



KALEIDO **SCOPE**

STANDING CONFERENCE OF PUBLIC ENTERPRISES

CVC Releases Special Issue on New India Vision 2022



SCOPE APSE Conducts Executive Development Program for PSUs

ओएनजीसी



ONGC

समुद्र की लहरों से, देश के दिल तक... ऊर्जा के संचालक

दिल में देश और सांसों में जोश लिए, हम पिछले साठ वर्षों से भारत की ऊर्जा सुरक्षा के लिए समुद्र की लहरों से जूझ रहे हैं। आज हम भारत के घरेलू तेल एवं प्राकृतिक गैस का 72 प्रतिशत से भी अधिक उत्पादन कर रहे हैं।

हम हैं ओएनजीसी

नई दिशाएं, नई खोज, नई ऊँचाई एवं नई सोच के साथ आगे बढ़ते हुए - ओएनजीसी

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CHAIRMAN'S DESK



Leadership is quintessential for the success of an enterprise. Its sustained performance is intrinsically linked to its leader's ability to swiftly adapt to the rapidly accelerating changes in the business world. SCOPE has always given emphasis on this important aspect. A need was felt to organize a short duration Advanced Leadership Programme to provide structured international exposure to the Chief Executives of Public Sector Enterprises (PSEs) in the rapidly changing global world. SCOPE is therefore, organizing for the first time a short duration Advanced Leadership Program on Governance & Innovation exclusively for Chief Executives of PSEs. The program is being organized in academic collaboration with University of Maryland School of Public Policy, Washington DC, and it aims to help the participants in becoming better strategic leaders in a rapidly changing global context. It would help the participants to gain insights into business practices in the US system and their applicability in the Indian context. I am happy to mention that programme has received a good response from PSE constituents.

In today's world, brand image and brand value is extremely important in the business world. Developing an integrated strategic approach to communication has become critical for success of an organization. Recognizing the need, a two-day Media Relations Conclave for CEOs and Spokespersons in PSEs was organized recently. SCOPE received an encouraging feedback as it enabled the CEOs, Directors and other spokespersons to have an understanding of media landscape and how they can leverage it for brand building of

their organizations. An array of topics viz., Impact of verbal and non-verbal communication, preempting crisis situations and advanced remedial measures, the art of using Digital Media etc. were discussed during various sessions. Besides, mock press conferences and One-on-One interviews with journalists were held which evoked great interest among participants.

As PSEs are foraying ahead in the national as well as international market, it has become important for them to continue to enhance their governance standards. To address this important aspect, SCOPE has been organizing programs related to Corporate Governance. Recently, a training programme for Senior Management Personnel on Practical Issues in Corporate Governance Aspects under Companies Act, 2013 and SEBI (LODR) Regulations, 2015 was organized. The participants were updated on corporate governance norms and their compliance.

As the world is witnessing the fourth Industrial Revolution in the form of digitalization, organizations across the globe are digitalizing their operations and functions. PSEs are not aloof from it and have been embracing the newer technologies with zeal, which on one hand is increasing their efficiency and productivity, while on the other hand it is also leading to increase in cyber risk threats. Realizing the need to sensitize PSEs on the cyber security and data privacy challenges, SCOPE in collaboration with Data Security Council of India, conducted a One Day workshop on "Approaching

Cyber Security: Challenges in Critical Information Infrastructure (CII)". The event provided a platform to deliberate on the key cyber security and privacy issues pertaining to CII sector.

We also recently conducted another batch of Executive Development Program of SCOPE Academy of Public Sector Enterprises (APSE). The program is specially designed for young entrants of PSEs and had two modules viz. Contextual Module - where Overview of PSEs, MoU, Governance Structure, RTI etc. are dealt with, and Behavioural Module - where Strategy Execution, Performance Metrics, Measurement & Management etc. are emphasised. The programme helped the participants to gain overall understanding of PSE governance.

To appreciate and recognize the efforts of PSEs in various fields, SCOPE has initiated the process of inviting entries for SCOPE Meritorious Awards 2016-17. I request all the PSEs to participate in the award scheme. We are poised to conduct many more programs, seminars and workshops for PSEs so that we could further efforts in bringing excellence and also enhance the contribution of PSEs to the national social & economic development in line with Hon'ble PM's vision of New India 2022.



Ved Prakash
Chairman, SCOPE



Dr. U. D. Choubey
Director General, SCOPE

Make in India - Reforming Present, Shaping Future

September 2014, India was introduced to the concept of Make in India. Indians as a race were not oblivious to the concept, as the country in its prime was historically known to be the land of gold and spices. We were major exporters of goods all across the globe. In order to make India once again the center of trade and commerce, Make in India, was introduced to transform the nation into a manufacturing giant.

Broadly, the Make in India scheme has inherently many answers hidden beneath for the old age problems of India. Development of 6.5 Lakh villages, employment to millions of youth of this nation, bridging the gap in the economy are some of the many outcomes of this grand plan. This article will try to understand the genome of Make in India, understand its current provisions, its presence in key sectors and its future.

Make in India: A retrospective outlook

The ancient and medieval India was known for its well developed industries and commerce and Indian commodities were in high demand in world market especially in the European trading companies. The advent of British

Raj shattered the traditional Indian economy. In fact traditional Indian economy collapsed and forcibly transformed into the appendix of British Colonial economy. Although India was integrated with the world capitalist system, this integration did not lead to the development of a capitalist economy here. Unlike capitalism, colonialism smothered the productive forces of development and colonial conditions led India to underdevelopment rather than development. Neither industry nor agriculture made any significant advance under British Colonial rule, rather miseries, destitutions and oppressions became the Kismet (fate) of the Indian economy.

At this juncture, Mahatma Gandhi came out with an alternative economic thought, based on spiritual and socio-economic reality as well as necessity of India, with historical insight. Gandhi felt that Western economic systems were both unsustainable and devastating to the human spirit. Gandhi's economic ideas aim to promote spiritual development and harmony with rejection of materialism. Gandhi advocated for small scale and locally oriented production using local resources and meeting local needs, so that

employment opportunities are made available everywhere, promoting the ideal Sarvodaya- the welfare of all, in contrast with the welfare of a few. One such attempt of Sarvodaya by Mahatma was Khadi Andolan or Movement. This Swadeshi Movement- Khadi Movement had an unprecedented effect on all sections of society.

Going further back in the history, Dada Bhai Naroji calculated India's goods production in Rupees at the then rates i.e. £ 1 was equal to Rs. 10 for the year 1867-68. The sole purpose of Naroji's calculation was just to prove that India was getting impoverished under the British Rule. The table presented was given as below¹:

Rs. In Crores	
Net value of agricultural produce	260
Value of non-agricultural production	47
Allowance for error	33
Total	340

Angus Madison in his book *Contours of the world economy, 1-2030 AD: essays in macro-economic history* wrote that India was the world's largest economy during 1 AD and 1000 AD². Moving on, "According to

calculations by Angus Maddison in a recent major historical survey of the world economy, the gross domestic product (GDP) of India in 1700 amounted to nearly 24.5 per cent or almost a quarter of the world's GDP at that time.³"

Britishers emptied the coffers of India and it could be seen in the GDP figure for 1900-1950 which was just 0.8%⁴. Such was the condition and plight of Indians under British Raj that from controlling the quarter of World's GDP, we fell into the oblivion of darkness. As said earlier, we were reduced to meagre 0.8% at the time British left. Swadeshi Movement, was not just a mode of protest, but it was also a symbol of India's glorious past as it once commanded the world's economy. It was a matter of pride for Indians who saw their glorious past and aspired to achieve the same by getting out of the British clutch.

Post-Independence, India had all the reason to abhor the Capitalist Industrialization process. Such were the tyranny of those days that Socialism was found to be the answer of bringing Indians again on the page of glory.

At total investment of just rupees 29 crore, the First Five-Year Plan rolled out five Central Public Sector Enterprises (CPSEs). It was the Industrial Policy Resolutions of 1948 and 1956 which established the Public Sector as an effective instrument to rebuild the country by:

- Achieving high growth rate
- Helping eradicate wide spread poverty
- Removing regional economic imbalances and income disparities
- Supplementing inadequate



- Expanding employment opportunities

PSEs were formed based on the intention of self-sufficiency and self-reliance. Much of the DNA of Make in India could be traced in the genesis of PSEs, where it was not only about in-house production of goods and services, but also about developing India's own technology and design.

1980s saw the loss of sheen among PSEs as they were causing loss to the central exchequer because of more social obligation than profit. Serving socio-economic objectives of the country being the primary reason, affected the production adversely. It was also not a good time for Indian Economy as it was on the verge of bankruptcy. The socio-economic landscape of the world was changing

and it could be said that we were few steps back. India had to break the shackles that were trying to stop it. So, the year 1991 became the turnaround year for the nation, when the concept of liberalization, privatization and globalization was introduced by the government. It not only changed the way Indian Public Sector Companies were working, but also brought new players in the market, increasing the competition and obviously, the amount of currency in the market. Though the Indian GDP started seeing rise since 1980s as various reform initiatives started taking place, but 1991 will be credit much for the turnaround of Indian Business.

Here's a look at India's GDP between 1950-2016:

By 2010-11, coupled with Global Economic Meltdown, India started witnessing a tremendous

Table: Indian Growth 1950-2000

	1950-1980	1981-1990	1991-2000	2001-2016	2017-2018
GDP growth	3.5	5.6	6.2	7.28	6.65
Per capita growth	1.3	3.5	4.4	5.75	5.4

Source: 1900-1990: Angus Maddison (1995), Monitoring the World Economy, 1820-1992 (Paris:OECD); 1990-2000: World Bank/IMF; 2000-16: World Bank; 2017-18: Ministry of Statistics and Programme Implementation

slowdown. It was mainly attributed to corruption and policy paralysis. By 2013, India was declared to be the fragile five economies of the world on the brink of an acute economic crisis, along with Brazil, South Africa, Indonesia and Turkey. The year 2014 catapulted India from the drudgery of political failure, corruption and policy paralysis. A series of schemes were launched to pull India out of the mess. Make in India, was one of the major step taken by the Government for face-lifting the socio-economic condition of the nation and bringing India into the league of Super Power Nations. In sections ahead, we shall discuss it in detail.

Make in India: Genesis and Provisions

Make in India was launched in 2014. It is an amalgamation of various facets like- Development of Technology, Production, Employment, Skilling, Infrastructure Development, Bridging the Economic Divide and above all creating a Super Power Nation. It is a broad concept that aims to change the outlook towards the Government. The Government wants to develop itself as a facilitator rather than an authority that always creates hindrance. The open invitation to all the business leaders from India and across the globe is a proof that India desires to change the way it was looked upon. The basic idea through which Make in India program wants to propel itself are:

i) Make the business world know about the Government's readiness to develop business

The Government is continuously promoting the idea of showcasing India as a favorable destination

In order to bring down the rank of ease of doing business, a slew of measures were introduced to minimize the hindrance caused at the ministry level. By the end of 2016, 127 reforms were brought in by the Government to enhance the ease of doing business in India. As a result, from 134 in 2015, India jumped to 130 in 2016, and finally it made to the top 100 countries in ease of doing business for the year 2017. Various processes like, incentivizing investment, single window clearance process, identifying Non Performing Assets, Easing of Foreign Direct Investments (FDI), recapitalization of Indian Public Sector Banks etc. have helped to regain the trust of both national as well as international investors.

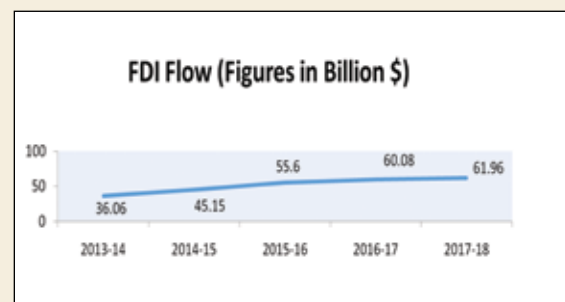
for setting-up business through online medium to propagate the reforms taking place and new initiatives of the government, by conducting seminars and business trade fairs among many others.

ii) Attract & Retain businesses to India

What does a vast country like India do to attract new business and also retain the existing

businesses in order to let them expand their existing model? The simple answer would be to create an environment that is conducive for starting, expanding and practicing business. The first step that was taken by the Government in this regard was to ease the way business functions in the country.

In order to bring down the rank of ease of doing business, a slew of measures were introduced to minimize the hindrance caused at the ministry level. By the end of 2016, 127 reforms were brought in by the Government to enhance the ease of doing business in India. As a result, from 134 in 2015, India jumped to 130 in 2016, and finally it made to the top 100 countries in ease of doing business for the year 2017. Various processes like, incentivizing investment, single window clearance process, identifying Non Performing Assets, Easing of Foreign Direct Investments (FDI), recapitalization of Indian Public Sector Banks etc. have helped to regain the trust of both national as well as international investors. Incubation Centers have also been opened to boost the technical aspect of manufacturing and production. As a result, we have seen a tremendous flow of foreign investment. The below graph shows the FDI since the launch of Make in India in 2014:



Source: Ministry of Commerce and Industry

Moving on, the recent upgradation of India from Baa3 positive to Baa2 stable by Moody's Investor Service shows the confidence world market has on India. Some organizations were also upgraded by the Moody's which included ONGC Ltd., IndianOil Corporation Ltd., Bharat Petroleum Corporation Ltd. (BPCL) and Hindustan Petroleum Corporation Ltd (HPCL), NTPC Ltd. and GAIL (India) Ltd.

In the recent development, International Monetary Fund (IMF) predicted that India will regain the tag of the fastest growing major economies of the world, crossing China with more than 0.7 percentage point in 2018 and an impressive 1.2 percentage point growth lead in 2019. They even praised the recent reforms like GST, Insolvency & Bankruptcy Code etc. which has made India a favorable place to do business.

iii) Develop new businesses/ encourage entrepreneurship among youth by propagating Start Up India

India has a huge demographic advantage over the world with its 50% population below the age of 25 and 65% population below the age of 35. By 2020, India is going to be youngest nation in the world. All this might go in vain, if our young demography does not get ample support. Skilling and making them ready for the future should be at the top priority list.

A step ahead of this process is start-up India which is based on the motto of transforming youth into job-givers rather than job-seekers.

The Start-up India initiative was launched by the Prime Minister on 15th August, 2015.

Various steps have been taken to

promote the Start-up India initiative, namely,

- Creation of a 'Fund of Funds for Startups (FFS)' at Small Industries Development Bank of India (SIDBI) with a corpus of Rs. 10,000 crore
- Credit Guarantee Fund for Startups with a corpus of Rs. 500 crore
- Relaxed Norms in Public Procurement for Startups
- Tax Incentives
- Legal Support and Fast-tracking Patent Examination at Lower Costs
- Self-Certification based Compliance Regime
- Setting up Incubators
- Setting up of Startup Centers and Technology Business Incubators (TBIs)
- Research Parks : To boost Research & Development in the country
- Protection of Intellectual Property (IP)

All these steps have resulted in making India one of the largest start up ecosystems of the world. It has resulted into employment of millions of youth and continues to grow by leaps and bounds.

Make in India: Key Sectors

Key Sectors to make an Industrial hub have been identified which at large includes everything from paper to jet planes, from salt to brick. Key sectors identified are:

Defence Manufacturing	Electrical Machinery	Construction	Electronic Systems
Food Processing	IT and BPM	Oil and Gas	Pharmaceuticals
Mining	Media and Entertainment	Leather	Ports and Shipping
Renewable Energy	Railways	Space	Textiles and Garments
Thermal Power	Roads and Highways	Tourism and Hospitality	Wellness

It is aimed that the manufacturing sector growth rate has to be 25% by 2022 in order to generate crore of jobs. This optimism is a result of series of steps taken by the government to boost the process of manufacturing.

For example, in defense sector we are seeing the efforts taking place to be self-reliant and boost

indigenous manufacturing process. India being the third largest military in the world and fourth largest spender on defense, has gained tremendous momentum by opening up foreign/private investment, which in turn has resulted in coming of Original Equipment Manufacturers partnering with Indian Companies.

In a recent development, the bringing of Bullet Train to India in collaboration with Japan is also a tremendous leap in the railway sector. Similarly, various manufacturing set-ups are being set-up or in process to boost the Make in India process.

The policies have been eased to make Indian Market more open and transparent, so that maximum investors are drawn to key sectors of the economy.

Make in India: Reforming Present, Shaping Future

In the present scenario, the Indian Manufacturing Sector or Indian Corporates are unable to create the number of jobs that are required every year. Currently, 12 million jobs are required every year which is an outcome of the demographic dividend it possesses. Therefore, it became quite natural to boost the production capacity of the nation, bringing new businesses and promoting entrepreneurship in the country. Out of the three aforementioned factors, entrepreneurship is the biggest tool to empower the youths. Solving the current problems at hand and opening new avenues for the future, it won't be wrong to say that Make in India is a tool for Present and Future both.

The Government alone cannot achieve that it desires. The government can create a platform,

support the entrepreneurs through schemes and relaxing norms, but existing corporate too has a bigger role to play. The role played by Public Sector or Private sectors could be formalized into five steps:

- 1 Encourage Entrepreneurship through CSR activities
- 2 Provide mentorship
- 3 Help them in identifying the respective consumer and also providing them the access
- 4 Create a network for entrepreneurs to facilitate-Angle Investing, Debt Funding, helping them to identify resources and Protecting them for adversities
- 5 Promote entrepreneurship from grass root level especially at the educational institutes

Make in India, apart from relying on the start-ups also rely on the existing business across the globe. The work done till now to boost the confidence of investors are commendable, yet we need to work faster. The reason for this urgency is the same strength that we talk about could turn into our biggest problem- the demographic dividend.

By 2020, we would be youngest nation with approximately 65% of the population in the working age population. It is therefore, high time to act swiftly and

smartly. Make in India initiative could not come at a better time than this, when the world would not only be requiring a huge workforce from India, but would also want to establish their business in India. We have initiated our journey toward the path of development, but let us not rest and in words of Swami Vivekananda, "Arise, awake, and stop not till the goal is reached."

Reference

- 1 Irfan Habib. Indian Economy, 1858-1914. Tulika Books. New Delhi. 2014. P. 6-7.
- 2 Angus Madison. Contours of the world economy, 1-2030 AD: essays in macro-economic history. Oxford University Press. 2007. P. 379.
- 3 Irfan Habib. Indian Economy Under Early British Rule 1757 – 1857. Tulika Books. New Delhi. 2014. P. 1.
- 4 Gurcharan Das. India: How a rich nation became poor and will be rich again. 2007. Online. Accessed on: 28.11.2018. Link: <https://gurcharandas.org/rich-nation-poor>
- 5 NITI Aayog. Guidelines for setting up of Incubation Centres under Atal Innovation Mission - 'Atal Incubation Centres'. Online. P.2. Accessed on: 30.11.2018 Link: <http://niti.gov.in/writereaddata/files/Guidelines%20to%20setup%20AIC%20May%202016.pdf>



The Role of Public Sector in the Digital Economy



Deepak Wadhawan
FCA, CIA

Archimedes is known for more reasons than the Eureka moment and one of them is to define a machine in 3 B.C. The man-machine relationship started much before, with humans imagining ways to substitute muscular work through mechanical contraptions, and the last twenty five centuries saw continuous re-imagination, engineering & transformative versions of machines.

By the latter part of the 20th century, automation of activities had set in with industrial computers, controlling machines through programmable logic controllers (PLC), thereby opening the door for machines to undertake activities that earlier required human sensory and cognitive inputs. However, automation would not have reached its present level without digital technology. Over the last half-century, the three engines of digital technology, viz. computing power, digital storage & digital communication became increasingly powerful to form a digital platform on which digital applications (computer/mobile apps) could be used for work. These applications became increasingly useful and an alternative option on which activities could be performed. By the 1990s

the choice of a platform, viz. physical or digital was commonly available. For e.g. there was now a choice of maintaining manual books of accounts or using an accounting software. Now there is a mobile app for just about anything, from booking airline tickets, to tracking flights in the air and these applications are not difficult to make. The shift from physical to digital platform for carrying out activities has been one of the significant although underplayed changes. Over the last two decades almost all significant activities started being available on the digital platform and on to a new ecosystem, viz. internet. This shift has taken shape beyond doing activities digitally and has resulted in a parallel economy viz. digital economy where production, consumption and exchange are taking place along with social interactions.

Some large global players are cannibalising their physical platform and switching to digital. This means that teams are being shrunk and data moved to modern information warehouses e.g. Indian IT companies providing cloud computing services are now being awarded billion dollar contracts. Today different countries, cities, businesses,

individuals, etc. are in different phases of adapting this shift to digital and the speed of change depends upon which of the three levels they currently fall in, viz. Digital natives, Digital converts or Digital illiterate. In future, relevance is mainly for those who are on the digital platform.

If a business is traced over 75 years, the story would be akin to a family business in milk where mechanisation probably started with the distribution of milk on a bicycle, graduated to a motorcycle and later by tempo/van. Milk production would have moved to automated bottling plants and if the business was in an advanced geography, would have replaced operations with smart factories & warehouses, with hardly any human intervention. However, the profound shift from past automation is that machines have started to sense and exhibit the use of discretion. For e.g. If a bottle on which the label is strawberry flavoured comes up for filling on a line that is disbursing chocolate flavoured milk, the machine can sense the mistake and reject filling that bottle, thereby displaying artificially the intelligence of a human i.e. Artificial Intelligence (AI). Also once AI is operational in an area, the digital platforms

allows a virus effect wherein that AI application spreads far & wide in almost all industries that can find a usage

The speed of adopting AI across industries, geographies truly gives progress an epidemic form and leads to a new chapter in the man-machine relationship. Somewhere in time, AI & digital technology will give rise to an addition to the human work force, viz. a digital work force. Today they have a host of names as industrial robots, chat bots, digital assistant, etc. viz. AI applications which are displaying sensory & cognitive capabilities of humans in value adding activities.

Growth in computing power, digital storage, digital communication is driving digital economy. Since 1970 the growth has been on the lines of Moore's Law and overall processing power for computers is doubling every two years, thereby giving phenomenal processing power for commercial use of maths, statistics & probability through digital & AI applications. Similar growth has been in the area of digital storage & communications. But this phenomenal growth is dwarfed with what is coming up the horizon, for e.g. Quantum computing, etc. That level of computing power would probably enable the first formal raising of the digital work force in the digital economy.

The likely scenario in terms of employability would be that wherever any activity is data dependent, those areas would over time find AI applications substituting people, provided that it is cost-effective. This is irrespective of the activity requiring intellectual work or low-end

By the latter part of the 20th century, automation of activities had set in with industrial computers, controlling machines through programmable logic controllers (PLC), thereby opening the door for machines to undertake activities that earlier required human sensory and cognitive inputs. However, automation would not have reached its present level without digital technology. Over the last half-century, the three engines of digital technology, viz. computing power, digital storage & digital communication became increasingly powerful to form a digital platform on which digital applications (computer/mobile apps) could be used for work.

work as accounting/ bookkeeping. Another scenario is that robots will enable unskilled staff to perform complex activities. Let's take a case of a complex maintenance job at a plant performed by a team of skilled technicians.

Now an unskilled worker could perform similarly through on the spot training using Virtual Reality (VR) which is the use of computer technology to create a simulated environment. Unlike traditional user interfaces, VR places the user inside an experience. Instead of viewing a screen in front of them, users are immersed and able to interact with 3 D worlds through VR goggles. In other words this type of man and machine teaming (augmented intelligence) thereby creating employability of the unskilled has significance for India which has significant ground to cover in providing products and services for raising the standard of living of its citizens and on the other hand has one of the largest workforce who need employment.

PwC Global predicts that going forward, the Global GDP would by 2031 be up by 14% and \$ 15 trillion of GDP would come from output though related AI applications i.e. using the digital work force. To put this figure in perspective it is currently the combined GDP of UK, India, France, Brazil, South Korea, Canada. So, for India which has a large & young work force population what does this mean? Will the digital work force be a threat or an asset? If it is seen as a threat, then obviously we would attempt to block its usage and the net result would be that at some stage our products and services would not be able to compete in terms of performance parameters of quality, price, service, etc. On the other hand, if India could develop a strategy & implement it successfully whereby the digital work force is used as an asset, it would enable rapid growth in the availability of



goods & services internally and our products would be competitive internationally. Also, it would result in making unskilled employable.

