



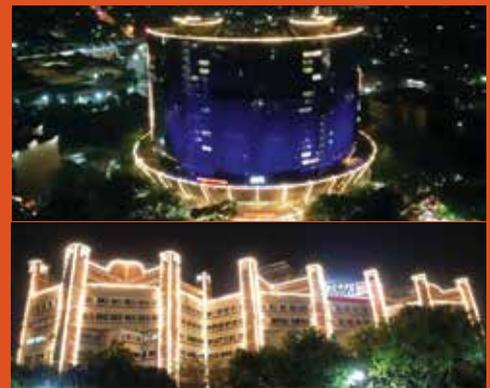
# KALEIDO SCOPE

STANDING CONFERENCE OF PUBLIC ENTERPRISES

## SCOPE and Center for Creative Leadership release study on preparing Future Fluent Leaders



**SCOPE represents PSE employers at UN's National Validation Workshop Gol-UNSDCF 2023-27**



**SCOPE & PSEs celebrate Public Sector Day**

# लिंग्राइट की दिग्गज कंपनी अब स्वच्छ और हरित ऊर्जा से देश को करेगी रोशन ।

75  
आज़ादी का  
अमृत महोत्सव



6 गौरवशायी दशकों से भी अधिक एनएलसी इंडिया लिमिटेड लिंग्राइट उत्पादन में काफी बड़ा और ताप विद्युत उत्पादन में महत्वपूर्ण योगदान देते हुए देश में ऊर्जा क्षेत्र में सार्वजनिक क्षेत्र के उद्यमों के बीच एक अग्रदूत रहा है। आज कंपनी 50.60 लाख टन लिंग्राइट और कोयला प्रति वर्ष खनन करते हुए अपनी अनुषंगी सहति 6061 मे.वा. ताप विद्युत का उत्पादन कर रही हैं। एनएलसीआईएल का 2030 तक 13650+ मेगावाट बनने का बड़ा सपना है। अपनी लिंग्राइट और कोयला खनन क्षमता को 93.60 लाख टन प्रति वर्ष बढ़ाने की इसकी योजना है।

राष्ट्रीय सौर मिशन के एक हिस्से के रूप में नवीकरणीय ऊर्जा क्रांति के लाभांश को प्राप्त करने के लिए, भारत सरकार ने 2022 तक सौर विद्युत के 1,75,000 मे.वा. को प्राप्त करने का लक्ष्य निर्धारित किया है। एनएलसीआईएल तमिलनाडु और विभिन्न राज्यों में 4631 मे.वा. की नवीकरणीय ऊर्जा परियोजनाओं को स्थापित करने की एक महत्वाकांक्षी योजना है। वर्तमान में, कंपनी के पास 1370 मे.वा. सौर विद्युत संयंत्रों और 51 मे.वा. पवन विद्युत संयंत्र सहित 1421 मे.वा. की कुल नवीकरणीय ऊर्जा क्षमता मौजूद है।

संचालन एवं विचाराधीन के तहत नवीकरणीय ऊर्जा परियोजनाएँ

- एनएलसीआईएल सौर ऊर्जा उत्पादन में 1 गी.वा. क्षमता को पार करने वाला पहला सीपीएसई है।
- रु.782.24 करोड़ की लागत पर नेयवेली में छत के ऊपर सौर परियोजना सहित 141 मेगावाट सौर विद्युत परियोजनाओं (एसपीपी) की शुरुआत की गई।
- तमिलनाडु के तिरुनेलवेली, विरुदनगर, रामनाथपुरम और तूतुकुडी जिलों में रु.5343 करोड़ की लागत पर 1209 मे.वा. सौर विद्युत परियोजनाओं की शुरुआत की गई। रु.1.16 करोड़ की लागत पर 200 कि.वा., नेयवेली नयी ताप विद्युत परियोजनाओं में कच्चे पानी के जलाशय में आर व डी पायलट स्केल फ्लोटिंग एसपीपी को लागू किया गया।

- 20 मे.वा.एसपीपी, दक्षिण अंडमान में 8 मे.वा. घंटे के हिसाब से बैटरी ऊर्जा संचयन के साथ एकीकृत किया गया है। सौर पृथक्करण में भिन्नता को पूर्ण करने के लिए भारत में यह सबसे बड़ी बैटरी बैंक है।
- देश के विभिन्न हिस्सों में 3000 मे.वा. सौर विद्युत परियोजना को स्थापित करने के लिए एक संयुक्त उद्यम कंपनी "कोयला लिंग्राइट ऊर्जा विकास प्राइवेट लिमिटेड" 10.11.2020 को कोल इंडिया लिमिटेड के साथ शामिल हुआ।
- मिनी स्मार्ट सिटी योजना के तहत नेयवेली में एक 10 मे.वा. सौर विद्युत परियोजना का कार्य निहाई पर है।
- रु.347.14 करोड़ की लागत पर तमिलनाडु के तिरुनेलवेली जिले में 51 मे.वा. (34 x 1.5 मे.वा.) पवन विद्युत परियोजना है।
- कंपनी के पास तमिलनाडु के विभिन्न हिस्सों में 200 मे.वा. पवन विद्युत परियोजना को स्थापित करने की भी योजना है।



## एनएलसी इंडिया लिमिटेड

भारत सरकार का 'नवरत्न' उद्यम

पंजीकृत कार्यालय: 135, ईकीआर पेरियार हाई रोड,

किलपाक, चेन्नई - 600 010

निगमित कार्यालय: ब्लॉक -1, नेयवेली - 607 801,

कडलूर जिला, तमिलनाडु, भारत

वेबसाइट: [www.nlcindia.in](http://www.nlcindia.in)

## Contents

Message by Chairperson .....	05
Director General's Desk .....	07

### SCOPE News

SCOPE and Center for Creative Leadership (CCL), USA release ..... study on preparing Future Fluent Leaders	08
Interface with Stakeholders.....	09
SCOPE and PSEs celebrate Public Sector Day .....	10
DG, SCOPE addresses the Public Sector Day Celebrations ..... 2022 at IOCL R&D Division, Faridabad	10
Public Sector Day Celebrations at PSEs .....	11
SCOPE in Media.....	13

### Articles

Empowering Communities & Energising Nation..... by <i>P. M. Prasad</i>	14
Economic Development: Beyond the Myopic view of GDP ..... by <i>Dr. S. K. Gupta &amp; Supriya Buchasia</i>	15
People Analytics: People matter so their analysis ..... by <i>Ashutosh Kr. Anand</i>	21
Economic Optimization in Chemical Sector through..... Greener Circular Economy by <i>Dr. Yadnya Pitale</i>	25
A Metabolic Disorder IDDM Part -II A Silent Killer ..... by <i>Dr. Nupur Krishnan</i>	30

## PSE News

PSE News.....	39-58
Personalia .....	47

### Our Email IDs have changed to:

DG Sectt.

**scopedg@scopeonline.in**

Programme & Studies

**ca@scopeonline.in**

Corporate Communications

**pr@scopeonline.in**

Technical

**mmo@scopeonline.in**

Finance

**finance@scopeonline.in**

SCOPE Forum for Conciliation and Arbitration (SFCA)

**sfca@scopeonline.in**

General Queries

**info@scopeonline.in**

**KALEIDO SCOPE**  
STANDING CONFERENCE OF PUBLIC ENTERPRISES

#### ADVISORY BOARD

Atul Sobti  
*Director General, SCOPE*

Shubh Ratna  
*GM (Tech & HR)*

CHIEF EDITOR  
Director General

EDITOR & PUBLISHER  
Shubh Ratna

ASST. EDITOR  
Lipi Singh

Total Pages : 60

Annual Subscription: Rs. 1,000/-

Price per copy : Rs. 100/-

(Payment may be sent by DD/Cheque/NEFT drawn in favour of "Standing Conference of Public Enterprises")

Material published in KALEIDOSCOPE may be reproduced with prior permission of the Editor and with acknowledgment in the accepted style. The views expressed in various articles are that of the authors and not necessarily of SCOPE Management. - Editor

Published and printed at New Delhi by  
Shubh Ratna on behalf of Standing Conference of Public Enterprises, Core 8, 1<sup>st</sup> Floor, SCOPE Complex, 7 Lodhi Road, New Delhi-110003 • Tel.: 24361495, Fax: 24361371  
E-mail: [pr@scopeonline.in](mailto:pr@scopeonline.in)  
at Rave Scan (P) Limited, A-27, Naraina Industrial Area, Phase-II, New Delhi - 110028

Designed by Akar Advertising & Marketing (P) Ltd.  
Tel: 011-43700100

## Message by Chairperson



**A**s the nation takes strides towards attaining self-reliance or 'Aatma Nirbharta' in the core sectors of the economy, Public Sector Enterprises (PSEs) have a significant role to play. Since independence, PSEs have been relentlessly contributing to the nation's economy, shouldering the responsibility of bringing socio-economic transformation and making a difference in the lives of every citizen.

In achieving the dream of creating a resilient and vibrant India, it is important that PSEs are helmed by leaders who are driven by the commitment to not only ensure commercial viability and building of strong institutions but also contribute to the overall development of society. Fortifying this commitment of leadership development in PSEs, SCOPE has endeavored to regularly conduct programs, workshops and learning opportunities for PSEs.

Pursuant to this, SCOPE and the Center for Creative Leadership (CCL), USA collaborated to conduct a research study on 'Future-Fluent Nation Builders: State of Leadership in Public Sector Enterprises in India', that takes a comprehensive look at the transformation in the business and talent scenario and accordingly envisage the skills requirement to create leaders of tomorrow.

The report was released recently and we were privileged to be joined by one of the most renowned names in spiritual awakening of individuals, Sister BK Shivani who enlightened the

participants with her motivational talk on leadership while sharing tips for balancing happiness, contentment and professional excellence.

SCOPE and PSEs celebrated Public Sector Day recently, highlighting the relevance and contribution of PSEs in the economy. I thank all PSEs for enthusiastically participating in the celebrations and this issue of KALEIDOSCOPE features the various activities undertaken during the weeklong celebrations held from 10<sup>th</sup> to 16<sup>th</sup> April, 2022.

Representing PSEs on international forums is a prerogative for us and SCOPE continues to highlight our interests across the globe. As part of this, SCOPE will be representing PSEs at the upcoming International Labour Conference (ILC) of the International Labour Organization.

Recognizing the increasing significance of the training of PSE executives, SCOPE will endeavour to organize executive development programs for capacity building and achieving organizational excellence.

I look forward to the continued support and guidance of our members and all PSEs through their enthusiastic participation in all activities and events of SCOPE.

**Soma Mondal**  
Chairperson, SCOPE



**गार्डन रीच शिपबिल्डर्स एण्ड इंजीनियर्स लिमिटेड**  
**Garden Reach Shipbuilders & Engineers Ltd.**



(A Govt. of India Undertaking)

61, Garden Reach Road, Kolkata-700 024

Tel: +91-33-2469 8100 to 8113, Fax: +91-33-2469 8150

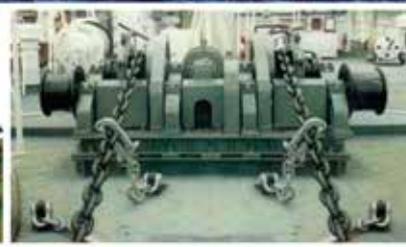
**WE SERVE THE NATION  
 WE BUILD WARSHIPS  
 WE BUILD BRIDGES**

**75**  
 आज़ादी का  
 अमृत महोत्सव



**WARSHIPS**

Frigates | ASW Corvettes | Missile Corvettes | Landing Ship Tanks (Large) | Survey Vessels | Landing Craft Utility Ships | Offshore Patrol Vessels | ASWSWCs | FAC



**ENGINEERING PRODUCTS**

Pre-Fabricated Steel Bridges | Railless Helo Traversing System | Deck Machinery Items | Assembly/Testing/Overhauling of Diesel Engine



Scan the QR Code for Corporate Video



For any query please contact:

marketing@grse.co.in

Follow us: grsekkolkata

officialgrse

OfficialGRSE

garden-reach-shipbuilders-&-engineers

www.grse.in

*In Pursuit of Excellence & Quality in Shipbuilding*

## Director General's Desk



The world is at the cusp of major transformation at work. Reimagining workplace that combines in-person, remote and hybrid workers is key to creating workplace of the future. Acclimatizing themselves with the changing business environment, Public Sector Enterprises (PSEs), with their adaptive and transformative skills are also transitioning with the times.

As PSEs play an integral part in the socio-economic development of the country with their presence in all core sectors, each year Public Sector Day is celebrated by SCOPE and PSEs to commemorate their remarkable contribution.

As part of these celebrations SCOPE brought out its milestone study on 'Future-Fluent Nation Builders: State of Leadership in Public Sector Enterprises in India' in collaboration with Center for Creative Leadership (CCL), USA recently. The respondents of the survey under this study signified that to achieve future success, future-fluent PSE leaders must move beyond deciphering the current business and economic trends, and develop the right combination of values, mindsets and skill sets to thrive. This year too, on the occasion of Public Sector Day we received an overwhelming response from PSEs.

Programmes & Initiatives launched (since last issue of KALEIDOSCOPE)
SCOPE and PSEs celebrate Public Sector Day (Weeklong celebrations)- 10 <sup>th</sup> -16 <sup>th</sup> April, 2022
SCOPE and Center for Creative Leadership (CCL) release study on preparing Future Fluent Leaders in PSEs – 28 <sup>th</sup> April, 2022
Programmes & Initiatives in offing
2 <sup>nd</sup> Virtual Workshop on 'Mindfulness for Organisational Excellence' for Executives - 19 <sup>th</sup> -20 <sup>th</sup> May, 2022
Knowledge Repository of Virtual Conferences and Symposium Volume-II
SCOPE and Institute of Chartered Accountants of India (ICAI) to sign MoU for capacity building in PSEs
Release of SCOPE Webpage on Climate Change Mitigation
<b>SCOPE-GIZ Training of Western Region PSEs on 'Low-Carbon and Climate-Resilient Pathways for Indian Public Sector Enterprises- Training and Capacity Needs Assessment'</b>

As part of representing PSEs on international forums, SCOPE will be participating in the International Labour Conference (ILC) by ILO soon and I recently participated in the First Employers' Preparatory Meeting of the forthcoming ILC organised by International Organisation of Employers (IOE), where the possible main messages and objectives of the different ILC sessions were deliberated upon.

SCOPE will continue to organise workshops, programs and research led studies to ensure the skill enhancement and capacity building of PSEs. Our upcoming program on mindfulness is reflective of SCOPE's endeavour to ensure holistic development of PSE employees both as individuals and professionals.

As part of Azadi ka Amrit Mahotsav celebrations, SCOPE is working closely in association with DPE and PSEs to highlight the contribution of PSEs in growth and nation building. I thank all our members for their enthusiastic response so far and look forward to their continued support.

Adhering to its commitment of enunciating PSEs role in Climate Change Mitigation of the country, SCOPE has been conducting training modules with GIZ, Germany across regions and will soon be organising the fourth in the series for the Western Regions PSEs. Our continued efforts towards chalking a roadmap for PSEs in the Climate Change dialogue can be achieved only through the participation our members, I request all PSEs to as always, enthusiastically participate in all our endeavours.

Looking ahead, SCOPE will continue to ideate, explore and create more opportunities for research and development, learning and skilling of the PSE fraternity, to help create an edge for PSEs globally.

*Atul Sobti*  
**Atul Sobti**

Director General, SCOPE

## SCOPE and Center for Creative Leadership release study on preparing Future Fluent Leaders



(From Left to Right) Mr. Muniinder K. Anand from CCL; Mr. Pradip Kumar Das, CMD, IREDA and Vice-Chairman, SCOPE; Ms. Elisa Mallis from CCL; Mr. Atul Sobti, DG, SCOPE; Sister BK Shivani, Internationally renowned spiritual speaker; Ms. Soma Mondal, Chairman, SAIL & Chairperson, SCOPE; Mr. Ranjan Kumar Mohapatra, Director (HR), IOCL and Mr. Sunil Puri from CCL during the study release.

Standing Conference of Public Enterprises (SCOPE) & Center for Creative Leadership (CCL), USA released first of its kind study on 'Future-Fluent Nation Builders: State of Leadership in Public Sector Enterprises' assessing skill gaps and identifying skill sets to curate a learning module for potential leaders for the future on 28<sup>th</sup> April, 2022. The study was released in the presence of Sister BK Shivani, internationally renowned spiritual speaker; Ms. Soma Mondal, Chairman, SAIL & Chairperson, SCOPE; Mr. Atul Sobti, DG, SCOPE; Mr. Pradip Kumar Das, CMD, IREDA; Mr. Ranjan Kumar Mohapatra, Director (HR), IOCL. Ms. Elisa Mallis; Mr. Muniinder K. Anand and Mr. Sunil Puri from CCL were also present for the release which was followed by motivational talk on leadership by Sister BK Shivani.

Sister BK Shivani during her

motivational talk shared that anyone can be a leader if they have the right approach and empathy. She emphasised on the need for authenticity of thoughts, harmony in mind and words, need for spiritual, emotional and intelligence quotient in order to be future ready.

Ms. Soma Mondal in her address said that leaders today need to introspect on how to change and adapt in today's business



environment, in order to be future ready. She added that as PSE leaders face a greater challenge to perform, the focus should be to attain contentment and focus for self, team and stakeholders on the whole.

Mr. Atul Sobti enunciating the significant role of PSE leaders in evolving the PSEs in accordance with changing times, stated that this milestone study was SCOPE's endeavour of preparing robust, future ready and visionary leaders. He shared that this study was being released as part of Public Sector Day celebrations, that honours the integral role of PSEs in the socio-economic development of the nation.

Ms. Elisa Mallis stated that enlightened leadership is key for overcoming challenges and the aim of leaders should be to evolve both through their heart and mind.

Mr. Muniinder K. Anand said that as the strength of the industrial and socio-economic fabric of the nation depends on the future fluency of its leaders, this study focusing on PSE leaders who are nation builders and work beyond commercial prudence.

Mr. Pradip K. Das, highlighting the importance of 'walk the talk', said that in order to excel as leaders and guide others, one needs to imbibe, follow and bring about changes in oneself.

Mr. Ranjan K. Mohapatra complimented the comprehensive presentation of leadership in PSEs



in the Report and encouraged the PSEs to consider the way ahead suggested in the report. Giving a succinct look at the report,

Mr. Sunil Puri shared glimpses of the study that provides a four-pronged approach to India's future PSE leadership. ■

## Interface with Stakeholders

### SCOPE represents PSE employers at UN's National Validation Workshop GoI-UNSDCF 2023-27



United Nations in India recently conducted the National Validation Workshop on the draft Government of India - United Nations Sustainable Development Cooperation Framework (2023-27).

The Government of India and United Nations Sustainable Development Framework (GoI-UNSDCF) is a framework of cooperation, results, and strategies that contributes to the achievement of national priorities. This framework is the single-most important instrument capturing the entirety of 26 UN entities' plans and programmes in India for a period of 5 years.

As part of planning and finalizing the new generation Cooperation Framework, a national validation workshop with Civil Society Organizations, Economic Enterprises, Trade Unions or Worker's Organisations, Think Tanks, Academia and others was organized recently to provide a unique opportunity to receive feedback from key players of economy, promote meaningful dialogue and help ensuring that the strategies and results for furthering the SDGs in India are coherently articulated in the new generation Cooperation Framework. SCOPE represented PSE employers at the meeting.

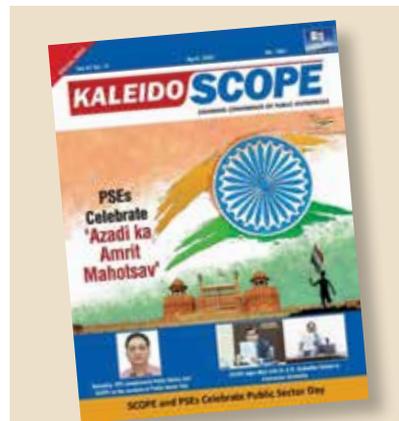
### SCOPE at ILO preparatory meeting



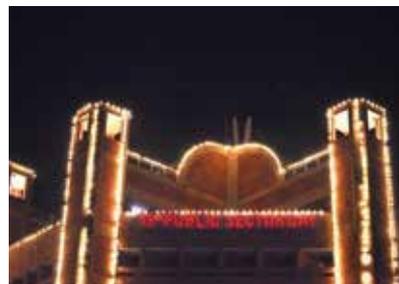
Mr. Atul Sobti participated in the First Employers' Preparatory Meeting of the forthcoming International Labour Conference (ILC) of International Labour Organization (ILO) held on 12<sup>th</sup> April, 2022. During the meeting, the possible main messages and objectives of the different ILC sessions were deliberated upon.

