



13th World PetroCoal Congress & Expo-2023

Skill and Leadership Development in Energy Sector

16th February 2023

*PRESENTED BY
Sanjay Sharma
Chief Executive Officer*

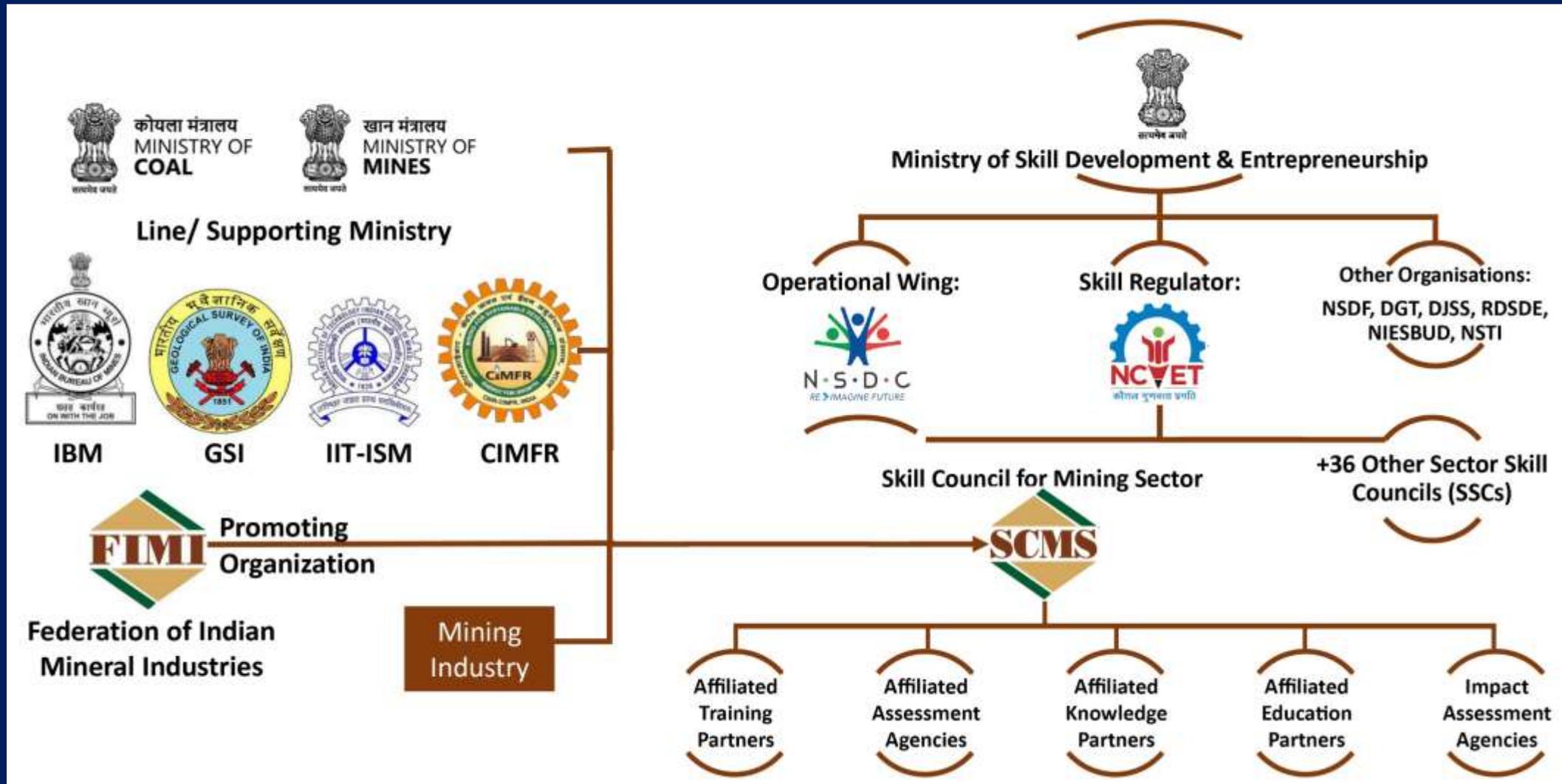
About the Mining Sector

- Mining sector (other than petroleum & natural gas) contributed **2.19% (2021-22) to the GDP** of the Country.
- Concentrated in 13 key states – Jharkhand, Rajasthan, Odisha, Chhattisgarh, Madhya Pradesh, Gujarat, Goa, Andhra Pradesh, Telangana, Maharashtra, West Bengal, Tamil Nadu and Karnataka
- Accounts for 0.5% of workforce of 23.44 lakh workers (in 2018-19) in organised & 50.24 lakh workers in un-organised sectors (**70% of organized workforce is in Coal & Lignite**).
- Non-Coal Mining is largely fragmented, 74% of leases are <50 hectares, labour intensive, with low level of mechanization
- Major players in the sector are Coal India & its subsidiaries, SAIL, NALCO, NMDC, MOIL, HCL, IREL, NLC, Tata Steel, Vedanta (HZL), Reliance (Sasan Power), Adani, Hindalco, BALCO, OMC, ACC Cement, Prism, Ultratech, JSW etc.

SCMS- An overview

- SCMS- an apex body to train & meet the requirement of skilled workforce for the mining industries, promoted by **Federation of Indian Mineral Industries (FIMI)**, supported by **Ministry of Mines** and set up by the **National Skill Development Corporation (NSDC)**
- **SCMS**, as an awarding body, is recognized and regulated by **NCVET** under the aegis of **MSDE**
- SCMS is a registered company under section 8 of companies' act 2013
- SCMS is authorized as a **non-statutory agency for certifying the mining workforce**
- CEO-SCMS is designated as **Joint Apprenticeship Advisor (JAA)** for Optional Trades by MSDE
