GOVERNMENT OF INDIA
MINISTRY OF MINES
LOK SABHA
UNSTARRED QUESTION NO. 2672
ANSWERED ON 07.08.2024

TECHNOLOGICAL ADVANCEMENTS IN MINING SECTOR OF ANDHRA PRADESH

2672. SHRI DAGGUMALLA PRASADA RAO:

Will the Minister of MINES be pleased to state:

(a) the details of the specific advancements in mining technology implemented in Andhra Pradesh to improve efficiency and safety including the names and applications of these technologies;
(b) the details of the total investments in research and development for mining technology in Andhra Pradesh during each of the past five years and specific research areas funded;
(c) the details of the collaborations with educational and research institutions to promote mining innovation in Andhra Pradesh including the names of institutions, nature of collaborations along with outcomes thereof;
(d) the number of training and capacity-building programmes conducted for workers in the mining sector in Andhra Pradesh during the past five years, particularly in the use of new technologies and the number of workers trained; and
(e) the quantum of impact of these technological advancements on productivity and safety in the mining sector in Andhra Pradesh, including changes in output and accident rates?

ANSWER

THE MINISTER OF COAL & MINES
(SHRI G. KISHAN REDDY)

(a)   Directorate General of Mines Safety (DGMS), Ministry of Labour and Employment, Government of India facilitates the implementation of advance technology in mines by issuing technical circulars, recommending scientific study, granting approvals / permissions / relaxations for safe use of equipment, apparatus and materials in mines. Various advancements in mining technology have been implemented through out the country including Andhra Pradesh to enhance both efficiency and safety viz. Automatic Fire Detection and Suppression System (AFDSS), Wet drilling technology, Controlled Blasting Techniques, Safety Management Plan (SMP), introduction of Site Mixing Emulsion (SME) Explosives in large opencast mines like Mangampet Barytes Mine of M/s Andhra Pradesh Mineral Development Corporation Limited, introduction of high capacity dumpers for transportation of Mineral/Coal in opencast mines, introduction of Wire Saw Cutting Machines for the large opencast mines for extraction of Granite Blocks etc.

(b) & (c)   Ministry of Mines, Govt. of India provides grant-in-aid to Academic institutions, universities, national institutes and R&D institutions recognized with the Department of Scientific and Industrial Research, start ups in private sector for implementing Research and Development (R&D) projects under R&D component of Science and Technology Programme of Ministry of Mines with the vision to promote research in applied geosciences, mineral exploration, mining and allied areas, mineral processing, optimum utilization and conservation of the mineral resources of the country, for the benefit of the nation and its people. The R&D projects funded by Ministry of Mines are intended for increasing productivity and promoting mines safety across the country including Andhra Pradesh. In order to improve productivity, efficiency and safety in mining and metallurgy sector, a total amount of Rs. 39.13 crore was released by the Ministry of Mines for funding R&D projects in the country during 2018-19 to 2023-24.

(d)   Adequate provisions for training and refresher training have been made under the Mines Act 1952 and Mine Vocational Training Rules 1966 framed thereunder. As per the provisions, mine workers are provided with initial training in the Mine Vocational Training Centre before they are engaged at work in the mine; Refresher training is provided after every five years to suitably develop and update their skills and to make them more competent to deal with changing environment and conditions; and Special Training Programmes are also arranged for selected category of workers. A details of the training imparted to workers in the mining sector in Andhra Pradesh is placed at **Annexure-I**.

(e)   Implementation of latest technology mentioned at Para (a) above and introduction of various digital initiatives in mining sector viz Mining Surveillance System (MSS) and Drone Data Management System (DDMS) have improved the productivity, efficiency and safety in Mines in the country including Andhra Pradesh.

*****

Details of training and capacity-building programmes conducted for workers in the mining sector in Andhra Pradesh

(i)   As per the annual returns submitted by the mine management of Andhra Pradesh to the DGMS, the details of training imparted to the workmen as per the provisions of Mine Vocational Training rules – 1966 since 2019 are as under:

Year	Vocational Training (Departmental)	Refresher Training (Departmental)	Vocational Training (Contractual)	Refresher Training (Contractual)	No of Mines (Annual Return Submitted)
2019	1358	341	1090	225	182
2020	1200	443	845	286	198
2021	1501	710	1335	442	190
2022	1291	520	2734	1734	213
2023	1568	214	1761	678	254

(ii)   Besides, Geological Survey of India, Training Institute (GSITI), under the Ministry of Mines has imparted training to 43 officials of Department of Mines and Geology, Andhra Pradesh on geological mapping, use of remote sensing & GIS for disaster management, mineral exploration techniques for various mineral commodities including critical and strategic minerals, structural geology and use of National Geoscience Data Repository (NGDR) Portal. Indian Bureau of Mines (IBM), a subordinate office of Ministry of Mines has also conducted training/capacity building programmes in filing Star Rating template from 24-25 January 2020, 11- 12 October, 2022 and on 13th October 2023 for Executives of Mining Industry at Hyderabad with the intended objective of increasing mines productivity.