# SCOPE and PSEs celebrate Public Sector Day

Commemorating the spirit of Public Sector in driving socio-economic development in the country and their undeterred commitment, SCOPE celebrates Public Sector Day each year on 10<sup>th</sup> of April. Weeklong celebrations from 10<sup>th</sup> to 16<sup>th</sup> April, 2022 were held across PSEs with great enthusiasm. As part of the celebrations, a special issue of SCOPE's monthly magazine KALEIDOSCOPE with message from Secretary, DPE on the occasion of Public Sector Day was brought out on the theme of 'PSEs celebrate Azadi ka Amrit Mahotsav.' ■



Special Issue of KALEIDOSCOPE on 'Azadi Ka Amrit Mahotsav' brought out on Public Sector Day



SCOPE Complex, Lodhi Road and SCOPE Minar, Laxmi Nagar buildings lit up during Public Sector Day celebrations.

## DG, SCOPE addresses the Public Sector Day Celebrations 2022 at IOCL R&D Division, Faridabad



Mr. Atul Sobti, DG, SCOPE, addressed the Public Sector Day Celebrations 2022 at Indian Oil Corporation Limited (IOCL) R&D Division, Faridabad on 13<sup>th</sup> April, 2022, as its Chief Guest. DG, SCOPE, in his address apprised the gathering about the ground-breaking work done by the Public Sector Enterprises (PSEs) in the socio-economic development of the nation. Mr. Sobti also lauded IOCL for leading the R&D work being done in the country. IOCL, he said, can handhold PSEs who don't have an in-house R&D facility. DG, SCOPE, concluded by appealing the Public Sector fraternity to continue working towards creating an Aatmanirbhar bharat.

Dr. S.S.V. Ramakumar, Director (R&D) and Board Member, IOCL, and Dr. Deepak Saxena, Executive Director (LT), IOCL, also addressed the event. ■

# Public Sector Day Celebrations at PSEs

## BHEL

BHEL celebrated Public Sector week at CFP, Rudrapur with full fervor. The inaugural function was started with lighting of lamp by Mr. R. Kalliapan, AGM (Quality) and other dignitaries. A quiz competition and debate competition was also organized on 12.04.2022 and 13.04.2022 respectively.



## NLCIL

### CMD Says – “PSU’s have emerged as the driver of Economic Growth of The Country”

Celebrating the spirit of PSU’s, NLCIL observed the Public Sector Day 11.04.2022 at a function held at the lawns of its Corporate Office, Neyveli. Senior officials, Employees, representatives of recognized Trade Unions, Engineers and Officers’ Associations, Welfare Associations and Forum of Women in Public Sector (WIPS) participated in the event. On behalf of CMD, Mr. Rakesh Kumar, the PSU flag-and the NLCIL flags were hoisted by Mr. Shaji John, Director (Power) and Mr. Jaikumar Srinivasan, Director/Finance.

The Public Sector Day is observed each year on 10<sup>th</sup> April, under the aegis of SCOPE the apex professional body representing the Central Public Sector Enterprises (CPSEs), with the objective of creating



awareness among the general public about the role and sustained contribution rendered by Central Public Sector Enterprises in scripting the ‘Growth Story’ of India.

The message of CMD, NLCIL, Mr. Rakesh Kumar, was read out by Mr. Shaji John, Director (Power), wherein lauding their contribution, CMD stated that today the Public Sector has emerged as the driver of economic growth of our country, contributing around 12-13% to the National GDP. He also mentioned with pride that when the Nation was facing the crises and challenges posed by the COVID-19 pandemic, it was the CPSEs that rose up to the occasion and provided the much needed support to the Government.

## RINL

As part of Public Sector Day celebrations, sessions on Role, Performance, Achievements and Contributions at Learning & Development Centre of RINL were organized from 13.04.2022 to 16.04.2022. 122 Participants attended the sessions.



Other programs were also conducted at Management Development Centre (MDC) of RINL during the period 10.04.2022 to 16.04.2022 which are as follows:

- Two special and unique programs on 'Women Development' and Program on 'Thoughtful Leadership' were organized at MDC for women executives. A total of 82 women executives attended these three programs.
- One special program on 'Women Development' was organized at MDC for women non-executives. 31 women non-executives attended this program.
- One special program on 'Reservation Policy for

SC/ST employees' was organized at MDC. 44 SC/ST employees attended this program.

- One special program on 'Reservation Policy for OBC/PWD employees' was organized at MDC. 39 OBC/PWD employees attended this program.



### AAI

Airports Authority of India, CHQ, New Delhi organized the following events on the occasion of observance of Public Sector Day celebrations :

#### Speech Competition

A Speech competition was organized on the topic "Contribution of Public Sector towards economic growth" for the employers of AAI, CHQ on 11.04.2022 prizes and certificates were distributed to the winners of the competition.

#### Webinar on the topic "Contribution of Public Sector towards economic growth"

A webinar was organized on 12.04.2022. Ms. Manvi Dikshit Sharma, Advocate Supreme Court and also External Member of Internal Complaints Committee CHQ gave the lecture on the topic.



### ECGC

ECGC celebrated Public Sector Day. Following banner was displayed in their premises during the weeklong celebrations.



### TCIL

TCIL organised various activities as part of week-long Public Sector Day celebrations from 10.04.2022 to 16.04.2022. These included lighting of Lamp and speech by Directors/CMD on 11<sup>th</sup> April, 2022 followed by, Essay Competition on "Strategies for PSU's, Competitiveness in market economy", A Debate Competition on "Contribution of PSUs for achieving goals of Data Communication Policy 2018" and Talk by Eminent Speaker on historical role played by CPSUs and present relevance was held on 13<sup>th</sup> April, 2022.

### THDC

As part of Public Sector Day celebrations THDC organised various activities like Debate Competition, Slogan Writing Competition and Quiz Competition for their employees at its Corporate office and various units- Tehri, Koteshwar, Pipalkoti and other units The activities saw large participation from employees.



### WAPCOS

WAPCOS observed Public Sector Day on 13<sup>th</sup> April, 2022 by organizing an Essay Writing Competition on 'Role of PSEs in transforming India' for WAPCOS employees.



# SCOPE in Media

**Hindustan Times**  
24.3.2022 Pg no : 20

### SCOPE signs MoU with BASE



A Memorandum of Understanding (MoU) was signed between Atul Sobti, Director General, Standing Conference of Public Enterprises (SCOPE) and Prof. NR Bhanumurthy, Vice-Chancellor, Dr BR Ambedkar School of Economics University, Bengaluru; Atul Sobti, Director General, SCOPE and S Sakhthimani, Director (Finance), FACT, addressed the webinar.

A comprehensive presentation on various aspects of the Budget was shared by senior partners and subject matter experts from Delhi. About 400 participants, including board members and senior officials from Public Sec-

**Hindustan Times**  
8.2.2022 Pg no : 16

### SCOPE Webinar decodes Union Budget 2022



Unravelling the Union Budget 2022, Standing Conference of Public Enterprises (SCOPE) organised a webinar on 'Decoding the Union Budget 2022.'

Prof NR Bhanumurthy, Vice-Chancellor, Dr BR Ambedkar School of Economics University, Bengaluru; Atul Sobti, Director General, SCOPE and S Sakhthimani, Director (Finance), FACT, addressed the webinar.

Addressing the participants, Prof NR Bhanumurthy deliberated upon the macro perspectives of the Budget and said it sets out a roadmap of the economy for the next 25 years with renewed impetus to growth and development issues.

**NPT नवभारत टाइम्स**  
5.2.2022 Pg no :

### इस बार का बजट ग्रोथ को रफ्तार देगा: SCOPE

॥वि. नई दिल्ली। नवभारत टाइम्स और पब्लिक एंटरप्राइजेस (SCOPE) ने बजट 2022-23 को पूरवर्ती और प्रगतिशील बताया है। स्कोप के डीजी अतुल सबोती ने बजट की तारीफ करते हुए कहा कि बजट में सभी का ध्यान रखा गया है। इन्फ्रास्ट्रक्चर के लिए उचित आवंटन, डिजिटल इंफोर्मेटिव की श्रेय, केंद्रों में इजाजत, नई स्वामी, धरोतु इन्टरनेज को इन्फोवै, रिक्त डिजिटलमेंट जैसी चीजों को जगह दे रही है। औरअंत में बजट श्रेय को रफ्तार देने काग है।

**The Tribune**  
22.2.2022 Pg no : 10

### SCOPE, IMT H'bad in pact for 'Digital Transformation'

An MoU has been signed between Standing Conference of Public Enterprises (SCOPE) and Institute of Management Technology, Hyderabad (IMTH), to

**Hindustan Times**  
Pg no : 17

### SCOPE & IMT Hyderabad sign MoU



A Memorandum of Understanding (MoU) was signed virtually between Standing Conference of Public Enterprises (SCOPE) and Institute of Management Technology, Hyderabad (IMTH) to conduct a research-based study on 'Digital Transformation in Public Sector Enterprises (PSEs).'

**NPT नवभारत टाइम्स**  
22.2.2022 Pg no : 12

### स्कोप की अगुवाई में WIPS का नेशनल ई-मीट

॥वि. नई दिल्ली। SCOPE की अगुवाई में इन पब्लिक सेक्टर (WIPS) का नेशनल ई-मीट आयोजित किया गया। केंद्रीय को नेशनल कमिशन फॉर वुमन की प्रेसलंस, SAIL की प्रेसलंस और SCOPE की प्रेसलंस सेवा महल, SCOPE के डीजी अतुल सबोती, ONGC की वीएचडी अरुण शिखर, EIL की वीएचडी अरुण शिखर ने संबोधित किया।

**The Sunday Statesman**  
20.2.2022 Pg no : 8

### SCOPE & IMT Hyderabad Sign MoU on 'Digital Transformation in PSEs'

A Memorandum of Understanding (MoU) was signed between Standing Conference of Public Enterprises (SCOPE) and Institute of Management Technology, Hyderabad (IMTH) to conduct a research-based study on 'Digital Transformation in Public Sector Enterprises (PSEs).'

Director, IMTH, in the presence of Shri Jayesh Ranjan, Principal Secretary I&C and IT, Govt. of Telangana, Dr. S. K. Joshi, CMD, SCI in the presence of Dr. Dharini Moul, President APEX; Nanda Kulkarni, President, Western Region & other members of WIPS. The program was attended by around 900 participants from across the country.

**The Indian EXPRESS**  
16.2.2022 Pg no : 2

### SCOPE Unravelling the Union Budget 2022, SCOPE organised a webinar on 'Decoding the Union Budget 2022.'

Prof. N. R. Bhanumurthy, Vice-Chancellor, Dr. B. R. Ambedkar School of Economics University, Bengaluru; Atul Sobti, DG, SCOPE & S. Sakhthimani, Director (Finance), FACT, addressed the webinar. About 400 participants, including board members and senior officials from PSEs attended the webinar through SCOPE's various platforms.

**FINANCIAL EXPRESS**  
22.2.2022 Pg no : 15

### MOU - SCOPE

A MoU was signed between Atul Sobti, DG, SCOPE and Dr. K Sriharsha Reddy, Director, IMTH, in the presence of other senior officials, to conduct a research-based study on 'Digital Transformation in PSEs.'

**FINANCIAL EXPRESS**  
15.2.2022 Pg no : 22

### SCOPE National e-Meet of Women in Public Sector (WIPS) under the aegis of SCOPE was addressed by Rekha Sharma, Chairperson, National Commission for Women; Soma Mondal, Chairman, SAIL & Chairperson, SCOPE; Atul Sobti, DG, SCOPE; Aika Mittal, CMD, ONGC; Vartika Shukla, CMD, EIL & H. K. Joshi, CMD, SCI in the presence of Dr. Dharini Moul, President APEX; Nanda Kulkarni, President, Western Region & other members of WIPS. The program was attended by around 900 participants from across the country.

**NPT नवभारत टाइम्स**  
16.2.2022 Pg no : 12

### PSE की मजबूती के लिए SCOPE ने किया करार

॥वि. नई दिल्ली। अंतरराष्ट्रीय मानकों के हिसाब से वीएचडी में कैपेसिटी बिल्डिंग और रिक्त एनरिकमेंट के लिए स्कोप और डॉक्टर डी. अरुण शिखर स्कूल ऑफ इकोनॉमिक्स के बीच समझौता ज्ञान सहज हुआ है। SCOPE की तरफ से डीजी अतुल सबोती और यूनिवर्सिटी की ओर से वाइस चान्सलर प्रोफेसर एन अरुण शिखर ने सहज किया। इन समझौते के तहत जॉइंट स्टडी, रिसर्च, कंशेष, ट्रेनिंग प्रोग्राम चलए जाएंगे।

# Empowering Communities & Energising Nation



**P. M. Prasad**  
CMD, Cental Coalfields  
Limited

**U**nder the leadership of Minister of Coal, Mr. Pralhad Joshi, CCL is committed to fulfill the energy demand of the country and contribute in the Aatma Nirbhar Bharat Mission of the government. With an operational area of about 2600 sq km stretched across 8 districts of Jharkhand, we are one of the biggest employers of Jharkhand and a leading contributor to state exchequer.

Since the last couple of years the world is shattered by COVID-19 pandemic but the coal warriors of the company have ensured that there is no dearth of coal to the power plants associated with company. The company recorded the highest ever Coal production and dispatch in a financial year of 68.85 MT and 71.86 MT respectively during Financial Year 21-22. The CAPEX of the company also reached a new high of Rs. 2036 cr. during the last fiscal.

All these accomplishments are a testimony to the perseverance and arduous work of the entire workforce of the company and attains an added significance because they were accomplished in the backdrop of COVID-19 pandemic.

Our aim is holistic development of the stakeholders. We

concentrate our CSR initiatives in sectors like Skill development, drinking water, sanitation, health, sports promotion, Infrastructure development. We lay emphasis on the participatory approach and engage the beneficiaries at each stage from the project identification to the monitoring process.

An MoU worth Rs. 22 crore has been signed with Akshaya Patra Foundation and Ramgarh district administration for establishment of a centralized kitchen. The kitchen will provide mid-day meals to 50,000 students of 586 government schools of Ramgarh District.

Ten students of our flagship scheme CCL Ke Lal and Ladli this year have qualified for IIT. Many students of the previous batches have completed their education and have started their professional journey.

CCL operates the sports academy at Khelgaon in association with Government of Jharkhand to nurture the sports talents of the state. Training is imparted to the selected cadets in ten different sporting disciplines. There are 438 children enrolled in the academy, and about 96% of the cadets belong to SC/ST and other backward communities.

The cadets of the academy have won over 800 medals in numerous state, national and international competitions and have brought laurels to the state and nation.

A plethora of other CSR initiatives are likewise being implemented by the company. Our belief is in executing transformative projects which unleashes the potentiality of the beneficiaries and develop into a model for replicable, integrated and sustainable growth.

The entire CCL family left no stone unturned to support the administration and the local community in the struggle against Coronavirus. Over 1700 COVID patients have been successfully treated in the hospitals of the company. It's a matter of pride that over 2 Lakh people have been inoculated in the different centers of the company. The company likewise gave Rs. 20 cr. to state disaster mitigation authority for the fight against COVID-19.

We have accorded utmost priority to environment preservation and pollution control. The company is implementing various sustainable development initiatives to enhance the biodiversity of the region. One of the important initiatives is utilization

Contd... to # 20

# Economic Development: Beyond the Myopic view of GDP



**Dr. S. K. Gupta**  
Managing Director  
ICMAI Registered  
Valuers Organization



**Supriya Buchasia**  
M.Sc Economics Student  
Gokhale Institute of  
Politics and Economics

**W**hy are some countries developed while others are under developed or developing? Why do countries grow? What determines the growth of a country? What are the sources of recessions and booms? Why is there unemployment, and what determines its extent? What are the sources of inflation? How do government policies affect output, unemployment, inflation, and growth? Does growth imply development are few of the segments of macro economics? A study of the economy as a whole. Economists have formulated various economic models to find evidence of these changes. Our main objective to determine what leads an economy to grow, how is growth measured, how it is distinctive from development, does GDP implies development, what are the various dimensions of development and why is it required?

An increasing GDP is often seen as a good measure of welfare and economic success. Today it is the most widely used indicator measured by policy makers and academics to assess the expansion of a country's

economy. However, it fails to account for the multi-dimensional nature of development and distribution of wealth and equality. Before we see GDP as a measure, we need to know what does Economic growth and development mean.

## What is Economic Growth?

Economic growth is the process by which a nation's wealth increases over time. Although the term is often used in discussions of short-term economic performance, in the context of economic theory it generally refers to an increase in wealth over an extended period. Growth can best be described as a process of transformation. Economic growth describes an increase in the quantity and quality of the economic goods and services that a society produces and consumes. It refers to the increase in the value of the economy's goods and services from one period to another. While producing any goods, various factors of productions like physical capital, human capital, labour force, and technology are used in combinations to minimize the cost by producing the best efficient output. This

process of efficiently using the inputs to maximize the output at the least cost leads to the growth in productivity and hence the economies.

Economic growth is usually distinguished from economic development, the latter term being restricted to economies that are close to the subsistence level. The term economic growth is applied to economies already experiencing rising per capita incomes. In Rostow's phraseology economic growth begins somewhere between the stage of take-off and the stage of maturity. Methods like Gross National Product (GNP) and Gross Domestic Product (GDP) are widely used to access economic growth.

## The analysis of growth

To explain why some countries grow more rapidly than others or why a country may grow more rapidly during one period of history than another, economists have found it convenient to think in terms of a "production function." This is a mathematical way of relating some measure of output, such as GNP, to the inputs required to produce it. For example, it is

possible to relate GNP to the size of the labour force measured in man-hours, to capital stock measured in dollars, and to various other inputs that are considered important. An equation can be written that states the rate of growth of GNP depends upon the rates of growth of the labour force, the capital stock, and other variables.

### What is Economic Development?

Economic Development is a broader term and takes qualitative parameters along with the quantitative ones to determine the growth of an economy. It focuses on improving fiscal, economic, and social indicators of an economy. It's a measure that takes anthropometric indicators like health, working conditions, education into account to state the equality of income and its distribution rather than just growth in the income. It's a more complicated measure to interpret as the cultural, social, and economic frameworks of every nation differs.

Economic agents always make a trade-off between things to choose the best available alternative because of the scarcity of resources. Whether its production, consumption, unemployment, or inflation trade-off are required to choose the best for the economy. Economic development thus ensures that the choices are made optimally in the current generation without compromising the ability of future generations to meet their own needs.

### Traditional vs. Modern view of Economic Development

The concept of making a



distinction between economic growth and economic development is a very recent notion. Earlier they use to be considered synonymous with one another. Modern economist J.M Keynes in his book "General Theory of Income and Employment", contradicted the approach of using the indexes interchangeably and delineated the meaning of growth and development. According to him, growth is defined as raising income, employment, and services in different sectors of the economy such as agriculture, industry, Private Sector, Public Sector, service sector, and foreign sector. On the contrary, development is redefined in terms of overall growth in the economic indices of the country as a whole without any inequalities in the distribution of resources among the people. This includes the elimination of poverty, improvement in the standard of living of the people, raising per capita over time, and absence of inequalities in the distribution of wealth, income, and resources.

### Dimensions of Economic development

#### The social dimension

As per the modern view of

development, many other factors apart from income and wealth are accountable for the development of an economy. In the words of one of the renowned development economists Amartya Sen 'One way of seeing development is in terms of the expansion of real freedoms that the citizens enjoy to pursue the objectives they have reason to value and in this sense the expansion of human capability is an important feature of development.