- We deliver projects through **network of 20 Training partners and 7 Assessment agencies.**
- As on date SCMS have galaxy of **48 certified Master Trainers/ Trainers (146 certifications) and 53 certified Master assessors / assessors (215 certifications).**
- The Governing board drawn from industries, association, MOM, MOC, NSDC and academia.
- In all SCMS have +246 industry members.

SCMS in Skill Eco-System



Qualifications Files Developed by SCMS

Qualification	Level	Hours	Qualification	Level	Hours	Qualification	Level	Hours
Mining Mate/Sirdar	5	702	Wire Saw Operator	4	376	Rig - Mounted Drill Operator	4	450
Reclamation Supervisor	5	540	Banksman	4	273	Mine Driller (Exploration)	4	210
Longwall Operator	5	540	Rescue Personnel	4	480	HEMM Electrician	4	510
HEMM Mechanic	4	502	Loader Operator - U/G	4	480	Dumper/Tipper Operator	4	512
Compressor Operator	4	480	Mine Shotfirer/Blaster	4	480	Pump Operator - Mining	4	450
Track Layer Operator	4	462	Loader Operator	4	512	Mineral Processing Operator	4	592
Jack Hammer Operator	4	512	Bulldozer Operator	4	510	Strata Monitoring Personnel	4	450
Driver Special Utility Vehicle	4	540	Roof Support personnel	4	450	Mechatronics In Charge	4	450
Mine Mechanic/Fitter	4	492	Mine Welder	4	512	Ventilation Checker cum fan Operator	4	450
Surface Miner Operator	4	450	Mine Roof Bolter	4	450	Mine Sampler	3	360
Assistant-Mine Surveyor	4	542	Mine Machinist	4	450	Explosives Handler	3	360
Winding Operator	4	480	Grader Operator	4	450	Assistant-U/G Mines	2	208
Mine Electrician	4	642	Gas Detector	4	450	Assistant-Open Cast Mines	2	188
Jumbo Drill Operator	4	532	Haulage Operator	4	450	Kamgar (Mining)	1	210