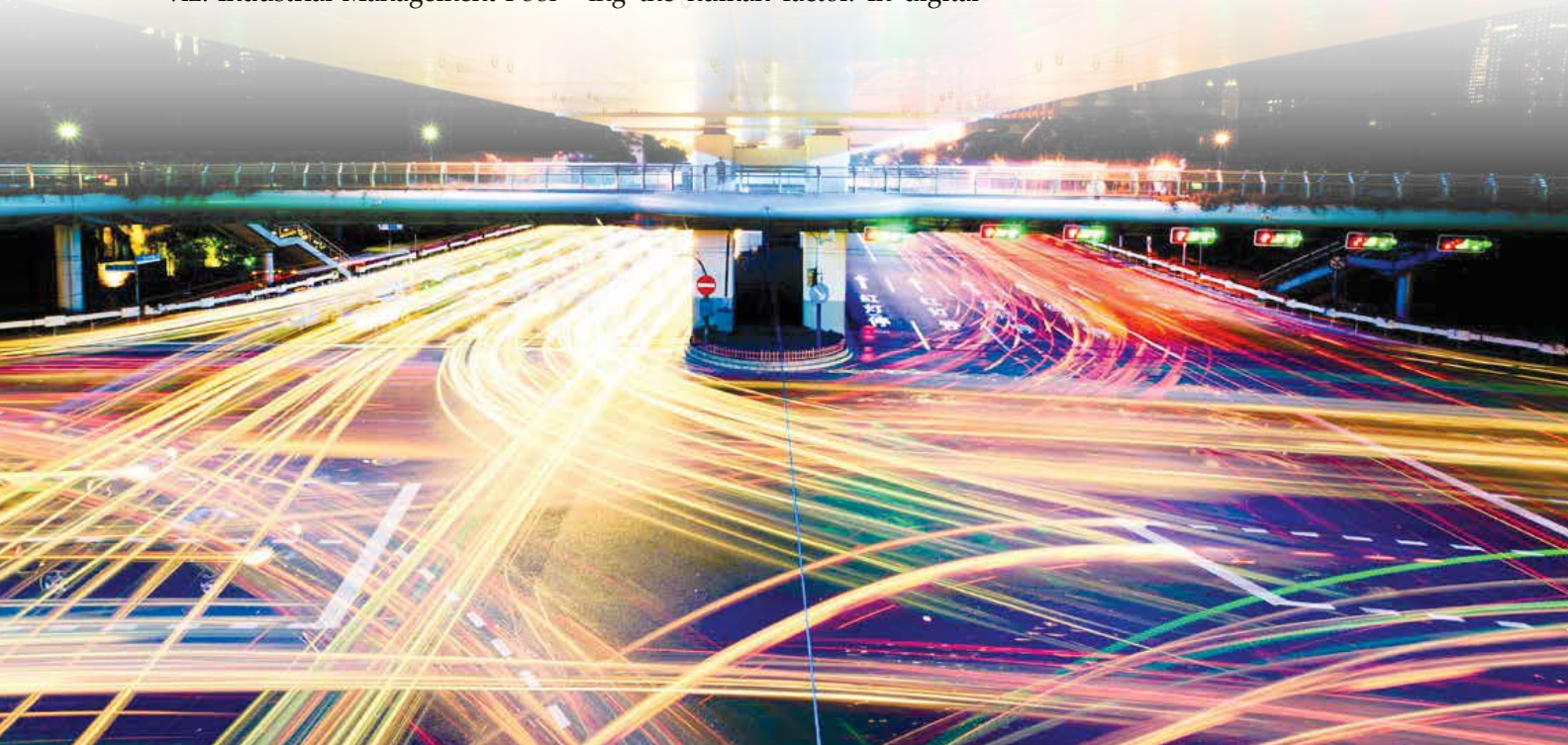
In this scenario, the Public Sector could re-play the yeoman service as it did in the 1950s in forming the organised manufacturing sector in India. It had created large factories & plants that were non-existent at that time. It brought in management practices for organised sector and trained a pool of manpower. A special senior management cadre was set up viz. Industrial Management Pool

(IMP) with lateral entries. India owes a lot to its Public Sector for introducing modern technology & creating the organised sector in extractive & manufacturing industries. What is required today is a similar role in the digital economy.

While it would be premature to talk of strategy to accomplish this, but some pointers where Public Sector could add value are in areas as developing digital technology and its very large scaled deployment, fostering entrepreneurship and safeguarding the human factor. In digital

technology some instances of large scaled deployment already exist as e.g. Aadhar, PFMS, digital SBI, GST, Indian Post Payment Bank project, etc. On the technology development side ISRO is establishing itself as the global low cost satellite launch service provider. There are other instances for large scale usage of digital technology as the role of fostering indirect entrepreneurship/ self-employment by PSUs in the past has been around its large factories/ plants as Bokaro, Rourkela, Bhilai which fostered the growth of local entrepreneurship. In the digital economy, entrepreneurship will grow around large digital/AI assets. As the Public Sector is in many industries, it could consider the analysis of the current AI applications relevant to the sector/industry, determine the split of activities between digital & human workforce and the future of work.

The man-machine partnership is entering into a new phase and the Public Sector can play again the yeoman role of forming the AI sector in India whereby it is an asset to the human work force. ■



IndianOil's Mathura Refinery Blending Technology with Ecology



Sanjiv Singh
Chairman, IndianOil

IndianOil's Mathura Refinery – blending technology with ecology.

Since its inception in 1982, IndianOil's Mathura Refinery has been a model for seamless synchronisation of petroleum refining and environment management. It has carefully crafted the blueprint of its journey, with continuously upgraded technologies and processes, to protect and preserve the precious heritage of the eco-sensitive Taj Trapezium. Refining Nature's wealth to get the best in the most eco-friendly manner remains the Refinery's major thrust area.

IndianOil, India's top-ranked Indian corporate in Fortune's 'Global 500' ranking, has adopted cutting-edge technologies and collaborative R&D to produce green fuels and minimise emissions, besides pioneering a wide range of initiatives for making its operations ecologically benign and sustainable. With sustained efforts, both petroleum refining and environment management have been seamlessly synchronised.

As India's leading refiner, IndianOil has a well-etched environment-consciousness based on the premise that sustainable development rests on the three pillars of economic growth, development and protection of environment.

This philosophy can be seen in action at IndianOil's sixth

refinery located in Mathura, Uttar Pradesh, as well. The Refinery was set up in 1982 with the mandate of meeting the energy needs of the strategic National Capital Region as well as the densely populated Northwestern India.

Energising the Heart of India

Mathura Refinery, the sixth among IndianOil's 11 refineries, was commissioned in 1982 to meet the petroleum products demand in the strategic northwestern region of the country, which includes the National Capital Region. Located along the Delhi-Agra National Highway about 150 km from Delhi, the Refinery has modern secondary processing units for production of light and middle distillates such as LPG, petrol and diesel much in demand in the

region. The Refinery's close proximity to the globally acclaimed architectural wonder – the Taj Mahal in Agra – gives IndianOil the onerous responsibility to contribute to the preservation of the monument's rich heritage by ensuring sustainable and environment-friendly operations in its vicinity at all times.

Industry Pioneer in Environment - Consciousness

Beginning with an installed capacity of 6 million metric tonnes per annum (MMTPA), IndianOil's Mathura Refinery has ably borne the responsibility of protecting and preserving the precious heritage of the Taj Mahal and the ambient ecology.

Given its location in the sensitive Taj Trapezium Zone, Mathura

Refinery has unfailingly adhered to the most stringent environment management norms right from Day One. Incidentally, it was the first industrial unit in India for which an Environmental Impact Assessment was carried out in 1977, well before the refinery came up. As an industrial unit rooted in environment consciousness, Mathura Refinery has over the years implemented the recommendations of various Government agencies as well as the Supreme Court of India in a time-bound manner:

- The Refinery has its own captive power plant with three gas turbines that run on environment-friendly natural gas and not on coal.

- Right from inception in 1982, the Refinery set up four Ambient Air Monitoring Stations (three towards Agra at Farah, Sikandra and Keetham and one in the Bharatpur bird sanctuary) to monitor ambient sulphur dioxide (SO₂) emission levels on a continuous basis. The data shows that the refinery operations have no adverse impact on the air quality of the region.

- IndianOil has been sharing the emission data from these air monitoring stations as well as from its refinery stacks on a real-time basis with the Central Pollution Control Board (CPCB) since the year 2006.

The ambient air quality data for the last five years is as given below:

Annual Average SO₂ Emissions in Microgram/M3*

Year	Farah	Keetham	Sikandra	Bharatpur
2013-14	10.5	6.9	9.9	3.6
2014-15	9.0	7.4	10.9	4.3
2015-16	11.3	11.1	13.3	3.7
2016-17	13.8	14.3	12.1	5.1
2017-18	9.7	9.3	10.6	5.7

*Data obtained from <http://cpcb.chemtrols.com/> Limit: 20 microgram/m3

Sulphur recovery unit at Mathura Refinery.



The data from the ambient air quality monitoring stations indicates that the sulphur dioxide (SO₂) emissions decrease gradually as we move from the nearest station at Farah (situated at an aerial distance of 9 km) towards Keetham (28 km aerial distance from the refinery). The emissions then increase as we move further away from the refinery at Sikandra, which is at 35 km aerial distance. Thus, it can be inferred that Mathura Refinery has no impact on the increase in SO₂ emissions as we move from the refinery towards Sikandra.

- To doubly ensure that its refinery operations in no way impact the glory of the Taj, IndianOil has gone a step ahead and set up not one but two Sulphur Recovery Units (SRUs) as well as a stand-by unit at Mathura Refinery to abide by the SO₂ emission stipulations laid down by the statutory bodies. Thus, Mathura Refinery earned the distinction of being the first refinery in the country to operate with two SRUs.

- In 1999, new Sulphur Recovery Units with enhanced efficiency of up to 99.5% recovery of sulphur were brought in to replace the old units, thereby further bringing down the SO₂ emission levels.

- In addition, a Tail-Gas Recovery Unit was commissioned in the year 2005 to ensure recovery of up to 99.9% of sulphur through the Sulphur Recovery Unit (SRU).

Milestones in Journey to Greener Fuels

- Right from inception, Mathura Refinery perfectly illustrated IndianOil's vision of syncing technological advancements with ecological balance. As early as in 1995, the Refinery emerged as a pioneer in supplying low-lead and then lead-free petrol in the region by setting up catalytic reformers.

- The Refinery commissioned a Hydrocracker unit in the year 2000 (within four years of the Supreme Court directive) that not only reduced SO₂ emissions further but helped produce cleaner, greener fuels.

- With the addition of two major units in the year 2005, namely Diesel Hydro-Treating Unit and MS Quality Upgradation Unit, Mathura Refinery was well equipped to produce Euro-III grade diesel and petrol from 1st April, 2005 (the timeline for supply of the green fuels in National Capital Region and 11 select cities) in line with the Auto Fuel Policy roadmap.

- While the country at large switched over to use of Euro-IV grade transportation fuels from April 1, 2017, Mathura Refinery began supplying Euro-IV grade petrol & diesel to Delhi National Capital Territory (NCT) from January 2010 itself and even met the 1st April, 2010 timeline set for the entire National Capital Region (NCR).

- In fact, Mathura Refinery was also the first to supply BS-VI grade petrol and diesel to fuel stations in NCT/Delhi, comfortably meeting the advanced 1st April, 2018 target while the rest of the country will switch over to BS-VI by April 2020.

- IndianOil has developed scientifically designed green belts at all its operating refineries to serve as pollution sinks and to enhance the aesthetic look of the surrounding area. In Mathura too, extensive tree plantation was taken up in and around the Refinery, the township and surrounding villages and in the Mathura-Agra region as well as the Taj & Sikandra reserve forest area.
- The benign nature of refinery operations at Mathura is reflected in the quality of effluent discharge that meets the Minimal National Standards (MINAS) set by CPCB.

Eco-park as a Green Oasis

- The greatest validation of the Refinery's green initiatives lies in the sprawling Ecological Park at the heart of its operations. Spread over nearly 4.5 acres, the park thrives on the treated effluent from the Effluent Treatment Plant (ETP), with its water channels nurturing rich aquatic and avian life. The presence of the winged visitors, the most sensitive of nature's creations, at the mini bird sanctuary for local and migratory birds in the midst of the refinery vouches for its effective environment management systems. It is a delight to watch nearly a 100 species of birds, including 30 migratory species,

nesting in the safe environs of the park, surrounded by over 45 varieties of trees and shrubs, creating a lush-green oasis. The mini bird sanctuary serves as a bio-indicator and stands testimony to the fact that industry and ecology can coexist in harmony.

Other Initiatives

- As part of its commitment to the local community, IndianOil set up the Swarna Jayanti Samudaik Hospital in Mathura in 1999. This 50-bed hospital provides free medical assistance to destitutes and treatment at subsidised rates to others. Two mobile dispensaries have also been put into service to provide medical care to nearby villagers.
- From the year 2020-21, Mathura Refinery will stop drawing fresh water for industrial use from raw water sources and will instead use treated sewage water. The Refinery has entered into an agreement with the National Mission for Clean Ganga for using treated effluent (20 million litres per day) from a Sewage Treatment Plant (STP) being set up in Mathura-Vrindavan area, instead of fresh river water, for refinery operations. The STP will supply treated water to Mathura Refinery from the year 2020-21 through a 10-km dedicated pipeline. After the commissioning of the TTP-RO at STP, Mathura Refinery will stop drawing fresh water for industrial use from the raw water sources and use treated sewage for its non-potable use. The fresh water that the refinery was using earlier will thus be available for various other uses like irrigation, etc. This

underlines the Refinery's commitment towards the conservation of Yamuna river ecology.

Contribution to Exchequer

For the year 2017-18, Mathura Refinery's contributed Rs. 11,355.20 crore to the Central exchequer and Rs. 519.68 crore to the State exchequer. The refinery's contribution to the Central & State exchequers in the last five years is as below:

Mathura Refinery's contribution to Exchequer (Rs. in Crore)

Year	2017-18	2016-17	2015-16	2014-15	2013-14
A. Central Govt					
Excise duty	11,351.90	11,894.45	8,950.04	5,370.17	3,248.28
Service Tax	3.30	8.82	6.88	7.10	6.65
Sub Total	11,355.20	11,903.27	8,956.92	5,377.27	3,254.93
B. State Govt					
Entry Tax	352.33	1,129.14	1,122.20	1,562.81	1,478.06
Others (VAT+WCT)	167.34	1.33	2.14	2.27	2.55
Sub Total	519.67	1,130.47	1,124.34	1,565.08	1,480.61
Grand Total (A+B)	11,874.87	13,033.74	10,081.26	6,942.35	4,735.54

Growth with a green conscience maximising high - value, eco-friendly products has been Mathura Refinery's forte for more than 36 years now. Operating at 8.0 MMTPA capacity since the year 2000, the Refinery has etched out a distinctive identity for itself as a green refinery by adopting effective measures for environment protection.

The Refinery has carefully crafted the blueprint of its journey pegged around the premise of its processing units employing state-of-the-art technologies, which again are upgraded on a continuous basis. It has been a model for seamless synchronisation of petroleum refining and environment management. Refining Nature's wealth to get the best in the most eco-friendly manner remains its major thrust area.



Painted storks nesting at the mini bird sanctuary in the ecological park developed in the premises of Mathura Refinery.

New India 2022: Challenges for Central Public Sector Enterprise



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Central Public Sector Enterprises (CPSEs) are an inseparable part of the process and dynamics of economic development in India. CPSEs contributed Rs 151.84 lakh crore to GDP at current prices in 2016-17¹. Their contribution to the surge in economic growth has been phenomenal. There is hardly any area of economic activity where these enterprises have

not marked their presence. They continued to dominate the socio-economic scenario of the country irrespective of the political ideology ruling the country. They have stood taller than the debate about the old and new economy industries.

The globalized world is dominated by market force which requires an enterprise to have its deeper understanding in

terms of product, place, channel, and price. The purpose of this paper is to study the present and futuristic scenarios of CPSEs and elucidate how CPSEs are transforming to a new path i.e. New India 2022 to meet the global competition, benchmarking best practices and aligning with national priorities. Table 1 depicts the phase-wise reforms process in CPSEs in India.

Table 1: Phase-wise Reform Process

SOE reforms process	Time period	Key reforms
Phase 1: Industrial Policy Reforms	1991-1996	<ul style="list-style-type: none"> • “De-Reservation” Involving Liberalization of Hitherto Closed Sectors Dominated By State Monopolies • “Disinvestment” Involving Limited And Partial Sale Of Government Shares • “Memoranda Of Understanding A Performance Evaluation System, Expanded
Phase 2: Empowerment of SOEs	1996- 1998	<ul style="list-style-type: none"> • Operational autonomy granted to very large SOEs • Professionalisation of the “Board of Directors” in PSEs • “Disinvestment Commission”
Phase 3: Cold Privatization	1998-2004	<ul style="list-style-type: none"> • More open privatization policies made apparent through: • The buy-back and cross holding of some shares • Downsizing, restructuring and professionalisation of PSEs and governing boards
Phase 4: Ideology based reforms	2004-2014	<ul style="list-style-type: none"> • Cautions attitude to privatization driven by political considerations • Corporate guidelines for SOEs introduced
Phase 5: Ongoing Reforms	2014-till date	<ul style="list-style-type: none"> • Unlocking capital • Reforms in CG • Creating Wealth for Citizens • Social-Connect

(Source: Compiled from various Public Enterprise Surveys)

¹ Public Enterprise Survey 2016-17, Vol.1, Department of Public Enterprise, Gol, pg 7

CPSEs Sustaining Growth

Public Enterprises Survey 2016-17, provides highlights of the performance of Central Public Sector Enterprises (CPSEs) which are spread over length and breadth of the country. As on 31st March 2017, 331 CPSEs have a total investment of Rs. 12,50,373 crore with a net profit of Rs 1,27,602 crore. The macro performance of CPSEs in India is depicted in Table 2:

Table2: Performance Highlights of CPSEs in India during 2016-17

Financial parameters	Amount (Rs in crore)	% (change from previous year)
Total Paid-up Capital in 331 CPSEs	233112	13.84
Total Investment	1250373	7.70
Capital Employed	2174120	5.56
Total Gross Revenue from Operation	1954616	6.54
Total Income	1821809	3.26
Net Profit	127602	11.70
Reserves and Surplus	923747	2.81
Contribution to exchequer	385579	39.78
Foreign exchange earnings	76644	14.32
Market capitalization	1776235	37.24

(Source : Public Enterprise Survey 2016-17, Vol.1, Department of Public Enterprise, GoI)

Current Scenario

One of the major challenges faced by PEs is to continuously reinvent as organization of relevance in the changing global scenario and to sync them with national priorities, policies and goals. To excel, the following internal and external factors were identified.

Internal Factors	External Factors
Vision Mission	Corporate Governance
Decentralized decision making	Competitive market strategy
Autonomy and accountability	Customer satisfaction and benchmarking
Reforms and restructuring	Interfacing capital markets

(Source: Authors compilation)

Vision and Mission: A vision statement is the anchor point of any strategic plan. It outlines what an organization would like to ultimately achieve for the existence of the organization. A good vision statement should be short, simple, specific to the business, leave nothing open to interpretation, and should have ambition. The process of preparing the vision and the mission would

integrate the personnel, culture and ethos in the organization. Aligning the objective and functions with vision document is a key challenge for CPSEs.

Capital Markets: The Government on its part is considering to make listing of PEs on stock exchanges necessary – may be in the initial run only few enterprises which are profit making and are also competitive in nature. The

market capitalization of public enterprises is increasingly substantially. 50 CPSEs are listed in the capital markets with a market capitalization of Rs17,76,235 crore in 2016-17 which is more than 37.24 percent from the previous year.

Reforms and Restructuring: It is interesting to mention that as a part of reform and restructuring exercise, the merge of Air India and Indian Airlines, Rashtriya Spat Nigam Ltd and Steel Authority of India Ltd and Oil Group Companies is being considered. The Indian Post is an excellent example of restructuring to come back with a big bang to take on private and international couriers.

Corporate Governance: The toning up of the corporate governance function could help CPSEs a great deal in brand building, business promotion, employees, legal institutions, etc. The application of Clause 49 of the Securities Exchange Board of India (SEBI) Code is a point in reference.

Box 1 : Evolution of Corporate Governance

- CII Code on Corporate Governance, 1998
- National Code on Corporate Governance, 1999
- SEBI Listing Clause 49, 2000
- Chandra Committee on Auditing and Governance, 2002
- OECD Principles, 2002
- Voluntary Guidelines on CG, 2009
- DPE Guidelines on CG, 2010
- Companies Bill, 2012
- Companies Act, 2013
- Kotak Committee, 2016
- SEBI – Listing Obligations and Disclosure Requirement Regulation, 2016, 2018

Autonomy and accountability: Maharatna, Navratna and Mini-ratna classification has given autonomy and accountability for the CPSEs to create their own wage structures, efficiency driven, performance oriented, and linked with production and productivity, etc.

Customer satisfaction benchmarks: Customer loyalty has become an integral part of competitive market strategies. PEs in different cognate groups in the category of producing and service rendering enterprises do not benchmark the customer satisfaction with their counterparts in private sector and multinational firms.

Competitive market strategies: The output orientation and captive market have kept these enterprises alienated from the market. In terms of pricing, CPSEs have to vary the line and length from time to time choosing from a basket of

pricing policies. Discounts may have to be offered to win market share. There are only 50 CPSEs listed traded on the stock exchanges as on 31.03.2017. The total market capitalization (M-Cap) of 50 CPSEs based on stock prices on BSE and NSE as on 31.03.2017 stood at Rs 1,776,234.54 crore increased from Rs 1,294,245.15 crore as on 31.03.2016 (increased by 37.24%)². CPSEs constitute 9.16% and 9.28% of the total market capitalization of companies listed at BSE and NSE respectively³.

Futuristic Scenario

The vision 2022 document called for a transformative change in the function of CPSEs meeting the futuristic challenges and align them with national priorities. CPSEs to redefine the role and functioning, to achieve futuristic challenges have focused on four themes⁴. The four transformative changes along with the sub-themes are detailed below:

Theme	Transformative Change	Focused areas
1	Corporate Governance in the new age	<ul style="list-style-type: none"> • Challenges holding CPSEs back • Vision and Goals • Improving performance of CPSEs • Role and contribution of Govt nominee directors • Promotion of flagship scheme
2	People first – reinventing human resource management	<ul style="list-style-type: none"> • Sharing best practices • Review HRM policies • Young minds in business • CSR
3	Financial re-engineering	<ul style="list-style-type: none"> • Consolidation of CPSEs • Promoting efficiency and better financial management • Promotion of micro and small enterprise
4	Innovation, R&D and technology for the future	<ul style="list-style-type: none"> • Export promotion, import substitution • Roadmap for upgradation of technology • Common research center • Digital india

(Source: Compiled from Vision New India 2022) April 09, 2018

Corporate Governance in the new age: Corporate Governance has been one of the fast growing concepts in improving the enterprise performance in India. DPE introduced the Guidelines on Corporate Governance for CPSEs, mandating enterprises to follow the norms. These Guidelines are applicable to all CPSEs and cover issues like composition of Board of CPSEs, Audit Committee, Remuneration Committee, Subsidiary Companies, Disclosures, Code of Conduct and Ethics, Risk Management and Reporting, monitoring the compliance of Guidelines by the CPSEs. Corporate Governance is dynamic in nature and hence they are modifying the Guidelines from time to time aligning to the national priorities. The introduction of CSR in Companies Act mandating CPSEs exceeding the threshold limits to contribute at least two percent of the average net profit of three immediately preceding years is an important step. During 2016-17, 129 CPSEs have spent Rs 3,336.50 crore on CSR activities out of the allocated amount of Rs 4933.10 crore. Out of 129 CPSEs which are qualified to spend under CSR, 40 per cent of the companies could not spend 50 percent of the amount allocated for CSR⁵.