Capabilities are the real freedoms that people have to achieve their doings and beings. Real freedom in this sense means that one has all the required means necessary to achieve that doing or being if one wishes to. That is, it is not merely the formal freedom to do or be something, but the substantial opportunity to achieve it. To evaluate people's well-being, we need to not only consider the number of resources they have but also what they can do and be with those resources. The concept of development has also incorporated additional choices such as potential freedom, guaranteed human rights, and personal self-respect.



### The Economic dimension

This broadly talks about the accessibility and affordability in economic factors like human resources, physical capital, natural resource, and technology.

- **Human Resource:** The skill, education, and training of the labour force have a direct effect on the growth of an economy. A skilled well-trained and healthy workforce will always work efficiently leading to higher production. Government policies in this regard lead to the distinction in the productivity of labour across nations.
- **Physical Capital:** Accumulation of capital plays a very important role in the growth of an economy, most of the growth models- like Solow, Harrod-Domar, and Time horizon model gives due importance to the role of capital. Accumulation of capital in terms of infrastructure, machines, technologies leads to an improvement in labour productivity too.
- **Natural resources:** The quantity and availability of natural resources play an important role in the growth of an economy. Gulf countries are highly rich

in oil and mineral deposits, giving a boost in the production capacity. The effectiveness of a country at utilizing its natural resources depends upon the type of technology, skills of labour, and availability of capital.

- **Technology:** Considering technology as a separate input which earlier was considered as an exogenous variable is a very recent phenomenon. Many economists like Adam Smith, Karl Marx, and Schumpeter have given due importance to this factor for increasing productivity and hence the growth. Innovation leads to the division of labour which thereby leads to higher productivity.

### What is Gross Domestic Product?

GDP is the monetary value of all final goods and services produced within a country during a specific period. It gives a snapshot of the growth of an economy. The procedure adopted for the compilation of GDP is to measure the production activity in each producer unit using what is called, Gross Value Added (GVA) by the unit, where GVA is the value of output

less the value of the input used up in the process of production. Hence, GDP is defined as the sum of GVA of all resident producer units of the economy during the reference period.

### What GDP does not tell us about?

Though GDP is widely used as an indicator to detect the growth of an economy, it lacks in measuring the overall standard of living or well-being of a country. For example, countries adopting the ideologies of capitalism and walking in its path rely heavily on capital investment with a motive to maximize profit and increase the overall output. However, this may increase the overall output but might come at the cost of environmental damage or other external costs such as depletion of natural resources, externalities, etc. It also fails to encounter the distribution of wealth which determines equality and standard of living, not just the overall level.

The idea that GDP lacks in measuring indicators that show the true multi-dimensional development of an economy could be interpreted using a simple case study of the financial crisis of 2008. Banks had been issuing mortgages indiscriminately on the belief that real-estate prices would continue to rise. When the housing bubble broke, so did the economy, falling more than it had since the immediate aftermath of World War II. After the U.S. government rescued the banks, GDP improved, persuading the President and Federal Reserve to announce that the U.S is well on the way to recovery. But with 91% of gains in income in 2009-2012 going in the hands of the top 1%

of the population, the rest of the Americans were left with none.

As the country slowly emerged from the financial crisis, other indicators commanded attention—the inequality crisis, the climatic crisis, and an opioid crisis. Even as GDP continued to rise, life expectancy and other broader measures of health worsened. Food and Pharma companies were adding to the GDP showing a greater increase in the growth of the economy, however, simultaneously anthropometric indicators were performing severely bad showing the wrong picture put by the increase in the percentage of GDP. It can be said that the GDP number provided an optimistic gloss to the worst of events. To try to account for such factors, such as literacy, the standard of living, freedom, capabilities, life expectancy, school enrolment, etc. other techniques like the Human Development Index, Social Progress Index, Human Capital Index have been given due importance.

### Literature review

Though GDP is believed to be a measure of economic growth and development, on which various policy formulation takes place, however, what the factual picture shows is different from the former. It's important to see what various practitioners and reports have to say on it- At the World Economic forum's 49<sup>th</sup> annual meeting in Davos, New Zealand Prime Minister Jacinda Ardern revealed that she would emphasize creating a "well-being budget" to prioritize the health and welfare of the citizens of the country. She said, "We need to address the social well-being of our nation, not

just the economic well-being".

In an independent review of the UK's economic statistics published in 2016, Sir Charles Bean wrote that GDP is often viewed as a "summary statistics" for the health of the economy. This means it is frequently conflated with wealth or welfare, though it only measures income. Bean on the other hand said GDP does not reflect economic inequality or sustainability. "This uncertainty surrounding official measures of GDP is inadequately recognized in public discourse, with commentators frequently attributing spurious precision to the estimates.

Sarah Arnold, Senior Economist at the New Economic Foundation (NEF) told that GDP as a measure of economic activity is simply a means to an end, "It had become synonymous with the national success that the rationale for pursuing economic growth in the first place seems to have been long forgotten". David Pilling, An African editor in his book "The Growth Delusion: Wealth, Poverty and the Well-being of Nations, wrote that 'GDP is not bad at accounting for the production of bricks, steel bars, and bicycles, where it struggles is with the service economy, a segment that accounts for a growing proportion of high-income countries.'

In 1968, Robert Kennedy criticized GDP and said 'it measures everything, in short, except that which makes life worthwhile.' Arnold believes this observation is still true today: "GDP is not a particularly useful measure in and of itself because it doesn't tell us much about the direction of our economic activity or help us to determine how to govern it."

The NEF believes that there are five major indicators that GDP doesn't take into account that could help measure national success more accurately: job quality, well-being, carbon emissions, inequality, and physical health.

The World Bank has also created a more robust measure of economic growth which is called Comprehensive wealth, it takes into account both income and associated costs in several areas, providing a fuller picture of economic well-being and a more sustainable pathway for growth. "Used alone, GDP may provide misleading signals about the health of an economy, the World Bank's 'The changing Wealth of Nations 2018' report read.

### Alternate approaches to look at Economic Development

It's believed that though GDP is a complementary indicator to development, it's not an adequate one. The challenge of modern capitalism is to balance its role as an efficient mode of production with its tendency to concentrate income, wealth, and thus power. The measurement of GDP should be made more robust, instead of physical capital, it should also take into account the effects of natural and human capital. When dissociated from social progress, economic growth in its pure accounting format will inevitably result in less inclusivity and a generalized sense of social discontent, spiteful in democratic societies. Therefore, the current measure of economic growth as GDP has many limitations when used to assess development. As development has a wider field of coverage than mere the

productivity and income generation. Given the multi-dimensional nature of development, indicators like SPI, HCI, and NHI can be seen as a more adequate indicator of development in an economy.

### Gross National Happiness Index

The notion that GDP provides a valid marker of how well a country and its people are doing has been contrasted by various modern economists and schools of thought. One such conception is Bhutan's development philosophy of Gross National Happiness (GNH). This new paradigm encompasses the pursuit of meaningful societal progress by balancing the physical with the mental, the material with the spiritual, with a safe and stable environment to realize happiness. Bhutan focuses on their citizens being happy and their students being a better human being whilst they become better learners. Primary education and healthcare remain free across the country. The country has carefully allocated the money in things that would create sustainable societies. In measuring such intangible parameters, GNH was introduced wherein people were segregated into four categories- unhappy, narrowly happy, extensively happy and deeply happy.

GNH is a multi-dimensional measure that scrutinizes well-being across 9 domains- living standard, health, education, ecological diversity and resilience, cultural diversity and resilience, community vitality, time use, psychological well-being, and good governance. These nine domains were selected on normative as well as statistical grounds,

**GDP is the monetary value of all final goods and services produced within a country during a specific period. It gives a snapshot of the growth of an economy. The procedure adopted for the compilation of GDP is to measure the production activity in each producer unit using what is called, Gross Value Added (GVA) by the unit, where GVA is the value of output less the value of the input used up in the process of production. Hence, GDP is defined as the sum of GVA of all resident producer units of the economy during the reference period.**

and are equally weighted because each domain is considered to be relatively equal in terms of its intrinsic importance as a component of gross national happiness. In a world, where mental health is taking a toll on people's emotional and physical stability, measuring the development of a country via the well-being of its citizens is getting utmost importance.

Following this suit, the Delhi government in India has introduced the Happiness Curriculum in its government schools that focuses on teaching happiness, empathy, and moral education to its students. Like GDP, GNH has its setbacks in terms of measurement of required variables, however, it's considered to be an important measure of economic development.

### The Social Progress Index

There is yet another measurement of social development, called the social progress Index. It analyses the progress of a country's social aspects. The Social Progress index provides a holistic, objective, transparent, outcome-based measure of a country's well-being that is independent of economic indicators. This index can be used to compare countries on different facets of social progress, allowing the identification of specific areas of strength or weakness at the country level. It was propounded by the commission of the measurement of economic performance and social progress. The main objective of the commission was to investigate how the wealth and social development of countries could be measured beyond the uni-dimensional GDP measure. The index cover indicators such as access to water and sanitation, education and health outcomes, public criminality, housing, access to information and communication.

The social progress index framework builds upon and synthesizes a large body of research emphasizing the importance of moving beyond GDP, it is based on the hypothesis that it is only by constructing a separate social

progress measure that can stand alongside GDP that policymakers, societal stakeholders and researchers can begin to develop and implement a systematic and structured approach to inclusive development. The main setback of the index however is that it is comparatively more complex and lacks practicality when it comes to policy formulations.

## Conclusion

The idea here was to show how

GDP lacks in measuring indicators that show the true multi-dimensional development of an economy, which could also be seen presently after the aftermaths of the global pandemic COVID-19, though the initial impact of the epidemic has led to the decline in the GDP figures in almost all the major economies, however, now the countries are on the path of recovery. GDP fails to be a good measure of economic performance and multi-dimensional

development. There is thus a need to look at various indexes that could be adopted along with GDP to bring the factual picture of an economy. A more robust technique and approach need to be adopted which relies much more on the true nature and dimensions rather than irrational notions of economic development. It's time that we look at economic development to be much more than a mere increase in the figures of Gross Domestic Product.

---

## References

- Aghion, Philippe and Peter Howitt (1998), *Endogenous Growth Theory*, MIT Press, Cambridge, MA.
- Barro, Robert J. "Economic Growth in a Cross Section of Countries." *Quarterly Journal of Economics*, 106, pp.407-443.
  - Barro, Robert J. and Jong-Wha Lee (1994) "Sources of Economic Growth." *Carnegie-Rochester Conference Series on Public Policy*.
  - Durlauf, Steven and Danny Quah (1999) "The New Empirics of Economic Growth." in John Taylor and Michael Woodruff (editors) *The Handbook of Macroeconomics*, El Sevier, North Holland, Amsterdam.
  - Galor, Oded (2005) "From Stagnation to Growth: Unified Growth Theory." in Philippe Aghion and Steven Durlauf (editors) *Handbook of Economic Growth*, North Holland, Amsterdam, pp.171-293.
  - Galor, O. (2011) 'Inequality, Human Capital Accumulation and the Process of Development'. In Hanushek, E., Machin, S. and Woessmann, L. (eds) *Handbook of the Economics of Education*, Amsterdam, Elsevier, pp.441-493.
  - Helpman, Elhanan (2005) *Mystery of Economic Growth*. Harvard University Press, Cambridge MA.
  - Laitner, John (2000) "Structural Change and Economic Growth." *Review of Economic Studies*, 57, pp.545-561.
  - Lucas, Robert E. (1988) "On the Mechanics of Economic Development." *Journal of Monetary Economics*, 22, pp.3-42. ■

Contd... from # 14

of surplus mine water for community use for domestic and irrigation purposes. About 120 villages from Jharkhand are using mine water from CCL. During the last ten years, company has

done plantation of over 37 lakh saplings for improvement in biodiversity and environment. Mining coal from the bowels of earth is a challenge, but being a responsible corporate organization,

we are committed to ensure that the wheels of the development of the nation keep rolling. Our aspiration is not only to energise India but being a part in shaping the future of the country. ■

# People Analytics: People matter so their analysis



**Ashutosh Kr. Anand**  
Sr. Manager (HR)  
THDC India Limited

**“Not everything that can be counted counts, and not everything that counts can be counted” (Albert Einstein)**

**R**esources build organization. One such resource for an organization is its people. People make the difference in every organization. Great companies consider employees as their best assets. Organizations transform informational and physical resources into products and services through them. Companies today's are focusing a lot on data and its analysis to better manage their measure performance and gain competitive advantage through effective and timely decisions. There is a quote “He who would search for pearls must dive below.” Companies are using several analytical techniques today to find solutions to problems and finding a solution. People analytics is one such.

## HR Analytics/People Analytics

Everybody talks about HR analytics. It is simple, recognizable, has worked well for several companies. HR Analytics is the most significant revolution in HR in recent times. It has transformed the way experts are interpreting, analyzing and applying HR functions,

to improve the performance metrics indices of organizations.

In the last few years, HR analytics has become a real buzzword. However, the term HR analytics is a bit narrow. The term HR analytics has a big disadvantage as it implies to be exclusive to Human Resources. In addition, the HR department often lacks the skills to do analytics, which is why the analytics team also includes people with experience in IT, finance, and data analytics. Indeed, it may be easier to build support for a people analytics project than for an HR analytics project. Whether we are predicting employee churn, looking at performance, calculating an ROI or engaging in long-term workforce planning, we are all studying and analyzing people. Indeed, oftentimes HR analytics dives into elements that are the manager's prime responsibility, and not HR's. However, people analytics goes well beyond HR, as they ideally also include financial and other data. The HR department has focused on people matters that go beyond 'Human Resources' for decades. Maybe people analytics is the future of analytics in HR.

Traditionally, people analytics, workforce analytics, talent analytics and HR analytics have been used somewhat interchangeably. Talent analytics has a slightly more exclusive connotation: it focuses on talent and was often used in academia. Workforce analytics was more often used more by software providers that helped on workforce planning. People and HR analytics are often used interchangeably. Both terms are about the statistical analysis of people data. It is, for example, hard to find a software provider that doesn't sell an HR analytics tool.

HR analytics captures and measures the functioning of the HR team itself – for example, analyzing KPIs (Key Performance Indicators) such as employee turnover, time to hire, etc. Such analytics are only relevant to the HR team and they can be held accountable for.

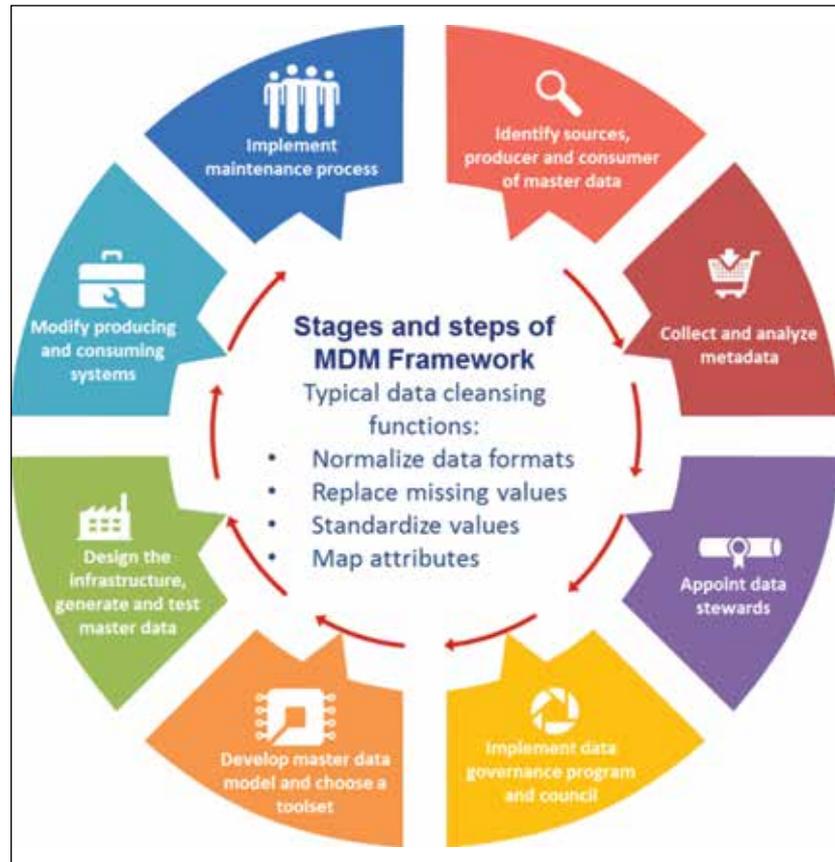
With this in mind, it is important to understand the limitless scope of people analytics. True people analytics aims to encompass HR, the entire workforce data and customer insights.

People Analytics inculcates the approach of measuring and analyzing all this information and knitting it together to improve decision making and business performance. To simply define the People Analytics, it is a process, where HR leaders apply a mix of statistical practices, technology and their individual expertise, to large sets of business metrics and employee data. This process results in better decision-making and a way to show concretely, the return on competitive talent and people investments.

People Analytics is a data metrics driven approach to manage people at work. When HR Analytics began, the term 'People Analytics' did not exist. Years later, People Analytics emerged and its proponents started telling that HR Analytics solves HR problems, but People Analytics solves business metrics problems. People Analytics has limitless scope. It includes the approach of measuring and analyzing all the information related to HR, the entire workforce data and customer insights. After that, it knits them together to improve decision making.

### Why is People Analytics Important for HR

The essential role of a people analytics role in an organization is to collect and analyze data for insights into employees' motivations. This data can then enable better business decisions and greater impact from each hire, assignment or promotion. Employee attribute data is not the only aspect that counts; relational analytics also helps to convey insights about the



interplay among people.

When companies evaluate both individuals and their relationship to the groups in which they work, leadership can improve the employee experience and business outcomes. People analytics provides a macro view of the impact that employees drive, and the conditions under which they can maximize their contributions. It identifies relationships, trends and patterns that enable leaders to make informed business decisions, spot problems and act effectively to improve business operations.

People analytics, a discipline that started as a small technical group that analyzed engagement and retention, has now gone main stream. Organizations are redesigning their technical

analytics groups to build out digitally powered enterprise analytics solutions. These new solutions, whether developed internally or embedded in new digital solutions, are enabling organizations to conduct real-time analytics at the point of need in the business process. This allows for a deeper understanding of issues and actionable insights for the business.

### The way People Analytics is being used

**Understanding individual influence:** According to Harvard Business Review, employees are not most influenced by their company's senior leadership, but by people in less formal roles who work closely with them. Surprisingly, staff who wield the

most influence are not necessarily those whom employees cite as influential. Non-executive, tangential colleagues often have stronger connections to employees. Without people analytics, there would be no way to tap their influence when necessary.

**Measuring team chemistry:** Without people analytics, teams are often constructed by joining specialists with complementary skills with other, highly skilled employees. However, analytics often reveals that this does not lead to the best interplay between workers, the most creative ideation or the most efficient project completion. Many other variables determine team chemistry and team success. These may include internal density (the amount of interaction among team members) and external range (the access members have to experts outside of the team).

**Understanding key performance indicators:** Analysts can dive deeper into the metrics of employee performance, including revenue per employee, quality of hire improvement, performance turnover in key jobs, new hire failure rate and diversity hires in customer impact positions. It is important to arrive at these complex indicators through extensive data analysis.

**Improving success in attaining traditional HR objectives:** Human resource departments are charged with a variety of goals including employee retention, improvement of the quality of hires, professional development, workforce planning and productivity enhancements. When companies can link data from each of these areas and others, they can focus on key metrics

**The essential role of a people analytics role in an organization is to collect and analyze data for insights into employees' motivations. This data can then enable better business decisions and greater impact from each hire, assignment or promotion. Employee attribute data is not the only aspect that counts; relational analytics also helps to convey insights about the interplay among people.**

and calibrate performance to meet specific objectives. Results-focused leaders at every level can apply the insights gained to change the company's capabilities, culture and training.

### **Google's Experience with people Analytics**

Humans and data are valuable resources available to organizations. People analytics enables organizations to gather data insights on a company's most important resource. More than 70% of companies now say they

consider people analytics to be a high priority.

