



INTERNATIONAL COOPERATION

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1. Indo-US Collaboration

India CMM/CBM Clearing House: A CMM/CBM Clearinghouse is functional at CMPDI, Ranchi under the aegis of Ministry of Coal and United States Environmental Protection Agency (US EPA) since 17th November, 2008. An MoU was signed on 16th November, 2006 between the representatives of the Govt. of USA and India at US EPA Headquarter in Washington DC in this regard. On completion of initial three years term it was extended thrice for another three years terms each. US EPA further extended grant support in 2018 for additional three years i.e; 2018-21. The website of the clearinghouse is <http://www.cmmclearinghouse.cmpdi.co.in>

International workshops/webinars were organized jointly by USEPA-GMI & CMPDI-CIL under aegis of MoC in 2008, 2013, 2017, 2019 & 2020.

India has been designated as Vice Chair for the Global Methane Initiative (GMI) Steering Committee for the period of 2021-23. Shri V.K. Tiwari, Additional Secretary, Ministry of Coal, Gol and Shri Manoj Kumar, CMD, CMPDI are designated as country representatives for Steering Committee of GMI.

2. Indo-Australian Collaboration

CMPDI has a Memorandum of Understanding (MoU) with Commonwealth Scientific and Industrial Research Organisation (CSIRO) signed on 12th June, 2013 for a period of five years for furthering scientific cooperation.

The MoU has been renewed for further ten years, signed on 16th November, 2018 at Brisbane (Australia) and exchanged on 22nd November, 2018 at Sydney (Australia) in presence of Hon'ble

President of India, to encourage programs of exchange and collaboration in areas of mutual interest and benefit to both the organizations.

Status of On-going Research Projects:

A. Capacity building for extraction of CMM Resource within CIL Command areas:

An S&T Project titled "Capacity building for extraction of CMM Resource within CIL Command areas" is under implementation under S&T funding of MoC. It is jointly implemented by CMPDI and CSIRO, Australia. Project cost is ₹23.92 Cr. The Collaborative Understanding for execution of the Project has been signed on 22nd December, 2016 between CSIRO and CMPDI. Revised project completion schedule is 22nd June, 2022

B. Development of Virtual Reality Mine Simulator (VRMS) for improving safety and productivity in coal mines:

The Project was approved by Coal India Limited (CIL) in September 2017 under R&D funding of CIL which is jointly implemented by IIT-ISM (Dhanbad), CMPDI, ECL, NCL and SIMTARS, Australia. Project cost is ₹14.10 Cr.

SIMTARS expressed its inability to complete the project due to shift in policy considerations of the Queensland Government, though both the projects are in advance stage. After several correspondences, SIMTARS informed that UQ SMI-JKTech, Australia is willing to associate in project related to Virtual Reality Mine Simulator (VRMS). The same was approved in the 32nd meeting of Apex committee for R&D Board of CIL held on 30.12.2020. Revised project completion schedule as approved by R&D Board of CIL is May, 2022.

- C. Development of guidelines for prevention & mitigation of explosion hazard by risk assessment and determination of explicability of Indian coal incorporating risk based mine emergency evacuation and re-entry protocol:

The Project was approved by Coal India Limited (CIL) in April, 2016 under R&D funding of CIL which is jointly implemented by IIT-ISM (Dhanbad), CIMFR, CIL and SIMTARS, Australia. Project cost is ₹ 24.13 Cr.

SIMTARS expressed their inability to supply & installation of 30 m propagation tube due to shifting of policy considerations in Australia. After pursuing the matter with SIMTARS, Australian Consulate General (Kolkata), Austrade Trade Commissioner (Chennai), Queensland Trade and Investment Commissioner, Executive Director, DNRME, Queensland Govt. and Newcastle Institute of Energy Research (NIER) of University of Newcastle, it has emerged that NIER is willing to collaborate with CIMFR and ISM to complete the assignment within extended time frame. The proposal for inclusion of NIER as additional sub-implementing agency of the project has been approved by R&D Board of CIL in its 31st meeting held on 03.09.2021. Revised project completion schedule as approved by R&D Board of CIL is April, 2023.

The first Joint Working Group (JWG) meeting on “Coal and Mines” between India and Australia was held virtually on 23 September, 2021 in the Ministry of Coal, New Delhi. This was co-chaired by Shri Vinod Kumar Tiwari, Additional Secretary, Ministry of Coal, India and by Mr. Paul Trotman, Head of Resources Division from the Australian side.

Negotiations are under progress between India and Australia to discuss the way forward for an early conclusion of interim agreement under India-Australia Comprehensive Economic Cooperation Agreement (CECA).

3. International Cooperation with SCCL

A collaborative Research project by CSIRO, Australia for Stability Analysis and Design Optimization of OB Dumps and deep OC Mines was pre-closed on 25.11.2020 as already acquired required technology from CSIRO.

Mine Advise Pty. Limited (Russell Frith) – Australia is guiding and monitoring the implementation of new generation Longwall technology at Adriyala Shaft Project.

4. International Co-operation with NLCIL

In order to meet country's growing demand for coal, international cooperation with the advanced coal producing countries is considered for bringing in new technologies both in underground and in opencast sectors for efficient management in the coal industry, skill development and training etc. Keeping the above in view, joint working group on coal/lignite had been setup with USA, France, Germany, Russia, Canada, Australia, Japan and China. The priority areas, inter-alia, include acquisition of modern underground technology, introduction of high productive opencast mining technology, working underground in difficult geological conditions, fire control and mine safety.

Training of Indian personnel as well as assimilation of the technology is an important consideration. In this regard, NLC India Limited is seeking international cooperation for producing composite valuables Lignite in NLCIL Mines.