2 Public Enterprise Survey 2016-17, Vol.1, Department of Public Enterprise, Gol, p 26

3 <https://dipam.gov.in/> (as on 10th September 2018)

4 'Vision New India 2022, Re-defining Role and Functioning of CPSEs' on April 09, 2019

5 Public Enterprise Survey 2016-17, Vol.1, Department of Public Enterprise, Gol, pp 160-162

People first: reinventing human resource management: HRM is a holistic approach towards management of people resources present in an organization which contribute to the achievement of organizational objectives. HR strategies evolve round the HR systems and practices that should be aligned with the objectives of the organization. Effective utilization of human resources has special significance in the management of enterprises. They are around 3.70 lakhs of managerial and supervisory cadres employees working in CPSEs⁶. It is a challenge to manage them efficiently and utilization of their skills to the maximum capacity. Enterprises are aimed to build competency, organizational culture, systems and process to increase productivity through efficiency and quality. Integrating HR with technology has helped to strengthen the HR systems in CPSEs in effective delivery and value addition services. HR Management System in PowerGrid is a web-based system enabling the enterprises to go online the HRD process, TNA capturing, smart profiling, training history, smart scheduling and updating, e-Communication and SMS integration, smart uploading facilities for modules and study material and feedback and smart reporting. ICON is an initiative at BHEL which is a social networking for employees. The portal provides greater opportunities to employees for collaboration, information sharing, faster communication and disseminate.

CPSEs could perform better by superior inter-PEs collaboration, regulation, improved corporate govern-ance, linking with capital markets, improved resource use, upgraded labour efficiency, innovation and R&D, honing their competitiveness through building up enterprise specific ethos and cultures. CPSEs has to pay attention to improve service delivery mechanisms, customer satisfaction, pricing, reforms and restructuring, stressed assets in CPSEs, reducing accumulated losses and increasing the number of profit making enterprise...

The portal provides a platform for top management to directly interact with all employees.

Financial re-engineering: Sickness in CPSEs include old and obsolete plant and machinery, outdated technology, low capacity utilization, low productivity, poor debt-equity structure, excess manpower, weak marketing strategies, stiff competition, lack



of business plans, dependence on Govt. orders, heavy interest burden, high input cost, resource crunch, etc. Administrative Ministries and concern departments are responsible to monitor sickness of CPSEs and timely suggest redressal measures with the approval of the competent authority. Financial re-engineering is a tool aiming to overcome sickness in CPSEs through better financial management practices, merger, holding companies to manage CPSEs at arm's length from government and corporatizing statutory agencies. To improve efficiency among enterprises, new initiatives including consortium among enterprises was formed to bid and attract global tenders and logistic aggregation through Government e-Market portal (GeM), etc. HSCC and EPIL are two CPSEs which are likely to be the first set of state-owned firms which will be merged with their peers in the current fiscal year⁷.

Innovation, R&D and Cyber security: R&D prescribing therein that Maharatna and Navratna

6 Public Enterprise Survey 2016-17, Vol.1, Department of Public Enterprise, GoI., p 151

7 <https://economictimes.indiatimes.com/industry/services/consultancy/-audit/hsc-epil-in-advanced-stages-for-merger-with-similarly-placed-cpses-official/articleshow/64697288.cms>

companies should invest at least one per cent of their profits after tax (PAT) in R&D and Miniratna and other should earmark 0.5 per cent of their PAT for R&D operations. R&D expenses in CPSEs have improved from 76.18 per cent to 113.03 per cent in the current financial year ie 2016-17. CPSEs have setup in-house R&D facilities and are also undertaking the sponsored research through collaboration with Universities and reputed R&D institutions. Awareness of Intellectual Property Rights (IPR) and 'patenting' of new knowledge gained and discoveries made in the process of R&D are being promoted by National Research Development Corporation (NRDC), an enterprise engaged in promoting, developing and commercializing technologies, knowhow, patent and processes generated through national R&D. Cyber Security is protecting our

cyber space (critical infrastructure) from attack, damage, misuse and economic espionage. Cyber Intrusions and attacks have increased dramatically over the last decade, exposing sensitive personal and business information, disrupting critical operations, and imposing high costs on the economy. The various protective measures that are considered to protect enterprises from cyber-attacks include Viruses (1990s) Anti-Virus, Firewalls Worms (2000s) Intrusion Detection & Prevention Botnets (late 2000s to Current) DLP, Application-aware Firewalls and SIM APT, etc. The Innovation Action Plan has been prepared to promote global competitiveness, growth orientation in major sectors such as automobile and capital goods⁸.

Conclusion

To conclude, CPSEs could perform better by superior inter-PEs

collaboration, regulation, improved corporate governance, linking with capital markets, improved resource use, upgraded labour efficiency, innovation and R&D, honing their competitiveness through building up enterprise specific ethos and cultures. CPSEs have to pay attention to improve service delivery mechanisms, customer satisfaction, pricing, reforms and restructuring, stressed assets in CPSEs, reducing accumulated losses and increasing the number of profit making enterprises, improving the economic returns for stakeholders, etc. Maharatna CPSEs could aim to be among the Fortune 500 companies. Start-up India is an important scheme wherein CPSEs could collaborate by setting up incubators cells. Decentralization and delegation supported by technology could leap forward CPSEs to unscaled peaks.

⁸ Order no. 13(1)/2014-O&M, dated 22nd May 2015, Government of India, Ministry of Heavy Industries and Public Enterprise, Department of Heavy Industries



Disruptive Project Management: Key to Manage Infrastructure Projects in New India



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India is emerging as one of the global favourites for development of infrastructure. This year's Economic Survey famously pegged India's funding requirement for infrastructure creation until 2040 at \$4.5 trillion, which is twice of India's current GDP. Indian economy is increasingly driven by project-based work characterised by high degrees of technological collaboration involving latest tools of digital revolution. Innovation and creativity are the prime components of value creation while employee expectations and working cultures are changing all the time. A wide range of trends and challenges have a direct bearing on the next course of project management.

As per Flash Report for the month of June 2018 published by Ministry of Statistics and Programme Implementation (MoSPI), Government of India, there are 1351 central sector infrastructure projects costing more than Rs 150 crore and above in 16 key Infrastructure sectors. The total original cost of these projects is Rs 16 lakh crore and anticipated cost is Rs 18 lakh crore implying a cost overrun of around 2 lakh crore. Some of the major

problems reported are scope creep, delay in land acquisition, delay in getting statutory clearances, geological surprises, shortage of skilled manpower, contractor failure, etc.

The procurement of public goods is vital for the success of large infrastructure projects. Traditional funding models of public projects share ownerships between external funding agencies, state governments and the Central government. While standard processes of external funding agencies are better tuned to address and even absorb the provisions of revised project schedules the existing government approval system requires a 'redo-resubmit' cycle. This often leads to inordinate delays and increased costs especially when large-scale public infrastructure projects usually suffer from inherent uncertainties and usually have higher propensity of later stage changes. Process standardisation and use of technology would offer significant benefits in terms of efficient and effective implementation lifecycles. From the Flash report of MoSPI it is evident that the public projects in a particular sector often suffer the similar type of problems/issues. Use of

disruptive technology such as Big data analytics on such past data can provide a game-changing insights and will improve the effective implementation of projects.

Disruptive project management can facilitate finalising the strategy but public sector agencies are generally failing to bridge the gap between strategy design, its implementation, effective monitoring and timely delivery. One of the key findings of a survey conducted by Project Management Institute (PMI), reveals that around \$1 million is wasted every 20 seconds collectively by organizations around the globe due to ineffective implementation of business strategy through poor project management practices. This equates to roughly \$2 trillion dollars wasted a year. Of the geographic regions included in the survey, China reported the lowest average monetary waste on projects (7.6%), followed by Canada (7.7 %), and India (8.1%). Much of this waste can be attributed to poor implementation of projects rather than flawed strategy.

All major strategic reforms can be delivered through an innovative or disruptive project management approach. Government of India has announced a series of

new reforms in the field of project management such as Transparent Funding, people oriented Land Acquisition and Resettlement and Rehabilitation Act, timely project delivery, apex level project monitoring and issue resolution mechanism (PRAGATI), use of disruptive technology (eg. Artificial Intelligence) in project management, aligned and skilled work force, innovative funding models etc.

The world is changing very fast and development in technology are disrupting traditional industry and changing the functional roles of workers. A disruptive technology may be either a tool or resource employed in production e.g., Artificial intelligence (AI), 3D printing, or it may be the finished product or service itself e.g., self-driving vehicle, drones, social-media etc.

A complete transformation is now being witnessed in the infrastructure sector. Major infrastructure policy framework, financing options, methods of funding, stakeholder's expectations, aligned project deliverables, work force etc. have gone under tremendous shift from the traditional project implementation models. The organizations who believe in innovative ideas often acknowledge the role of disruptive technology in development of project management capabilities to foster new ways of working.

Overall, infrastructure construction is seen as lagging behind other industries in the adoption of new digital technologies. The industry's spending on R&D of under 1% of turnover lies way behind other industries such as automotive (3.5%) and aerospace (4.5%). Its investment in

Disruptive project management can facilitate finalising the strategy but public sector agencies are generally failing to bridge the gap between strategy design, its implementation, effective monitoring and timely delivery. One of the key findings of a survey conducted by Project Management Institute (PMI), reveals that around \$1 million is wasted every 20 seconds collectively by organizations around the globe due to ineffective implementation of business strategy through poor project management practices. This equates to roughly \$2 trillion dollars wasted a year.

information technology is also below the 1% figure.

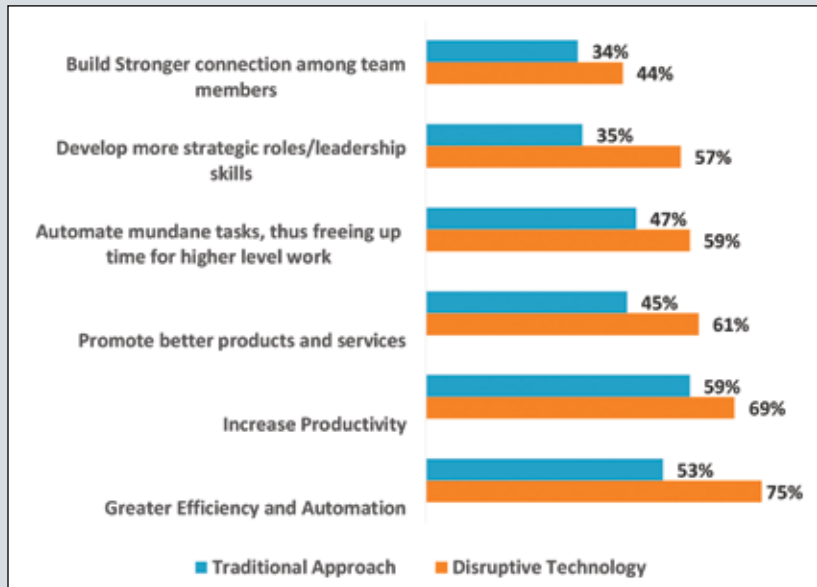
In infrastructure sector, where projects are continually growing in scale and complexity, digital technologies offer huge potential for improving productivity. It is estimated that the typical large public sector projects across all sectors overruns its schedule by an average of 20% and exceeds its budget by 80%. The application of digital technologies has

been shown to reduce cost and schedule overruns by at least 10-15%, and by even more on complex projects. The deployment of sensors and advanced analytics in infrastructure projects offers further opportunities to improve efficiency and time and risk management.

At a time when emerging technologies like Artificial Intelligence (AI), Cloud Solutions, Internet of things, Blockchain etc. can provide better solutions the public sector organisations need to quickly respond the way they work, react and act. The disruptive technologies can help in improving the stakeholder's experience, enhancing employee efficiency, cost effective product delivery and shortening the project timelines.

A report published by PMI indicates the benefits of using disruptive technology over the traditional approach of managing projects. About 75% project managers stated that the adoption of disruptive technologies has had significant results in improvement over efficiency and automation. Further, 69% attributed disruptive technology as enabler for increase in productivity.

The next decade of new India may pose a challenging time for project managers, particularly because of incredible growth of micro-in-size-macro-in-value organizations with little support from traditional project management processes. It is expected that in new India specialized robots, drones, intelligent networked agents, software services, individual and institutional investors will be among the key stakeholders to be managed. Disruptive technologies and making best



use of hidden opportunities will become one of the essential skills of a project manager for successful delivery of a project. Future project managers need to be good at innovative practices—decision making based on shared intelligence, self-adjusting small teams, and looking for agents of change. In the days to come, traditional project managers will become extinct; only agile, responsive, proactive and IT savvy smart project manager will survive and flourish.

There is a powerful connection between adoption of digital project

management practices and effective financial performance. It is reported that on a US tunnelling project, for example, the development of a single digital platform for the stages from bidding to contract management led to time savings of 75% for the production of reports and 90% for document transmittals. Similarly, the use of automated workflows for reviews and approvals on a \$5bn US rail project increased productivity and saved over \$110m.

Advanced project management methodologies, technology tools and data analytics hold the key

to resolving the age old problem of inadequate data for decision-making, and can drive successful implementation of infrastructure projects. Considering the complexity of public infrastructure projects, the hard earned money of tax payers and high aspirations of common citizen an accountable innovative project management supported by a well-designed data-driven policies can only provide the required imputes to the growth of Infrastructure development to the new India.

In the near future, the focus of project delivery would shift from value addition to value creation in the shortest timeframe. The infrastructure requirements of the new India can only be met by leveraging innovative or disruptive project management practices in the implementation of public sector projects. Effective use of more data driven intelligent tools, such as Big data analytics, Building Information Modelling (BIM), 3-D technologies to improve accuracies, disaggregation of infrastructure projects (eg rooftop solar projects etc), leading to informed decision making would help in reduction of lead time and will prevent avoidable errors and scope changes.



Disclaimer: Views expressed in the above article are those of the author and do not reflect the views of any organisation or the Government. ■

Reduce the Burden of Cardiovascular Disease in India:

Time to Act is Now. Theme of World Heart Day 2018: My Heart, Your Heart.



Dr. H. K. Chopra*

The prevalence of Cardiovascular disease in the world is 1,75,00,000, and is rising rather steeply in our country. 1 in 10 die from Cardiovascular Disease daily between the age group of 30-70. 31% of all the deaths are from cardiovascular disease. To a very large extent, heart attack is self-inflicted by our faulty lifestyle, which we adopt right from the childhood. The prevalence of Coronary Artery Disease in adults in India in the urban population is 14 percent, while in the rural population it is 8 percent. Dr. Dudley White Johnson, from San Francisco once said, "Anybody getting a heart attack below the age of 80, it is his or her own fault; after the age of 80, it is God's will". One should not have heart attack in the prime of his/her life when he/she is important not only to the family, but also to the community, society and nation. In fact, we are the cause and we are the cure of

this malady of Coronary Artery Disease by the lifestyle we have, which should be in accordance with the laws of nature. A healthy heart is an expression of our own perception, thoughts, interpretations and choice making. Thus, a healthy heart is not a matter of chance, but it is a matter of choice. We should know the fact that wisdom is what we are, and not what we have. Women are fortunate to have lower prevalence of coronary artery disease before the age of 45 i.e. menopause. After menopause, the prevalence of CAD is same as men. Over 25 Lac people die of Heart Attack in our country every year. Out of these, 16 lac die within an hour of Heart Attack before even the medical aid is available.

Risk Factors

The major risk factors responsible for heart attack can be classified as modifiable and non-modifiable. The modifiable risk factors

are smoking, high cholesterol, unmanaged negative stress, obesity – central obesity (pot-belly), lack of physical activity, faulty diet, uncontrolled high blood pressure, uncontrolled diabetes, excessive homocysteine levels in the blood, etc. The non-modifiable risk factors, on the other hand, are advancing age, male sex, post-menopause state in women and a strong family history of Coronary Artery Disease in the first-degree blood relatives of the person.

Tobacco, in any form, chewable or non-chewable, such as cigarette, bidi, hookah, cigars and passive smoking are equally injurious, and are major predisposing factors for a premature heart attack and sudden death. Smoking, by virtue of various chemicals such as nicotine, carbon monoxide and various other chemicals, narrows the coronary arteries, thereby reducing the blood flow to the heart muscle.

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This hardens the coronary arteries and oxidizes the cholesterol – Low Density Lipoprotein (LDL – Bad Cholesterol). It also increases the stickiness of the blood by increasing platelet aggregation and adhesiveness, thus increasing clot formation. Coronary Artery Disease has been seen in 80 percent of smokers.

Today, if we smoke cigarettes, then tomorrow, cigarettes will smoke us. Today, if we chew tobacco, then tomorrow tobacco will chew us. If we really want to bypass the bypass surgery, tobacco crops should be replaced by vegetable crops. We can halt the menace of heart attack by eradicating the habit of tobacco consumption from our society. From mind body perspective smoking is vata related activity and use smoking as an attempt to reduce anxiety or stress.

Elevated levels of total cholesterol, LDL (Bad Cholesterol) and triglycerides are associated with high risk of premature Coronary Artery Disease. The risk is especially high when elevated triglyceride levels are more than 150 mg%, cholesterol levels of more than 150 mg%, high LDL (Low Density Lipoprotein) of more than 100 mg% and low HDL (High Density Lipoprotein – Good Cholesterol) of less than 40 mg% in males and less than 50 mg% in females. Oxidation of LDL cholesterol is also one of the crux of premature hardening of coronary arteries. Total cholesterol and high density cholesterol ratio of more than 4.5 is a powerful predictor of Coronary Artery Disease. Doctor Larry Sherwitz of the University of California at San Francisco has shown in a study – Multiple Risk Factor Intervention Trial, that

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men aged 35-57 with cholesterol counts over 300 over more than four times as likely to die from coronary heart disease as compared to men with the cholesterol levels of less than 180 mg%. It has been documented in one of the studies done in Finland, where the heart attack rates are highest amongst the people in the world. It is due to their faulty lifestyle. Remain cholesterol fit, if you really want to prevent Coronary Artery Disease.

Behavioral patterns, including negative emotions such as aggression, competitiveness, hostility, jealousy, anger, cynicism and other negative emotions multiply the risk of Coronary Artery Disease by many folds. Acute unmanageable negative emotional stress can precipitate plaque rupture in coronary arteries due to sudden release of catecholamines, which may cause a massive heart attack. Our thoughts have a tremendous influence on the health of our heart. Tranquility of mind and positive emotions such as love, compassion, humility, harmony, peace, altruism and magnanimity can prevent Coronary Artery Disease. Yoga and Primordial Sound Meditation also play a tremendous role in preventing Coronary Artery Disease.

Ayurveda or Mind Body concept and Heart attack

According to Ayurveda we exist on many levels such as physical, mental, emotional and spiritual. Positively based lifestyle changes have a positive influence on the health of the heart. Ayurveda teaches us that the healthy heart is an expression of dynamic stream of intelligence and the consciousness give rise to this reality. By changing your perception in the present you can change your life for tomorrow. You can experience in the beating of your heart, in your breathing, in your digestion, in your thinking and flow of energy in your muscles etc. The quantum mechanical body is comprised of our existence in three ways. Ayurveda refers to these as the physical body, the subtle body and the causal body. These are all software of our existence. Matter

and energy are components of physical body. It is born, lives and then disappears at our death, when the atoms and molecules disperse. Infact the atoms of our bodies are constantly dispersing and are being replaced. The subtle body comprises of thoughts and feelings that exist beyond the limits of physical body. This is also a space and time event and its self life is little longer. Beyond the subtle body is the causal body, which is a unit of perfect order, and it encompasses all the space time events. In a way it is analogous to the genetic programming from which the nature of each individual derived. It is a greater field of energy and intelligence from where everything begins. It is both subjective and objective. It is the knower, the process of knowing and the known. Ayurveda calls this as a vast interconnecting network of energy and information, which is constantly flowing and changing. The heart is not just a pump whose well-being depends on the fuel that is put into it. Every aspect of your perception, thoughts, interpretation and experience and choices have their influence on the health of the heart. It is therefore necessary to have the self awareness to maintain a healthy heart and recognize heart disease in early stages so that they can be reversed. Diagnosing a coronary artery disease to an Ayurvedic Physician means knowing and understanding the patient and not the disease. When the true nature of the patient is known and only then and illness can be understood and treated at the most fundamental level. Thus understanding of patient's mind body system can prevent

imbalance from ever reaching the point where symptoms become manifest. Thus mind body intervention for a healthy heart is such an approach so that illness of coronary artery disease is prevented at a primary level first and then at secondary level. It also help us in analyzing the unique physical, emotional and spiritual makeup of an individual, so that an individualistic approach of a lifestyle such as work plan, exercise plan, diet plan, stress management protocol, sleeping profile, meditation, massage therapy and other modes of therapy can be instituted according to individuals mind body constitution.

According to Ayurveda or Mind Body Medicine each of us is born with a unique proportion of three doshas, which creates us physically, intellectually and emotionally. If an individual has balance in these doshas then they remain healthy. Any fluctuation in the proportion of doshas because of the negative stress may increase the vulnerability to physical illness and emotional instability. These three dosahs are know as vata, pitta and Kapha. Vata dominant persons mind body system if in balance then he or she may be creative, vibrant and enthusiastic and if the vata imbalance exceeds the normal then an individual is very anxious, sleepless, restless, irritable with lot of negative emotions which directly influence the health of the heart and increase the tendency for palpitation and arrhythmia and has less significant coronary artery disease than pitta and kapha imbalance. On the contrary if a person is pitta dominant then imbalance when exceeds the normal give rise to jealousy, negative competition,

resentfulness, revengefulness, anger impatience and irritability which may influence the health of the heart by premature atherosclerosis of coronary arteries and by inflammation of the arterial wall producing premature heart attack. Kapha imbalance when exceeds the normal give rise the lethargy and overweight and thereby affecting the heart by increasing the tendency for hypertension dyslipidemia and wide range of destructive emotion such depression procrastination and self pity. Our heart both literally and figuratively if congested with anger doubt, fear hostility, cynicism, irritability, repression due to dosha imbalance may produce premature coronary artery disease. It is therefore necessary that all the doshas should remain in balance to have a healthy heart. One should identify the emotion, be mindful of the physical sensation in your body, take the responsibility of what you are experiencing, express what you have feeling in private and let go of the negative emotion through some personal ritual and then share your feeling with another persona and celebrate and rejuvenate.

Mind Heart Connections

The mind and the heart both are directly and indirectly connected. Direct connections exist through the autonomic nervous system, which can influence the heart rate and rhythm as well as blood pressure. Indirectly, negative emotions such as fear, jealousy, hostility, cynicism, negative competition, hard driving person, dead line oriented, highly demanding individuals, frequently angry individual so called type A personality release hormones such as adrenaline



and nor-adrenaline and increase the vulnerability to heart attacks. This causes aggregation of platelets and activates clot formation. Every thought in the mind, either pain or pleasure, hope or fear, love or hate, influence the heart. A four years study of middle aged men who expressed hopelessness about their future had 20% greater increase in narrowing of the coronary arteries as compared to those who were more optimistic. Negative psychological factors produce stress hormones, which precipitate pre mature angina and heart attack. Loss of social support such as divorce, death of the spouse, loss of job or retirement, loneliness and frustration may all precipitate heart attack has been well documented in the research data.

Central obesity (pot - belly) has been documented as one of the risk factors for premature Coronary Artery Disease. Normally, the waist and hip ratio is normally more than 0.95 in males, and 0.83 in females. The girth of waist in males should be less than 40 inches and in females, it should be less than 36 inches. "Longer the waist line, shorter the lifeline and vice-versa". Morbid

obesity is a higher risk for many illnesses such as heart attack, hypertension, diabetes, cancer etc. Perfect weight management may halt the menace of morbid obesity by regular exercise, yoga, dieting and meditation and mind body balance strategies.

Physical inactivity: lack of exercise is also one of the risk factors for Coronary Artery Disease. It has been documented in one of the studies in U.K that the incidence of Coronary Artery Disease is higher in postmasters than in postal clerks, and it is higher in bus drivers than in bus conductors. Regular physical exercise, especially aerobic exercises such as walking, wogging, jogging, cycling, swimming, dancing and skiing, increases the myocardial efficiency, reduces blood pressure, improves cardiac output, decreases peripheral vascular resistance and produces new collateral vessels (natural bypass), thus help in bypassing the bypass surgery. Exercise, especially walking for twenty minutes every day, keeps heart attack away. Exercise also reduces bad cholesterol, increases good cholesterol and reduces obesity. One should never do any unaccustomed exercise, as

it may carry a risk of premature heart attack. The best exercise after the age of 40 is brisk walking, on a daily basis, in a beautiful, lush green garden, which will energize you. One should avoid anaerobic exercises such as weightlifting, push-ups, etc. as they increase the tendency for hypertension. I firmly believe in "use your body or lose it".