Borrowed QFs : Excavator, Backhoe Loader, Data Entry Operators & Belt Conveyor Maintenance

Associated Knowledge Partners

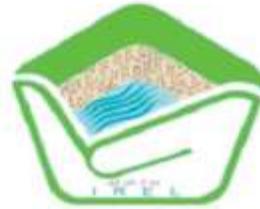
1. Queensland Skills and Education Consortium, (QSEC) Australia
2. Mynesight Pty (Australia)
3. Magic Billion (A unit of TGM Services Pvt. Ltd.)
4. Bosch Limited
5. Advance Industry Training (Australia)
6. Outsource Institute (Australia)
7. TEXMiN (IIT-ISM, Dhanbad)
8. Phoenix Academy (Australia) (Reg. under ASQA & member WATVC)



Our Reach



Central Coalfields Limited (CCL)



MGM MINERALS LTD.



Achievements

- Since inception and till date, SCMS have **trained 189680** candidates and **152046 (80%)** are certified, covering 16 government & 10 private industries.

Project	Govt Funded		Industry Funded		Total	
	Trained	Certified	Trained	Certified	Trained	Certified
Coal (Fresh)	-	-	-	-	-	-
Non-Coal (Fresh)	62,158	52,034	6,293	4,385	68,451	56,419
Total Fresh	62,158	52,034	6,293	4,385	68,451	56,419
Coal (RPL)	43,028	36,063	-	-	43,028	36,063
Non-Coal (RPL)	76,763	58,187	1,438	1,377	78,201	59,564
Total RPL	119,791	94,250	1,438	1,377	121,229	95,627
Total Fresh & RPL	181,949	146,284	7,731	5,762	189,680	152,046

SCMS Skilling & Training Programs

Short Term Training (STT)

- ❖ Common Job role which are in demand by industry
- ❖ 3-6 months of trainings

Long Term Training (LTT)

- ❖ Critical Job role which are in demand by specific mining companies e.g. Jumbo Drill Operator, Winding Engine Operator
- ❖ 6-24 months programs

Recognition of Prior Learning with Bridge Course (RPL)

- ❖ Training of Exiting workers for Up-skilling/ Certification
- ❖ Employees having less than 5 years of experience
- ❖ 3-11 Days of programs

Recognition of Prior Learning without Bridge Course (RPL)

- ❖ Orientation of existing workers with latest technology in relevant job role
- ❖ 3 Days of program

Human Resource and Skill Requirement in the Mining Sector in India 2019-2025

Incremental human resource demand by mining sub-sectors (in '000), 2019-25 (by PwC)

S. No.	Sub-sector	Total Employment (2018-19)	Incremental human resource demand			%share incremental demand (2019-25)
			2019-21	2022-25	2019-25	
1.	Prospecting, Exploration & Mine Planning	58.6	2.0	4.8	6.8	2.5%
2.	Mining Operations	2038.2	70.2	165.2	235.4	86.9%
3.	Engineering Services	231.2	8.0	18.7	26.7	9.9%
4.	Mineral Beneficiation	16.7	0.6	1.4	1.9	0.7%
Total (Core Mining)		2344.8	80.7	190.0	270.8	100%
Ancillary Activities		5023.7	172.9	407.2	580.1	
Total		7368.5	253.6	597.2	850.9	

1. Northern Coalfields Ltd. (Singrauli, MP)

- ❖ **Trade Wise Trained Numbers:** Total 523 candidates (22% Diversity) in Data Entry Operator, Mine Electrician, Mine Welder and HEMM Mechanic
- ❖ **Training Duration & Type:** 6 months non-residential training followed by 1 year of apprenticeship at NCL
- ❖ **Remarks:** Undergoing placement



2. Hindustan Zinc Ltd. (Udaipur, RJ)

- ❖ **Trade Wise Trained Numbers:** Total 327 candidates in Jumbo Drill Operator & Winding Engine Operator trades
- ❖ **Training Duration & Type:** 8-24 months residential training
- ❖ **Remarks:** >75% trainees placed at average 30k salary per month