The field even has celebrated case studies, like Google's Project Oxygen, which uncovered the practices of the tech giant's best managers and then used them in coaching sessions to improve the work of low performers. Google has been a leading light in People analytics, using it for more than a decade.

Google's People Operations team used a mix of productivity data and employee feedback to determine employee behaviors and skills through Project Oxygen, an initiative designed to find out what successful Google managers do. Performance ratings and employee feedback were analyzed and compared with productivity metrics to determine the impact of different leadership styles on employee engagement and productivity. From this, Google was able to create the 'Oxygen 10 Behaviours for Great Managers' and used it to train and select its company leaders.

Long before People analytics was even a thing, the clever bods in Google's People Operations were using actionable insights to study and understand a range of different insights about how their biggest asset operated on a daily basis. The People analytics team has spent a decade not only conducting research on everything from leadership to productivity, but also partnering with colleagues to translate these insights into action.

Following the success of Project Oxygen, Google researchers conducted a similar study to discover the secrets of effective teams at Google. They called it Project Aristotle. The goal was to answer

the question: ‘What makes a team effective at Google?’

The combination of hard data with human experience allowed for analysis that went beyond performance stats to assess team leadership, cohesion and other qualitative factors that helped certain teams outperform others.

Google used the findings to create a list of five essential factors needed to create a positive work environment: Psychological safety, Dependability, Structure and Clarity, Meaning, Impact. The technology giant claims its People function has changed since its initial foray into using analytics purely to improve the efficiency of its staffing function, over a decade ago.

The three essential People analytics lessons are:

**Invest in data infrastructure** – “every investment in data infrastructure is a good investment to make.

**Answer the questions that really matter** – in the first few years of existence, the People analytics team answered any question that was thrown at them, leading to the analysts working on 30-40 projects simultaneously and not focusing on the relevant, most important questions.

**People analytics is an ecosystem** – today at Google, People analytics is not just one team doing social science research, it’s a network that feeds into one another. “From our business intelligence group and People operations, to our voice and People innovation lab teams, to our business partnership insights team, they make up the Google People analytics ecosystem”.



Deloitte (2018) reports that people analytics do not only assist organizations to comprehend the changing workplace but also provides insight to drive customer behavior and engagement.

The truth is, people analytics has made only modest progress over the past decade. A survey by Tata Consultancy Services found that just 5% of big-data investments go to HR, the group that typically manages people analytics. And a recent study by Deloitte showed that although people analytics has become main stream, only 9% of companies believe they have a good understanding of which talent dimensions drive performance in their organizations.

### People Analytics: PSUs paradigm

In context of Public Sector Undertakings, HR Analytics is more or less confined to training programs and certification courses. Concepts like People Analytics and workforce analytics, talent analytics are not even in the platter. It is high time that the people dynamics and its importance are understood by

PSUs. Let all the people decisions be based on data and analytics. HR in PSUs needs to play a more strategic role in order to stay ahead in the race. It is now time to integrate HR with other business functions. PSUs may start working on data creation, preservation and mining such data for strategic business gain through logical decision making backed by such data. People are an organization’s biggest asset so why would you not want to gain valuable insights into your people’s behavior, as well as taking action to drive great employee experiences. A quote says: In God we all Trust, All others bring data. This amply summarizes the importance of data and analytics.

### References

- <https://www2.deloitte.com/>
- <https://www.crunchrapps.com/>
- <https://www.blog.chrmp.com/>
- <https://hbr.org/>
- <https://online.stu.edu/sage.com/en-au/blog/case-study-how-google-uses-people-analytics>

# Economic Optimization in Chemical Sector through Greener Circular Economy



**Dr. Yadnya Pitale**  
Independent Consultant

**E**conomic and Utility Maximization of natural resources through industrialization has been the key to growth in the Chemical sector. The chemical sector gains 7% weight to the Indian GDP while the Indian chemical industry ranks as sixth largest in world, and third in Asia. The value of the chemical industry in India was estimated at 100 billion dollars in 2019 .

However, Economic and Utility Maximization if backed by Principles of Sustainability will help improve face of the Indian Chemical Industries at a time when the world has recognized the importance of sustainability in industrial operations. This will also help India have a trade advantage in the world trade. At a time when the KYOTO Protocol(COP3) and SDGs are some of the steps taken at UN level advocating this objective.

Already, with the advent of block chain technology sustainability conscious companies in international trade will not only desire the end product to be manufactured in sustainable environment but at the same time raw materials sourced in the manufacture would also be desired to be manufactured in sustainable environment. This fast approaching

technology will map the fulfillment of sustainability criteria at every step of production. Undoubtedly, soon International trade through FTA route will also make sustainable production mandatory. Thus, non commitment to sustainability will hamper trade in long run.

Chemical companies, need to grow every financial quarter to satisfy stock markets. And pressure for constant quarterly growth compatible with sustainability solutions is the issue they fight to resolve. Such companies aboard the platform have a constant struggle to comply sustainability standards along with profit maximization.

Also, in case of India 60% of the micro businesses are overnight enterprises as they change their objective with change in marketing of a product for eg. if a product dips in consumer sale in market, enterprises stop manufacturing such a product, delve into manufacturing the most running product. Thus implying sustainability becomes difficult due to changing nature of business. In such a situation a default ground architecture rather than a customized architecture for industrial set up works hand in hand to sustain sustainability measures and at the same time acquire business

growth is an urgent need.

The Petroleum Chemical and Petrochemical Investment Region or the PCPIR thus is in no doubt to become a perfect example to set marriage between sustainability and economic advantages along with growth working towards Circular Economy.

The Petrochemical industry along with industries manufacturing products based on petrochemicals, dye stuff etc is one of the most hazardous waste producing chemical manufacturing industries and is in an urgent need to have integrated sustainability solution infrastructure. Models similar to PCPIR will be thus boon to also micro industries who are into businesses of disposal of scrap chemicals and are a common sight along the banks of most of the urban rivers and creeks contributing heavily to water pollution.

Though the Central Government is the main handler of the PCPIRs in context to the petroleum and hazardous chemicals industry. The State Industrial Development Corporations need to follow the PCPIR Model if they wish to not be redundant with time. Hazardous waste management services have become crucial to survive in the world market which is sensitive to sustainability



measures. Apart from sustainability in context to hazardous and toxic waste is concerned, it should imply for all other products too which could minimize waste and apply the Japanese a Sound Material-Cycle Society model of industrialization.

In November 1996, Asahi Breweries in Japan attained the goal of zero emissions at its plant in Ibaraki, which is very close to Tokyo. In November 1998, the company attained the zero-emissions goal at all of its plants. And this does not only mean that all industrial wastes produced at its plants are recycled, but that all types of waste, including ordinary items such as used fluorescent light bulbs and paper waste generated in offices, are recycled as well.

For years, Asahi had been making efforts to reuse industrial wastes, including using excess yeast in pharmaceuticals and foods-after processing it at pharmaceutical and food plants-and reprocessing cans. Through these efforts it had achieved an overall trash recycling rate of 98.5%. In order to attain the goal of zero emissions, it conducted studies to identify what plant wastes were not yet being recycled and then sought out a specialist to undertake the recycling of these wastes, by type

of raw material, and contracted this work to them.

The above example needs to inspire India's sustainability policies at industrial policy level. All 3 air, water and soil pollution need to be curbed and move towards extinction. A common infrastructure will thus pave way for better understanding the nature and root of pollution and dealing with the same .

Local stand alone chemicals and polymers production industry is the problem as operating chemicals plants generate air, water and soil pollution due to unreliable sustainability measures on one hand or no sustainable measures on other hand as mentioned earlier. Chemicals and polymers are also enablers of the boom in consumer spending that has contributed to India's chronically bad air quality – for example, the polymers needed for the production of automobiles.

Chemical sector has proved to be one of the key agents of soil manipulation through fertilizer and pesticide intervention in agriculture. The soil quality preserved for the last millions of years has been deteriorated in just about 100 years of innovations in the Chemical Engineering. Virgin organic soil is now only 30% of the earth with pollutants fast encroaching ocean soil too.

### **PCPIR Intervention in Improving Economy of Scale and Scope using sustainable measures**

The strategic model of PCPIR aims to boost investment in an industrial environment coupled with sustainability. The

PCPIR is equipped with smart and sustainable systems like Zero Liquid Discharge-based Common Effluent Treatment Plant, Integrated Solid Waste Management, real-time environmental monitoring systems and emergency response systems which are the USP of this plan.

PCPIR is a multi-disciplinary approach which is aimed to provide holistic and integrated methods to effectively promote Circular Economy in Toxic and Hazardous Waste management. The entire idea has found maneuverability only in Dahej rest of the PCPIRs are still at approval or just approved stage.

Thus there is an important task to effectively monitor and evaluate the success of each of the steps on a regular basis, so that suitable restructuring is possible along with removal of specific bottlenecks while expediting the process of setting up the other PCPIRs. Hence there exists an action plan along with time frame for expeditious implementation of the model along with research and development and information-based policy action. The same is expected to have effective and expeditious implementation of action plan to lead sustainable development with competitiveness and compliance for the industrial sector, alongwith overall improvement of the baseline natural environmental quality.

### **Role of Public Sector Enterprises in setting Sustainable Footprints**

Chemical Sector one of the world's main industrial sector comprising of allied sectors such as Metallurgy, chemical process equipment, pharmaceuticals,

fertilizers and pesticides, oil and petroleum industry, plastics, soaps and toiletries etc finds purpose of use in 90% of human life. Right from the tooth paste we use in the morning to the food we eat, the clothes we wear, the cars we drive, computers that we use etc. has direct or indirect presence of artificially manmade processed chemicals. Thus, it is safe to say that chemical industry has presence in every minute part of our life.

If we treat this scenario vis a vis 100 years back mankind was using everything direct from nature and nature had a unique design to accept the used and rejuvenate into a new one. Has Mankind succeeded in imitating nature? The answer is yes to certain % but not entirely as nature does.

There are number of limitations why mankind fails to mimic nature to its 100% and the only reason behind all these limitations is the ability to think long and comply with the short.

There needs to be a kick start at process level where the chemical product actually starts its journey. And innovation plays an important role as far as development process is concerned.

However, Innovation has been one of the most hyped Jargon of the day. Innovation product has lost its shine while the word Innovation is getting a lot of attention. Innovation product is what should matter and Public Sector Enterprises can play not only a proactive role in verifying such Innovation products and at the same time can have upper hand in supporting small time enterprises like Micro MSMEs to implement such products in their

practice. Much similar to Kisan Vikas Kendras function which provide solution to small farmers in their farming operations.

MSME development Institutes and Academic Institutions have been active in developing newer Innovation products however the kind of empirical expertise and testing is to some extent restricted. On the other hand Public Sector Enterprises have immense experience in understanding the nuances in the entire operating cycle of the final product and thus actually testing the viability of implementing such processes. The Public Sector Enterprises can actually play the role of Captain Cook guiding such small enterprises while choosing processes, reactants, catalysts etc in chemical process.

Public Sector Enterprises like Hindustan Organic Chemicals Ltd (HOCL), HIL (India) Limited (HIL) and Hindustan Fluorocarbons Limited (HFL) played a crucial role in shaping India's destiny in the petrochemical manufacturing sector. At the same time Rashtriya Chemical Fertilizers Ltd, National Fertilizer Ltd, KRIBHCO have been the key game changers in the agriculture sector.

It is experience alone along with resolve to innovate which matters. Long term presence in the market manufacturing Chemicals and Chemical processes has made the PSE sector aware of the hazardous after effects of production and usage. Thus the Public Sector Undertakings which had been instrumental in building base of the Indian Chemical Industry need to be fortified as not only an enterprise but also as an Institution to guide the



budding enterprises in Chemical sector to achieve Economies of scale and scope in business operations while at the same time putting the Agenda of Sustainability at the top of the chart.

The petrochemical and the fertilizer industry in the chemical sector are catching attention as far as sustainability is concerned. PSE which would be responsible to set up sustainable processes on their home ground will understand cost sensitivity to sustainability and help to guide others.

Involvement of PSEs will be like Government doing its own homework to understand the needs of the industry.

### Green Processes

What we mean by Green Process is the entire manufacturing process of a chemical product needs to produce zero waste and should at the same time have optimized output. The aim of green process should be to reduce chemical-related impact on human health and virtually eliminate contamination of the environment through dedicated, sustainable prevention programs. Green processes use innovated industrial equipment which have, environmentally friendly reaction media and at the same time strives to increase reaction rates and lower

reaction temperatures.

The green chemistry concept applies innovative scientific solutions to solve environmental issues posed in the laboratory. Thus there is an urgent need of social innovation specialists who could track process equipment, chemical materials etc. putting the best of their knowledge as social entrepreneurs working on best practices for the same. Such specialists when work in the PSE environment will help subsidize the implementation and testing of such processes to be installed at micro industry level. These abilities are most of the time nurtured due to long experience in working in such environment which helps make corrections towards sustainable production. The re-engineering of product XPhos is one of the eg. where it has been enhanced for catalytic efficiency. XPhos [2-Dicyclohexylphosphino-2', 4', 6'- triisopropylbiphenyl] is an air-stable electron -rich biaryl monophosphine ligand 2 developed by the Buchwald group to enhance the reactivity of palladium catalysis during cross-coupling reactions.

Green processes use less hazardous chemical syntheses. Wherever practical, synthetic methods are designed to use and generate substances that possess little or no toxicity. Thus Green processes are manicured to make Chemical products provide the desired function while minimizing their toxicity.

Green processes are optimized in operations. A very interesting example is that of the Sugar processing industry which is highly chemicals based and has huge wastage in form of hazardous material such as ethanol.

**Green process needs to be a policy initiative as well as a certification to promote cost effective amendments in regular processes to achieve not only profit incentives but at the same time maintain sustainability in manufacturing process. Industries producing toxic and hazardous waste need to be incentivized to use green processes. It's said that home grown experience is better than Institutional knowledge and being practical awards. In such a context the Government needs to play an active part in the PCPIR region and be part of the cluster...**

However innovations in Green Processes has brought about a major turn around in this industry with the introduction of Bio Ethanol based renewable energy product. Thus the output is a raw material to a renewable product technically and economically practical rather than an economic cost for disposal of the same. Thus, in a Green process Chemical product is designed so that at the end of its function it breaks down into innocuous degradation products and does not persist in the environment or transforms into a product of economic value.

Green processes require use of auxiliary substances (e.g., solvents, separation agents, etc.) made unnecessary wherever possible and innocuous when used. For eg catalytic reagents (as selective as possible) are superior to stoichiometric reagents.

Last but not least energy requirements of chemical processes should be recognized for their environmental and economic impacts too. To a larger extent synthetic methods in green processes are conducted at ambient temperature and pressure. Inbuilt Analytical methodologies are developed to allow for real-time, in-process monitoring and control prior to the formation of hazardous substances.

Thus, we have observed that it is not difficult to implement green process or sustainable operations if an integrated approach with peer guidance is in place.

#### **Thus it is suggested that,**

- The PCPIRs and State Industrial Corporations can avail investments under the KYOTO (COP3) Protocol in order to establish sustainable systems related to green house emissions which will be of economic interests. Thus PCPIRS will not only be branded for Investment regions but also for sustainability which also forms the core objective of setting them up for industry.

[The Clean Development Mechanism (CDM), defined in Article 12 of the Protocol, allows a country with an emission-reduction or emission-limitation commitment under the Kyoto Protocol (Annex B Party) to implement an emission-reduction project in developing

countries. Such projects can earn saleable certified emission reduction (CER) credits, each equivalent to one ton of CO<sub>2</sub>, which can be counted towards meeting Kyoto targets.

The mechanism known as "joint implementation", defined in Article 6 of the Kyoto Protocol, allows a country with an emission reduction or limitation commitment under the Kyoto Protocol (Annex B Party) to earn emission reduction units (ERUs) from an emission-reduction or emission removal project in another Annex B Party, each equivalent to one ton of CO<sub>2</sub>, which can be counted towards meeting its Kyoto target. Joint implementation offers Parties a flexible and cost-efficient means of fulfilling a part of their Kyoto commitments, while the host Party benefits from foreign investment and technology transfer.

Incorporation of such systems in the PCPIR and SIDC policy will help lure anchor projects to operate out of such areas. And at the same time attract overseas investments in key export oriented projects.

- Green process needs to be a policy initiative as well as a certification to promote cost effective amendments in regular processes to achieve not only profit incentives but at the same time maintain sustainability in manufacturing process. Industries producing toxic and hazardous waste need to be incentivized to use green processes.
- It's said that home grown Experience is better than Institutional knowledge and being practical awards. In

such a context the Government needs to play an active part in the PCPIR region and be part of the cluster through establishment of a PSE's a part of PCPIR. PCE have government representation on their Boards. This feature enables government to actively understand the problems of the cluster as services would remain integrated.

Government needs to make Public Sector Enterprises part of such PCPIR models so that they become Lighthouses to carry out industrial operations in chemical sector along with sustainability measures. Such PSUs will not only be practically guiding Governments both State and Central by setting examples for policy amendments as the Governments will be better informed about the impact of policy implementations due to constant feedback system. And at the same time will become examples and guiding stones for private enterprises to follow and be directed as to how to conduct industrial operations in the chemical sector along with profit maximization and sustainability measures. This comparative advantage will help improve both policy formation and private industrial operation due to information symmetry.

- Micro industries in chemical and petroleum based products need to be made part of Sustainability Integrated manufacturing hubs similar to PCPIRS. Awareness campaigns by academic institutes in this sector need be manifold and ground level to build consciousness towards sustainability.
- Maintaining soil productiv-

ity to enhance food security is inevitable. However the pollution due to chemical fertilizers has raised question on receding soil quality Fertilizer and Pesticide manufacturing units need to design products at least mimicking organic soil content along with sustainable residues.

The above suggestions will change the face of sustainability as costly economic affair and sooner will be part of operations as a sheer responsibility of the entrepreneur.

The PCPIR policy intervention is a holistic and integrated approach to achieve objectives of Circular Economy while being in tune with Atma Nirbhar Bharat.

Working hand in hand of the strategy of Circular Economy and Aatma Nirbhar Bharat will undoubtedly set India's pace in occupying a coveted place not only in World Trade but also in the UN objectives. The UN has been advocating Climate Change and Sustainable Development Goals in context to Environmental damage due to over industrialization .

The PCPIR strategy is thus one of the most adapt projects which will not only achieve economic goals but also support the SDGs to attain environmental goals. The State Industrial Development Corporations like GIDC, MIDC etc need to follow the PCPIR model and thus help Circular economy in general.

By putting sustainability on every agenda of trade and commerce, India can transform into Aatmanirbhar Niryaat Unnat Bharat. ■

# A Metabolic Disorder IDDM

## Part -II A Silent Killer\*\*



Dr. Nupur Krishnan\*

**D**iabetes claims millions of lives every year but most people are ignorant about its causes and symptoms. It is estimated that 100 million Indians will be diabetic by the year 2025. The condition can be easily prevented through early diagnosis, nutrition management and simple precautions.

### What is diabetes?

Our body receives energy from food in the form of carbohydrates, protein and fats. Normally 50% to 65% of energy is received from carbohydrates because of its easy availability and easy utilisation by the body. Our food is broken into sugar (glucose) and our body cells absorb glucose with the help of a hormone called insulin.

Insulin metabolism functions are:

- Insulin decreases breakdown and release of glucose from Liver.
- Facilitates conversion of glucose to glycogen for storage in liver and muscle.
- Activates transport of glucose into muscle and adipose cells.

Insulin is produced by a gland called the pancreas, which is located in the abdomen. Normally the pancreas produces 4-7 mmol of insulin to keep the sugar levels at a healthy range. When there is no insulin or less insulin in the body, the glucose cannot be utilised and is accumulated in the blood. An abnormal level of blood sugar is known as diabetes and fluctuation in blood sugar occurs due to various reasons.

### The role of Insulin and Causes

Actually, diabetes starts with pre-diabetic conditions, the blood glucose concentration is normally

very tightly regulated, most notably by the two antagonistic hormones insulin and glucagon. Insulin is responsible for imposing the upper limits on the blood glucose concentration and the lack of insulin or of insulin effect is the foremost causes of diabetes.

