



INTERNATIONAL COOPERATION



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1. Indo-Australia Collaboration

CMPDI has a Memorandum of Understanding (MoU) with Commonwealth Scientific and Industrial Research Organisation (CSIRO), Australia 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.

A. Status of On-going Research Projects-

i. R&D project titled -Highwall Mining Feasibility Assessment and Layout Design jointly implemented by CMPDI, CIL and CSIRO, Australia. It was approved in June, 2022 under R&D funding of CIL for period of 2 years. Its cost is ₹ 4.93 Cr. Potential for highwall mining is to be explored in CIL Mines by CSIRO team.

CSIRO team has visited 20 Mines of different subsidiaries of CIL for the preliminary evaluation to identify the potential sites suitable for highwall mining from 24th October 2022 to 9th November 2022. CSIRO has submitted a "Preliminary Assessment of Highwall Mining Feasibility" report on 06.12.2022. CSIRO team has visited CIL and different mines of ECL, BCCL & CCL to discuss different issues related to highwall mining from 21st August 2023 to 31st August 2023. Two mines of CCL, namely Balkudra OCP & Kargali OCP have been selected. Borehole details of one mine has been sent to CSIRO for

detailed analysis. Project status was reviewed in 35th meeting of R&D Board of CIL held on 29.02.2024.

ii. R&D project titled -Development of guidelines for prevention & mitigation of explosion hazard by risk assessment and determination of explosibility of Indian coal incorporating risk based mine emergency evacuation and re-entry protocol was jointly implemented by IIT-ISM, CIMFR, CIL, SIMTARS, Australia and NIER, University of New Castle, Australia. It was approved by Coal India Limited (CIL) in April, 2016 under R&D funding of CIL. Its cost is ₹ 24.13 Cr. The project got delayed as SIMTARS expressed their inability to complete the project due to shift in policy considerations of the Queensland Government. NIER of University of Newcastle was collaborating as sub-implementing agency with CIMFR and IIT-ISM to complete the assignment within extended time frame. The proposal has been approved by R&D Board of CIL.

Analysis of test results conducted at IIT-ISM, Dhanbad and CIMFR, Dhanbad for development of guidelines for prevention and mitigation of fire and explosion hazards in underground coal mines. The status of the project was reviewed in the 35th meeting of R&D Board of CIL held on 29.02.2024. Envisaged activities have been completed and draft completion report is under preparation.

iii. R&D Project titled -Development of Virtual Reality Mine Simulator (VRMS) for improving safety and productivity in coal mines is jointly implemented by IIT-ISM, CMPDI, ECL, NCL, and SIMTARS, Australia. It was approved in



September, 2017 under R&D funding of CIL. Its cost is ₹ 14.10 Cr.

SIMTARS expressed their inability to complete the project due to shift in policy considerations of the Queensland Government. After certain efforts, JKTech-SMI, UoQ, Australia agreed to involve in the project but, suddenly, vide its mail dated 31.05.2022 they informed to IIT-ISM, Dhanbad that they are withdrawing their association and will not be associated in the project in future. IIT-ISM, Dhanbad expressed to complete the project in-house within the approved cost which was agreed by the R&D Board of CIL in its 32nd meeting held on 28.07.2022. Revised completion date of the project is 30th April, 2024.

- iv. R&D project titled “A pilot project on underground coal gasification (UCG) to establish Technology in Indian Geo-Mining condition” has been approved by CIL in March, 2024. Project started from 29.03.2024. Duration of the Phase-I project is 9 months and Project cost is ₹ 23.09 Cr.

B. Indo-US Collaboration:

India is the founding member of Global Methane Initiative (GMI). India has been designated as

Vice Chair for the Global Methane Initiative (GMI) Steering Committee. Additional Secretary (MoC) representing as a Vice Chair in steering committee from India. CMD, CMPDI is designated as Co-chair of the Coal Sub-committee. India has been participating in the meeting and events organized by GMI.

A project to estimate Fugitive Methane Emissions from Coal Mines is being jointly done by CMPDI and USEPA.

US can co-operate in the field of technology transfer for development of alternative non-conventional energy like Shale Gas

C. MOUs/JWGs of Ministry of Coal-

This Ministry has signed following MOUs/JWGs-

- a) 5th Joint Working Group (JWG) on Coal between India and Indonesia held on 5th November 2020.
- (b) The first Joint Working Group (JWG) meeting on “Coal and Mines” between India and Australia was held virtually on 23rd September, 2021.
- (c) MoU with Poland on 04.02.2019 on cooperation in the area of coal mining.