3. DMFT-Angul (Odisha)

- ❖ **Trade Wise Trained Numbers:** Total 150 candidates in the trades of Mine Electrician, Mine Welder and Dumper/Tipper Operator
- ❖ **Training Duration & Type:** 6 months residential training followed by 3 months of on-the-job training
- ❖ **Remarks:** Candidates are undergoing placements currently (92 placed till date)



4. DMFT- Latehar, (Jharkhand)

- ❖ **Trade Wise Trained Numbers:** Total 300 candidates in the trades of Dumper Operator, Loader Operator & Excavator Operator
- ❖ **Training Duration & Type:** 3 months residential + 3 months OJT
- ❖ **Remarks:** 10 batches undergoing OJT



Skilling project with DMFT Jajpur(Odisha)

- MOU signed with Shri Chakravarti Singh Rathore (IAS), Collector and Managing Trustee, DMF -Jajpur (Odisha) on 15th November 22.
- Residential skilling project / STT for 210 local candidates in the trades of Mine electrician, mine welder, HEMM mechanic, dumper/tipper, and excavator operators.
- RPL (recognition of prior learning)/ upskilling of 1000 candidates.
- Program (RPL) commenced in Jan 2023.



Collaboration with MOIL Ltd.

- An initiative by Manganese Ore (India) Limited (MOIL Ltd.) for a special Skill Development
- Rig Mounted Drill Operators. (Mining Exploration- to find out presence of minerals)
- Batch of 30 'Female' from Maharashtra and Madhya Pradesh (X+ 2 yrs ITI or 12th + 3 yrs Diploma)
- 4 months Residential program commenced from 3rd Jan 2023 in Nagpur
- On certification by SCMS , at least 70% candidates will have assured placement
- A benchmarking prog in terms of Women's Empowerment and inclusion of diversity in " Mining"



Optimizing Unutilized District Mineral Foundation Fund

- DMF derives the legal status from section 9B of Mines and Minerals (Development and Regulation) Act, 1957.
- Under section 20A, the MoM have issued directions on 16.09.2015 to incorporate the “Pradhan Mantri Khanij Kshetra Kalyan Yojna” **(PMKKKY)**** into the Rules framed by State/ UT for the DMF.
- As per the rule, 60% of funds to be utilized under High Priority sectors and 40% of under other sectors. **Skill development falls under the high priority zone.**
- **DMF exists across 23 states ,622 districts out of 634.**
- **Major contributing states are Odisha, Jharkhand, Chhattisgarh, Rajasthan & MP.**
- As on **Nov’ 2022 DMF stands at Rs. 71917.07 Cr out of which 53.62% is spent.**
- In respect of sector wise spent, out of **Rs 1417.60 Cr. earmarked for Skill Development ,only 59.44% is spent**
- **HUGE Corpus and potential.....!!!!**

DMF Fund Status - Till November 2022

Sr. No.	State	DMF figures as on	Total No. of Districts in State	Total Number of districts in which DMF has been set up	Date of notifying the DMF		Amount collected in respect of Coal & Lignite	Amount collected in respect of Major Minerals (Other than Coal & Lignite)	Amount collected in respect of Minor Minerals	Total amount collected under DMF
1	Odisha	30.11.2022	30	30	18.08.2015	18.08.2015	4593.04	15991.01	95.12	20679.17
2	Jharkhand	31.10.2022	24	24	23.03.2016	13.01.2017	7786.41	2351.56	545.03	10682.99
3	Chhattisgarh	30.11.2022	28	28	02.01.2016	02.01.2016	4812.13	5052.34	301.79	10166.27
4	Rajasthan	31.10.2022	33	33	31.05.2016	31.05.2016	67.43	6018.84	1140.68	7226.94
5	Madhya Pradesh	30.11.2022	52	52	28.06.2016	N/A	4394.00	1016.71	138.21	5548.92
6	Maharashtra	30.11.2022	36	35	01.09.2016	01.09.2016	2341.40	497.00	1031.37	3869.77
7	Karnataka	30.11.2022	31	31	11.01.2016	12.08.2016	0.00	3135.96	554.39	3690.35
8	Telangana	31.03.2022	33	32	19.01.2016	19.01.2016	1972.39	409.19	1001.64	3383.22
9	Other	-	382	361	-	-	1429	2262	2979	6669
Grand Total			649	626	-	-	27395	36735	7787	71917