### What causes Type 1 diabetes?

Normally a healthy pancreas can produce insulin much more than what is required to our body. However, in Type 1 diabetes, the B cells in the pancreas that produce insulin are destroyed or damaged, causing a severe lack of insulin. This leads to hyperglycemia, polyuria (excessive urination) polydipsia (excessive thirst). This is thought to be the result of the body attacking and destroying its own cells in the pancreas especially B cells, known as an auto-immune reaction. So, in a nutshell this type of diabetes is caused by auto-immune disorder and you need to check foods which are allergic to you.

### Glycosylated Hemoglobin HbA1c

As a long-term parameter of diabetes adjustment, a parameter known as HbA1c is commonly used. HbA1c is one of the chains of hemoglobin. Its amino terminus may undergo spontaneous (non - enzymatic) reaction with glucose forming a covalent adduct which is called HbA1c. Since hemoglobin has a long lifetime, the percentage of HbA1 converted to HbA1c reflects the average concentration of glucose over a time span of several weeks. As stated above, spontaneous, non-enzymatic glycosylation of proteins is also believed to contribute to the causation of long-term complications of diabetes, another potential mechanism is the lack of C-peptide. The molecule used to be regarded only as a by product of insulin and it's not present in pharmaceutical preparations of insulin. It has been reported, however

\* Director, Biologies Healthcare & Fit India Ambassador, Ministry of Youth Affairs & Sports Authority of India.

\*\* In Continuation to March '22 issue NIDDM Part -I Silent Killer.

that treatment of diabetics with C-peptide may reduce the severity of diabetic complications such as degeneration of kidneys and peripheral nerves.

### Diabetic Coma

Untreated coma type I diabetes may become manifest by coma, as stated above, this condition is not common with untreated type II diabetes. However, with both forms' coma may arise from an overdosage of insulin, which will lead to hypoglycemia, i.e., a lack of glucose in the blood. It will pass out. Now, if you find a known diabetic in a comatose state, what do you give him glucose or insulin? Since the hypoglycemia coma is more immediately life threatening than the hypoglycemic one, you must always use glucose first. Only if that doesn't help should you try insulin. Of course, you will also try to determine the blood glucose level as soon as possible and then adjust the treatment accordingly.

### Other forms of Diabetes

While Type I and Type II diabetes are the most common forms diabetes may also take the following forms:

**Endocrine induced diabetes:** This diabetes may occur due to other endocrine diseases. Examples are diabetes due to cortisone or epinephrine producing tumors of the adrenal glands both epinephrine and cortisone have metabolic effects that are antagonistic to insulin.

**Drug-induced diabetes:** This is most commonly observed with cortisone and other corticosteroids, which are being used in chronic inflammatory or auto-immune diseases that are refractory to milder treatment. Increased blood glucose is just one of their side effects.

Treatment of these cases consists, if possible, in curing the underlying primary diseases.

Some of the possible triggers of this reaction include:

- Genetic, Maternal and Paternal risk factors
- Infection with a specific virus or bacteria
- Exposure to food-borne chemical toxins
- Auto-immune disorder
- High Risk of Ketoacidosis

This concludes overview of diabetes metabolism

### Symptoms of Diabetes

Normally the symptoms appear after more than 70% of Pancreas is damaged and until then our body tries to regulate its internal metabolism.

- Increased amount of urine
- Acetone Smell, Fruity smell
- Feeling thirsty more often
- Sudden weight loss
- Tiredness and exhaustion
- Dehydration
- Slow healing of wounds or cuts
- Blurred vision
- Electrolyte's disturbance

### Symptoms for specific conditions

Glucose Level	Symptoms
60 mg%	nausea, vomiting, emptiness in the stomach
50 mg%	sweating, palpitation, nervousness
40 mg%	abnormal behaviour, drowsiness
30 mg%	unconsciousness

**Hyperglycaemia:** This symbolises a hike of sugars in the blood and is characterised by excessive hunger prangs, excessive thirst, sudden loss of weight.

### Consequences

Diabetes can cause problems with the kidneys, legs, feet, eyes, heart, nerves and blood flow. If left untreated, these problems can lead to kidney failure, gangrene, amputation, blindness, loss/blurring of vision, recurring infections or stroke. In the long run a diabetic person faces higher health risks as compared to a non-diabetic person:

2-3 times more prone to heart attack, 6 times more prone to neurological disorder/ paralysis, 5 times more prone to kidney problems, 20 times more prone to eye problems.

Complications of Diabetes due to high blood sugar (Hyperglycemia)

- **Heart disease:** Vascular inflammation leads to narrowing of the arteries and reduces blood flow leading to heart attack. Heart attack is the commonest cause of death for people with diabetes.
- **Kidney disease:** The membrane which filters blood is thickened which reduce the blood filtration and protein in the urine. Over a period of time this leads to damaged kidneys. 45% of kidney failure cases happen due to diabetes.

- **Eye problems:** Retinal vessels are damaged leading to fluid leakage in the retina. 50% of all blindness occurs due to diabetic retinopathy.
- **Foot Amputations:** Nerve conduction is compromised which causes loss of sensation and delayed wound healing. More than 60% of non – traumatic lower-limb amputations occur among people with diabetes.
- **Nerve disease:** About 60 to 70% of people with diabetes have mild to severe forms of nervous system damage leading to loss of sensation.
- **Stroke:** The risk of a stroke is 2 to 4 times higher in people with diabetes.

**Treatment**

Primary Treatment to reduce weight, often sufficient in relatively young patients. People with diabetes can lead happy, healthy life provided they keep diabetes under control and complications can be reduced up to 60%. The primary objective is to keep the Blood sugar levels as close to normal as possible through proper diet, regular exercise, medication and monitoring.

Exercise helps in breaking blood glucose levels by spending more energy and helping muscles to tap the blood glucose into body cells.

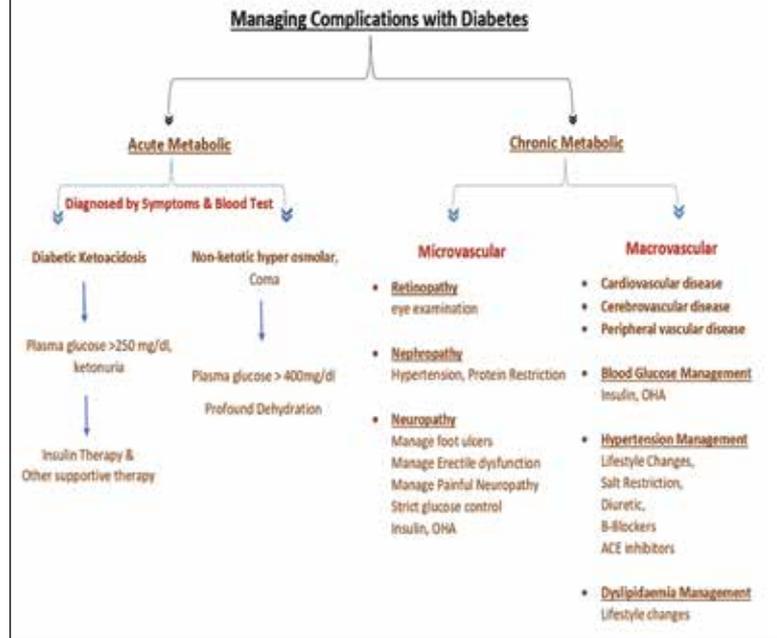
Losing weight helps to bring their blood sugar levels to the normal range. Especially visceral fat in adipose tissues around stomach may also prevent absorption of whatever little insulin is available in the body.

Medically this condition is treated with inducement of insulin or metformin through external source. However Medical intervention without proper diet will keep increasing the complications because the medicines are meant for managing diabetes but Nutrition therapy is meant for reversing the diabetic condition through food.

**Why should I Exercise?**

**Regular exercise (3 to 4 times a week or more)**

- Improves blood glucose control & normalizes blood pressure.
- Improves Insulin sensitivity.
- Decreases VLDL & LDL (bad) cholesterol, increases HDL (good) cholesterol.
- Optimizes body weight and improves physical fitness.



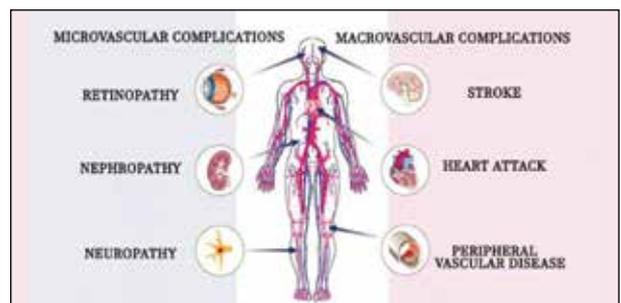
**What precaution should I take?**

- Carry a medical ID card.
- Whenever you feel tired due to low blood glucose consume sugar candy, fruit juices, biscuits etc.
- Do not exercise on an empty stomach or when your blood glucose is more than 250 mg/dl.

**Dietary Management of Diabetes**

Diabetes can be easily prevented and controlled by Medical Nutrition therapy (MNT). It identifies the root cause of abnormal levels of glucose in your blood and help to modify your food habits accordingly. Consult a Qualified Clinical Nutritionist to control diabetes.

Your diet should be balanced to provide sufficient energy from carbohydrates, proteins and fats according to your requirements without elevating blood glucose levels. In addition, diet with certain food helps repairing damaged cells in Pancreas so that insulin production is increased to normal levels. To synchronize Insulin action with preferred food intake, maintain consistency in timing and amount of food (carbohydrate) eaten. Ensure adequate energy and nutrient intake to promote state of



good health and well-being; To propagate life-style modification(s) enabling oneself attain improved control on blood sugar's, lipids, and blood pressure. Effect of insulin deficiency on lipid metabolism. In fat tissue lack of insulin leads to disinhibition of hormones sensitive lipase. Diet also involves a process of identifying foods causing allergy and avoiding or replacing with different kind of foods.

The two important aspects of diet planning are:

- The total sugar content of the food and the rate at which the food releases sugar into the blood stream. It is measured by the Glycaemic Index which helps us to identify the potential of any food in increasing blood sugar levels. Always opt for food with a low Glycaemic Index.
- Since carbohydrates are the major sources of glucose, avoid simple carbohydrates which are easily digested and elevate blood sugar levels immediately. Opt for complex carbohydrates which are digested slowly and thereby gradually supply sugars to the body.

### Dietary Guidelines for Diabetics

- The key while formulating a diabetic diet is to ensure that there is a steady supply of glucose in the blood.
- Sugar levels shouldn't spike up or take a sudden dip either so instead of eating three times a day, eat five times but reduce the quantity. Your body utilises the food better when taken in small quantities at regular intervals; this also helps control the blood sugar.
- Spread the intake of carbohydrate rich foods throughout the day. Eating large amounts of carbohydrates at one time produces increased amounts of glucose and stimulates the release of large amounts of insulin which can cause blood glucose level to drop.
- Avoid feasting and fasting; neither skip meals nor indulge in overeating.
- Avoid sugar rich foods that tend to raise your blood sugar levels rapidly, such as jaggery, sugar, cakes, pastries, glucose powder, jam, jelly, ice cream, chocolates, squashes lemonades, aerate drinks etc.
- A high fibre diet helps to reduce the insulin requirement.
- Opt for whole fruits (with the skin wherever possible) instead of juices.
- Eat vegetables more frequently as they contain

good fibre and antioxidants.

- Whole sprouted pulses add more fibre and enzymatic action to your diet.
- Incorporate raw vegetable salads in your daily diet.
- Avoid fried foods as much as possible and reduce saturated fat in the diet (such as dalda, vanaspati, butter, margarine, etc.).
- Due to frequent urination water soluble vitamins like B-Complex and vitamin C may be flushed from the body; try to consume a sufficient amount of these vitamins.
- Avoid soft drinks, fruit and vegetable juices, and alcohol; these will increase blood sugar levels very rapidly.
- In case your after-meal blood glucose is high, eat fewer carbohydrates at mealtimes. Control and keep a check on carbohydrate foods like maida, potatoes, rice, noodles, white bread, cornflakes and bananas.
- Eat fruits before meals not after the meals. Skip desserts.
- 'Free foods' are those which contain very little, or no sugar, starch or fat, such as black tea or coffee, clear soups, spices (all), artificial sweeteners, thin butter milk, certain vegetables like spinach, cucumber, etc. These foods can be consumed as and when desired.
- Either use skim milk powder or Skim off the fat from the milk before using it. After boiling fresh milk, refrigerate the milk overnight. Skim off the fat next morning and then use it for tea/ coffee and making curd/ buttermilk/ panner etc.
- Healthy snacking in office or working place. Instead of fried snacks chiwda, chaklis matharis, can have fresh snacks dhokla, Idli, khandvi, Patra, or dry in-between snacks Kurmura, makhana, bhuna channa, popcorns or high fibre biscuits etc.
- The method of cooking is important. Ideal cooking methods are boiling, steaming, stewing, dry roasting, grilling, baking, poaching and stir frying (with very little oil). Deep and shallow frying should be avoided.
- To empower oneself to monitor blood glucose levels thereby delay or alleviate the onset of diabetes complications' by means of weight reduction, exercise and diet.
- Our body constitution is unique to each himself/herself hence; our diet too is tailor-made to best suit our bio-chemical parameters and personal life-style.

- Managing your mind with mood through food. The best calming doses of pure carbohydrate is 45-55 gms. Sugar and starch both are tranquilizers, but sugar works faster than starch. Sugar works in 5 minutes while starch takes 30-45 minutes to work.

## Myths and Facts about Diabetes

### Myth : Diabetic tablets are 'oral' insulin

**Fact:** These are not 'oral' insulin but they indirectly function in two ways:

- Stimulate beta cells in the pancreas to secrete insulin to match the demand or
- Improve the ability of the body to use insulin better

### Myth: Being on insulin means I am at the last stage of my diabetes

**Fact:** Most people feel that insulin as a last resort only when diet, exercise and tablets fail. However early initiation of insulin helps manage diabetes and reduce complications as

- 37% in eye, kidney and nerve complications
- 14% in heart attack
- 21% in diabetes related death

### Myth: Bitter tasting foods will lower blood sugar.

**Fact:** Consuming bitter tasting items like neem and bitter gourd (karela) will not reduce blood sugar because glucose is derived from foods rich in carbohydrates even if they are not sweet.

### Myth: A diabetic cannot consume any type of sweetener.

**Fact:** Direct sugar is usually omitted from the diet of most diabetics. However, sugar substitutes can be used in two forms; fructose sugar (fruits).

### Myth: Diabetics cannot consume fruits.

**Fact:** Diabetics can consume fruits because they contain fibre and fructose sugar. Due to the fibre content of fruits, fructose is released slowly into the blood and our body can utilise fructose without insulin. However, fruit juices, sugarcane Juice are not recommended because they don't contain fibre.

### Myth: Diabetics can't consume alcoholic drinks

**Fact:** Diabetics are advised to avoid alcohol since it may lead to a major drop in blood sugar. However, one drink of alcohol is permitted once a week

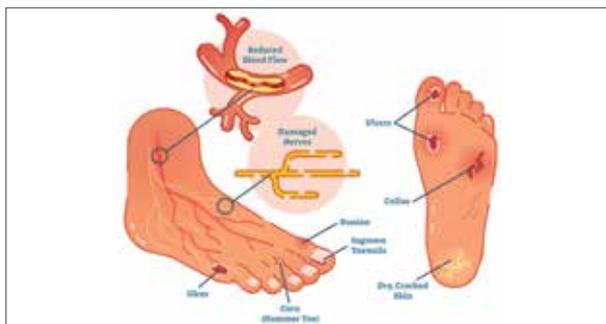
depending on individual health conditions.

1 drink = 12 ounces of beer/ 5 ounces of wine/ 1 ½ ounces of distilled spirit. (1 ounce = 30 ml)

**Myth:** Hypoglycemia (low blood sugar) is inevitable with insulin?

Sometimes it is possible your blood glucose levels may fall down due to less intake of food, heavy exercise, side effects of medicines etc. This can be easily managed by eating sweets or candy.

## Diabetes and Footcare



Diabetes Can causes foot problems due to following reasons:

- Loss of sensation with increased risk of injury pads or corn.
- Poor circulation causing delayed healing.
- Higher chances of infections that go unnoticed, spread widely leading to gangrene.

## FOOT Care Do's and Don'ts

- Inspect your feet daily for sores, blisters, bruises, cracks and redness.
- Wash your toes in lukewarm water.
- Dry your feet thoroughly especially in-between toes.
- Trim your toenails carefully. Cut Your nails straight across.
- Always wear right size shoes or slippers Protect your feet with appropriate footwear.
- Never put hot water bottles or heating pads on your feet.
- Never cut corns or calluses or use corn pads or corn medication.
- If any injury takes place do first aid immediately. Wash the injury with mild soap and dry thoroughly and apply a mild antiseptic and visit a doctor at the earliest. Do not use Iodine, Epsom salts or boric acid. If a bandage is necessary then use a small gauze pad and non-allergic tape. ■

## New and Improved Convention Centre at SCOPE Complex and SCOPE Minar

Conference Halls and facilities are being sanitized and fumigated on a regular basis.  
Booking of halls are now open in line with Government guidelines.

### Conference Facilities at SCOPE Convention Centre Lodhi Road, New Delhi

The centrally air-conditioned SCOPE Convention Centre at SCOPE Complex, Lodhi Road, New Delhi provides excellent conference facilities to PSEs, Govt. Departments, Autonomous Bodies, Institutions/NGOs etc. The Auditorium and other Conference Halls are equipped with projector and screen facilities, sound & light control room with recording & P.A. facility, etc. Details of the capacity of the Auditorium and other Halls, which are available on nominal tariff are given below:

#### Auditorium



The Auditorium having capacity of 310 persons (300 Chairs + 10 Nos. Chairs at stage) capacity equipped with projector, screen and mikes on dais and podium on stage.

#### Mirza Ghalib Chamber



The chamber having capacity of 108 persons (102 Nos. Chairs + 6 Nos. Chairs on Dais) equipped with 2 Nos. projector & screen and mikes on table, dais and podium.

#### Tagore Chamber



The chamber having capacity of 92 persons (86 Nos. Chairs + 6 Nos. Chairs on Dais) equipped with 2Nos. projector & screen and mikes on dais, tables & podium.

#### Bhabha Chamber (Board Room)



The chamber having capacity of 44 persons (24 Nos. Chairs on round table and 20 Nos. Chairs on sides) equipped with projector, screen and mikes on dais, tables & podium.

#### Fazal Chamber



The chamber having capacity of 25 persons (15 Nos. Chairs on round table and 10 Nos. Chairs on sides) capacity with board room type sitting arrangement equipped with projector, screen and mikes.

## Business Centre



The Business Centre having capacity of 7 persons equipped with multi point Video Conferencing System (1+3), at three locations at a time for National & International both.

## Annexe II



The Annexe-II has capacity of 15 Persons and is equipped with projector and screen.

## Banquet Hall



The banquet hall having capacity of 500 Persons for the purpose of lunch & dinner. Sitting arrangement could be done for 40 persons.

## Tansen Chamber at UB



The Tansen Chamber has capacity of 30 persons and also has stage & podium equipped with projector and screen.

## Annexe I



The Annexe-I has capacity of 20 Persons and is equipped with projector and screen.

## Amir Khusro Chamber at UB



The Amir Khusro Chamber has capacity of 35 persons with facility of stage & podium equipped with projector and screen.

**For Booking & Tariff details please contact**

**Mr. Shubh Ratna**

GM (Tech.& HR)

Mob: 9873398242

Email: shubhratna@scopeonline.in

**Mr. Nitin Kulshrestha**

Dy. Manager (Tech. & HR)

Mob: 9313989067

Email: nitin@scopeonline.in

## Conference Facilities at SCOPE Minar Convention Centre, Laxmi Nagar, New Delhi

SCOPE Minar, an architecturally conceived in the form of two high rise curvilinear tower blocks sitting on a four storey circular Podium Block, is strategically located in Laxmi Nagar District Centre, Delhi -110092 and housing around 40 PSEs of repute. It is one of the iconic buildings of East Delhi. It has a huge foyer which gives an ambience look inside the building. There is a green environment all around the SCOPE Minar building with large size planters. The building also has state-of-the-art Convention Centre comprising of five conference halls i.e.