Diet: A diet rich in saturated fats and cholesterol can raise blood cholesterol. These foods include oil rich in saturated fatty acids, such as palm and coconut oils, fatty foods of animal origin such as beef, pork and lamb, and high fat dairy products such as butter, whole milk, hard cheese, egg yolk, etc. It is recommended that one should consume a lot of vegetables, fruits, cereals and pulses, and for a non-vegetarian diet, one can have chicken without skin, and fish, which contains Omega-3 fatty acids, which are protective for the heart, low fat dairy products such as skim milk, and low fat yogurt, etc. Olive and Canola oils are monounsaturated oils and may be even more beneficial in reducing blood cholesterol than polyunsaturated oils. Avoid excess consumption of salt. Frequent outdoor brunching, lunching and munching should be avoided. Eating the right food at the right time, in the right place, in the right manner and in the right dose, makes the heart healthy. We are what we eat! Avoid saturated fats and take more of monounsaturated fats (MUFA) and polyunsaturated fats (PUFA). Refined oils are better cooking media than saturated fatty acids. Eating healthy food at a right time, at right place can influence our body metabolism, According to Ayurveda, eating

is a holy experience in which energy and information from the environment are converted to life energy. We must eat when we are settled in our mind and we should experience not only the taste but also the sight, smell, texture of the meal. "We are what we eat. What we eat is important, but what is eating us is much more important."

Uncontrolled diabetes increases the risk of Coronary Artery Disease by virtue of increasing the oxidation of low density LDL cholesterol, and hence it enhances hardening of the arteries. Adequate control of diabetes prevents Coronary Artery Disease.

Hypertension is a medical term for high blood pressure, which threatens not only coronary arteries but also brain, eye and kidney arteries. Blood pressure increases the load on the heart muscle, which has deleterious effect on the circulation in the coronary arteries. Both systolic and diastolic hypertension is equally hazardous for premature coronary artery disease. Uncontrolled high blood pressure may increase the thickness of heart muscles and reduce coronary circulation. 80 percent of uncontrolled, moderately hypertensive patients have definite Coronary Artery Disease. Thus, blood pressure, both systolic and diastolic, should be adequately controlled. "Hypertension is a silent killer."

The common predisposing factor for accelerated hypertension are stress, excess of salt consumption, obesity, uncontrolled diabetes, indiscriminate use of nasal drops containing ephedrine, excessive smoking, excessive consumption of alcohol may precipitate hypertension. Mind body

interventions such as yoga, meditation, exercise, massage therapy, sattvic diet, weight management, stress management, adequate sleep may help in managing the hypertension.

Various non-modifiable risk factors for Coronary Artery Disease include advancing age, which causes hardening of coronary arteries. Male sex has higher vulnerability for premature coronary artery disease because of there faulty lifestyle including sedentary habits, faulty eating habits such as consuming junk food, high levels of stress at work. Post-menopause states in women are equally at risk for a heart attack as men due to depletion of the oestrogen hormone. The higher risk group for women includes post menopausal, diabetic, smokers and obesity. Family history is also a very important factor for all people before the age of 50. However, modifiable risk factors are much more important than genetic predisposition. Fear of a coronary artery disease motivates many people to change their lifestyle but I must emphasized the fear motivated behaviour cannot be successful on long term basis. Fear of eating, exercising should not create any kind of anxiety which has more deleterious effect on our system. We must always consider the physiological benefits of a lifestyle change by considering its emotional and spiritual origins.

Clinical manifestation of Coronary Artery Disease (CAD)

CAD may manifest clinically as silent myocardial ischemia, stable angina pectoris, unstable angina, heart attack and sudden cardiac death. Silent myocardial ischemia

refers to blockage of coronary arteries that does not produce any symptoms. It is often diagnosed by electrocardiogram or stress test. It is common in diabetics. It is more dangerous as it does not produce any symptoms. Severe heart attacks can occur with no pain whatsoever and the damage to the heart muscle can be detected when the disease is quite advanced. Data from the long term Framingham heart study revealed that approximately 15% of all heart attacks were "silent" and equal numbers of attacks were diagnosed wrongly as indigestion, gas or atypical upper abdominal discomfort. Angina pectoris of effort is chest pain on exertion which is also produced by partial / subtotal blockage of coronary arteries due to hardening of the arteries and atherosclerotic plaque etc. any kind of exertion physical, mental or sexual may provoke angina of effort.

The characteristic presentation of angina is pain in the center of the chest which is diffuse and not pin point radiates to the left arm or right arm or back or in the jaw which is usually associated with choking sensation, tightness across the chest, heaviness or sinking feeling associated with fatigability and sweating etc. A large number of medication are prescribed for stable angina pectoris such as nitroglycerine in the form of a pill (sorbitrate), spray (nitrolingual spray) or a patch (transdermnitro) which dilate the coronary arteries and eliminate the pain. Other drugs, which are commonly used in angina effort, are beta blockers, calcium channels blocker which slows the heart and reduce the blood

pressure. Other adjuvant therapy includes aspirin, clopidogrel which reduce the stickiness of platelets and prevent platelet aggregation. Besides these lipid-lowering drugs are also given to the patient of angina pectoris. It has been well documented that drugs like aspirin alone may reduce risk of heart attack by more than 40% if taken regularly 150 mg daily it not only reduce the risk of heart attack but also reduces risk for stroke. Unstable angina is characterized by increase in frequency and worsening of intensity and duration of angina with more episodes of angina at rest, not responding adequately to the conversational treatment of angina. Usually the cause is a blood clot formation in subtotal blocked coronary arteries. These patients require hospitalization for medical treatment investigation such as EKG, Trop I, Echocardiography, 24 hours holter monitoring, angiography, angioplasty or bypass surgery and whatever is required.

Heart attack occurs with the coronary artery is completely blocked and the area of the heart muscle nourished by the coronary artery is damaged and becomes necrotic. This is what happens during heart attack. Myocardial infarction is the medical term for the same. Most of the heart attacks occur when a blood clot is lodged in a narrow coronary artery and cuts off the flow of blood completely. The patient usually complains of severe unbearable pain in chest with radiation with the left arm, right arm or jaw. It is usually associated with nausea, sweating and shortness of breath. 60% of the people they die before they reach the hospital in one

hour before seeking any medical help. They need emergency care in the hospital.

Diagnosis of Coronary artery disease – Early diagnosis of coronary artery disease may reduce the morbidity and mortality. Various diagnostic tools which are utilized to diagnose various coronary artery disease syndromes are electrocardiogram (ECG), enzymatic markers such as Trop I, CPK-MB, Myoglobin, SGOT, LDH etc., Echocardiography, ambulatory holter monitoring, treadmill stress test, Dobutamine stress echocardiography, stress thallium scan and coronary and left ventricular angiography etc.

If we are physically, mentally, socially, psychologically and spiritually integrated, then we have a healthy heart. Healthy heart can be achieved by the following 8 point programme:

8 Points Programme for your and my Heart.

- Promise to Exercise daily for 30 minutes. Avoid unaccustomed exercise. "Use it or loose it".
- Promise to Eat the right food, at the right time, at the right place, in the right manner, in the right dose, in the right environment. Eat only when you are hungry, eat freshly cooked food in a quiet relaxed atmosphere and eat slowly and don't eat when you are upset and avoid overeating. Have sattvic vegetarian food and not tamasic or rajasic food. All 6 tastes including sweet, sour, salty, bitter, pungent and astringent should be included in every meal. As most of the coronary artery disease are pitta or kapha imbalances. Eat more natural foods such as vegetables, fruits, salads and nuts

including walnuts & almonds, etc. Do not eat junk food such as fried food or sweets, etc. "You are, what you eat"

- Promise not to smoke or chew tobacco. "Tobacco or Health, You can't have both"
- Meditate 20 minutes in the morning and evening and practice yoga. "Meditation is superior to medication"
- Maintain optimum body weight. Avoid a "pot-belly" abdomen. "Longer the waist line shorter the lifeline."
- Remain cholesterol-fit.
- Promise to be emotionally stable. Don't burn both the ends of the candle at the same time. Have adequate rest for 6-8 hrs everyday. Avoid lust, anger, greed, ego and attachment. Be honest, truthful and dedicated for work. Have good social support system. Work with self-referral and not with object referral. Don't feel lonely. Have perfect choices to achieve any goal in a very peaceful manner. Develop intimate relationship. Become an embodiment of positive emotions such as love, compassion, humility, faith, confidence, peace, harmony, bliss and happiness. Have planned daily routine and set weekly, monthly and yearly plans. Laughter is tranquillizer, energizer, stabilizer, equipoiser, happinessiser, equalizer. It is an experience of divinity for Healthy Heart. "What you think & eat matters but what is eating you matters more"
- Take antioxidants, folic acid, Co Q10, lycopene, Omega 3 FA, Vitamin D on daily basis especially after the age of 55. "Optimize your lifestyle to energizes your heart" ■

विकास में सार्वजनिक उपक्रमों की भूमिका



नितिन प्रधान

वरिष्ठ पत्रकार, दैनिक जागरण

अंतरराष्ट्रीय मुद्रा कोष की एक हालिया रिपोर्ट में कहा गया है कि भारत समेत 31 देशों के पास ऐसे पब्लिक सेक्टर असेट हैं जिनका मूल्य इन देशों की जीडीपी के 219 फीसद के बराबर है। यानी इन देशों में किसी भी तरह की आर्थिक विपदा में ये पब्लिक सेक्टर देश को बचाने में अहम भूमिका निभा सकते हैं। विकास के रास्ते से पिछड़ने की स्थिति में यह क्षेत्र देश को पटरी पर लाने में मदद कर सकता है। हालांकि मुद्रा कोष की रिपोर्ट में यह भी कहा गया है कि भारत के संबंध में पब्लिक सेक्टर को लेकर पूरी तरह स्पष्टता नहीं है। लेकिन बावजूद मुद्रा कोष ने भारत को उन देशों की श्रेणी में रखा है जहां पब्लिक सेक्टर को कुशल प्रबंधन के जरिए बनाये रखा गया है। आइएमएफ की यह रिपोर्ट देश के सार्वजनिक उपक्रमों की प्रासंगिकता की महत्ता को दर्शाती है। इसका मतलब साफ है कि देश की अर्थव्यवस्था में सार्वजनिक उपक्रम आज भी अहम भूमिका निभा रहे हैं और अर्थव्यवस्था को विकास के रास्ते पर ले जाने में उनकी आवश्यकता बनी हुई है। मुद्रा कोष की रिपोर्ट से यह बात भी स्पष्ट है कि अर्थव्यवस्था के बुरे हाल में सार्वजनिक क्षेत्र ही इसे उस स्थिति से निकाल ले जाने में सक्षम है। हालांकि अपनी इस भूमिका की परीक्षा में सार्वजनिक क्षेत्र कई बार पहले भी खरा उतर

चुका है। फिर चाहे आजादी के बाद देश में अर्थव्यवस्था का एक मजबूत ढांचा तैयार करने की बात हो या फिर 2008 में आई मंदी के बाद अर्थव्यवस्था को वापस पटरी पर लाने में मदद करना। देश की अर्थव्यवस्था का ढांचा खड़ा करने में सार्वजनिक उपक्रमों की भूमिका आजादी के तुरंत बाद से ही शुरू हो गई थी।

आजादी के बाद देश में कुछ बड़े कारोबारी समूह निजी क्षेत्र में काम तो कर रहे थे लेकिन आर्थिक ढांचा खड़ा करने के लिए जिस पैमाने पर निवेश की आवश्यकता थी उसे ये निजी घरा. ने अपने दम पर पूरा नहीं कर सकते थे। देश को एक बड़े औद्योगीकरण की आवश्यकता थी। इस अंतर को पूरा करने के लिए देश में ओएनजीसी, भारत हैवी इलेक्ट्रिकल्स लिमिटेड और कोल इंडिया जैसी विशाल सरकारी कंपनियों का जन्म हुआ जिन्होंने न केवल देश की प्राकृतिक संपदा के दोहन और उसके इस्तेमाल के जरिए विकास की जिम्मेदारी संभाली बल्कि इंजीनियरिंग क्षेत्र में भी भारत को एक नई पहचान दी। पब्लिक सेक्टर की भूमिका केवल देश का आर्थिक ढांचा तैयार करने तक ही सीमित नहीं रही बल्कि आजादी के बाद से यह क्षेत्र देश में रोजगार के अवसर पैदा करने में भी अपनी अहम भूमिका निभाता चला आया है। आज भी देश के संग.

ठित औद्योगिक क्षेत्र में पैदा होने वाले रोजगार के अवसरों में दो तिहाई नौकरियां अकेले सार्वजनिक क्षेत्र की कंपनियां ही पैदा कर रही हैं। यही नहीं विदेशों की भांति भारत में भी सार्वजनिक क्षेत्र ही डूबते निजी क्षेत्र का तारणहार बन कर उभरा है। साल 2008 की भयानक मंदी के वक्त सार्वजनिक क्षेत्र ने देश की अर्थव्यवस्था को संभालने में अहम भूमिका निभायी। ऐसे वक्त में जब निजी क्षेत्र अर्थव्यवस्था में निवेश करने से हिचक रहा था, सरकारी बैंकों के जरिए सरकार ने देश की अर्थव्यवस्था में पूंजी निवेश की जिम्मेदारी संभाली। यही नहीं देश में काम कर रहे तमाम बड़े सार्वजनिक उपक्रमों ने विस्तार योजनाओं के सहारे अर्थव्यवस्था को आगे बढ़ाने में मदद की। इसी भारी भरकम पूंजी निवेश का परिणाम था कि देश उस भयानक मंदी में डूबे बिना आसानी से उस आर्थिक दुश्चक्र से बाहर निकल आया। इसके बाद देश ने उच्च विकास दर हासिल कर साबित किया कि वह न केवल आर्थिक प्रबंधन के मामले में दुनिया के तमाम देशों से आगे है बल्कि उसकी संस्थाएं जिनमें सार्वजनिक उपक्रम और सरकारी क्षेत्र के बैंक शामिल हैं, को भी प्रबंधन कौशल की महारत हासिल है।

देश में आर्थिक उदारीकरण के बाद एक वक्त

ऐसा आया जब लगा कि सार्वजनिक उपक्रमों की प्रासंगिकता समाप्त हो रही है। पूरी दुनिया में निजी क्षेत्र विकास का पर्याय बन रहा था। विभिन्न देशों में सरकारें बिजनेस से खुद को अलग कर चुकी थी या कर रही थी। साल 1991 का यह दौर देश के सार्वजनिक उपक्रमों के लिए भी नई दिशा लेकर सामने आया। केंद्र सरकार ने इन कंपनियों में से अपनी हिस्सेदारी कम कर इसे ज्यादा कुशल पेशेवर प्रबंधन के तौर पर बनाने का निर्णय लिया। कुछ कंपनियों को रणनीति के तहत पूरी तरह सरकारी क्षेत्र से मुक्त कर निजी क्षेत्र के नियंत्रण में दे दिया गया। इस पूरी प्रक्रिया में सार्वजनिक क्षेत्र का एक नया चेहरा सामने आया। प्रतिस्पर्धा के इस नए दौर को सरकारी प्रबंधन वाली कंपनियों ने चुनौती के तौर पर लिया। परिणाम यह हुआ कि घरेलू और अंतरराष्ट्रीय निजी क्षेत्र की प्रतिस्पर्धा की अग्नि में तपकर कई सरकारी कंपनियां कुंदन की भांति निकली। स्टील अथारिटी ऑफ इंडिया, भारत हैवी इलेक्ट्रिकल्स, ओएनजीसी जैसी तमाम कंपनियों ने न केवल देश में बल्कि विदेशों में भी अपने प्रबंधन के झंडे गाड़े। उदाहरण के लिए इस परीक्षा का ही परिणाम है कि आज की तारीख में ये कंपनियां घरेलू और अंतरराष्ट्रीय निजी कंपनियों से बराबरी की प्रतिस्पर्धा कर रही हैं।

देश में इस वक्त करीब ढाई सौ सरकारी कंपनियां काम कर रही हैं। मार्च 2017 तक इन कंपनियों में निवेश 1250373 करोड़ रुपये के स्तर तक पहुंच चुका है। इन कंपनियों की आय इस अवधि में 1821809 करोड़ रुपये रही है। सरकारी क्षेत्र की इन कंपनियों में से 174 कंपनियां मुनाफा अर्जित कर रही हैं और 2016-17 में 152647 करोड़ रुपये का मुनाफा अर्जित किया। घाटे में चल रही कंपनियों से हो रहे नुकसान को मुनाफे से समायोजित कर दिया जाए तो देश में काम कर रही 257 सरकारी

देश में इस वक्त करीब ढाई सौ सरकारी कंपनियां काम कर रही हैं। मार्च 2017 तक इन कंपनियों में निवेश 1,2,50,373 करोड़ रुपये के स्तर तक पहुंच चुका है। इन कंपनियों की आय इस अवधि में 1,8,21,809 करोड़ रुपये रही है। सरकारी क्षेत्र की इन कंपनियों में से 174 कंपनियां मुनाफा अर्जित कर रही हैं और 2016-17 में 1,52,647 करोड़ रुपये का मुनाफा अर्जित किया।

कंपनियों का कुल मुनाफा इस अवधि में 127602 करोड़ रुपये रहा। यही वजह है कि सार्वजनिक क्षेत्र आज भी अपनी प्रासंगिकता को बनाये हुए है। देश के आर्थिक विकास ही नहीं सामाजिक विकास में भी कारपोरेट सामाजिक दायित्व के जरिए ये कंपनियां महत्वपूर्ण भूमिका निभा रही हैं। सरकार की पहल से चल रहे सामाजिक विकास के कार्यक्रमों की सफलता की कहानी के पीछे काफी हद तक इन्हीं कंपनियों का हाथ है। साल 2015 के बाद एक बार फिर सार्वजनिक उपक्रमों में सुधारों को लेकर चर्चा शुरू हुई है। 1991 के बाद से केंद्र की सत्ता में रही विभिन्न सरकारों ने अपने अपने नजरिए से सार्वजनिक उपक्रमों के विकास की दिशा में काम किया है। लेकिन बावजूद इसके सार्वजनिक उपक्रमों की मौजूदा स्थिति को देखते हुए कुछ ऐसे बिंदु हैं जिन पर तत्काल ध्यान दिए जाने की आवश्यकता है। इनमें बीमार सार्वजनिक उपक्रमों को लेकर स्पष्ट नीति, पीएसयू प्रबंधन को प्रशासनिक मंत्रालयों की जकड़न से निकालना, उनमें उत्तराधिकार की एक स्वतंत्र और सुस्पष्ट नीति जैसे मुख्य

विषय शामिल हैं। एक और विषय जिस पर हालांकि केंद्र सरकार की भूमिका बहुत अधिक नहीं है, वो है राज्यों में सार्वजनिक उपक्रमों की हालत में सुधार। एक-दो राज्यों को छोड़ दें तो इस पर बहुत ज्यादा काम अभी होना बाकी है। केंद्र की भूमिका इस मामले में सलाहकार की हो सकती है क्योंकि असल काम इस क्षेत्र में राज्य सरकारों को ही करना है। लेकिन खुद केंद्रीय सार्वजनिक उपक्रम इस काम में बड़ी भूमिका अदा कर सकते हैं। यदि अपने अपने क्षेत्र के सफल उपक्रम राज्यों के उन्हीं क्षेत्रों के उपक्रमों को मदद करें तो संयुक्त उद्यम रणनीति के जरिए राज्यों के उपक्रमों को उबारा जा सकता है। ऐसा होता है तो यह देश की सकल जीडीपी को नई ऊंचाई तक ले जाने में मददगार साबित होगा। वर्तमान में सबसे बड़ा मुद्दा बीमार सार्वजनिक उपक्रमों को मुख्यधारा में लाने का है। ऐसे उपक्रमों की संख्या इतनी ज्यादा हो गई है कि यदि अभी इस दिशा में कोई कदम नहीं उठाया गया तो यह रोग दूसरे उपक्रमों को भी खराब कर सकता है। चूंकि भारतीय अर्थव्यवस्था में सामाजिक विकास की भूमिका काफी महत्वपूर्ण है इसलिए इन उपक्रमों की इस भूमिका को न तो नकारा जा सकता है और न ही कम किया जा सकता है। लेकिन इन उपक्रमों को सुधारने की दिशा में अहम कदम अवश्य उठाए जा सकते हैं। केंद्र सरकार ने इस दिशा में कुछ कदम उठाये हैं जिनमें ऐसे उपक्रमों को बंद करने का निर्णय लिया गया है जिनमें अब सुधार की गुंजाइश नहीं रह गई है। हाल ही में केंद्रीय मंत्रिमंडल ने इस संबंध में कुछ फैसले भी लिये हैं। लेकिन जिन उपक्रमों को थोड़ी बहुत वित्तीय मदद देकर और उनके प्रबंधन में बदलाव कर यदि सुधार जा सकता है तो ऐसा अवश्य होना चाहिए। इस बात से इनकार नहीं किया जा सकता कि देश की अर्थव्यवस्था के संकट की स्थिति में फंसने पर सार्वजनिक उपक्रम क्षेत्र ने ही उसे उबारा है। ■



डॉ यू. डी. चौबे
डायरेक्टर जनरल, स्कोप

अंधेरा - उजाला

अंधेरे का डर—

उजाला,

अंधेरे का जलन—

उजाला।

षडयंत्री अंधेरा,
कोई स्वरूप नहीं,
कोई प्रकार नहीं,
अंधेरा बस अंधेरा है,
अनवरत प्रयत्नशील,
उजाले को दबोचने को।

लेकिन उजाला,
प्रकाश देता है,
अंधेरे को मिटाता है,
अंधेरा—उजाला दोनों,
पूरक हैं एक दूसरे के,
एक के बिना दूसरे की कल्पना नहीं,
दूसरे के बिना कोई सपना नहीं,
अंधेरा विकृति है,
उजाला स्वीकृति है,
एक नकारात्मक तो दूसरा सकारात्मक।

उजाला बोलता है,
अरे अंधेरे,
तुम मेरे पास आओ,
तुम्हारा अस्तित्व मिट जायेगा।

अंधेरा बोलता है,
तुम मुझे छू नहीं सकते,
मेरा कोई आधार कार्ड भी नहीं,
न कोई पहचान पत्र।

उजाला बोलता है,
लेकिन भैया पैन—कार्ड तो है,
पकड़े जाओगे,
तेरा रंग काला है,
उजाले में आओ,
टैक्स दो,
नहीं तो,
जेल जाओगे।

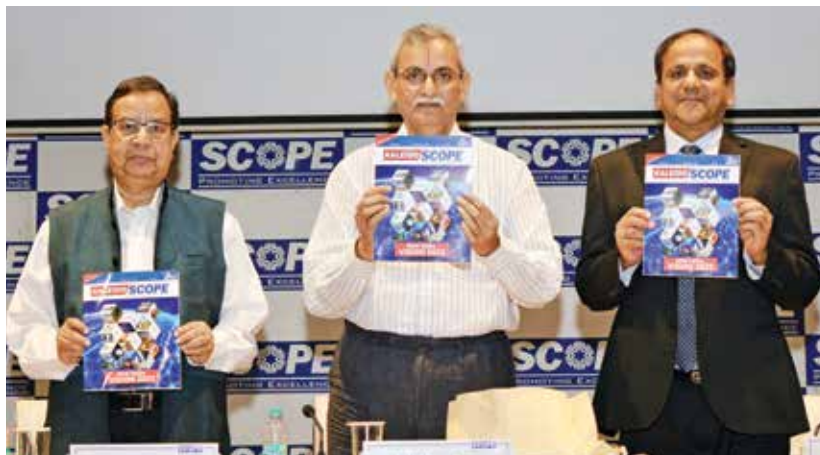
CVC interacts with CEOs and Directors of PSEs

SCOPE organised an Interactive Meeting of Central Vigilance Commissioner (CVC) Mr. K.V. Chowdary with CEOs, Directors & CVOs of Public Sector Enterprises (PSEs) on 12th September 2018 at SCOPE Convention Centre, New Delhi.