Sector wise Project and Fund Allocation / Spent Status - Till November 2022

S.No.	Sector wise work	Number of Projects	Amount Sanctioned (In Cr.)	Amount Spent (in Cr.)
High Priority work - 60%				
1	Drinking water supply	39858	13233.14	9123.58
2	Environment Preservation and pollution control measures.	6039	1054.58	546.11
3	Health	23965	7046.92	4665.44
4	Education	52109	10699.90	5787.01
5	Welfare of Women and Children.	13671	1940.34	1085.90
6	Welfare of aged and disabled people	1042	185.98	104.85
7	Skill development	7056	1417.60	842.58
8	Sanitation	10909	1841.96	1068.66
9	Other	14377	3964.07	2555.53
Sub Total		169026	41384.50	25779.66
Other Priority work - 40%				
1	Physical infrastructure	65580	16880.14	8384.29
2	Irrigation.	4646	1953.18	1384.76
3	Energy and watershed development.	9771	1080.72	741.28
4	Any other measures for enhancing environmental quality in mining district.	3228	2231.11	1515.91
5	Other	2929	1232.02	496.51
Sub Total		86154	23377.17	12522.75
Total		255180	64761.68	38302.41

New Intervention by SCMS

- Initiated process for creating new QF **Coal Bed Methane Extractor, Down-the-hole/Long hole (DTH/LH) Drill operator, Slurry Pump Operator, and Mine Foreman/Overman** etc.
- Conversion of few NSQF aligned QFs into **VR Content** is in process.

SCMS's Role of Catalyst through Apprenticeship scheme

- SCMS is authorized to approve the training center, prepare new optional trades as per industry requirement and to roll out apprentices training.
- All the 45 job roles created by SCMS are known as **Optional Trades (OT)** which can be opted by the persons who have got just the basic educational qualification i.e. Basic counting skills and numeracy, 5th, 8th, 10th & 12th.
- All-Pass Outs from the NSQF aligned courses ran through SCMS are **exempted from Basic Training Requirement**
- Industries have facilities / stipend at par like designated trades of Apprentices. Simple/ cost affective schemes.

Collaboration Opportunities across Mining Industries

- One point stop for supply of NSQF trained/certified manpower across mining industries /Associated MDOs
- **Skill Gap Assessments & Trainings** across mining industries (UG & OC)
- Promoting **optional trades instead of Designated trades** in apprenticeship.
- Upgrading blue colour community as **B.Voc & D.Voc** holders to enhance productivity.
- Development of Industry specific **customized Qualification files /Contents**
- Facilitating in setting up state of art **Mining Academy and Center of Excellence**
- Short/Long-Term Training Programs and facilitating **global placements**
- To undertake **STT for PAPs through CSR /DMFT** followed by assured employment
- Creating **pool of Trainers and assessors** within industries
- For **special projects**, funds can be organized from NSDC , MSDE, DMF etc.
- Partner with SCMS to execute **PMKVY-4.0 skilling prog free of cost (RPL/STT)**



**SKILL COUNCIL for
MINING SECTOR**
Honing India's Mining Skill

With Gratitude & Thanks

Indian Mining Sector needs to be invigorated and its potential be leveraged for inclusive growth, job creation and in making India a \$5trillion economy



Hon'ble Prime Minister Shri Narendra Modi presenting Mining Skill Card to Mr. Rupesh Kumar for Dumper/Tipper Operator certified by SCMS (2015)