### Auditorium



The auditorium has capacity of 350 delegates. Various seminars, training programmes, presentations, get together etc. can be conducted in auditorium which is equipped with projector and screen. It provides ambient and peaceful environment for the programmes.

### VIP Lounge



VIP Lounge has sitting capacity of 30 delegates. The executives and higher level officers, Directors, CMDs can use it as waiting lounge also.

### Board Room



Board room having "U" shaped table, has a sitting capacity of 50 delegates with modern facilities - projector, screen, sound system, table mic etc.

### SCOPE Academy of Public Sector Enterprises



SCOPE Academy of Public Sector Enterprises (APSE) conducts induction level programmes for PSEs' executives. It has three training halls equipped with projector, screen, sound system etc. one with capacity of 40 persons and two halls with capacity of 30 persons each for training purpose.

### Meeting Hall



Meeting hall having "U" shaped table, has a sitting capacity of 62 delegates. Most widely used for small size meetings and training programmes, group discussion, power point presentations etc. and is equipped with projector and screen.

**For Booking & Tariff details for Convention Center, SCOPE Minar, Laxmi Nagar please contact**

**Mr. Shubh Ratna**

GM (Tech. & HR)

Mob: 9873398242

Email: shubhtratna@scopeonline.in

**Mr. Gopal Krishna Bharti**

Asst. Manager (Tech.) SCOPE Minar,

Mob: 9717564689

Email: scope.convention@scopeonline.in

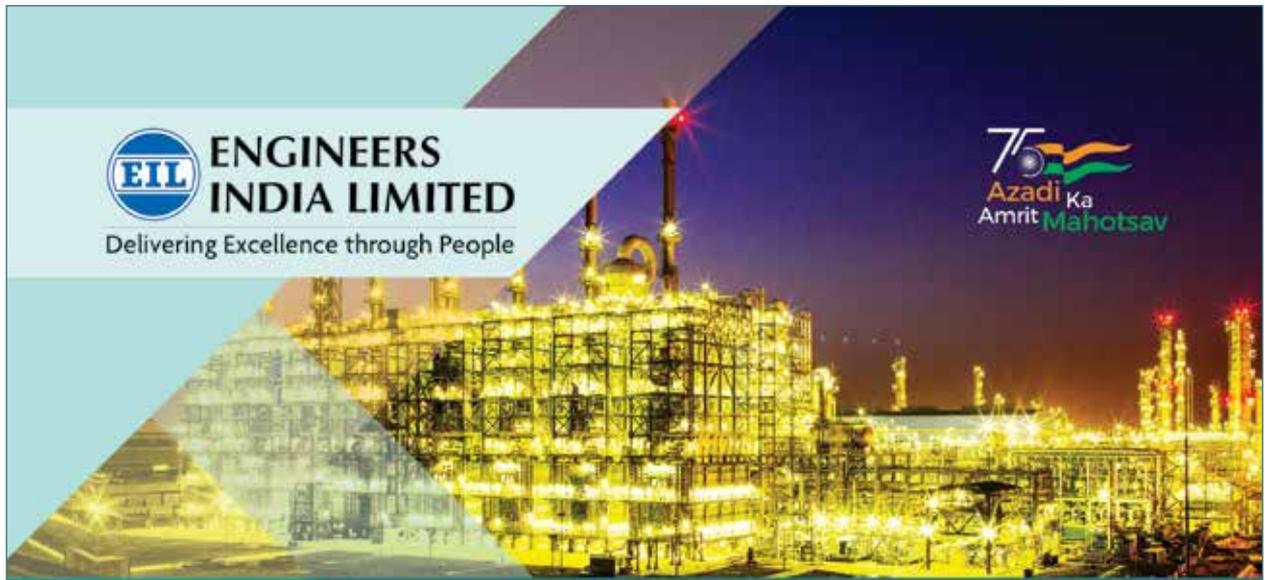
gopal@scopeonline.in

**There is a wide space for vehicle parking that cater for a capacity of 550 cars, including the newly built good quality Banquet Hall wherein 300 delegates can comfortably dine at a time, makes it special to deliver an all-round conducive meeting environment.**



**ENGINEERS  
INDIA LIMITED**

Delivering Excellence through People



## ENGINEERING MEGA PROJECTS

### ENERGISING TOMORROW

- India's leading engineering consultancy & EPC company
- Over 7000 assignments executed for projects worth over USD 200 Billion
- Significant track record across entire oil & gas value chain including 89 major Refinery Projects, 12 mega Petrochemical Complexes, 44 Oil & Gas Processing Plants, 213 Offshore Projects and 50 Pipeline Projects
- In-house and collaborative R&D with 36 live patents
- Expanding overseas presence in Middle East, Africa and South & Central Asia
- Diversification into synergic sectors like Fertilizers, Non-ferrous Metallurgy, Infrastructure, Underground Crude Oil Storages, Water & Waste Water Management, Ports and LNG

For over five and half decades, Engineers India Limited has played a pivotal role in engineering the nation's energy blueprint with the execution of world-scale grassroots refineries, state-of-the-art petrochemical complexes, pipelines and a host of critical hydrocarbon projects. We leverage superior project management skills, innovative construction strategies and a highly experienced workforce to deliver these mega projects from concept to commissioning.



Follow us :  [www.engineersindia.com](http://www.engineersindia.com)  [/EngineersIND](https://www.facebook.com/EngineersIND)  [@EngineersIND](https://twitter.com/EngineersIND)  [/company/engineers-india-limited](https://www.linkedin.com/company/engineers-india-limited)

## PSEs pay Dividend

### GRSE pays Interim Dividend of Rs. 56.70 cr. for FY 2021-22: Hands Over Dividend Cheque to Government of India



Cmde P. R. Hari, IN (Retd), CMD, GRSE presenting the Dividend cheque to Mr. Rajnath Singh, Defence Minister, Gol in the presence of Dr. Ajay Kumar, Defence Secretary, Mr. Sanjay Jaju, Additional Secretary(Defence Production), Mr. Surendra Prasad Yadav, Joint Secretary (Naval System) and Mr. R. K. Dash, Director (Finance), GRSE.

Garden Reach Shipbuilders and Engineers Ltd. paid an interim dividend of Rs. 56.70 cr. for FY 2021-22 to its shareholders. The Interim Dividend Cheque amounting to Rs. 42,24,39,138/- as the government's share was handed over to Defence Minister Mr. Rajnath Singh, by Cmde P. R. Hari, IN (Retd), CMD (Officiating) of GRSE Ltd. Kolkata at New Delhi in the presence of Dr. Ajay Kumar, Defence Secretary, Mr. Sanjay Jaju, Additional Secretary (Defence Production), Mr. Surendra Prasad Yadav, Joint Secretary (Naval System) and Mr. R. K. Dash, Director (Finance), GRSE.

GRSE declared an interim dividend of Rs. 4.95 per equity share of Rs.10 for FY 2021-22 against Rs.3.85 in FY 2020-21, reflecting a remarkable increase of 28.57%. GRSE has been consistent in paying dividend to the Shareholders and has done so every year for the last 28 years. The company has strong order book position of Rs 24,605 cr. as on 31<sup>st</sup> Dec 21.

### BEL pays Rs. 186 cr. Second Interim Dividend to Government of India



Ms. Anandi Ramalingam, CMD, BEL, along with Mr. M. V. Raja Sekhar, Director (R&D), BEL, and Mr. Manoj Kumar, Executive Director (National Marketing), BEL, presenting the second Interim Dividend cheque of Rs. 186.89 cr, to the Defence Minister, Mr. Rajnath Singh, at New Delhi. Also seen are (Left to Right) Mr. Anurag Bajpai, Joint Secretary (P&C), Dr. Ajay Kumar, Defence Secretary, and Mr. Sanjay Jaju, Additional Secretary (DP).

Bharat Electronics Ltd (BEL) paid Interim Dividend of 150% on its paid-up capital to the Government of India for the Financial Year 2021-22.

Ms. Anandi Ramalingam, CMD, BEL, presented the second Interim Dividend cheque of Rs. 186,89,60,967/- (Rupees One Hundred Eighty-six cr. Eighty-Nine Lacs Sixty Thousand Nine Hundred Sixty-seven only), payable on the shares held by the President of India, to the Defence Minister, Mr. Rajnath Singh, at New Delhi. BEL has declared 150% percent as Second Interim Dividend (Rs. 1.50/- per share) to its shareholders for the financial year 2021-22.

This is the 19<sup>th</sup> consecutive year that BEL is paying Interim Dividend. BEL has paid a total dividend of 400% on its paid up capital for the financial year 2020-21.



The Earth is our Workplace.  
**We Preserve and Protect it.**  
(Going Green since 1958)

## More than 6 decades of Responsible Mining and Sustainability

- > One of the best performing Public Sector Enterprises of India
- > The single largest producer of iron ore in India
- > Venturing into steel by commissioning 3.0 MTPA Steel Plant at Nagarnar, Chhattisgarh
- > Sole producer of Diamonds in India
- > Bringing socio-economic transformation through innovative and impactful CSR initiatives in the less developed regions of the Country.

**NMDC re-dedicates itself with a fresh zeal and renewed enthusiasm, energy and strategy to achieve greater heights in delivering value for all its stakeholders.**

एनएमडीसी



NMDC

## NMDC Limited

(A Government of India Enterprise)

Khanij Bhavan, 10-3-311/A, Castle Hills,  
Masab Tank, Hyderabad - 500 028, Telangana, India  
CIN : L13100TG1958GOI001674

[f](#) [t](#) [i](#) [v](#) [y](#) /nmdclimited | [www.nmdc.co.in](#)

*Eco-Friendly Miner*



## NRL presents Dividend Cheque of Rs. 95.63 cr. to Govt. of Assam

NRL presented the 2<sup>nd</sup> Interim Dividend Cheque of Rs. 95.63 cr. to the Govt. of Assam, for the FY 2021-22 for its equity stake of 26% in the Company.



Mr. Bhaskar Jyoti Phukan, Director (Technical) and MD (I/C), NRL presenting Dividend Cheque to Dr. Himanta Biswa Sarma, Chief Minister of Assam in the presence of Mr. Chandra Mohan Patowary, Industries Minister, Govt. of Assam, Mr. Indranil Mitra, Director (Finance), NRL; Independent Directors of NRL Board, Dr. S. Lamare, Mr. Gagann Jain, Mr. Sudip Pradhan, Ms. Priyambada Keshri and other senior officials of NRL.

Director (Technical) and MD (I/C), NRL, Mr. Bhaskar Jyoti Phukan presented the Dividend Cheque of Rs.95.63 cr. to Chief Minister of Assam Dr. Himanta Biswa Sarma in the presence of Industries Minister, Govt. of Assam, Mr. Chandra Mohan Patowary, Director (Finance), NRL, Mr. Indranil Mitra, Independent Directors of NRL Board, Dr. S. Lamare, Mr. Gagann Jain, Mr. Sudip Pradhan, Smti Priyambada Keshri and other senior officials of the Company at the State Secretariat.

Earlier on 16<sup>th</sup> March 2022, the Board of Directors of NRL had approved the payment of the 2<sup>nd</sup> Interim Dividend for the Financial Year 2021-22 @50% on the paid-up share capital of Rs.735.63 cr. (i.e. Rs.5.00 per fully paid equity shares of Rs.10/- each) to the shareholders based on the Profit of the Company up to the 3<sup>rd</sup> Quarter ending 31<sup>st</sup> December 2021. Accordingly, the Dividend payable to the Government of Assam against its 26% shareholding amounts to Rs.95.63 cr.

The 1<sup>st</sup> Interim Dividend for the FY 2021-22 amounting to Rs. 86.35 cr. was paid to Govt. of Assam as a part of its equity holding of 23.48% of the paid upshare capital of Rs. 735.63 cr. on 29<sup>th</sup> November, 2021.

## HAL pays Highest Dividend to GoI

HAL paid the second interim dividend of Rs. 653.36 cr for the FY 2021-22 to the Government of India.



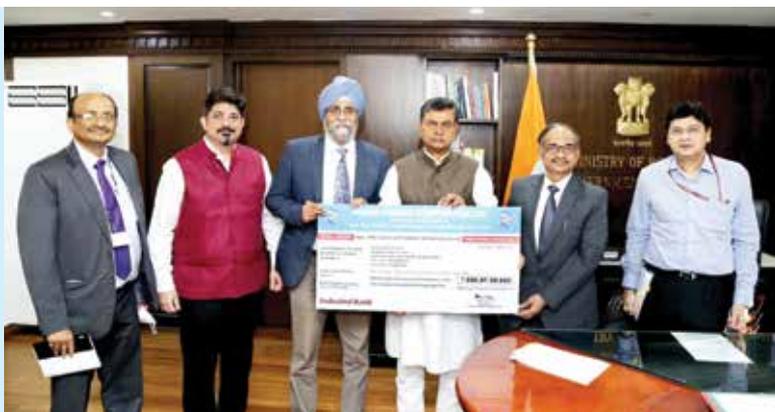
Mr. R. Madhavan, CMD, HAL presenting the Dividend cheque to Mr. Rajnath Singh, Defence Minister, GoI in the presence of Dr. Ajay Kumar, Defence Secretary and other senior officials from HAL.

The Dividend Cheque was handed over to the Defence Minister, Mr. Rajnath Singh by Mr. R. Madhavan, CMD, HAL and Mr. C. B. Ananthkrishnan, Director (Finance), HAL in the presence of Dr. Ajay Kumar, Defence Secretary in New Delhi. The Company had declared the second Interim Dividend of Rs. 26/- per equity share of Rs. 10/- each amounting to Rs. 869.41 crores on February 10, 2022, in addition to the first Interim Dividend of Rs. 14/- per equity share of Rs. 10/- each amounting to Rs. 468.14 cr. earlier declared on November 11, 2021, total amounting to Rs. 1337.55 cr. which included GoI share of Rs. 1005.17 cr.

“It is the highest dividend declared by the Company after listing of its shares on the Stock Exchange(s) and is more than what has been prescribed under DPE guidelines”, said Mr. R. Madhavan. Mr. Sanjay Jaju, AS (DP), Mr. Chandraker Bharti, JS (Aero), MoD and Mr. Alok Verma, Director (HR), HAL were also present on the occasion.

## PFC pays Interim Dividend of Rs. 886.97 cr. to Govt. of India for the FY 2021-22

Power Finance Corporation paid Rs 887 cr. to Govt. of India as the third Interim Dividend on equity shares held by Govt. of India for the



Mr. Ravinder Singh Dhillon, CMD, PFC presenting Dividend Cheque to Mr. R. K. Singh, Minister (Power, New & Renewable Energy) in the presence of Mr. Alok Kumar, Secretary, Ministry of Power and other senior officials of Ministry of Power and PFC.

financial year 2021-22 recently. This is in addition to Rs. 333 cr. and Rs. 370 cr. paid as first and second Interim Dividend respectively to the Government of India.

The Interim Dividend RTGS (Real Time Gross Settlement) intimation advice was presented to Minister (Power, New & Renewable Energy) Mr. R. K. Singh by Mr. Ravinder Singh Dhillon, CMD, PFC in the presence of the Secretary, Ministry of Power, Mr. Alok Kumar and other senior officials of Ministry of Power and PFC.

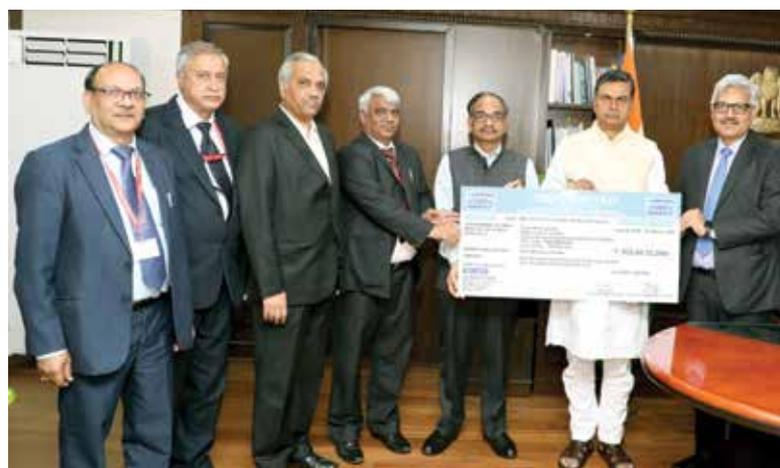
The third Interim Dividend @ 60% i.e. Rs. 6 per equity share of face value Rs. 10 each was declared by the Board of Directors in its meeting held recently. With this, PFC has so far paid Interim Dividends amounting to Rs. 2838 crore to its shareholders @107.5% i.e. Rs. 10.75 per equity share of the face value of Rs.10 each for the financial year 2021-22, which is the highest ever dividend paid by PFC.

## NHPC pays Interim Dividend of Rs. 933.61 cr. to Government of India for the FY 2021-22

NHPC Limited paid an Interim Dividend of Rs. 933.61 crore to Government of India for the FY 2021-22. The dividend payout bank advice was presented to Mr. R. K. Singh, Union Minister of

Power, New and Renewable Energy by Mr. A. K. Singh, CMD, NHPC in the presence of Mr. Alok Kumar, Secretary (Power) and Mr. Y. K. Chaubey, Director (Technical), Mr. R. P. Goyal, Director (Finance), Mr. K. K. Goel, Executive Director (Finance) and Mr. Sanjay Kumar Madan, Executive Director (Finance) from NHPC.

NHPC had already paid Rs. 249.44 cr. to Government of India during the current fiscal 2021-22 on account of final dividend for the financial year 2020-21. Thus, NHPC has paid total dividend of Rs. 1183.05 cr. to Government of India during the FY 2021-22.



Mr. A. K. Singh (right), CMD, NHPC handing over Interim Dividend payout advice of Rs. 933.61 cr. to Mr. R. K. Singh, Union Minister of Power, New and Renewable Energy in the presence of Mr. Alok Kumar, Secretary (Power) Government of India, and Mr. Y. K. Chaubey, Director (Technical), Mr. R. P. Goyal, Director (Finance), Mr. K. K. Goel, Executive Director (Finance) and Mr. Sanjay Kumar Madan, Executive Director (Finance) from NHPC at New Delhi.

The Board of Directors of the Company in its meeting held recently had declared an interim dividend at the rate of Rs. 1.31 per Equity share i.e. 13.10% of the face value. NHPC today has more than eight lakh shareholders and total Interim Dividend pay-out for the FY 2021-22 worked out to Rs. 1315.90 cr. The Company had paid an Interim Dividend of Rs. 1.25 per share with total outflow of Rs. 1255.63 cr. for the FY 2020-21 in addition to final dividend of Rs. 0.35 per share with total outflow of Rs. 351.58 cr. Thus, total dividend of Rs. 1.60 per share with total outflow of Rs. 1607.21 cr. had been paid for the FY 2020-21. ■



# PSEs Ink MoU

## EIL and PNGRB sign MoU for Capacity Assessment of Natural Gas Pipelines



Officials from EIL and PNGRB displaying MoU documents after signing.

Engineers India Limited (EIL) and Petroleum and Natural Gas Regulatory Board (PNGRB) signed a Memorandum of Understanding (MoU) for carrying out Capacity Assessment of Natural Gas Pipelines. Under the MoU, EIL shall be providing niche services for assessing capacities of Natural Gas Pipelines.

The Petroleum and Natural Gas Regulatory Board (PNGRB) has been constituted under The Petroleum and Natural Gas Regulatory Board Act, 2006 to protect the interests of consumers and entities engaged in specified activities relating to petroleum, petroleum products and natural gas and to promote competitive markets and for matters connected there with or incidental thereto.