The Central Vigilance Commissioner in his address said that the cause behind the mistakes is the prime concern of Vigilance. He cited sheer negligence, oversight, lack of knowledge as the main causes that lead to mistakes in organisations. He, therefore, emphasized on prominent role of human resources department to continue to provide training facilities to employees for their better reorientation. This would help employees in becoming more productive as well as transparent in their approach. He also emphasised on the role of Chief Vigilance Officers in building transparent systems and processes in the organisation.

Mr. Chowdary also advised that integrity of three types namely personal, institutional and of process should not be compromised. Importance of Section 182 of IPC, was also mentioned by CVC with regard to numerous complaints received by organisations. On the occasion, CVC also released the Special issue of Kaleidoscope on 'New India Vision 2022'.

In the opening address, Mr. Ved Prakash CMD, MMTC & Chairman, SCOPE stated Chief



CVC Mr. K.V. Chowdary releasing the Special Issue of KALEIDOSCOPE on New India Vision 2022 in the presence of Mr. Ved Prakash, CMD, MMTC & Chairman, SCOPE and Dr. U. D. Choubey DG, SCOPE.

Vigilance Commission (CVC) has played a major role in bringing focused attention on preventive vigilance in the country. He further said that in today's competitive environment, PSEs role and responsibility has changed and vigilance has become an important partner in the ethical and transparent functioning of an organisation. He drew attention to the large number of RTIs/complaints from mischievous elements which is creating apprehension in the minds of officials of PSEs.

In his welcome address Dr. U.D. Choubey DG, SCOPE spoke about the need for study for identification of risks related to vigilance issues in PSEs. He also highlighted the need for creating a cadre of CVOs to suggest remedial measures to increase transparency and fairness in the organizations.

Dr. Choubey stressed on the need of training and capacity building to prevent emergence of corrupt practices within the organisation, and also to bring greater awareness. He added that SCOPE proposes to organize a Vigilance workshop and also look for providing tailor made programs through SCOPE Academy in association with Ernst & Young as their knowledge partner.

During the interactive session, Mr. Arpinder Singh, Partner & Head, India & Emerging Markets, Forensic & Integrity Services, Ernst & Young gave a presentation on 'Strengthening culture of integrity, transparency and compliance in Central Public Sector Enterprises' where Key developments in the regulatory and enforcement environment in India, Global anti-corruption legislations and guidance, Guiding



Mr. Ved Prakash CMD, MMTC & Chairman, SCOPE addressing the Interactive Meeting.

principles of ISO 37001, Benefits of ISO 37001 & changes in organization, Government's outlook towards ISO 37001 and Enforcement and compliance trends were deliberated. Talking further about ISO 37001, it was highlighted that it demonstrates strong management commitment and it also certifies and benchmarks compliance programs.

The workshop deliberated on common vigilance issues which are matter of concern in PSEs. CVC clarified the issues raised by the participants. The interactive meeting was attended by CMDs, Directors, CVOs and senior executives from PSEs. ■



Dr. U. D. Choubey DG, SCOPE addressing the gathering at the Interactive Meeting with CVC.



SCOPE conducts 7th Advanced Global Leadership Programme

Standing Conference of Public Enterprises (SCOPE) in collaboration with the Indian Institute of Management Calcutta (IIM-C) conducted its much acclaimed Advanced Global Leadership Programme (seventh in the series) during 20th August and 9th September, 2018. This was followed by a feedback cum concluding session in which participants shared their key learning during the program. The Global Leadership programme is aimed at capacity building of Top/Senior executives in Public Sector Enterprises (PSEs). The program focussed on better understanding of Indian and global economic scenario for creation of effective strategic leaders in PSEs.



Mr. Atul Chaturvedi, Former Chairman, PESB(Centre), Mr. Ved Prakash CMD, MMTC & Chairman, SCOPE (on his left) and Dr. U. D. Choubey DG, SCOPE (on his right) during the Delhi leg of Advance Global Leadership Program.

The programme was divided into two modules- first one was Indian Module which was conducted at Indian Institute of Management, Calcutta (IIM, Calcutta) and SCOPE and the second module consisted of a study cum business tour to Asian Countries. The participants visited Singapore, Shanghai and Beijing. During the first module, a six day workshop was held at IIM, Calcutta during 20th-25th August, 2018. Dr. U.D. Choubey DG, SCOPE delivered the inaugural address. The Program Director, Prof. (Dr.) Sougata Ray welcomed and briefed the participants.

The sessions held at IIM, Calcutta covered diverse topics such as 'Strategy, Contemporary

Economic/ Geo-Political issues and their implications' for CPSEs. Other topics included 'Understanding of Capital Markets, Emotional Intelligence and Value based leadership and governance and Corporate Financial management, Managing Business across borders and Corporate Restructuring.'

IIM Professors as well as industry leaders addressed the participants and shared their experiences. Other themes included 'Looking Digital to Thinking Digital.' Mr. P.S. Bhattacharya, Former CMD, Coal India and Mr. Arup Roy Choudhury, Former CMD, NTPC Ltd shared their perspectives on 'Strategic transformation of Public Sector Enterprises.'

SCOPE organised a One day

workshop on the 29th August 2018 at SCOPE Complex, New Delhi which was inaugurated by Mr. Atul Chaturvedi, Former Chairman, Public Enterprises Selection Board (PESB). Mr. Chaturvedi also released Kaleidoscope on the occasion. Mr. Ved Prakash Chairman, SCOPE & CMD; MMTC and Dr. U.D. Choubey, DG, SCOPE addressed the participants on the occasion. A special session on 'Indian Foreign Policy' was conducted by Ambassador J.S. Mukul Dean, Foreign Service Institute, Ministry of External Affairs.

The second phase i.e. International Module of the programme included a ten day study tour to Singapore, Shanghai and Beijing which included industry visits as



Participants of Advance Global Leadership Program at SCOPE Convention Centre, New Delhi along with Mr. Atul Chaturvedi, Former Chairman, PESB, Mr. Ved Prakash CMD, MMTC & Chairman, SCOPE and Dr. U.D. Choubey DG, SCOPE.

well as workshop at the National University of Singapore Business School. Values of MERITT (Meritocracy, Excellence, Respect, Integrity, Teamwork & Trust) were introduced to the participants. The workshop covered Global Strategic Management and National Governance/Institutional Policy with reference to Singapore in the changing world. Resource persons at the university also provided Singapore's perspective of Strategy and success. Lectures also gave an overview of Singapore, its Governance Approach, Talent Management model, Challenges & Outlook and attempt at creating an inclusive society where citizens feel a sense of ownership & belongingness. Participants visited prominent institutions such as TEMASEK Holdings and Singapore Airlines where participants were briefed about facing the Industry challenges like oil Price Volatility, Global Economic Weakness, Environmental and Changing Market Environments.

This was followed by visit to Singapore Port (The World's Port of Call). In Shanghai, participants visited the Indian Consulate and interacted with Consul General and interacted

with Indian industry leaders in Shanghai who provided an insight at performing in the competitive environment of China. The various representatives with whom participants interacted were Mr. James Zhan President, China TATA Sons Ltd, Mr. Akshay Mathur, Business Head, Shanghai Shujin Environment Technology Co. Ltd. and Mr. Mukesh Sharma, Associate VP, Tech Mahindra (Shanghai) Co. Ltd. The third day was dedicated to full day workshop at China Europe International Business School, Shanghai. Digital Business Landscape in China and Cultural similarities and differences between Chinese, Indians and Americans were some of the topics that were covered. These visits threw light on manufacturing excellence through Innovation, Automation and the importance of Research and Development. China's full thrust on 'Made in China 2025' strategy that can transform China into advanced manufacturing leader was the main focus projected during these visits.

The Three day visit to Beijing included visit to the Indian embassy where Mr. Gautam Bambawale, Indian Ambassador to China spoke about the reasons that have

helped China become a great economic power and the role and position of State Owned Enterprises in the country. This was then followed by industry visits to China National Petroleum Corporation and SASAC (State-owned Assets Supervision and Administration Commission).

The participants also attended a Feedback and Concluding workshop at SCOPE which was inaugurated by Mr. D.S. Sudhakar Ramaiah, Director (Finance), PDIL. Mr. S.A. Khan, Group GM (Corporate Affairs), SCOPE and Mr. U.K. Dikshit Advisor (Programs), SCOPE welcomed the participants and Prof. (Dr.) Sougata Ray, Program Director conducted a review session of Key Learnings of the program. The participants were of the view that the program was a unique learning opportunity and helped in expanding their horizon and understanding of PSEs evolution and role from a broader perspective. The program design and execution was appreciated by the participants. They thanked SCOPE and its academic collaborator IIM, Calcutta for the enriching experience. The program was attended by 27 Top/ Senior executives from 14 Public Sector Enterprises. ■

Strengthening Media Relations: Key to PSEs' Success

SCOPE conducts Media Relations Conclave 2018

A CEO is the face of an organization. He shapes, steers and strategizes the future of an organization. He and his communication team can turn a crisis into an opportunity through their empathetic understanding of the situation, clear focus and above all the skills to share the organization's line of thinking and preparations to overcome the situation.



Mr. Alok Joshi Managing Editor, CNBC Awaaz & CNBC Bazar, Dr. U. D. Choubey DG, SCOPE, Prof. Jaishri Jethwaney, Media & Communication Division, ISID and Mr. K. N. Dhawan, Conclave Coordinator, SCOPE during the inaugural session.

Understanding the importance of Media Relations in reinforcing favourable image of PSEs, Standing Conference of Public Enterprises (SCOPE) organized a two day Media Relations Conclave: Skill Development for CEOs and Spokespersons of PSEs on 8th-9th October 2018 at SCOPE Convention Centre, New Delhi. Dr. U.D. Choubey, Director General, SCOPE gave the opening remarks. Chief Guest, Mr. Alok Joshi Managing Editor, CNBC Awaaz & CNBC Bazar inaugurated the conclave, while Prof. Jaishri Jethwaney, Media & Communication Division, ISID, Former Professor, ADPR, IIMC gave the overview of the conclave. Mr. K. N. Dhawan, Conclave Coordinator, SCOPE proposed the Vote of Thanks.

The conclave imparted hands-on-skills in media handling, verbal and non-verbal communication through body language/kinetics etc. to enhance communication skills of CEOs and Spokespersons.

Dr. U. D. Choubey, DG, SCOPE in his opening remarks spoke about the strengths and weaknesses of Public Sector Enterprises (PSEs) in India. He said with their presence in the critical sectors of the economy, PSEs have made tremendous strides in the

socio-economic development of the country. Speaking about the performance of PSEs, Dr. Choubey said that their contribution toward Central Exchequer, profit, market capitalization etc. is next to none. Making an observation, DG, SCOPE said that the story of public sector was not shared

as it should, and perhaps this was its biggest weakness. The media, he said, has been changing, so PR and CC strategies also needed to be matched with it. PSEs in general, he said, did not utilize social media, which was the necessity of current times. Professor Jethwaney, course director shared



Dr. U. D. Choubey DG, SCOPE giving the opening remarks at the inaugural session of the conclave.



Chief Guest, Mr. Alok Joshi Managing Editor, CNBC Awaaz & CNBC Bazar giving the inaugural address.

the idea behind conducting a conclave of this kind and the possible take away from it.

Mr. Alok Joshi, Managing Editor, CNBC Awaaz & CNBC Bazar, in his inaugural address said that an effective media relation was how well one does his story telling. It is the responsibility of the CEO and company spokesperson, he said to find what could be of interest to the public and share it in an interesting manner. He gave the example of the Prime minister, who once was asked by journalists as to why he did not talk to the media, to which he replied that he did speak to his constituency directly through social media. Talking about the problem with PSEs, Mr. Joshi said that PSEs in general were media shy. He added that, only if the CPEs, kept in touch with the media persons regularly, in times of crises, they could be approached in a friendly manner. Having been informed of company's achievements on a regular manner, the media in his view would be more empathetic. Mr. Joshi felt that internal communication was of utmost importance as the employees can be goodwill ambassadors. They, he said need not be spokespersons,

but if they were shared company's stand on certain issues and policies, they could reflect it on the social media by re-tweeting such information to get the multiplier impact. Proposing the Vote of Thanks, Mr. K. N. Dhawan, Conclave Coordinator said that in Corporate Communication credibility is very important which can be built with faith and continuous coordination with media.

Inaugural session was followed with a session on Understanding the changing expectations of media from organizational leaders - the wherewithal of preparing for that. Dr. Jethwaney in her discourse on the changing media scenario spoke about the tremendous exponential growth of the media that the company had to keep pace with. Sharing some empirical studies, she said the CEOs who were media savvy had a better chance of enhancing the reputation of their companies vis-à-vis those who were media reticent. She gave a number of examples to reiterate the importance of effective communication. Journalists' sources of information she said had changed. A research conducted under her supervision a few years back reflected that more

than 80 percent journalists scan the net in the morning to get story ideas through what was trending on the social media.

Mr. Avijit Dutt, Creative Thinker, Social Advocate and Theatre & Film Personality in his session on 'Impact of verbal and non-verbal communication when facing the camera -the do's and don'ts' gave some practical tips on how to interface with media persons. "Never be glued to the notes when talking to the media" was his advice. One needed to rehearse and prepare before meeting the press. The most veteran spokespersons and theatre persons also get nervous before the camera, so there was nothing wrong in it. The camera he said does not lie, it not only transmits words but also feelings, so it was important to transmit honest feelings about the issue on hand. After a crisis has occurred, the media would like to know the course of action and how the company was going to rebound. Therefore preparation through teamwork was of utmost importance. He shared that human being have natural hand gestures, but the role of eyes was also important. Looking into

the camera reflected honesty and confidence, shifty eyes, on the other hand reflected lack of confidence, not being in control or not being honest. Confidence, he said was important. Before an interview chilling out was also important, by which he meant was to get over nervousness. He further added that moving around, hydrating oneself, taking deep breath etc. could help in overcoming nervousness. If faced with a rude journalist or unfriendly media, it was advised to speak softly and not to reflect one's annoyance. The other person would soon change his stance.

The afternoon session started with a panel discussion on 'What to do When you are the headline'. All the panellists were veteran current or former PR practitioners including Mr. Anuj Dayal, ED (CC), DMRC, Prof. (Dr.) Neemo Dhar, Dean- Faculty of Media studies and Humanities, Manav Rachna University and Mr. G. S. Bawa, Ex GM (PR), AAI. Ms. Dhar said that news media had a huge appetite for information, so in order to keep them busy, it was important for the PR/CC person to keep a repository of

stories both hard and soft to share with them from time to time. In critical times, she said the only thing that could get one out of the imbroglia was sharing of facts and figures with conviction and honesty. She referred to a number of cases handled by her when she was Commissioner PR at the Delhi Development Authority.

Mr. Dayal said that today's media and its expectations bore little resemblance to what it was a few years ago. So it was important to understand the media eco system and to respond accordingly. As a matter of practice he said at Delhi Metro the same press matter was given to various media. Sound bites to electronic media were restricted for certain occasions only. DM has still not adopted social media and there has been a pressure on them from the government, he shared. DM had two equal partners, viz. the Central and Delhi government and it was difficult to maintain a balance as their ideas did not match on many issues, the most recent being on increase of fair. The bottom-line of effective media relations in his view was balancing out news.

Mr. Bawa shared that his former

organization, AAI, had a written Media policy, which saved them from many situations and also helped them in referring to it when in doubt. In order to maintain relationship with media, advertisement in his view was certainly not the route. Social media with too many stakeholders and because of its interactive nature was making things complex for PR practitioners.

Mr. Shishir Sinha, Sr. Dy Editor, Hindu Business Line in his discourse on 'Big Data- Converting Data into Powerful Stories' depicted ways to connect data to formulate an idea. Big data, he said is not always about volume. Big data and data analysis he said were not quite the same things. Data about social good through CSR in his view could be a game changer. Story telling he said was an important way of keeping the organizations in the public knowledge.

The last session was hand on skills. Three mock press conferences were simulated for three organizations, viz., a team from Airports Authority of India comprising of Mr. J. B. Singh, GM, (CC), Mr. Devendra Kumar



Glimpses from SCOPE Media Relations Conclave 2018 Mock Press Conference



Team from AAI during their Mock Press Conference.



Team from IndianOil during their Mock Press Conference.



Team from Konkan Railway during their Mock Press Conference.



Mr. Gopal Sutar, Chief of Media Communications, HAL during his One-on-One interview.

One-on-One Interview with Journalists



Mr. Piyush Tiwari, Director (Commercial & Marketing), ITDC during his One-on-One interview.



Mr. Rakesh Ranjan Sahay, Airport Director, Raipur, AAI, during his One-on-One interview.



Mr. D. C. Verma, CM (CC & CSR), IndianOil during his One-on-One interview.



Mr. L. Das, DGM (CC), NALCO during his One-on-One interview.



Ms. Swagata Sen Roy, DGM (M &CC/ CCP), GRSE during her One-on-One interview.



Mr. J. B. Singh, GM (CC), AAI during his One-on-One interview.



Dr. Chinmoy Samajdar, CoC, Durgapur Steel Plant during his One-on-One interview.

Gautam, Airport Director, Jammu, Mr. Sanjaya Kumar Panigrahi, Airport Director, Surat, Mr. Pulla Hezekiah, Airport Director, Tirupati and Mr. Rakesh Ranjan Sahay, Airport Director, Raipur; a team from Konkan Railway Corporation Ltd. comprising of Ms. Anjana Tripathi, CSTE/P&W and Mr. L.K.Verma, CCM and a team from Indian Oil Corporation comprising of Mr. Balakrishna Naik, GM (CC), PLHO, Mr. D C Verma, CM(CC&CSR), Panipat Refinery and Ms. Nilakshi Konwar, HRO, Bongaigaon Refinery. A crisis situation was given to the Spokesperson and their team. The remaining participants were given role reversal of posing as journalists. After every mock press conference, experts Mr. Shishir Sinha, Ms. Neemo Dhar and Ms. Jaishri Jethwaney reviewed the performance on various parameters including verbal and non verbal components of the press conference.

Day two began with a session on 'The big picture – understanding digital media requirements- Dos & Don'ts' by Dr. Anand Pradhan from IIMC Delhi. He said that media ecology is changing the world over including in India. Technology, he said, is playing an important role in everything including communication. The onset of Social Media has necessitated that companies begin a dialogue with stakeholders and give up on one-way communication. Dr. Pradhan added that digital media has caused disruption in every field including commerce, politics and publishing and the future of communication is the fourth screen i.e. smart phones. Talking at length about the changing landscape of communication, he said that now being social means to be on social media. In short to be successful on digital media the mantra is: Engagement, Conversation, Interaction, Openness, and

Consistency.

The session was followed with One-on-One interview with media persons where a panel of journalists viz. - Mr. Ashutosh Kumar, Assistant Editor, BTVi, Mr. Rajeev Ranjan Jha, Editor, Nivesh Manthan and Mr. Vivek Shukla, Former Principal Correspondent, Aaj Tak interviewed the participants while Dr. Jaishri Jethwaney, Prof. Sunil Saxena, HOD, School of Media and Liberal Arts, Bennett University and Dr. Anand Pradhan and Mr. G. S. Bawa analysed the interviewees. Mr. Gopal Krishna Sutar, Chief of Media Communications, HAL; Mr. Rakesh Ranjan Sahay, Airport Director (Raipur), AAI; Mr. Piyush Tiwari, Director (Commercial & Marketing), ITDC; Mr. D. C. Verma, CM (CC & CSR) IOCL; Mr. L. Das, DGM (CC), NALCO; Ms. Swagata Sen Roy, DGM (M&CC/CCP) GRSE; Mr. J. B. Singh, GM (CC), AAI and Dr. Chinmoy Samajdar, CoC, Durgapur Steel Plant, SAIL were interviewed during the one-on-one interview. Mock Press Conference and One-on-One interview gave first hand experience to the participants. These also gave opportunities for self, peer group and experts appraisals, thus imparting effectiveness in interactive skills.

In the Valedictory/Freewheeling Session, Dr. Jaishri Jethwaney gave an overview and the Learning of various sessions from the Seminar. Mr. K. N. Dhawan, Conclave Coordinator also gave his observations. The participants praised the conclave for its content and execution and said the conclave has been a learning experience for them and such conclaves are necessary in the changing media scenario. ■

New SCOPE Initiative: Superannuation Card for Retired Employees



Dr. U. D. Choubey, DG, SCOPE presenting Superannuation Card to Mr. Ziauddin, (Retd.) Sr. Manager (HR), SCOPE.

SCOPE organizes Program on Corporate Governance under Companies Act, 2013 and SEBI (LODR) Regulations, 2015

SCOPE in academic association with Institute of Company Secretaries of India (ICSI) organized a two day training program on "Practical Aspects of Corporate Governance under Companies Act, 2013 and SEBI (LODR) Regulations, 2015 on 5th and 6th October' 2018 at SCOPE Minar Convention Centre, Delhi. Mr. Manish Mohan Govil, IRS, Adviser (Combinations), Competition Commission of India was the Guest of Honour, Mr. Samir Raheja, CEO (Designate), ICSI Registered Valuers Organization gave the program perspective. Dr. U.D. Choubey, Director General, SCOPE in his welcome address highlighted the various initiatives by the Government to ensure best corporate governance practices and transparency in the functioning of the Corporate Sector in India, and the latest was the appointment of Chairperson of the National Financial Reporting Authority (NFRA) as an independent regulator for the auditing profession which is one of the key changes brought in by the Companies Act, 2013. The inclusion of the provision in the Act was on the specific recommendations of the Standing Committee on Finance he said.

Mr. Govil, IRS, Guest of Honour spoke on the crucial role being played by the Competition Commission of India and how this is enhancing the corporate image, The program was organized for senior management of CPSEs to update them on the various amendments relating to the Companies Act 2013 and SEBI



Dr. U. D. Choubey DG, SCOPE addressing the inaugural session of the program while Mr. Manish Mohan Govil, IRS, Adviser (Combinations), CCI and Mr. Samir Raheja, CEO (Designate), ICSI Registered Valuers Organization can be seen on the dais.



Mr. Manish Mohan Govil, IRS Adviser (Combinations), CCI giving the inaugural address.

(LODR) Regulations 2015 and the implications of these amendments.

The inaugural session was followed by a total of eight technical sessions scheduled over two days. On day one, three interactive technical sessions were addressed by CS Ilam Kamboj, Managing Partner with Kamboj Law Chambers, Mr. Bibhuti Ranjan Pradhan, GM (CSR) IOCL CS GP Madaan Managing Partner, Madaan Law Offices. and, Advocate, respectively.

Day two saw five interactive technical sessions being taken by CS Pankaj Virmani, DGM (CA) & Company Secretary, DLF Ltd., CS I P Singh, Company

Secretary, BHEL, CS A K Rastogi, Jt. President & Company Secretary, Jai Prakash Power Ventures Ltd. CS Gopal Mondal, Director, Financial Control, Tax & Regulatory IDFC Bank & CFO in IDFC Foundation and Mr. Bhanu Panda, Chief Operating Officer & Member Board of Ghangor Cloud, a state of art, fourth generation DLP Solution. A number of queries relating to the subject. were raised by the participants, The participants found the program very useful and gained practical knowledge to be used back at their respective work place. Concluding the seminar, CMA Saqib Mehdi, Senior Manager Finance SCOPE proposed the vote of thanks to all the learned speakers, the faculty and program coordinators from ICSI, participants from CPSEs. The program was attended by large many Company Secretaries, Senior Executives from CPSEs.

Ms S B Mathur, Executive Secretary, SCOPE and CS Dheeraj Gupta, Excutive, ICSI were the program coordinators ■

Cyber Security: Way Forward

SCOPE in association with DSCI conducts workshop on “Approaching Cyber Security Challenges in CII Sector”

Public Sector Enterprises (PSEs) are the critical stakeholders in driving the national economy. Their astute presence in the lifeline sectors of the nation i.e. Oil & Gas, Energy, Infrastructure, Services, Defence etc. is the proof of its acute significance. As the world is witnessing the fourth Industrial Revolution in the form of digitalization, organizations across the globe are digitalizing their operations and functions. The flow of information is tremendous and hence, the dependability. Public Sectors are not aloof from it and are adopting the technology with zeal and need. Whether it is adapting cloud or moving information to cloud, PSEs have been moving with market. Being an economic power in itself, its digital security, therefore, is of paramount national importance. The threat landscape keeps on changing and is now different than before. Therefore, it is important that we protect our Critical Information Infrastructure (CII) from hostile intruders/attackers and enable readiness to meet any such challenges.

