields (RCF) in Burdhwan district of West Bengal under command area of Eastern Coalfields Limited (ECL) are under fire caused due to un-scientific mining carried out by the erstwhile mine owners before nationalization of coal industry.

There was one incident of fire resulted from spontaneous heating of coal in Anjan Hill mine of South Eastern Coalfields Limited (SECL). Moreover, there are cases of spontaneous heating in a few mines due to fallen coal, coal left in goaved out area and coal heaps in stockyard as coal by nature itself is susceptible to spontaneous heating when stacked in large heaps. In WCL there occurred some incidences of underground mine fire / spontaneous heating where the affected part of the mine has been temporarily sealed-off / isolated. Such sealed-off panels are reopened after no signs of heating / fire is noticed within the panel. Thereafter coal is extracted from these panels. At the time of nationalisation in 1971, in BCCL 17.32 Sq Km area was under fire which has now reduced to 2.18 sq km.

(d): The fire was caused, prior to nationalization of coal industry due to unscientific mining at shallow depth by erstwhile private mine owners. These unscientific mining also caused subsidence and cracks on surface. Due to this, breathing of air in coal seam used to take place causing spontaneous heating and subsequently mine fire spread in several sites in underground mines. No efforts had been made by the erstwhile private owners to deal with the fire prior to Nationalization.

After Nationalization sustained efforts are being made by the Government and the Coal Companies. Government of India has approved a Master Plan with an outlay of Rs 9657.61 Cr for Jharia and Raniganj Coalfields to deal with fire, subsidence and rehabilitation and diversion of surface infrastructure in August, 2009. Under Master Plan total 74 no. of fires were identified to deal with (7 in ECL and 67 fire sites spread in 41 collieries in BCCL under 45 fire projects).

The coal mine fire survey/ study was instituted by BCCL through National Remote Sensing Centre (NRSC), ISRO, Deptt. of Space, Hyderabad in Aug., 2013 for delineation of surface coal fires in Jharia Coalfield. NRSC has submitted their report in April` 2014, in which they have concluded that the present fire area in the coalfield has reduced from 8.9 Sq.km at the time of preparation of Master Plan to 2.18 Sq.km which includes both over burden dump fire and active fire. NRSC has deduced these findings from the State of Art, Satellite based technology. This finding shows a considerable reduction in fire area at Jharia Coalfields

Further, following Steps are taken / being taken to prevent such fires in coal mines:

1. Excavation of material on fire.

2. Surface sealing and blanketing.

3. Isolation by trenching and back-filling; cooling by water curtain/ infiltration ponds.

4. Fresh Pressure Quantity Survey to improve ventilation standard of UG mines.

5. Use of Gas Chromatograph to analyze mine air sampling with better accuracy.

6. Use of Local Methane Detector (LMD) for early and accurate detection of methane belowground for highly gassy mines.

7. Risk assessment for identifying hazards related to spontaneous heating / fire potential is being done.

8. Spot sampling of air and analysis of the same is being done in all the underground mines as per the statute.

9. Tele-monitoring System is installed in some highly fiery and degree-III gassy UG mines for continuous monitoring of mine environment.

10. Stone dusting is being done as per the statute.

11. Fallen coal is removed regularly from workings, which are not sealed-off.

12. Sectionalisation of all unused underground workings are being done in a time bound manner.

13. Regular underground inspection as also of old working are done by mine officials and supervisors.

14. Periodic special safety drives and inspections are conducted from time to time to improve and ensure safety status of the mine.