## IOC signed between HAL and PHL for Helicopter Purchase/Lease

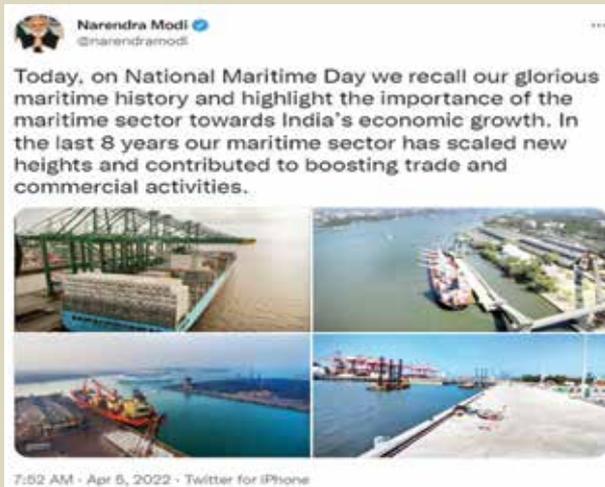


Mr. Sanjeev Razdan, CMD, PHL (right) and Mr. S. Anbuvelan, CEO, Helicopter Complex, HAL (left) exchanging the Intent of Cooperation documents in the presence of Mr. Jyotiraditya, M. Scindia, Minister of Civil Aviation (centre).

An Intent of Cooperation (IOC) was signed between HAL and PHL for purchase or long-term lease for 20 helicopters, 10 each civil variants of ALH Dhruv and Light Utility Helicopters at the ongoing Wings India-2022 at Hyderabad. This would also bring synergy between HAL and PHL in helicopter ecosystem and strengthen helicopter business in India's civil aviation market.

The IOC was signed between Mr. Sanjeev Razdan, CMD, PHL and Mr. S. Anbuvelan, CEO, Helicopter Complex, HAL in the presence of Mr. Jyotiraditya, M. Scindia, Minister of Civil Aviation, Mr. Vemula Prashanth Reddy, Minister of Roads, Buildings, Legislative Affairs and Housing, Telangana, Mr. R. Madhavan, CMD, HAL and others. The IOC has been signed in-line with the Govt's vision of "Aatmanirbhar Bharat". ■

# SCI celebrates National Maritime Day



In a nation endowed with a vast 7517 Km coastline and more than 15045 Km navigable length of inland waterways (river, canal, lakes), maritime sector will always offer an immense value for socio-economic growth of the nation. India has enormous opportunity to magnify its internal & coastal water ways logistics by way of bringing down the cost of transportation and intensifying its commitment towards environment-friendly mode of logistics with excellent fuel efficiency and lower levels of emissions.

India is also trying to emerge as a

leading nation in maritime training, supply of skilled manpower, building port capabilities and infrastructure to cope up with the international competition faced from the other developed and developing nations. Government of India's commitment could be inferred from the massive initiatives, such as Sagarmala and Gati Shakti that considers Maritime as a key sector in country's imminent growth.

Amid such tough challenges, 5<sup>th</sup> April comes as a day to recognize the significance of the sector, futuristic vision and its

contributors. Since 1964, 5<sup>th</sup> April is recognized as National Maritime Day (NMD) in commemoration of journey of the first Indian commercial vessel SS Loyalty, (owned by The Scindia Steam Navigation Company Ltd), on 5<sup>th</sup> April, 1919 which is considered to be the 'beginning' of Indian Shipping. This 5<sup>th</sup> April 2022, the entire country celebrated the 59<sup>th</sup> National Maritime Day with great fervor and enthusiasm, with special message coming from our Hon'ble PM highlighting the importance of the sector.

Efforts of SCI in the field have again been recognized during the 59<sup>th</sup> National Maritime Day Celebrations by Directorate General of Shipping (DGS) where SCI was conferred with the two Sagar Samman Awards - 'Best Indian Ship-owning Company' & 'Best Indian Employer of Seafarers'. The Awards were handed over by Union Minister of State for Ports, Shipping and Waterways, Mr. Shripad Y. Naik to Ms. H. K. Joshi, CMD (SCI), making the day and year more special for SCI.



Mr. Shripad Y. Naik, Minister of State for Ports, Shipping and waterways presenting the award to Mrs. H. K. Joshi, CMD, SCI.



## NTPC commissions Additional Capacity at Ramagundam Floating Solar Project

**N**TPC has made commercially operational an additional 42.5 MW of power generation capacity at Ramagundam floating solar project in Telangana. Earlier the company had commissioned 17.5 MW (Part-I) and 20 MW (Part-II) of the project. With the addition of 42.5MW, the total commercially operational power generation capacity of Ramagundam floating solar project has reached 80 MW. The project is of 100 MW capacity. The NTPC's total Installed capacity is 68,609.68 MW.



## EIL to achieve **Net Zero by 2035**

**E**ngineers India Limited has declared 2035 as the year to achieve Net Zero aiming towards fulfilling our Hon'ble Prime Minister's vision to be Net Zero by 2070. As a responsible corporate citizen, EIL had already constituted a team in July 2021 to assess the carbon emissions from its own operations and chart out a roadmap for

achieving its own Net Zero target. In addition to fulfilling its own decarbonisation objectives, EIL is committed towards assisting its esteemed clientele in their energy transition journey towards net zero by providing clean and green technological solutions leading to a sustainable future for the generations to come. In the rapidly changing global energy

landscape, carbon intensity is becoming a key performance indicator for the success of any organization. New project investments are also diverted towards clean & green technologies instead of carbon intensive technological solutions. Hence, it has become imperative to become a net zero service provider to enhance company's Brand Image.



## ONGC to undertake 2D Seismic Survey for appraisal of 70,000 line km of Indian Offshore up to Exclusive Economic Zone boundary

**O**il and Natural Gas Corporation Limited (ONGC) will undertake two-dimensional (2D) seismic survey of the un-appraised areas of India's Exclusive Economic Zone (EEZ). The decision has been taken recently by the Ministry of Petroleum & Natural Gas, Government of India, to impart impetus to exploration in offshore areas through National Oil Companies (NOCs).

Director General of Hydrocarbon (DGH) has entrusted ONGC to carry out 2D Seismic Survey in Offshore areas up to EEZ of India involving Acquisition, Processing and Interpretation (API) of 70,000 LKM of 2D Seismic Data in three sectors; Western, Eastern and Andaman Offshores within two years. The Ministry of Petroleum & Natural Gas has also approved that DGH will reimburse the cost of this to ONGC.

### ONGC on way to add another Basin on production

Oil and Natural Gas Corporation Limited (ONGC) is on its way to commercialize another Basin – the Vindhyan Basin. This would be the ninth producing Basin of India; the eighth by ONGC. This comes close on the heels of the eighth Indian Basin – the Bengal Basin – dedicated to the nation on 20 December 2020.



The jubilant ONGC Team with Director (Exploration) after the testing of well Hatta - 3 which paved the way for discovery of 9<sup>th</sup> Indian Basin.

Exploratory well Hatta#3 was drilled with the objective to establish commercial potential through detailed testing to acquire reservoir - specific data. The Well Hatta#3 is in the Son valley sector of Madhya Pradesh. On testing, the well-produced over 62,044 cubic meters/day gas, thus confirming the production potential of Proterozoic Basin for the first time in India. ONGC Director (Exploration) Mr. R. K. Srivastava personally supervised the testing activities at the well-site on this historic occasion recently.

Active exploration in the Vindhyan Basin began with the acquisition of seismic data in the late 1980s. The very

first well Jabera#1, drilled in the Basin in 1991, produced gas of around 2000 cubic meters/day. Perseverance of ONGC spanned over the next 25 years, with drilling of 26 exploratory wells in the Son and Chambal valley sector of the Vindhya Basin, notwithstanding 14 of them providing sub-commercial gas flows in the Son Valley.

ONGC is now working out various monetization options for the gas viz. direct marketing to industries in the vicinity, Cluster-based gas production through cascade systems, CNG bottling at well-head as the gas is of high calorific value and transportation using available facility.



## BHEL wins order for **Compressor Package from Iraq**

**B**harat Heavy Electricals Limited (BHEL) has achieved yet another milestone in its international business by bagging an order for a Compressor Package from Iraq. Won in the face of stiff competition, the order for the Package for Baiji Refinery in Iraq, has been placed by Northern Refineries Company (NRC), a National Oil refinery company owned by Ministry of Oil, Republic of Iraq.

The order envisages design, engineering, manufacturing and supply of electric motor driven Recycle Gas Centrifugal compressor and will be executed by BHEL's International Operations Division along with its manufacturing units at Hyderabad and Bhopal. The new compressor will replace the existing compressor, also supplied by BHEL in the year 2000, which was damaged due to

the war in Iraq. BHEL has a strong presence in Iraq, having supplied several Gas Turbine based Power Plants, including 4x157 MW Gas Turbine Generator (GTG) units for Baiji Power Station and 2x125 MW GTG units for Rumailla Power Station. BHEL has also executed a turnkey order for construction of 4x125 MW Gas Turbine based Sulaymaniyah Power Project in Iraq.

BHEL's portfolio of having supplied over 400 nos. Gas/Air Compressors for various industries/ applications covering a wide range of pressures and flow, and handling numerous types of gases including Natural Gas, Syn Gas, Wet gas, CO<sub>2</sub> to Ammonia, Nitrogen, Hydrogen, is a testament to BHEL's robust presence in this segment. In the international market, BHEL has so far supplied compressors to France,

Bangladesh, Iraq, Iran, Oman and Belarus.

The company has been continuously expanding its overseas footprints and today has a presence in 88 countries in all the 6 inhabited continents. BHEL's international references encompass almost the entire range of BHEL's products and services, covering thermal, hydro and gas-based turnkey power projects, solar PV based projects, substation projects, R&M projects, besides a wide variety of products like transformers, compressors, motors, valves, oil field equipment, electrostatic precipitators, photovoltaic equipment, heat exchangers, switchgears, castings and forgings, etc. The cumulative portfolio of BHEL's overseas power projects stands at 17 GW out of which over 11 GW has already been commissioned.

## Personalia



**Mr. Subhash Chand Gupta**  
assumes charge as Chairman and  
Managing Director of Mumbai Railway  
Corporation Limited



**Dr. Manas Kumar Sharma**  
assumes charge as Director (E&D)  
of Oil India Limited



**Mr. Atul B. Patil**  
assumes charge as Director (Marketing)  
of National Fertilizers Limited



**Mr. Bhanu Prakash Srivastava**  
assumes charge as Director (Other Units)  
of Bharat Electronics Limited



**Ms. Pomila Jaspal**  
assumes charge as Director (Finance) of Oil  
and Natural Gas Corporation Limited



**Mr. Brijendra Pratap Singh**  
assumes charge as Director In charge of  
SAIL's Burnpur & Durgapur Steel Plants

# PSEs CSR Activities

## RECPDCL commits CSR support to Healthy Aging India for providing cost-effective living facility



Officials from RECPDCL and Healthy Aging India, New Delhi after signing MoA.

Being a responsible and responsive corporate citizen while also acknowledging its responsibility towards the society, more so, towards the needy and less served elderly people, REC Power Development and Consultancy Limited (RECPDCL), has committed financial assistance of about Rs. 0.42 cr. under its CSR initiative for providing cost-effective living facility for the needy and less-served older adults at Healthy Aging India, New Delhi.

The proposed assistance will result in mental and physical well-being of the elderly residents. Interpersonal relationship will be promoted among the residents through various means such as yoga classes, cultural events and other constant recreational activities that will also help in active aging.

The Memorandum of Agreement (MoA) in this regard was executed between RECPDCL and Healthy Aging India, New Delhi by Mr. Kapil Kumar

Pandey, CGM (HR, CSR & Admin) – RECPDCL and Mr. Ramesh Pandita, Secretary - Healthy Aging India in the presence of other officials.

## PFC distributes 1000 Motorized Tricycles to 'Divyangjans'



Mr. Ravinder Singh Dhillon, CMD, PFC handing over the Motorized Tricycles to the orthopedically impaired persons.

As a part of 'Azadi ka Amrit Mahotsav Celebration', Power Finance Corporation, India's leading NBFC distributed 'Motorized Tricycles' to the orthopedically impaired persons (Divyangjans).

CMD, PFC, Mr. Ravinder Singh Dhillon inaugurated the distribution camp in New Delhi and handed over the motorized tricycles and accessories to the beneficiaries. Speaking on the occasion, CMD, PFC Mr. Ravinder Singh Dhillon highlighted that PFC is distributing 1000 Motorized Tricycles in 10 districts in the States of Delhi, Uttar Pradesh, Madhya Pradesh and Andhra Pradesh." He further called upon all sections of the society to come forward to help the 'Divyangjans' in bringing them into mainstream to optimise their full potential. ■



## NMDC team visit to **Perth, Australia**

A high-level delegation of NMDC Ltd, led by Mr. Sumit Deb, CMD met with state government officials and other mining companies in Australia. Comprising of Mr. Amitava Mukherjee, Director – Finance and other senior officials of NMDC, the delegation, which reached Perth, Australia had deliberations with the team of Legacy Iron Ore Ltd its Australian subsidiary.

Mr. Deb shared NMDC's future plans with officials of the state government. Stating that FY 2022's record production was just a beginning for NMDC, he outlined the company's vision to become a 100 MT iron ore producer by the year 2030. NMDC, is diversifying into steel with the greenfield Nagarnar Steel Plant in the state of Chhattisgarh, India due to start production soon, said Mr Deb. He also expressed



Mr. Sumit Deb, CMD, NMDC; Mr. Amitava Mukherjee, Director (Finance), NMDC and other senior officials from NMDC during the visit.

optimism on the future of the recently executed agreement between Legacy Iron Ore and Hancock Prospecting Ltd, which is now a key partner. Mr. Deb said Hancock's expertise and experience, particularly in iron ore in Western Australia, would help

unlock the huge potential of the Mt. Bevan project. The CMD and Director, Finance also met with heads of other mining company present and had a valuable exchange of information on mining practices in Western Australia and NMDC's plans in the state.

## BHEL organises **Communication Week**

Bharat Heavy Electricals Limited's (BHEL) Communication Week – 'Abhivyakti', was inaugurated by Dr. Nalin Shinghal, CMD, BHEL, in the presence of the company's Functional Directors. Aimed at enhancing communication for bringing about better employee engagement, the program was organised across all the units of BHEL around the country.

Addressing a cross section of employees pan India, Dr. Shinghal stressed on the role of timely, factual and error free communication

in developing trust, confidence and commitment amongst employees. "We need to go beyond the week and ensure effective and verifiable communication across the organisation on a sustained basis. This will ensure complete clarity about our roles and objectives and foster teamwork", he said.

The week included talks and interactive sessions of employees with the management, function heads, communication professionals and domain experts, in addition to contests, competitions



Dr. Nalin Shinghal, CMD, BHEL, addressing the communication week 'Abhivyakti' in the presence of company's Functional Directors during the inaugural ceremony.

and knowledge sharing across the company.

## NBCC built National College for Policing and Law Enforcement (NCPLE) inaugurated in Maldives

-- Breaking new grounds in #IndiaMaldives friendship --

**N**BCC built National College for Policing and Law Enforcement (NCPLE) was jointly inaugurated by the Hon'ble President of Maldives, Mr. Ibrahim Mohamed Solih and External Affairs Minister of India, Dr. S. Jaishankar at Addu City, Maldives recently. Dr. Jaishankar's tweet "For those who want to see Indian project delivery abroad now, see the clip on the Maldives Police Academy inaugurate" received an overwhelming response on internet.

Mr. P.K. Gupta, CMD, NBCC graced the occasion. National College for Policing and Law Enforcement (NCPLE) is funded under India's grant assistance of USD 33 million. The state-of-the-art project includes 325 Seater Auditorium duly equipped with latest and modern infrastructure amenities.



NBCC with several recently completed overseas landmark projects i.e. Mahatma Gandhi International Convention Centre (MGICC), Niger; Supreme Court Building & Social Housing

in Mauritius and iconic India Pavilion at Expo 2020 Dubai to its credits has partnered with the Government of Maldives to construct 2000 Social Housing Units in Hulhulmale, Maldives.

## GAIL to buyback about 5.70 cr. shares @ Rs 190 per share Buyback price 24 % premium on previous close

**G**AIL (India) Limited approved buyback of about 5.70 cr. shares @ Rs. 190 per share aggregating to about Rs 1,083 cr. (excluding taxes). The buyback price of equity share is at 24% premium on previous day close price at NSE.

The decision was taken by the Company's Board of Directors at its meeting recently to consider buyback of the fully paid up

equity shares of the Company. The Board approved buyback of about 5.70 cr. shares through tender offer represents 2.50% of its paid-up capital and free reserves as on March 31, 2021.

GAIL has been consistently rewarding its shareholders through regular dividends, issue of bonus shares and also buyback of shares at premium. During current financial year, the Company

has paid the highest ever interim dividend amounting to Rs 3,996 cr. (at the rate of 90% of the face value). The Company had issued Bonus shares in FY 2008-09, 2016-17, 2017-18 & 2019-20. Further, the Company has also completed buyback of its equity shares in March 2021 @ 2.5% of Net Worth amounting to about Rs 1046 cr. i.e, about 6.97 cr. shares @ Rs. 150 per share.



## NEEPCO achieves New Milestones



**I**n the financial year 2021-22, NEEPCO achieved many new milestones. The generation

crossed the mark of 8000 Million Units for first time in the history of NEEPCO. The total income

was more than Rs. 3300 cr. and profit before tax exceeded Rs. 400 cr. The company has been rated as AA+ with stable outlook by the rating agencies.

On the eve of its 47<sup>th</sup> Foundation Day, the company took a pledge to not restrict themselves to achieve set targets but also to create and achieve new bench marks. Mr. V. K. Singh, CMD said that the road ahead will be challenging, but he is confident that the founding values and past success will motivate all employees to strengthen their capabilities and produce results.

## NCL meets 119 MT of Annual Coal Production target eight days ahead Excellent Performance in Coal Production & Dispatch

**N**orthern Coalfields Ltd, surpassed its annual coal production target of 119 Million Tonne for the current fiscal 2021-22, eight days ahead and produced 119.05 MT till date with spectacular 6.50% y-o-y growth.

This was the highest ever coal production since inception of the Company. The company has produced 7.23 Million Tonne more coal over previous year in the same period of fiscal till date. The performance is assumed significant in backdrop of post COVID challenges faced by the coal mining sector and nation's growing energy demand. On this stellar performance,

CMD, Mr. Bhola Singh and Functional Directors of the company congratulated the Team NCL and gave credit to NCL' Coal warrior for this remarkable achievement showing unwavering commitment and concerted efforts towards energy security of the nation.

On this occasion he reiterated

the Company's commitment for uninterrupted supply of coal through eco-friendly & sustainable mining to the consumers in order to make the nation self-reliant in energy sector.

NCL is eyeing 130 MT coal production by 2023-24 in its contribution to make India a self-reliant Coal Sector.



## PSEs celebrate **Azadi ka Amrit Mahotsav**



### **An awareness programme on Labour Law organised at Neyveli by Labour Enforcement Department under the Union Ministry of Labour & Employment**



Mr. Rakesh Kumar, CMD, NLCIL, presenting two sets of stitched uniform to a Contractor's workman at a function held at Neyveli. Also seen are Mr. N. Sadish Babu, ED/HR, NLCIL, Mr. P. Arun Kumar, Dy. Chief Labour Commissioner, (Central) Chennai, Mr. B. Parivallal, Labour Enforcement Officer (Central), Puducherry and the principal office bearers of recognized Trade Unions of the company.

In commemoration of the 75<sup>th</sup> year of India's Independence (Azadi ka Amrit Mahotsav) the Union Ministry of Labour & Employment organised a one day awareness programme on Labour Laws to the Contract Employees of NLCIL at Learning & Development Centre, Neyveli. While inaugurating the programme, Mr. Rakesh Kumar, CMD, NLCIL gave away two sets of stitched uniform to the Contract Workmen of the company.