Standing Conference of Public Enterprises (SCOPE), therefore, in association with Data Security Council of India (DSCI), a body set up by NASSCOM, organized a One-day workshop on ‘Approaching Cyber Security Challenges in CII Sector’ on 12th October 2018 at SCOPE Convention Center, New Delhi. Dr. Sanjay Panda, former Chief Secretary, Govt. of Tripura & former Secretary to Govt. of India inaugurated the workshop in the presence of Ms. Neeta Verma, DG, NIC, Mr. Sanjay Bahl, DG, CERT-IN, Ministry of Electronics & Information Technology (MEITY), Mr. Rakesh Maheshwari, Scientist G & Group Coordinator, MEITY, GOI, Mr. Vinayak Godse, Vice President, DSCI and Mr. P.K. Sinha of SCOPE.



Dr. Sanjay Panda, former Chief Secretary, Govt. of Tripura & former Secretary to Govt. of India, Ms. Neeta Verma, DG, NIC, Mr. Sanjay Bahl, DG, CERT-IN, MEITY, Mr. Rakesh Maheshwari, Scientist G & Group Coordinator, MEITY, Mr. Vinayak Godse, Vice President, DSCI and Mr. P.K. Sinha, SCOPE during the inaugural session of the workshop.

Welcoming the participants and dignitaries in his introductory speech, Mr. P.K. Sinha of SCOPE said that Cyber Security is subject of global challenges and for that reason many of developing countries have taken up cyber security as national agenda and

are devising national policies on this emerging issue. He further added that, PSE being strategic partner in the socio-economic development of the nation makes them a key stakeholder and with that their cyber security is of national importance. With this in view and profound support from

Knowledge Partner, DSCI, this theme was selected for Workshop. Giving the program perspective, Mr. Godse said that operating environment is getting integrated to IT. If we look at a particular threat, he said, one particular compromise could lead to not only the organization but the



(From L-R): Dr. Sanjay Panda, former Chief Secretary, Govt. of Tripura & former Secretary, Gol, Mr. Sanjay Bahl, DG, CERT-IN, MEITY and Ms. Neeta Verma, DG, NIC addressing the workshop.

whole society and the nation. He further added that Critical Sector are critical to national security and although there is lot awakening in PSEs, this debate has to filter down to minute levels. He said that intense debate on cyber-attacks is need of the hour.

In his address, Mr. Maheshwari, Group Coordinator, MEITY said that role of people process technology is paramount. He opined that security has to be seen as whole life cycle and not at a certain point. Talking about the rapid growth of mobile phones and access to internet, Mr. Maheshwari said that more and more people have access to internet resulting in growing usage of cloud, social media which from personal experience makes work easier but from security purpose creates more complexities. He added that Cyber Resilience is the name of the day. Talking about the IT Act and its satisfying provisions to secure cyber frontier, he added that a major point missing in the IT Act is about the declaration of critical infrastructure within a organization. He apprised the gathering that Ministry is soon coming with Data Protection Bill which would enhance the cyber security.

DG, NIC, Ms. Verma in her keynote address discussed in detail

about the changing threat landscape, complexity of attacks viz. state sponsored, organized criminal activities, personal gain etc. DG, NIC added that Digital India Program has resulted in Data revolution and as a result, many vectors have resulted into driving cyber security as well as attack. PSEs, she said, play significant role in nation with their presence in every key sector like defense, banking, telecommunication power etc. She further added that PSEs have adopted digitalization in form of ERP, HR Management system and are also moving their IT system to cloud based. She also discussed challenges that PSEs face in terms of scale, vast Geographic Boundaries, Interconnectedness that could lead to cascading effects, Integration with IT Networks, Coordination amongst PSEs etc. She advised that there should be a comprehensive approach for cyber security and it is by the holistic approach we can have a secure cyber space. Talking about the need to generate awareness and skill building in PSEs, she added that multilayer security, use of analytics and Artificial Intelligence (AI) could provide a secure cyber space. She also highlighted key considerations for CII Security like strong cyber security team, policy regulations and best

practices, regular audit, emergency response system, cross sector co-ordination, cyber threat intelligence, and robust infrastructure.

DG, CERT-IN, MEITY, Dr Bahl in his keynote address emphasized the need to be aware of cyber threats to know who is doing the scanning and when they are doing it what are they looking for. Mr. Bahl pointed out that there is lack of awareness about cyber security threats amongst users, lack of proper response plane and lack of skill-sets. He also added that unclear roles and responsibilities in time of attack, lack of forensic readiness, organization not reporting incidents have made the matter even more complex. He posed seven questions before the participants to ensure cyber security in their respective organizations-

- Do you have people to manage your industrial control systems?
- Do you know what you have installed in the field?
- Do you have true cyber security control system in place?
- Can you trust the output from your devices?
- Do you have right documentation for your system?
- Do you fully understand

network access issue?

- Are your incident response and capabilities in place?

Chief Guest, Dr. Sanjay K. Panda, IAS while delivering the inaugural address said that PSEs were set up as engineer of growth and even today, they are playing an important role in socio-economic development. Former Chief Secretary, Govt. of Tripura & former Secretary to Govt. of India further opined that we are witnessing fourth industrial revolution in form of AI and big data and therefore, we have to keep adapting new technologies as technology is changing rapidly. While discussing his experience as Chief Vigilance Officer in SAIL, he advised the participants to be vigilant as the process needs to be preventive. He also said that Central organization should constantly guide executives from PSEs and PSEs in turn should adapt customer friendly technology as the 90% of the workforce are not as tech savvy as IT Experts.

Vote of thanks for the Inaugural Session was proposed by Mr. Sinha expressing sincere gratitude to all Dignitaries on Dias, Ministry of Electronics & IT, GOI, CEOs of PSEs for sending delegates, Invitees and Eminent Speakers.

Post inaugural session, a panel discussion was conducted on "Future of Control Engineering: What it means to security of SCADA/ICS. Mr. Ramesh Kumar, Chief Manager, GAIL-TEL, Mr. Jayant Gupta, CGM IS, HPCL and Mr. Dharmendra Kumar, CISO, Tata Power Delhi Distribution were the panelists while Mr. Vinayak Godse, VP, DSCI moderated the session. The panelists

highlighted the digital infrastructure in their respective organizations. They were of the opinion that Digitization Index in organizations are needed to identify processes IT has to do. They also said they are also using Big Data to predict the feeder problem with 86% success rate. Much of the controlled system, they said have been integrated and even more integration points are demanded to which they cannot say no to which has resulted into a lot of complexities in order to secure them. They also opined that we need to look at the system to identify nodal points, look at devices, channels and need to control all of them at the same time. Panelists also gave examples of how they are using technology to enhance safety. For example in GAIL, Quality of the Gas gets affected in presence of sulfur and humidity. Therefore, they get data of the source gas and if it goes into alarm level, the supply gets closed automatically. While they were of the opinion that Original Equipment Manufacturer (OEM) should not be given access to remote connectivity, some OEMs have come up with their own solution. The panel also opined that the best practices should be compiled and can be help of us with cyber security. Expressing their concern over the remote connectivity, they said that they are vendor driven and although technologically it is possible to control it, but security wise it is an issue of concern. They also advised the gathering to take Vulnerability Assessment of Operating System. The session was followed by a discourse on "Myths & Realities of OT/IIOT" by Mr. Mayank Lau, Principal Consultant, DSCI. Mr. Lau gave an overview of the

Industry 4.0 where engineers troubleshoot the problem from remote site using enhance technology like 3-d printing. He also gave examples of Cyber Attacks namely, Iran, 2010- somebody studied

Iranian nuclear plant for two years- and bugged it with Stuxnet virus. Stuxnet is a malicious computer worm, first uncovered in 2010. Thought to have been in development since at least 2005, Stuxnet targets SCADA systems and is believed to be responsible for causing substantial damage to Iran's nuclear program. He also gave an example of a disgruntled employee who in Australia conducted a series of electronic attacks on the Maroochy Shire sewage control system after a job application he had made was rejected by the area's Council. At the time he was employed by the company that had installed the system.

Mr. Lau added that industries need to adopt Threat hunting i.e. scan the adversaries and don't limit your-self to equipment. He briefly highlighted various Security Challenges viz.

- Targeted by advanced persistent threats
- Identification of CII
- Mitigating risks in the cloud environment
- Assessment on cyber threat preparedness
- Lack of detailed guidelines and SOPs
- Real time monitoring and incident mechanisms
- Mitigating risks of remote maintenance
- Data classification
- Protecting SCADA devices



(From L-R) Mr. Rakesh Maheshwari, Scientist G & Group Coordinator, MEITY, Mr. P. K. Sinha, SCOPE and Mr. Vinayak Godse, Vice President, DSCI addressing the workshop.

Coming onto the topic, he explained myths and realities concerned to cyber security. He divided his presentation into three parts namely, Myth, Reality & Best Practice. Few examples given by him are as following:

Myth	Reality	Best Practice
IT & OT can't have single CS Strategy	Look for similarities from design & risk	Cross Trainings
OT Risks are same as IT risks	Operations & Business Disruption	Integrated Risk & practice
Cloud AI CS Solution not of IIOT	Rue to an extent	<ul style="list-style-type: none"> • Avoid mission critical systems • To leverage data sets of other organizations
IT, IIoT handled by single team	Multiple teams can exist	Staged approach to build CS team
Air gap is dead	Still deployed in asset centric organizations	Rigid access Controls
Apply IT CS design and management	OT system are real time event driven	<ul style="list-style-type: none"> • Rigid segmentation policies for OT systems • Start from Industry standards • Assess OT Risks initially • Identify specific security controls

He further added that we have this problem of only analyzing security data or log and there is a need to leverage data and integrate IT & OT to deliver IT/OT business benefits.

The session was followed by a panel discussion on "Critical Sector Attack" where the panelists Mr. P K Agarwal, CISO, POSCO, Mr. Manoj Kumar Jha,

CIO & Head of IT BEML, Mr. Anil Joshi, GM, Corporate Digital Transformation, BHEL and Mr. Altaf Halde, Global Business Head, Network Intelligence. The panel was of the opinion that over the years SCADA system has developed. They also said that there is no repository of events of cyber attacks and in absence of such kind of exposure in our country

per se exposes organizations to the threat issues. They advised the participants that we need to act sooner than later as the systems can't be kept in isolation for long. They advised that organizations should do aggressive auditing and have proper log of events which is not very intensive. The panel said that there is nothing such as absolute security, we just have to monitor the enter point from OT to IT.

Awareness, they opined, is the biggest challenge organizations face. To strengthen the cyber security, panel was of the opinion that there is a need to make SCADA system more strong, ensure Supply Chain Security, adapt cloud tech. They said that end user level awareness and sensitizing them is of utmost importance. Speaking about the threat, they said it has to be decimated to the entire spectrum.

The panel also threw light on indigenization of technology. They said organizations use high end technologies that are basically from European companies. This results in solutions coming at a huge cost. They said that industry should invest in R&D to develop indigenous technologies to deal with threat.

Speaking on the Reporting

Team

- OT security response is a big problem
- Understanding of OT Security
- Certification training for OT, Leadership development
- Formal Policy
- Should be within the nation
- Skill-sets
- Lack of Training Institutes

App Management Systems

- Mobile
- Sensitive Data might get leaked
- Security Authorization
- Not looking into security aspect while designing App

Data Exchanges

- Vulnerable to State sponsored attack
- Should be located within the country

System in India, the panel said that Incident reporting is difficult in the Indian Environment and there should be transparency in reporting.

Highlighting the Operational Technology (OT) within organizations, they said skill sets need to be developed for OT resource also and organizations should have a policy for OT. They also requested the Indian organizations to motivate top talent to avoid brain drain to top tech companies of the world. Speaking on the training of employees, they said a User Awareness Matrix is also needed to see the efficacy of such training/awareness programs. The panel also pushed for OT certification which currently is missing in India. Later, Ravi Hirolikar, VP and Global Head of Information & Cyber Security, Data Privacy, Business Continuity- EXL presented his views on „From SOC to Cyber Defense Centre: A journey. He apprised the gathering by giving examples of cyber-attacks and said that we need to follow Microsoft’s approach which they call- Assume the breach approach. Mr. Hirolikar further said that attackers are ahead of defenders and highly equipped. Ability to detect successful intrusion, he

said, takes hours, days, months or years. Talking about System on a chip (SOC) he said, SOC in recent pasts or traditional SOC, revolved around logs and alerts, focused on monitoring only and had an isolated approach to incident management. It did not focus on Advanced & early detection. He said the time is ripe to move from SOC to Cyber Defense Centre (CDC). Giving a comparative analysis, Mr. Hirolikar said that CDC offers, well-orchestrated incident management, Rapid containment Prompt and Apt analysis of malware & containment. He said that cyber security is all about how early you detect threat and how quickly you respond. He also highlighted factors for

success namely, contextual Asset Inventory, Policies & Procedures, Adequate Preventive Controls, Optimal Logging Baseline, Continual Assessment of detection & response capabilities.

The finals session of the day was an interactive module on Critical Thinking in Critical Sector Security conducted by Mr. Vinayak Godse, VP, DSCI. Mr. Godse gave various parameters to the participants like- Vulnerability Management,

Integration & Challenges, External Media, Data Exchanges, security testing etc. The participants were then asked to respond to these parameters on how they are using it, what steps need to be taken, to identify challenges and what they think about it. Few suggestions that came from the participants are given in the chart below.

The workshop was participated by a large number of executives from PSEs. Mr. P. K. Sinha of SCOPE thanked the Participants, Speakers, SCOPE & DSCI Organizing Team Members and also assured the gathering of conducting similar programs to strengthen the cyber security of CII Sector. ■



SCOPE APSE Conducts Executive Development Program

The SCOPE Academy of Public Sector Enterprises (APSE) successfully conducted Executive Development Program from 8th October to 13th October 2018. This is the second in the current year and eleventh program conducted by the APSE since its inception in July 2016. The unique feature of the APSE Executive Development Programs is the special focus on familiarizing the trainees with the genesis of Public Sector, its evolving role, policy aspects and governance structure, leadership aspects, behavioural aspects etc for their holistic development, which topics the other in house programs may not necessarily cover. Exposure to these subjects at the early stages of the professional career in the Public Sector would prove to be very beneficial in the long run

Mr. Ajit Seth, IAS (Retd), Former Cabinet Secretary, Government of India and Former Chairman, Public Enterprises Selection Board, was the Chief Guest on the inaugural day of the program.



Mr. Ajit Seth, IAS (Retd), Former Cabinet Secretary, Government of India and Former Chairman, PESB addressing the batch of SCOPE APSE's Executive Development Program. On the dais are: Dr. U. D. Choubey DG, SCOPE and Mr. Ashok Bhat, Director Mind share HR Consultancy Pvt Ltd.

In his welcome address, Dr. U. D. Choubey, Director General, SCOPE said that in this highly competitive world, successful companies are those which have strong Corporate Governance norms. Transparency in functioning leads to stake holders trust which further translates to enhancement of stakeholder value. The Chief Guest Mr. Ajit Seth, in his address, said that he is aware of the immense potential in the Public Sector Executives Management and with training in enhanced leadership skills and

understanding the best global practices, and customizing these skills in the Indian context, the Public Sector can reach higher levels of excellence in management. Mr Ajit Seth later flagged off the six day program with a session on Climate Change which has become matter of a grave concern for all inhabitants on the planet, saying that we are all both trustees and stakeholders as far as the matters relating to the planet and environment are concerned. If timely remedial measures are not taken, Mr Seth stressed that this

lead to catastrophic implications and would amount to inflicting irreparable and irreversible damage to the planet. Ms. Hema Koul, Program coordinator, proposed vote of thanks at the conclusion of the inaugural session.

Mr. Ashok Bhat, Director Mind share HR Consultancy Pvt Ltd, took the sessions relating to soft skills, leadership and team building etc, the other sessions covered a wide range of topics centred on Public Sector and by very eminent faculty, that included Mr Ashok K Pavadia, former bureaucrat, CA



Mr. D. S. Sudhakar Ramaiah, Director (Finance), PDIL presenting the participation certificate to one of the participants.

Parveen Kumar, National Head, Assurance Service, Director, ASA & Associates CA Mohd Salim, from Power Finance Corporation Ltd and Member indirect taxes committee, PHD & CII, Dr. Sudhir Naib, Professor & Dean, Apeejay School of Management, Dr. Sudhir Kapur, General

Manager, MMTC Ltd, Prof (Dr) Dewakar Goel, former Executive Director, Airports Authority of India & Former Director, National Aviation Academism, Mr. Ajay Shukla, Additional General Manager, NTPC Ltd, Dr. Garima Dadhich, Head, National Foundation for CSR, In-Charge, Centre

for Business innovation, Indian Institute of Corporate Affairs, Ministry of Corporate Affairs and Professor, Ms. Simrit Kaur, Principal and Professor of economics & public Policy, Sri Ram College of Commerce, University of Delhi.

On the concluding day, Mr. D. S. Sudhakar Ramaiah, Director Finance, Projects & Development India Ltd, presented the certificates of successful completion of the program to the participants and interacted with them. He exhorted the participants to give their best to the company and the country and should feel proud of their association with the Public Sector. Mr. B.V.K.K.Rao, Advisor (Finance) SCOPE and Program Facilitator, proposed vote of thanks at the close of the program. Thirty five participants from various CPSEs attended the program. ■





Dr. U. D. Choubey
Director General, SCOPE

DG, SCOPE in the Panel of the Jury of S&P Global Platts Global Energy Awards

Dr. U. D. Choubey, Director General, SCOPE was selected as judge in the panel of jury for the prestigious S&P Global Platts Global Energy Awards. The final meeting of the jury was held on 16th October, 2018 at Athens to select the awardees under 18 categories.

Jury Members on the panel represented experts in their respective areas of profession well-recognized world-wide. It was a privilege and honour for DG, SCOPE to be the part of the jury for this prestigious award.

SCOPE organizes Health Talk for PSU Employees



SCOPE in association with Dr. Reddy's Foundation for Health Education organized two health talks at SCOPE Complex and SCOPE Minar for the benefit of employees of CPSEs. At SCOPE Complex, renowned doctors such as Dr. K. K. Mishra, leading Orthopaedic Surgeon (Bone, Joints, Ortho) and Dr. Abhishek Sharma, Dermatologist

& Venerological addressed the session and queries of the audience on orthopedic and hair-skin problems and their remedies. A brief talk by Mr. Ajay Poddar, MD, Environics on effects of radiation and possible solutions was also conducted. At SCOPE Minar, Dr. Shailender Bhadoria, DM Cardiologist from Fortis Escorts Hospital addressed the

session on heart diseases while Gp. Capt. (Retd) Dr. R.D. Sharma of Environics spoke on impact of radiation etc and possible solutions. Mr. P. K. Sinha, DGM (HR), informed that SCOPE has been organizing such health awareness programmes from time to time visualizing the health concern and wellness issues in public sector enterprises.

Conference Facilities at SCOPE Convention Centre

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 mikes on dias and podium on stage.

Mirza Ghalib Chamber



The chamber having capacity of 108 persons (102 Nos. Chairs + 6 Nos. Chairs on Dias) equipped with mikes on table, dias and podium.

Tagore Chamber



The chamber having capacity of 92 persons (86 Nos. Chairs + 6 Nos. Chairs on Dias) equipped with mikes on dias, tables & podium.

Bhabha Chamber



The chamber having capacity of 44 persons (24 Nos. Chairs on round table and 20 Nos. Chairs on sides) equipped with mikes on dias, 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 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.

Banquet Hall



The banquet hall having capacity of 500 Persons for the purpose of lunch & dinner. Sitting arrangement could be done for 90 persons.

Annexe I



The Annexe-I having capacity of 25 Persons.

Annexe II



The Annexe-II having capacity of 25 Persons.

Tansen Chamber at UB



The Tansen Chamber having capacity of 50 persons having stage and podium.

Amir Khusro Chamber at UB



The Amir Khusro Chamber having capacity of 50 persons having facility of stage and podium.

For Booking & Tariff details please contact

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STANDING CONFERENCE OF PUBLIC ENTERPRISES

1st Floor, Core No. 8, SCOPE Complex, Lodhi Road, New Delhi - 110003 Phone: 011-24311747, 011-24360101 • Fax: 011-24361371

New and Improved Conference Facilities at SCOPE Minar Convention Centre

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 known buildings of East Delhi. It has a very size Reception Foyer giving ambience look inside the building. There is a green environment all around the SCOPE Minar with large size planters all around. The building is also having state of art Convention Centre, comprising four halls i.e.

Convention Hall



A large sized Convention hall having sitting capacity of 300 delegates. Various seminars, training programmes, presentations, get together etc. are conducted in Convention Hall. It provides ambient and peaceful environment for the programmes.

VIP Lounge



VIP Lounge having sitting capacity of 40 delegates. The executives and higher level officers, Directors, CMDs can use it as waiting lounge also.

Board Room



Board room having “U” shaped table, with a sitting capacity of 55 delegates with modern facilities - projector, screen, 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, 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, with a sitting capacity of 60 delegates. Most widely used for small size meetings and training programmes, group discussion, power point presentations etc.

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 .

For Booking & Tariff details please contact

Mr. M. L. Maurya, GM (Tech.) (M) 9313375238 **and Mr. Shubh Ratna**, Dy. GM(Engg.), SCOPE Minar (M) 9873398242, (O) 011-22458176, 22458178 • Email: scopeminar.convention@gmail.com • shubhratna@yahoo.co.in

SCOPE Forum of Conciliation and Arbitration (SFCA)



SCOPE had set up an Arbitration Cell known as SCOPE Forum of Conciliation and Arbitration (SFCA) mainly to settle disputes between PSUs and its associates. This was inaugurated on 9th January, 2004 by Shri Santosh Gangwar, the then Hon'ble Minister of State for Heavy Industries, Public Enterprises and Parliamentary Affairs, which was attended by the then Secretary, Ministry of Heavy Industries and Public Enterprises, Joint Secretary, DPE, CMDs and other senior officers of Govt. of India and PSUs.

SFCA has framed its own rules prescribing consolidated fee structure and expenses with the assurance that arbitration proceedings shall be completed in the shortest possible time and shall be more economical in comparison to other institutions. A panel of expert Conciliators and Arbitrators has also been drawn which consists of retired Judges

of Supreme Court, High Court, retired Secretaries, Joint Secretaries of Govt. of India, Chief Executives, Directors and senior officials of Govt. of India and PSEs, besides Advocates and C.As and other professionals.

The Forum has its own infrastructure with a spacious Arbitration Hall having sitting capacity of 15 persons with all the modern facilities such as projector for live projection of record of proceedings on a large screen with free service of mineral water, tea/coffee and biscuits. High tea and lunch can also be arranged by the Forum on request in advance at the cost of the parties by authorised caterer of SCOPE.

PSUs are requested to advise the concerned officials to avail facilities of the Forum and refer cases to SCOPE Forum of Conciliation and Arbitration (SFCA).

For further details please contact

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1st Floor, Core No. 8, SCOPE Complex, Lodhi Road, New Delhi - 110003 Phone: 011-24311747, 011-24360101 • Fax: 011-24361371

PSUs Q1 Results for Financial Year 2018-19

GAIL's Profit after Tax Rs. 1,259 cr. for Q1 of FY 2018-19, up by 23 percent on quarter-on-quarter basis

PBT Rs. 1,940 cr., up by 21 percent; Gross Margin Rs. 2,363 cr., up by 18 percent

GAIL (India) Limited registered a 23 percent increase in Profit after Tax (PAT) in the first quarter of FY 2018-19, as against the last quarter of FY 2017-18 mainly due to better performance by Gas Trading and Petrochemicals Segments. The Company's PAT for the quarter ending 30th June 2018 was Rs. 1,259 cr. as compared to Rs. 1,021 cr. in Q4 FY 2017-18.