An Interactive session on Labour Laws was organised at the Yegneswaran Auditorium of Learning & Development Centre, Neyveli by the Labour Ministry functioning in Tamil Nadu. Mr. P. Arun Kumar, Dy. Chief Labour Commissioner (Central), Chennai and Mr. B. Pari Vallal, Labour Enforcement Officer, (Central) Puducherry organised the session. While inaugurating the session, Mr. Rakesh Kumar,

CMD, NLCIL informed that the NLCIL fulfills the needs of the contract workmen of the company and always treat them as the part of NLCIL family. The single agenda that was not yet implemented, on the recently signed 12(3) Settlement with Trade Unions is issuance of two sets of stitched uniform. And he started the scheme by presenting two sets of uniform to them. The event was witnessed by Mr. N. Sadish Babu, Executive Director/ HR, senior officials of NLCIL, senior officials of Union Labour & Employment Ministry, Principal Office Bearers of recognized Trade Unions and other Trade Unions and a number of Contract Employees.

### **'Bijli Utsav' organized by REC in Bihar as part of Azadi Ka Amrit Mahotsav**



A view of the cultural programme held during 'Bijli Utsav' organized by REC.

As part of 'Azadi Ka Amrit Mahotsav' – to celebrate 75 years of Independence, REC Limited organized a 'Bijli Utsav' at Babura village in Bhojpur district near Patna in Bihar. Mr. Raghvendra Pratap Singh, Ex-Minister, Govt. of Bihar & MLA - Barharaalong with Mr. Dharendra Singh – MP representative and Mr. Joginath Pradhan, CPM – REC inaugurated the event in the presence of other officials from REC.

Mr. Raghvendra Pratap Singh, Ex-Minister, Govt. of Bihar & MLA - Barhara highlighted the benefits of electricity, the challenges faced during electrification in rural areas and how the quality of life improved with access to power. The event also

witnessed several beneficiaries of Saubhagya Yojana who were invited on stage to share their experience. To engage with the villagers, various cultural programmes such as dance and poetry recitation were held along with a quiz on various Government programmes, awareness about usage of electricity, billing, energy efficiency etc. was conducted to impart knowledge to the public.

## GRSE commemorates India@75 – Azadi Ka Amrit Mahotsav

Garden Reach Shipbuilders and Engineers Ltd., (GRSE) commemorated celebrations of the country's 75 years of Independence (India@75) – Azadi Ka Amrit Mahotsav through a week-long celebrations (23-29 April, 2022). The highlight of the commemorations was the e-release of GRSE's Annual In-house Journal VARTA 2021 by Governor of West Bengal, Mr. Jagdeep Dhankhar in the presence of Rear Admiral V. K. Saxena, IN (Retd.) CMD, GRSE, Cmde Sanjeev Nayyar, Director (Shipbuilding), Cmde P. R. Hari, Director (Personnel), and other senior officials of GRSE on 28 April 21.

The Hon'ble Governor of West Bengal in his address commended GRSE in contributing to the strategic needs of India's maritime interests and security. He also mentioned that the track record for delivery of 788 platforms including 107 warships by the shipyard, is a rare honour. The delivery of warships in recent times inspite of challenges, is a tribute to Team GRSE and its leadership, he said. The weeklong celebrations saw five focused Webinars on enhancing 'Aatmanirbharta'.



The oxygen plant at BSSH was inaugurated by Cmde PR Hari, IN (Retd.), Director (Personnel), GRSE in the presence of Swami Brahmattamanda Ji. Secretary, BSSH and senior officials of GRSE & BSSH.



## GRSE exhibits At Kolkata and Ranchi: Celebrating Akam (13<sup>th</sup>–19<sup>th</sup> Dec 21)

To commemorate India@75 as part of Azadi Ka Amrit Mahotsav celebrations, Garden Reach Shipbuilders and Engineers Ltd., organized seven day public exhibitions at its Diesel Engine Plant (DEP) Unit, Ranchi, Science City (a Science & Convention Centre under National Council of Science Museums), Kolkata and Indian Maritime University (IMU), Kolkata from 13<sup>th</sup>-19<sup>th</sup> Dec 21 to showcase its decades of legacy in shipbuilding, current and futuristic products. The exhibitions in all three locations were virtually inaugurated by the Defence Minister, Mr. Rajnath Singh on 13<sup>th</sup> Dec 21.





During the celebration of India@75 public exhibition at three locations, GRSE implemented following activities as per the directives received from MoD These included:

### Visit by Local Schools & Colleges

GRSE invited local schools and colleges (Hindi/ English/ Bengali) in Kolkata & Ranchi to attend the exhibition along with teachers. GRSE facilitated transportation for their pick-up and drop-off to make the program successful. Around 1000 school/college students participated in 7 day exhibition. Following the COVID protocol, the daily average footfall at three exhibition sites was recorded as 150 people per site per day.

### Products, Platforms displayed in the Exhibition



Digital Means used in the Exhibition which included two digital display in all three locations to exhibit GRSE's corporate video in local language and other product videos to engage general public in Kolkata and Ranchi.

The other activities included Media Engagement i.e. Pre Event Activities and During Event activities to publicize GRSE's decade long legacy in shipbuilding, current infrastructure and engagement with local people etc. and Souvenir stall/ Selfie points, Graffiti areas for public feedback at three locations were equipped with dedicated Selfie zone.

## NHPC observes 131<sup>st</sup> birth anniversary of Babasaheb Dr. Bhimrao Ambedkar

NHPC organized a special programme under



Mr. Mukul Kanitkar, National Organising Secretary, Bharatiya Shikshan Mandal along with Mr. A. K. Singh, CMD, NHPC, Mr. Y.K. Chaubey, Director (Technical), Mr. R. P. Goyal, Director (Finance), Prof. (Dr.) Amit Kansal, Independent Director and other senior officials during special programme under 'Azadi ka Amrit Mahotsav'.

'Azadi ka Amrit Mahotsav' to commemorate the 131<sup>st</sup> birth anniversary of Bharat Ratna Babasaheb Dr. Bhimrao Ambedkar at its Corporate Office, Faridabad. Mr. Mukul Kanitkar, National Organising Secretary, Bharatiya Shikshan Mandal was the Chief guest on the occasion. Mr. A. K. Singh, CMD, NHPC was the Special guest for the programme.

The programme began with paying of floral tributes to the statue of Dr. Ambedkar by Mr. Mukul Kanitkar, National Organising Secretary, Bharatiya Shikshan Mandal along with Mr. A. K. Singh, CMD, NHPC, Mr. Y. K. Chaubey, Director (Technical), Mr. R. P. Goyal, Director (Finance), Prof. (Dr.) Amit Kansal, Independent Director and other senior officials. Mr. Mukul Kanitkar delivered a special lecture on the principles and achievements of Dr. B. R. Ambedkar and gave a deep insight into various aspects of Dr. Ambedkar's life. He further asked everyone to study the life of Dr. Ambedkar more deeply.

Speaking on the occasion Mr. A. K. Singh, CMD, NHPC briefly highlighted NHPC's activities in the field of hydropower and its foray into solar and wind power. The programme was viewed live across all NHPC Regional Offices, Power Stations and Projects through web-casting and all NHPC employees greatly benefitted from the special lecture given by Mr. Mukul Kanitkar. ■



# Awards & Accolades to PSEs

## SAIL employees shine at the Vishwakarma Rashtriya Puraskar ceremony



Chairman, SAIL Ms. Soma Mondal with the VRP award winners of SAIL, for the performance year 2018 during a felicitation programme held at SCOPE Convention Centre.

The employees of Steel Authority of India Limited (SAIL) made an impressive mark in the ceremony of Vishwakarma Rashtriya Puraskar (VRP) given for the performance year 2018. The national awards were given away by the Minister for Labour & Employment, Environment, Forest & Climate Change, Mr. Bhupender Yadav in a ceremony organized at Vigyan Bhawan, New Delhi. The Minister of State for Labour & Employment and Petroleum & Natural Gas, Mr. Rameswar Teli was also present during the occasion. The VRP, instituted by the Government of India, is aimed at rewarding the efforts of workers from the industrial undertakings at the national level. 52 awardees, out of the total 96 award winners belong to SAIL representing 54% of the total winners. SAIL employees have won 11 awards out of the total 28 awards given for the performance year 2018, which is 39% of the total awards in various categories of the VRP.

In a separate program, Ms. Soma Mondal, Chairman, SAIL felicitated the VRP winning employees. Congratulating the winners during the program, Ms. Mondal emphatically said, "The commitment, dedication and excellence of our employees have been reaffirmed with them winning the Vishwakarma Rashtriya Puraskar in such large

numbers. I am confident that our talented employees will propel SAIL to newer heights. The culture of this organization has always encouraged involvement, innovation and passion. SAIL has always offered freedom to its employees to showcase their ingenuity and it is heartening to note that it is being recognized on such a notable platform".

## NMDC wins two awards at the 80<sup>th</sup> SKOCH Summit 2022

NMDC awarded one gold and one silver award in the 80<sup>th</sup> SKOCH Summit and SKOCH Awards conducted recently by SKOCH, New Delhi. The theme for the SKOCH Summit was 'State of BFSI & PSUs'.



NMDC won the Gold Award in the category social responsibility for the project 'Promotion of Technical Education & Skill Development in Dantewada District through NMDC ITI Bhansi' and the Silver Award in the category digital inclusion for the 'Project Kalpataru' for ERP implementation. The awards were received by Mr. Amitava Mukherjee, Director (Finance) via video conferencing on behalf of CMD, Mr. Sumit Deb.

The SKOCH Awards were given to the winners based on the application submitted on their website, presentation to jury followed by three rounds

of popular online voting and second round of jury evaluation. In addition, NMDC also received the 3 SKOCH – Order of Merit Awards for its exemplary efforts in ensuring seamless digitalization in Project Kalpataru, for its expansive CSR efforts in promoting technical education and skill development in the remote districts of Dantewada and “Project Safety First” in the category Response to COVID.

## NCL conferred with Best Taxation Compliance Company



Northern Coalfields Limited, has received another accolade. NCL has been conferred with Best Taxation Compliance Company under the category ‘Above Rs. 5000 Crore Turnover’ in National Taxation Awards 2021 organized by Taxindiaonline.com (TIOL) during 'TIOL Tax Congress 2021'.

CMD, Mr. Bhola Singh and Functional Directors, NCL congratulated the Corporate Taxation team and the entire Finance division of the Company for the excellent performance and securing this award under the constant supervision of Director (Finance) NCL, Mr. R. N. Dubey.

The award ceremony was graced by Mr. Nitin Gadkari, Minister of Road Transport and Highways through virtual mode. Mr. Shushil Modi, Member of Parliament also graced the award ceremony. It is imperative to add that the aforesaid accolade was announced by a Jury consisting of well-renowned experts from different sectors containing the former Chief Justice of India and the former Finance Secretary of GoI.

NCL posted a net profit of Rs. 6267.78 cr. (PBT) and Rs. 4398.39 cr. (PAT) in FY 2020-21. The

award mirrored the NCL’s commitment towards Tax Transparency, Financial Management & Good Governance.

## NALCO wins Golden Peacock National Award for Sustainability



Mr. Sridhar Patra, CMD, NALCO.

National Aluminium Company Ltd (NALCO) has been adjudged the National Winner of the Golden Peacock Award for Sustainability, in recognition of its relentless focus on Sustainable mining and environment friendly practices. NALCO, CMD, Mr. Sridhar Patra received the Award in a virtual session organized by the Institute of Directors (IOD).

Mr. Patra addressed the distinguished gathering and lauded the employees for their steadfast commitment towards Sustainability drive and environment management practices. This Award is testimony to the high standards NALCO follows in Environmental, Social and Governance (ESG) strategies he said.

## CMD, WAPCOS & NPCC bestowed with “Business Leader of the Year” and “CEO with HR Orientation” Awards

Mr. R. K. Agrawal, CMD, WAPCOS & NPCC bestowed with “Business Leader of the Year” and “CEO with HR Orientation” Awards by World HRD Congress in a ceremony held at Mumbai recently.

Apart from India, WAPCOS has successfully completed/on-going consultancy assignments in



at the 11<sup>th</sup> edition of World Leadership Congress held in Mumbai recently. Mr. Gupta was bestowed this title for his immense contributions towards nation’s infrastructure building and outstanding leadership. During the ceremony, NBCC bagged two more awards under the categories “Social Media Campaign on COVID-19” for its social media posts creating awareness for the general masses during the pandemic and “COVID-19 Relief Project” for its excellent work towards COVID-19 Vaccination Program at Leh. The recognition has been bestowed by World HRD Congress, in an award ceremony held in Mumbai and received by Mr. Devendar Kumar, Chief General Manager (HRM), NBCC on behalf of the company and CMD.

more than 51 countries covering Asia, Africa, CIS, Eurasia, Europe, North America, Oceania, Pacific Islands and South America.

### **CMD, NBCC conferred with CEO of The Year; NBCC Bags two awards during World HRD Congress**

Mr. P. K. Gupta, CMD, NBCC has been conferred with the “CEO of The Year” award

### **Neyveli Lignite mines bags 4 National Safety Awards**



Mr. Suresh Chandra Suman, Executive Director/Mines, NLCIL, along with Mr. Barathithasan. P, receiving the National Safety Award for Neyveli Lignite Mine-I of NLC India Limited from Mr. Bhupender Yadav, Minister of Labour & Employment, Govt. of India.

The Neyveli Mine-I & II of NLC India Limited bagged four National Safety Awards for the year 2018, 2019 and 2020, instituted by Union Ministry of Labour & Employment, and the awards were presented by Union Minister Mr. Bhupender Yadav at a function held at Vigyan Bhavan, New Delhi.

Mr. Suresh Chandra Suman, Executive Director (Mines), Mr. Ashok Dattatrya Keote, CGM/Mine-I, Mr. A. Rajasekhara Reddy, CGM/Mine-II and Mr. Sumesh Kumar, CM/Safety/ Mine-I received the Awards from the Minister on behalf of NLCIL. Mr. P. Barathithasan, Mr. M. Suresh, Mr. S. Elumalai and Mr. Elupula Naresh, employees of NLCIL also joined with the senior officials of NLCIL during the occasion.

Mr. Rameswar Teli, Minister of State for Labour & Employment, Mr. Prabhat Kumar, Director General of Mines Safety, Government of India, senior officials from Ministry and Directorate witnessed the event. Mr. Rakesh Kumar, CMD, NLCIL and Functional Directors of the Company appreciated the officials and employees of Mine-I and Mine-II for bagging the Awards.

## Oil India Limited bags National Safety Award (Mines) 2020



Mr. Bhupendra Yadav, Minister of Labour & Employment, Forest Climate Change presenting the Award to OIL in the presence of Mr. Rameswar Teli, MoS, Minister of Petroleum and Natural Gas Ministry of Labour & Employment.

Oil India Limited (OIL) bagged National Safety Award (Mines) 2020 and Runner-up trophy of National Safety Award (Mines) 2019 under category Scheme -1, Longest Accident Free Period. The awards were presented by Mr. Bhupendra Yadav, Minister of Labour & Employment, Environment,

Forest & Climate Change, in the presence of Mr. Rameswar Teli, Minister of State, Ministry of Petroleum and Natural Gas, Ministry of Labour and Employment, in an award ceremony held in New Delhi. On behalf of Oil India limited, Ms. Kakali Sarma, Superintending Engineer (Production-W), Western Asset and Mr. Uttam Saikia, Operator-1, Western Asset received the National Safety Award (Mines) 2020 and Mr. Rehan Ahmad, Deputy Chief Engineer (MSO-W), Western Asset & Susanta Baruah, Junior Engineer-II, Western Asset received the Runner-up trophy of National Safety Award (Mines) 2019.

## NTPC Faridabad, NTPC Auraiya and NTPC Pakri Barwadih Coal Mining Project honoured with National Safety Awards

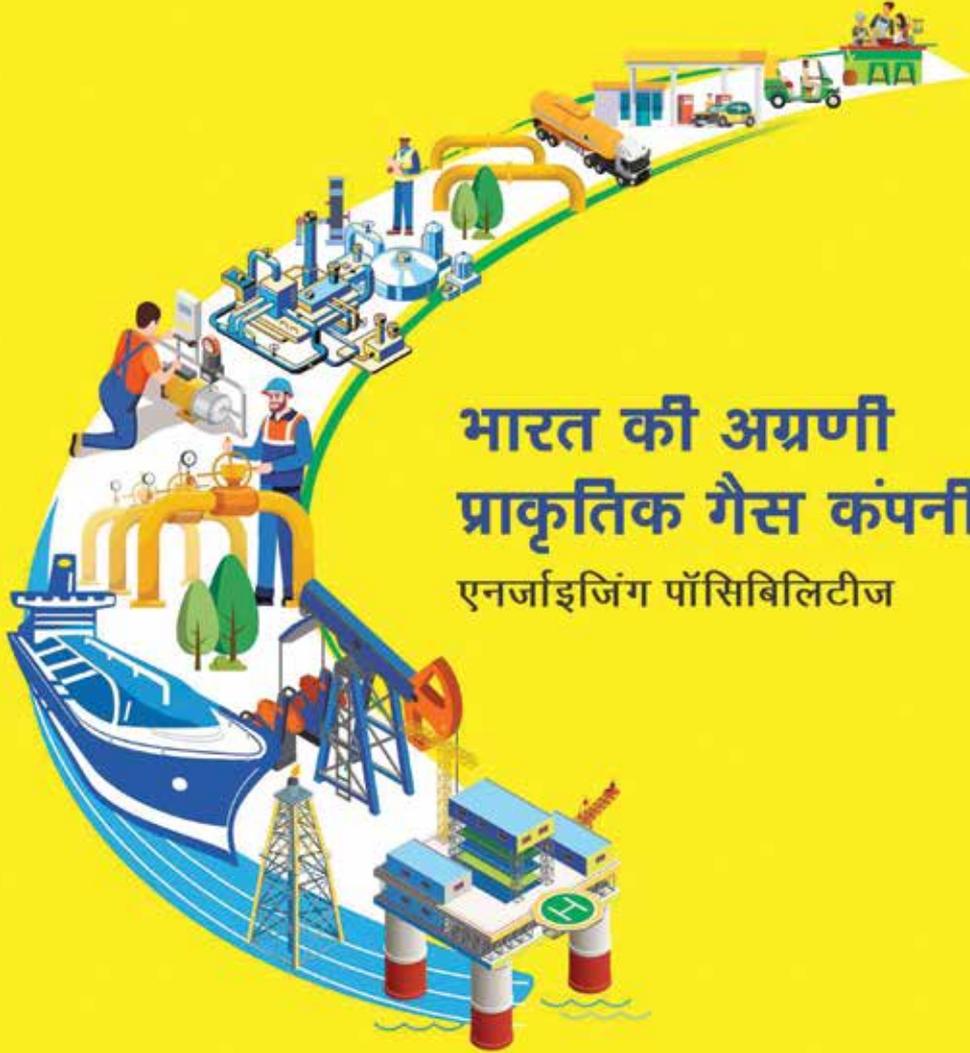


NTPC officials receiving the National Safety Awards from Mr. Bhupendra Yadav, Minister of Labour & Employment.

NTPC Faridabad Gas Power Station, Haryana emerged as the winner at the Government of India's National Safety Award for excellent performance in Industrial Safety during the performance year 2018. NTPC Auraiya Gas Power Station, Uttar Pradesh and NTPC Pakri-Barwadih Coal Mining Project, Jharkhand also emerged as the runner-up at the National Safety Award for outstanding performance in Industrial Safety. NTPC Auraiya was commended for achieving Lowest Average Frequency Rate in 2018. Minister of Labour & Employment Mr. Bhupendra Yadav presented the awards at Vigyan Bhavan, New Delhi. ■



गेल (इंडिया) लिमिटेड



## भारत की अग्रणी प्राकृतिक गैस कंपनी एनर्जाइजिंग पॉसिबिलिटीज

देश में बेची जाने वाली प्राकृतिक गैस में 53% का योगदान

भारत में कुल प्राकृतिक गैस संघरण पाइपलाइनों के 3/4 भाग का संचालन



हम बच्चों का भविष्य संवारते हैं  
इसलिए  
कोयला निकालते हैं



सेन्ट्रल कोलफील्ड्स लिमिटेड

कोल इण्डिया लिमिटेड का एक अनुषंगी कम्पनी

(भारत सरकार का एक उपक्रम)



CCLRanchi



CentralCoalfieldsLtd



centralcoalfieldsltd



Central Coalfields Limited



cclranchi