On year on year basis, GAIL's PAT of Rs 1,259 cr. in Q1 FY19 registered a growth of 23 percent against Profit of Rs 1,026 cr. in corresponding quarter of FY 2017-18.

Gross Sales of Rs 17,262 cr. in Q1 FY19 has increased by 50 percent from Rs 11,540 cr. in Q1 FY18. Gross Margin (EBITDA) has seen growth of 17 percent from Rs 2,015 cr. in Q1 FY18 to Rs 2,363 cr. in Q1 FY19. PBT of Rs 1,940 cr. in Q1 FY19 is up by 24 percent from Rs 1,569 cr. in Q1 FY18.

The increase in net profit in Q1 FY19 on year-on-year basis was supported by better physical performance in every segment, Natural Gas Marketing & Transmission volumes were up by 24 percent and 7 percent respectively, Petrochemical Sales was up by 27 percent, Liquid Hydrocarbon Sales was up by 7 percent and LPG Transmission was up by 1 percent.

Mr. B. C. Tripathi, CMD, GAIL said, "While all segments contributed positively to the company's profit, Gas Trading and Petrochemicals Segments performed better than the last quarter due to improved physical performance in Gas Trading segment and better margin in Petrochemicals segment."

He further added that apart from healthy financial growth in the first quarter, the current financial

year also saw important agreements entered by the company. GAIL inked JV agreement with Greater Calcutta Gas Supply Corporation Ltd. (a Govt. of West Bengal entity) for operating city gas network in Kolkata Geographical area. GAIL also signed Tolling Agreement with Dhamra LNG Terminal Pvt. Ltd. for 1.5 MMTPA Regas Capacity at Dhamra LNG Terminal, Odisha for securing RLNG/LNG supply in Eastern Region of the country.

HCL Financial Results – Q1 FY 19 Profit Increases Three Fold

- **Mine production up by 22 percent - a key value driver in the value chain**
- **Net sales up by 8 percent**
- **Net Profit up by 245 percent**

Board of Hindustan Copper in its meeting held recently at New Delhi approved the financial results of first quarter of fiscal year 2018-19. During the quarter the Financial and Physical performance of the Company has improved substantially.

The Company has registered growth in profit after tax by 245 percent compared to the corresponding period of the previous year. The PAT during the quarter was 35.21 cr. and PBT was Rs 50.88 cr. The net sales during the quarter were Rs 397.69 cr. The EBDITA margin during quarter was 29 percent compared to 15 percent in the corresponding period of the previous fiscal.

On the production front, the growth momentum has been maintained, During the quarter, mine production in terms of copper content was 8641 MT as against 7110 MT in the corresponding period of the last year. Copper ore production was 9.77 lakh tonne registering a growth of 23 percent over corresponding period of previous fiscal.



भारतीय विमानपत्तन प्राधिकरण
AIRPORTS AUTHORITY OF INDIA

(मिनिस्ट्रल श्रेणी-1 सार्वजनिक क्षेत्र का उपक्रम)
(A Miniratna Category -1 Public Sector Enterprise)

**अत्याधुनिक तकनीक एवं
अंतरराष्ट्रीय मापदंड के साथ
भा.वि.प्रा. का सुरक्षित हाथ**

**With state-of-the-art technology,
International benchmarks
You are in safe hands of AAI**

129 स्थान जहाँ भूरे
भा.वि.प्रा. के
संग उड़ान
**Destinations
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विश्व का सर्वश्रेष्ठ
सेवा प्रदाता
**amongst World's
Best Service Provider
in its respective category**



23 अंतरराष्ट्रीय हवाई अड्डे (3 सिविल एन्क्लेव तथा 3 संयुक्त उद्यम हवाई अड्डे) International Airports (3 Civil Enclaves & 3 Joint Venture Airports)	+	08 कस्टम हवाई अड्डे (4 सिविल एन्क्लेव) Custom Airports (4 Civil Enclaves)	+	78 अन्तर्देशीय हवाई अड्डे Domestic Airports	+	20 अन्य सिविल एन्क्लेव Other Civil Enclaves	=	129 हवाई अड्डे Airports
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निगमित मुख्यालय : राजीव गांधी भवन, सफदरजंग हवाईअड्डा, नई दिल्ली-110 003
Corporate Headquarters: Rajiv Gandhi Bhawan, Safdarjung Airport, New Delhi - 110 003.
Tele No. +91 11 24632950 Fax: +91 11 24632990
Website: <http://www.aai.aero> & <http://www.airportsindia.org.in> @AAI_Official



Total copper sales volume during the quarter was 9230 MT as compared to 9429 MT to last year similar period. Wire rod production was 5439 MT thereby registering a growth of 17 percent. During the quarter the Company has undertaken major overhauling of 56 days of its smelter and refinery plant located at Ghatsila. Since then the plant is operating at its rated capacity. During the month, the Company mine expansion will further gain momentum as major tenders for mine construction and production will be floated.

CCEA Gives Wings To HCL Mine Expansion Plan

Cabinet Committee on Economic Affairs, meeting chaired by the Prime Minister Shri Narendra Modi on has given its approval for issue of fresh 13,87,82,700 equity shares to the extent of 15 percent of paid up equity capital of face value of Rs. 5/- each by HCL through the Qualified Institutions Placement (QIP) route as per SEBI and other applicable guidelines.

Presently HCL meets 4 percent of the country's requirement of copper. HCL aims at enhancing its capacity 6 times from its present production capacity to 20 million tonne per year. The capex requirement of the above mine expansion plan is Rs 5500 cr. which is spread over next 6 years. Besides, Rs 175 cr. will also be spent for exploration activities spread over three years.

MRPL Results Q1 FY'19: Net Profit Rs. 362 Cr., up 54.6 percent and GRM of 8.28 \$/ bbl, up 74.7 percent QoQ

- Gross Revenue from Operations Rs. 16,583 Cr., up 14.4 percent QoQ
- Profit Before Tax Rs. 562 Cr., up 69.1 percent QoQ
- Exports Rs. 4,326 Cr., up 50.5 percent QoQ

The Board of Directors of Mangalore Refinery and Petrochemicals Limited (MRPL), a subsidiary company of ONGC during its 219th Meeting held recently approved its Un-audited (Limited Review) financial results for the first quarter (Q1) of FY 2018-19 (FY'19) as detailed below:

Financial Performance

Particulars		Q1 FY'18-19	Q1 FY'17-18
Throughput	(MMT)	3.85	3.98
Gross Turnover	(₹ In Cr.)	16,573	14,491
Exports	(₹ In Cr.)	4,326	2,874
EBIDTA	(₹ In Cr.)	843	607
PBT	(₹ In Cr.)	562	332
PAT	(₹ In Cr.)	362	234
GRM	(US\$ / bbl)	8.28	4.74
	(₹ In Cr.)	1,567	894

Marketing Initiatives

The Company has increased its strong market presence by way of direct marketing of its products Petcoke, Sulphur and Polypropylene. The company is increasing the product grades of Polypropylene to enhance Polypropylene market share and thereby fetch higher margins.

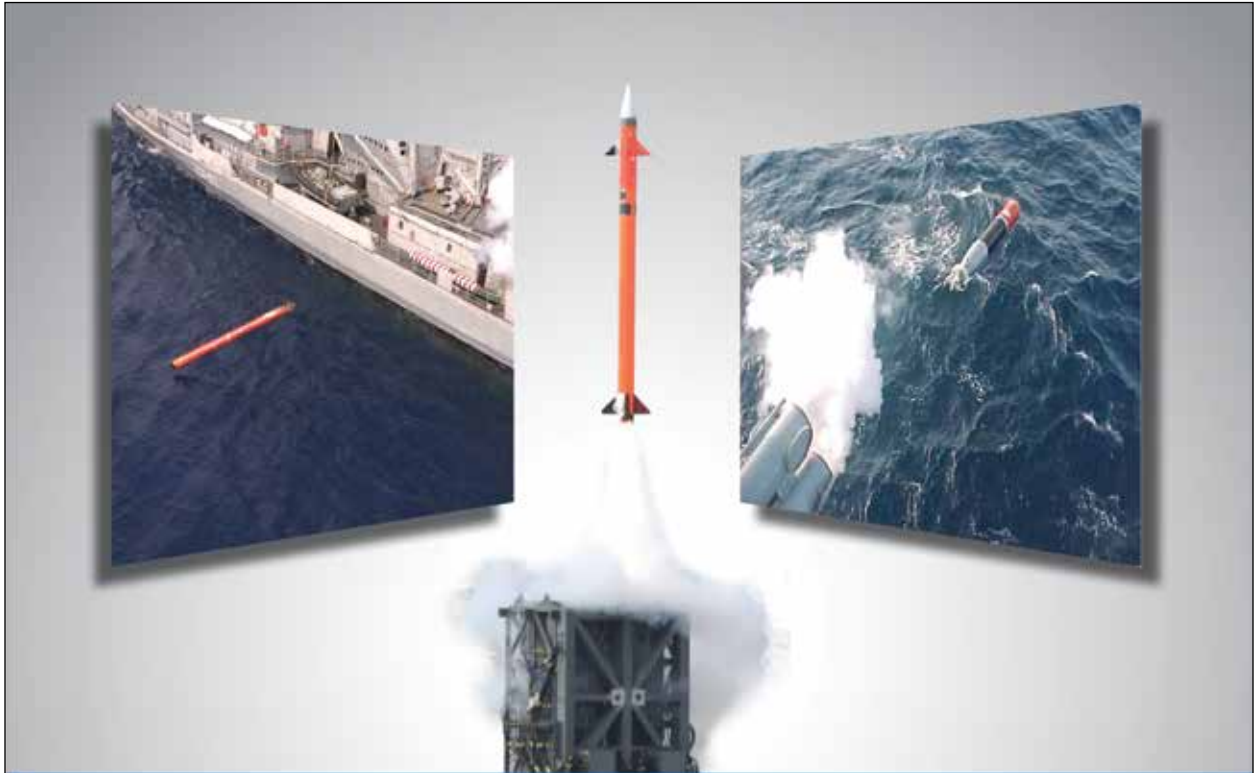
Awards and Recognitions

Company has been recognized with Platinum Trophy at the 18th Annual Greentech Environment Award 2018.

NALCO registers stupendous achievement in International market, Q1 profit of 2018-19 surpasses entire annual profit of FY 2013-14

Alumina Production up 10.74 percent
Aluminium Production up 8.85 percent
Power Generation up 5.14 percent

National Aluminium Company Limited (NALCO) has once again repeated its stupendous performance by registering PAT of Rs 687 cr. in the first quarter that ended in June of 2018-19, registering a growth of 167 percent over Rs.257 cr. in Q4 of previous year. As compared to the corresponding quarter of last year, the growth in net profit has jumped by a whopping 433 percent, from Rs.129 cr. to Rs.687 cr. Operating Profit of NALCO increased more than two-fold, registering Rs 889 cr. in 2018-19 compared



भारत डायनामिक्स लिमिटेड BHARAT DYNAMICS LIMITED

- मिनीरत्न श्रेणी-1 का सार्वजनिक रक्षा उपक्रम
- जुलाई, 1970 में स्थापित
- परिचालन के प्रमुख क्षेत्र :
 - संचलित प्रक्षेपास्त्र और संबद्ध उपकरण
 - अंतर्जल-अस्त्र
 - वायुवाहक उत्पाद
 - भू-आधारित उपकरण
 - उत्पाद के चलने तक हमकदम
- A Miniratna Category - I Defence PSU
- Incorporated in July, 1970
- Core areas of operation:
 - Guided Missiles and allied equipment.
 - Underwater Weapons.
 - Airborne Products.
 - Ground Support Equipment.
 - Product Life Cycle Support.



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कार्यालय: प्लॉट नं. 38-39 टी एस एच सी घाटन (आई सी आई सी टॉवरों के पास) फाइनेंसियल डिस्ट्रिक्ट नान्दरावगुडा,
गच्छी बजारी, हैदराबाद - 500032 तेलंगाना भारत ई-मेल: bdmdl@bdl-india.in वेबसाइट: <http://www.bdl-india.in>
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to Rs 362 cr. in Q4 of FY 2017-18. EBIDTA margin of the Company has increased from 18 percent to 36 percent, despite increase in input cost by 15 to 20 percent during Q1 as compared to the previous quarter.

Dr. Tapan Kumar Chand, CMD, NALCO, attributed the success to team work, strong cost focus and strategic planning.

It may be mentioned that the net profit figure of Rs 687 cr. in the first quarter of 2018-19 surpassed the whole net profit of Rs 642 cr. in 2013-14. This significant growth in profit has mainly come from the Alumina revenue segment, Damanjodi, which has achieved the distinction of being the lowest cost producer of Alumina in the world. Apart from the cost focus, it is the pre and post sales service of NALCO, coupled with its quality which has helped the Company in commanding a high premium in international market. NALCO's Alumina product has strong brand image and sells at more than 10 percent over the average CR.U index.

NLCIL nets Rs.319.63 Cr. in Q1/2018-19



Mr. Rakesh Kumar, CMD, NLCIL

Lignite production in the current quarter (Q1) is 36.21 Lakh Tonnes (LT) compared to 37.91 LT in the corresponding quarter of previous year. Lignite production was restricted to liquidate the opening stock. Power generation in the current quarter is 4883.91 Million Units (MU) as against 5275.52 MU in the corresponding quarter of the previous year. Lower power generation is mainly due to preponement of major overhauling of two thermal units in current quarter. Profit for the current quarter is Rs.319.63 cr. compared to Rs.316.09 cr. in the corresponding quarter of previous year and registered a growth of 1.12% over the corresponding quarter of previous year.

The total Revenue of the company for the current quarter is Rs.1696.81 cr. as against Rs. 2254 cr. in the corresponding quarter of previous year. Reduction in turnover is mainly on account of non applicability of Clean Energy Cess after introduction of GST and application of Ind AS 115 from 1st April 2018, both having no impact on bottom line.

Net power surrender in the current quarter is decreased to 485.13 MU against 783.90 MU in the corresponding quarter of the previous year. Sale of Un-requisitioned Power increased from 198.44 MU to 288.47 MU. Further Open Market sale of lignite has also increased from 83,000 Tonne to 5.17 Lakh Tonne and registered an increase of revenue by Rs.74 cr.

During the current Quarter the company has commissioned 200 MW of Solar Power to its existing renewable portfolio. Revenue from renewable registered an increase of Rs.30 cr. in the current quarter over previous quarter.

NMDC sees marginal growth in PAT (Q1 of 2018-19 v/s Q1 of 2017-18)



Mr. N. Bajindra Kumar, IAS, CMD, NMDC

- Profit After Tax (Q1) Rs.975 cr.
- Sales Turnover (Q1) Rs.2,422 cr.
- Sales of iron ore quantity 6.78 MT
- Iron ore production quantity 6.98 MT

NMDC has registered PAT of Rs.975 cr. a marginal increase of about 1 percent over the 1st quarter of Q1 of 2017-18 wherein the PAT was Rs.969 cr. NMDC has registered a decrease of 6 percent in



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PBT for the 1st Quarter of FY 2018-19 which fell to Rs.1,477 cr. (Q1 of 2018-19) from Rs.1,569 cr. (Q1 of 2017-18). The Company's sales turnover for the 1st Quarter of 2018-19 is Rs.2,422 cr. against Rs.2,842 cr. of CPLY registering a fall of about 15 percent.

The Company's production and sales of Iron Ore during the 1st Quarter of 2018-19 is 6.98 million tonnes and 6.78 million tonnes respectively.

Mr. N. Baijendra Kumar, IAS, CMD, NMDC expressed that the performance of the Company is satisfactory but urged employees to put in more efforts to catch up with the production and sales targets. In spite of lot of challenges both in Donimalai and Bailadila Sector, NMDC would be able to excel in the forthcoming quarters.

NBCC reports strong first quarter earnings

Q1 FY19 Consolidated Revenue up by 19.56 percent YOY; Net Profit up 25.11 percent YOY

Result's Highlights

Q1FY19 Consolidated Results (comparison with Q1FY18)

- Total Income: Rs 1,898.13 cr. in Q1FY19 vs Rs 1,587.55 cr. in Q1FY18
- PAT: Rs 76.65 cr. in Q1FY19 vs Rs 61.26 cr. in Q1FY18

Key Highlights of the quarter

- Secured total orders worth Rs 4023.15 cr. in Q1FY19

NBCC (India) Ltd. has reported a strong April-June quarter with a consolidated net profit growth of 25.11 percent from the same period of last year.

For the quarter ended June 30, 2018, the company has reported a consolidated net profit of Rs. 76.65 cr. as against net profit of Rs. 61.26 cr. during the corresponding quarter of the previous fiscal, representing a robust growth of 25.11 percent.

Consolidated total income for the reporting quarter stands at Rs. 1,898.13 cr., up 19.56 percent YOY.

The total standalone income for Q1FY19 stood at

Rs. 1,671.33 cr. as compared to Rs. 1,286.31 cr. in Q1FY18, registering an increase of 29.93 percent.

Commenting on the results, Dr. Anoop Kumar Mittal, CMD, NBCC, said, "Operational efficiencies along with the Government's initiative to foster infrastructure growth in the country has enabled NBCC to report a strong growth for the first quarter of this fiscal. During the quarter, NBCC bagged projects from various ministries and government departments."

NBCC has recently been awarded a Rs 400 cr. contract to build the Indian Pavilion for Dubai Expo 2020. The total outstanding order book currently stands at Rs. 80,000 cr.

The company also bagged projects like AIIMS Bilaspur, PMGSY Works, Skill Development Institute (SDI) Bhubaneswar, Convention Centres in African Countries during the April-June FY 2019 period.

SAIL posts profit with strong Q1 numbers; EBITDA per tonne sales goes Rs 8200 plus

Declaring the results for the Q1 FY 2018-19 (Q1 FY19), Steel Authority of India Ltd. (SAIL) posted a PAT of Rs 540.43 Cr. SAIL's turnover in Q1 FY19 rose by 22.42 percent over CPLY to Rs 15,743.21 Cr. The EBITDA in Q1 FY19 was recorded at Rs 2685.46 Cr. which was Rs 22.71 Cr. in CPLY, indicating an acceleration of the overall performance of the Company through concerted efforts of the entire collective.

SAIL is bringing comprehensive improvements in its entire operations which are backed by efforts for improving efficiencies and improved techno-economic parameters. In the first quarter of FY 19, Company's saleable steel production was 3.61 Million Tonnes (MT) which rose 13 percent over CPLY. The Company's sales volume at 3.271 MT in Q1 FY19 was also 8 percent higher over CPLY and the EBITDA per tonne of sales at Rs 8211 for Q1 FY19 reflects a robust functioning of all the processes. The Company recorded improvement in all the techno-economic parameters including Coke Rate by 3 percent, Blast Furnace productivity by 2 percent and Specific Energy Consumption by 3 percent over CPLY. ■

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PSEs Take Lead in CSR Activities

CMD, BHEL Inaugurates Swachhta Pakhwada in BHEL, Administers Swachhta Pledge to employees



Mr. Atul Sobti, CMD, BHEL observing the Swachhta Pledge at BHEL.

Inaugurating the Swachhta Pakhwada recently in Bharat Heavy Electricals Limited (BHEL), Mr. Atul Sobti, CMD, BHEL, administered the 'Swachhta Pledge' to the company's employees. The CMD exhorted BHEL employees to participate enthusiastically and contribute whole heartedly to the National Mission of creating 'Swachh Bharat'.

NLCIL observes Clean India Fortnight

NLCIL observed Swachhta Pakhwada recently. The fortnight-long observance of programs to spread the message of cleanliness and make it a part of life, was inaugurated by heads of all Industrial & Administrative units of NLCIL by administering Swachh Bharat. Mission pledge to employees. NLCIL management has drawn up an exhaustive action plan which comprises a host of activities including Swachhta Pledge, cleanliness drives, tree plantation, workshops, fixing of swachhta signage boards in all important locations as well as various competitions for the employees and school children.

As part of the Fortnight, the NLCIL CSR department organized "Cleanliness drive and removal of Plastics/ Garbages in the surrounding villages" in coordination with NBDA (Neyveli Blood Donors Association) at Govt.High School Irulakurichi

village and organized an awareness program "Personal Hygiene for Girl Children" in coordination with WIPS (Women in Public Sector) at Govt. Higher. Sec. School, Indira Naga B2 Block, wherein a large number of school children and the general public participated in the awareness campaign and cleaning activities.



Mr. Rakesh Kumar, CMD, NLCIL Functional Directors and senior officials while taking the Swachh Bharat pledge as part of observance of Swachh Pakhwada at Corporate Office, Neyveli.

All employees in Mines, Thermal Stations and Administrative units of the organization have taken Swachh Bharat pledge and actively participated in the cleanliness drive daily by cleaning of all cabinet/rooms, office premises and managed old records properly and also carrying out the importance of Swachhtha drive through Cycle Rally, Drawing and Elocution Competition.

HUDCO Observes Swachhta Pakhwada

Dr. M. Ravi Kanth, CMD Housing & Urban Development Corporation (HUDCO) administered the Swachhta pledge to all the HUDCO officials, on the opening day of the Swachhta Pakhwada. Dr. Ravi Kanth highlighted the importance of maintaining cleanliness in the work place as well as other surroundings and said that one should follow the principle of Mahatma Gandhi, who advocated "Cleanliness is next to Godliness". HUDCO will undertake several activities like painting and



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Dr. M. Ravi Kanth, CMD, HUDCO observing the Swachhta Pledge.

essay competitions, street play etc., to raise awareness about the importance of maintaining a clean environment.

MCL spends over Rs. 21 cr. for tree plantation in Odisha

Coming out massively to spread green cover, Coal India subsidiary Mahanadi Coalfields Ltd. (MCL) has spent Rs 21.6 cr. during the past two financial years for the tree plantation in the state of Odisha.

“MCL has contributed to the government of Odisha’s Corporate Financed Plantation Schemes Rs 7.6 cr. for three forest divisions during 2016-17 and Rs 14 cr. for six forest divisions during 2017-18,” said Mr B Sairam, General Manager (CSR) at a CSR Conclave at Bhubaneswar recently. The company, which holds a distinction by registering over 92 per cent of over 143 million tonne total coal production through environment-friendly technology Surface Miners, is following a three-prong strategy to increase the green cover over mother earth. Besides, contribution to state schemes under its CSR, MCL also distributes saplings for plantation among stakeholders and compensates Forest department, to the tune of twice the times plantation of trees against the forest land acquired for mining coal.



1st CSR Conclave at MCL.

The company presented that it also has a provision for fencing and maintenance of trees for four years and 80 per cent survival rate has been registered

‘Swachhta Pakhwada 2018’ held



Mr. Balraj Joshi, CMD, NHPC administering the Swachhta Pledge.

NHPC organized ‘Swachhta Pakhwada 2018’ recently as per guidelines issued by the Government of India. The ‘Swachhta Pakhwada 2018’ was inaugurated by administering the ‘Swachhta Pledge’ by Mr. Balraj Joshi, CMD, NHPC to the employees. Mr. Ratish Kumar, Director (Projects), Mr. M. K. Mittal, Director (Finance) and Mr. Janardan Choudhary, Director (Technical) were also present on the occasion. During the Pakhwada, NHPC organized cleanliness awareness activities such as, tree/ sapling plantation, skit presentation, awareness programmes on hygiene, distribution of hygiene kits, drawing / painting competitions etc. in the nearby areas of its Corporate Office at Faridabad.

NHPC has been organizing various programs related to cleanliness from time to time under the ‘Swachh Bharat Abhiyan’ of the Government of India and efforts have also been made to involve the common masses living in the vicinity in this campaign.

CMD, NLCIL kicks off a Special “Cleanliness Drive” at Neyveli Township

A special “Swachh Neyveli” Cleanliness Drive was kicked off by CMD, Mr. Rakesh Kumar at Main Bazaar, Neyveli recently. Functional Directors of NLCIL Mr. V. Thangapandian, Mr. R. Vikraman, Mr. Nadella Naga Meheswar Rao, and senior

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Mr. Rakesh Kumar, CMD, NLCIL actively involved in a special cleanliness drive 'Swachh Neyveli' organized by NLC India Ltd. at Main Bazaar, Neyveli. Also seen are Functional Directors and Senior Executives and employees.

executives, employees, members of various cultural associations and school children joined in cleanliness drive at various places in Neyveli Township.

Underlining the importance of clean and hygienic working environment in industrial set up and plants, Mr. Rakesh Kumar said, along with plants and mines surroundings township must be kept clean so that the employees get a better working and Healthy environment. Members of Neyveli ladies Club and inmates of Ananda Illam enthusiastically joined in the cleanliness drive at Neem Park, Seventh Day Adventure school in township.

To give more push to 'Swachh Bharat Abhiyan', with a vision of achieving 'Clean India' as a tribute to Gandh Ji, on his 150th Birth anniversary, NLCIL frequently undertakes cleanliness drives across all its Townships, Mines, Thermal Plants and Administrative Units in country. The drive of activities relating to 'Swachh Bharat' in NLCIL are majorly centred in and around NLCIL township, Plants and peripheral villages. As part of 'Swachh Bharat Abhiyan' in recent Swachhtha Pakhwada NLCIL intensively carried out various Swachhtha activities like Mass Awareness Campaign, spreading message on the Importance of Cleanliness and Personal Hygiene for girls, Open Defecation - Free Awareness (ODF), Removal of Plastics/Garbage in villages, including hospitals and dispensaries, and cleanliness drive in Beaches.

NMDC DAV ITI gets Best Rating in Chhattisgarh

Best known for Corporate Social Responsibility and India's largest Iron Ore Producer, NMDC's

efforts towards imparting technical education to rural youth and skill development has been recognized once again. NMDC DAV Industrial Training Institute at Bhansi, Dantewada secured best grading in Chhattisgarh state and 21st rank in the country as per the rating given by CRISIL, a reputed international rating agency. Ministry of Skill Development and Entrepreneurship began grading of ITIs across the country by giving them star ratings based on their facilities, performance & placement record as per the guidelines of the National Council on Vocational Training (NCVT).



NMDC DAV Industrial Training Institute at Bhansi, Dantewada.

More than 4800 ITIs of the country were evaluated in two phases, a self-appraisal followed by an in-depth assessment done by the Directorate General of Training. The grading process was based on 43 parameters, including infrastructure in and around a particular institute, tools & equipment, availability & specification of machines, qualified instructors, drop-out rate of students, record of placement, pass-out ratio among others.

NMDC has been actively taking up skill development initiatives amongst the rural communities.

NBCC Built Gramalaya Inaugurated by Haryana CM

Former President of India Mr. Pranab Mukherjee and Haryana Chief Minister Mr. Manohar Lal Khattar recently inaugurated 'Gramalaya' - Gram Sachivalaya at Harchandpur village in Haryana.

Harchandpur village is one of the selected villages under the 'SMARTGRAM' - smart model villages, which is an initiative of the Rashtrapati Bhavan. The project has been implemented by NBCC (India) Ltd., under its CSR endeavour at cost of Rs. 34 lacs approximately.

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* An original picture of plantation on OB dump in Lakhanpur open cast mine of MCL.

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- Installing Mobile Water Sprinklers, Fixed Automatic Sprinklers, Instant Showering Systems and Mist Spraying arrangements at CHP to reduce air pollution.
- Treating industrial waste water in Mine Discharge Treatment Plant and introducing Sedimentation ponds, oil & grease traps in workshops and domestic effluent treatment plant in colonies to help minimise pollution.



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Former President of India Mr. Pranab Mukherjee and Haryana Chief Minister Mr. Manohar Lal Khattar inaugurating the 'Gramalaya' - Gram Sachivalaya.

NBCC has used Novel Habitech- Nivara Tantra housing technology, which apart from being a unique confluence of technology for ecological and affordable construction, is also disaster resilient.

Initiated by the former President of India, the SMARTGRAM initiative is to enable the local villagers, especially the economically weaker sections and low income group communities to empower themselves in accomplishing their aspiration of constructing a dwelling on their own which is comparable to the best in class modern structure and yet sustainable and affordable.

Swachh Bharat Pakhwada at MDL

RAAdm Anil Saxena, Director (Shipbuilding), MDL recently administered the Swachh Bharat Shapath to all employees as part of the 15 day 'Swachh Bharat Pakhwada' celebrations. In line with the Government of India, Ministry of Heavy Industries



RAAdm A. K. Saxena, Director (Shipbuilding), MDL administering the oath of Swachh Bharat to all employees and pledge ceremony along with Commodore T V Thomas, Director (CP&P) and Mr. Satish Pendharkar, CVO.

and Public Enterprises directives Swachh Bharat Pakhwada is being organized in various defence establishments in the country.

The Pakhwada that commenced recently at Mazagon Dock with the Oath taking ceremony was followed by a March-Past in the Yard wherein four contingents from various divisions displayed posters and banners and spread awareness about cleanliness among the employees.

Various activities were chalked-out for the 15 day drive which included cleanliness drive in and around MDL, disposing scrap in organized manner, educating employees on segregation of organic and recyclable waste, tree plantation drive, painting and essay writing competition, organizing seminar etc. Swachh Bharat Pakhwada will concluded with prize distribution ceremony.

Swachhta Pakwada commenced in THDCIL

Swachhta Pakwada (Fortnight) under Swachh Bharat Abhiyan commenced at THDC India Limited (THDCIL) at Rishikesh, Projects and Unit Offices recently. Mr. Vijay Goel, Director (Personnel) inaugurated the Pakhwada and administered the Swachhta Pledge to the employees of the Corporation.



Mr. Vijay Goel, Director (Personnel), THDCIL inaugurating the pakhwada.

It is to mention that in compliance of the instructions of Ministry of Power, Govt. of India and under the guidance of THDCIL Management, the Corporation observed Swachhta Pakhwada in which various activities such as Painting, Essay Competitions to promote hygiene and create awareness were organized for stakeholders. Employees and their family members also dedicatedly participated in cleanliness drive. ■

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PSEs Sign MoU

Indian Railways and GAIL ink MoU Paving way for optimisation based on Natural Gas usage

Indian Railways and GAIL (India) Limited took a significant step recently towards expanding usage of environment-friendly fuel, Natural Gas across all applications of the Indian Railways by signing a Memorandum of Understanding (MoU). The MoU was signed in the presence of Mr. Ashwani Lohani, Chairman, Railway Board and Mr. B. C. Tripathi, Chairman and Managing Director, GAIL, by Mr. Gajendra Singh Director (Marketing) and Mr. Chetram, Chief Administrative Officer Indian Railways.



MoU documents being exchanged by Mr. Gajendra Singh Director (Marketing) and Mr. Chetram, Chief Administrative Officer Indian Railways in the presence of Mr. Ashwani Lohani, Chairman, Railway Board and Mr. B. C. Tripathi, CMD, GAIL.

This historic partnership will pave the way for supply of Natural Gas to Railway workshops, integral coach factories, loco workshops, DEMU sheds, etc. located along the existing and upcoming pipeline networks of GAIL. Along the prestigious eastern India pipeline project under execution- 'Pradhan Mantri Urja Ganga' network alone there is a scope to supply natural gas to over 10 workshops of Indian Railways and shall be connected in a phased manner. MoU between the two leading organisations of the country is a step towards fulfilling Central Government's vision of developing a Gas-based economy in India and progress towards expanding the share of Natural Gas in the energy mix from 6.5 percent to 15 percent. This endeavour shall reduce carbon foot-prints of IR and contribute positively towards achieving COP21 commitments.

MOU signed between NHPC and BHEL for Consultancy and Cooperation in Hydroelectric Projects

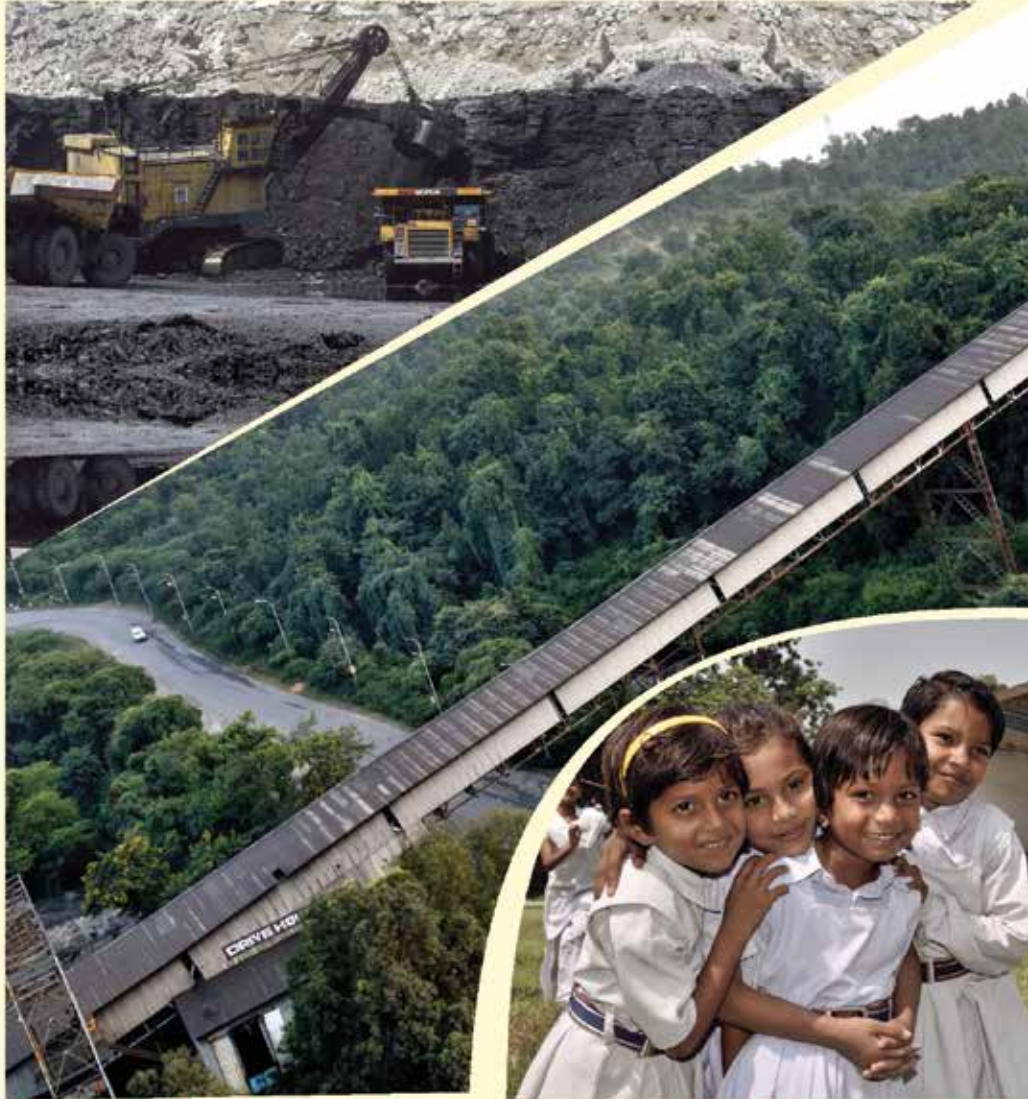


Mr. Cherian Mathew, ED (RE & C), NHPC and Mr. A. M. Gupta, ED, Hydro Business Group, BHEL with the MoU documents in the presence of other senior officials from NHPC & BHEL.

NHPC Limited has signed Memorandum of Understanding (MoU) with BHEL for Consultancy and Co-operation in Hydroelectric Projects recently at its Corporate Office, Faridabad. The MoU was signed by Mr. Cherian Mathew, Executive Director (RE & C), NHPC and Mr. A. M. Gupta, Executive Director, Hydro Business Group, BHEL. Mr. Ratish Kumar, Director(Projects), Mr. Nikhil Kumar Jain, Director (Personnel), Mr. M. K. Mittal, Director (Finance) and Mr. Janardan Choudhary, Director (Technical) of NHPC were also present on the occasion along with other senior officers of NHPC and BHEL.

The MoU has been signed with the intent of Cooperation towards leveraging of respective strengths and competencies for mutual benefit of both the organizations in the field of hydroelectric projects. As per the MoU, both the professional giants would cooperate in joint bidding for consultancy works and hydroelectric projects, wherein, NHPC shall be responsible for Civil Works and Hydro Mechanical works and BHEL shall be responsible for electro-mechanical works. The MoU will consider mutual co-operation on projects in India and shall remain in force for a period of three years from the date of its signing.

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AAI signs MoA with CIDC for Skill Development Programme in North-East

Airports Authority of India (AAI) signed an MOA with Construction Industry Development Council (CIDC) recently for imparting job oriented Skill Development and Training to people belonging to marginalized sections in North East Region of India.



Mr. Anil Kumar Pathak (Member Planning), AAI and Mr. D. K. Kamra (Regional Executive Director – NER), AAI during signing of MoU between AAI and CIDC in presence of Mr. Sanjeev Jindal (GM-CSR), AAI and Mr. Ashutosh Bhardwaj, (Director – Corporate Affairs), CIDC.

The project titled “Employment Oriented Training and Skill Development Programme for SC/ST/OBC/ Women, Unemployed Youth & EWS of society for 2000 persons under CSR Initiative of Airports Authority of India for North East Region” aims to create a skilled workforce in North Eastern states which will help the local youth gain employment in the Construction Industry.

Faced with a perennial shortage of skilled hands like Plumbers, Electricians, Carpenters etc, this initiative will help create a skilled workforce for the region. After successful completion of training, the candidates can be self-employed or work in wage employment.

AAI and CIDC have been working together for the last few years in field of Skill development and training in rural areas. The MOA was signed by Mr. Sanjeev Jindal (GM-CSR), AAI and Mr. Ashutosh Bhardwaj, (Director – Corporate Affairs) of CIDC in the presence of Mr. Anil Kumar Pathak (Member Planning), AAI and Mr. D. K. Kamra (Regional Executive Director – NER), AAI.

The training will be provided to the beneficiaries in CIDC centres and will help skill rural youth, women, SC/ST/OBC and other marginalized sections in construction trades. ■

GRSE Becomes 1st Defence PSU to go live on TReDS Platform

GRSE has taken forward the GoI Initiative of boosting the MSME sector’s contribution towards indigenous manufacturing in Defence. GRSE is the first Defense PSU to get itself activated on the TReDS platform with necessary IT integration, post completion of security checks and testing. Rear Admiral Vipin Kumar Saxena IN (Retd) CMD, GRSE Ltd, inaugurated the system of payment mechanism to vendors under MSME Category through TReDS (Trade Receivable Discounting System) Platform recently. Mr. S. S. Dogra, Director (Finance), Mr. A. K. Nanda, Director (Personnel), Cmde Sanjeev Nayyar, Director (Shipbuilding), Mr. Kalyan Basu, MD & CEO, A TReDS Ltd and other senior officials of GRSE were present on the occasion.



Rear Admiral Vipin Kumar Saxena IN (Retd) CMD, GRSE inaugurating the TReDS Platform.



NFL

Farmers' Friend... Nation's Pride



At National Fertilizers Limited, we seek the rewards of our leadership in the smiles of our prospering farmers. Something we accomplish by constantly serving them with quality fertilizers. Our rising turnover and expanding product line is inspired by our vision to see that every farmer is prospering. After all, progress of farmers is the key to Nation's prosperity.

The largest Urea manufacturer amongst Public Sector enterprises.

Brand 'Kisan' a household name in farming community.

5 Gas based fertilizer plants at Nangal, Panipat, Bathinda and Vijaipur.

Agri-based business including trading of seeds, pesticides, Bentonite Sulphur etc.

Committed to serve the society through its dedicated CSR efforts for rural and underprivileged sections.



NATIONAL FERTILIZERS LIMITED

(A Govt. of India Undertaking)

Corporate Office: A- 11, Sector -24, Noida -201301 (UP)

Website: www.nationalfertilizers.com



Awards & Accolades to PSEs

PSE Excellence Award for Mr. Deepak Kumar Hota, CMD BEML



Mr. Deepak Kumar Hota, CMD, BEML.

Mr. Deepak Kumar Hota, CMD, BEML Limited received the prestigious 'PSE Excellence Award 2017' at a function held in New Delhi at 'The 8th India Public Sector Agenda @ 2020' focusing on Public Sector Reforms, the Award was presented in recognition of Mr. Hota's outstanding contribution in steering the Company to greater heights.

PSEs Conferred with Awards & Laurels NBCC Wins D&B's Top PSU Award



Mr. Bibek Debroy, Chairman, Economic Advisory Council to the Prime Minister and Member, NITI Aayog presenting the award to Mr. Rajendra Chaudhari, Director (Commercial), NBCC.

NBCC (India) Ltd. has bagged Dun & Bradstreet (D&B) PSU Award 2018 under the category "Contract, Construction & Technical Consultancy Services". The award was given away by Mr. Bibek Debroy, Chairman, Economic Advisory Council to the Prime Minister and Member, NITI Aayog. Mr. Rajendra Chaudhari, Director (Commercial) received the award on behalf of NBCC.

NMDC Bachel Complex awarded FIMI's 'Tata Steel Mining Sustainability Award'



Mr. Arun Kumar Shukla, ED, Bachel Complex receiving the award from Union Minister of Mines & Panchayati Raj, Mr. Narendra Singh Tomar.

NMDC Bailadila Iron Ore Mine, Bachel Complex has been awarded 'Tata Steel Mining Sustainability Award' for the year 2017-18 by Federation of Mineral Industries (FIMI) for outstanding work in sustainability. For the first time FIMI has introduced Sustainability Award for mining industries of India. NMDC Bachel Complex is the first recipient of the award. Mr. Arun Kumar Shukla, Executive Director, Bachel Complex received the award from Union Minister of Mines & Panchayati Raj Mr. Narendra Singh Tomar at the award ceremony conducted during 52nd AGM of FIMI held at New Delhi recently. Mr. Anil Gopishankar Mukim, Secretary and Mr. Deepak Sinha, Inspector General, MoEF were also present at the award ceremony.

NMDC Bachel Complex is awarded FIMI's Sustainability Award for exemplary work in the fields of Biodiversity conservation, Environmental conservation, Social Responsibility, Health & Safety

Reaching Out – Spreading Smiles

It is a promise that NLC India has faithfully
Fulfilled since 1962



Development means disruption. It is a tribute to the wisdom of our founders that they embrace the needs of those who gave up an entrenched way of life for the success of the project. Through opportunities and nurturing, NLC India also ensured a new life for those who made Neyveli their new home. This was at a time when the concept of Corporate Social Responsibility had yet to take root. In the ensuing years, even though its core activity continues to be Mining and Power Generation, NLC India has established a template for CSR that has set the norms for other organizations also & realize the symbiotic power of society for the growth of their own enterprises.

CSR initiatives in peripheral areas :

- ◆ Drinking water facilities for surrounding villages
- ◆ Creating irrigation infrastructure covering 20,000 acres.
- ◆ SNEHA an institution for Special children and VAIGAI for poor women and the elderly.
- ◆ Unit established for making Jaipur type artificial limbs.
- ◆ Free medical camps.
- ◆ SHRAVANEI a school for speech and hearing impaired setup.

Highlights of NLC India's Welfare Initiatives

- ◆ Township with over 21000 houses for employees.
- ◆ Medicare coverage along with 350 bed modern hospital and peripheral dispensaries.
- ◆ Healthcare in educational institutions.
- ◆ Women Empowerment Centres
- ◆ Smart Schools
- ◆ Recreation facilities - Clubs and Swimming Pools of International Standards
- ◆ Sporting infrastructure.
- ◆ Post-retirement medical benefits.
- ◆ Creche and Play School for children



NLC India Limited

(formerly Neyveli Lignite Corporation Limited)
'Navratna' - Government of India Enterprise
Neyveli - 607 801, Tamilnadu, India,

REGISTERED OFFICE:

First Floor, No.8 Mayor Sathyamurthy Road, FSD, Egmore Complex of Food Corporation of India, Chetpet,
Chennai - 600 031. Tamil Nadu, India, Ph No. 044-2836 4613, 614, 620 Fax: 044-2836 4619 CIN:L93090TN1956GO1003507 Website: www.nlcindia.com



EXECUTING THE VISION OF INDIA



and significant contribution towards Mine closure obligations. NMDC Bachel Complex was awarded with FIMI Golden Jubilee Award for Excellence. NMDC is known for its sustainable mining practices for which all its Mining Complexes have received 5 star ratings by Indian Bureau of Mines, Ministry of Mines, Government of India.

CMD, NRDC Receives CEO of the Year PSE Excellence Award 2017



Dr. H. Purushotham, CMD, National Research Development Corporation (NRDC) receiving the award from Dr. Ajay Dua, Former Secretary, Ministry of Commerce & Industry.

Dr. H. Purushotham, CMD, National Research Development Corporation (NRDC) has been conferred the PSE Excellence Awards 2017 for being the CEO of the year during 8th India Public

Sector Agenda @ 2020, Public Sector Reforms in India and PSE Excellence Awards event recently at New Delhi.

The Award is for bringing a turnaround in NRDC and the significant contributions made in PM's Flagship programmes of Start-up India and Make in India. The Award was presented by Dr. Ajay Dua, Former Secretary, Ministry of Commerce & Industry during the function.

BEML Bags 73 Horticultural Awards in Lalbagh Flower Show

BEML Ltd. bagged a number of Awards in the Independence Day Horticultural Show, August 2018 organized by the Dept. of Horticulture, Govt. of Karnataka & Mysore Horticultural Society, Lalbagh. At a function held at Lalbagh, Bangalore recently Mr. K.V. Ramakrishnappa, AGM (Horticulture) BEML received 70 Nos. First Prizes and 3 Nos. Second Prizes which also consisted seven special mementos towards well maintained and eye catching ornamental gardens at BEML Soudha, BEML Houses and Bangalore, KGF and Mysore Complexes.

BEML is always committed to promote greenery and in this regard maintenance of gardens at Complexes, regular distribution of plant saplings at its various Complexes/offices to employees etc., is being carried out with due emphasis on protecting the environment.

NBCC Observes Sadbhavana Diwas



Dr. Anoop Kumar Mittal, CMD, NBCC and Mr. Rajendra Chaudhari, Director (Commercial) administered 'Sad-bhavana Pledge' to the employees of NBCC at the Corporate Office, New Delhi recently, on the birth anniversary of Late Rajiv Gandhi. Also flanked by Dr. Mittal was Mr. N. K. Shah, Director (Projects).

Breaking new ground with cutting edge technology



NMDC - Striding towards the Future

Ranked amongst India's topmost companies in terms of its robust financials, NMDC's eco-friendly, scientific and safe mining operations have earned recognition for it not just as the world's lowest cost producer of iron ore, but also as the leader in its category. In step with the changing times, NMDC Ltd., has shifted from being a single commodity, single customer and limited mining operations to supplying multiple commodities to several customers across distant geographical locations.



NMDC Limited
(A Government of India Enterprise)



10-3-311/A, Khanij Bhavan, Castle Hills, Masab Tank, Hyderabad - 500 028, Telangana, India. www.nmdc.co.in



Foundation Stone laid for **Upgradation of Jabalpur Airport in Madhya Pradesh**

Jabalpur Airport is getting upgraded to provide better services to the air passengers of the region. The Foundation Stone for the upgradation of Jabalpur airport was laid by Mr. Suresh Prabhu, Union Minister of Commerce & Industry and Civil Aviation recently in the presence of Mr. Jayant Sinha, Union Minister of State for Civil Aviation. The ceremony was held in the presence of Mr. Sharad Jain, Minister of State for Public Health & Family Welfare, Government of Madhya Pradesh, Mr. Rakesh Singh, Member of Parliament, Lok Sabha, Mr. Sushil Tiwari "Indu", Member of Legislative Assembly, Panagarh (M.P), Mr. Ashok Rohani, Member of Legislative Assembly, Jabalpur Cantt., Dr. (Smt.) Swati Sadanand

Godbole, Mayor, Jabalpur and Mr. Anuj Aggarwal, Member (HR & Planning), AAI at Jabalpur Airport. Airports Authority of India (AAI) is committed to develop airport infrastructure in the country. Jabalpur is a growing industrial city with promising tourism options. AAI anticipated the rise in passenger traffic and consequently proposed the expansion plan to accommodate larger aircraft and upgradation of the terminal with modern facilities.

Jabalpur Airport will be developed at a total cost of Rs. 413 Cr. The newly transformed airport will include construction of New Domestic Passenger Terminal building with enhanced peak hour handling capacity of 500 passengers from existing 150 passengers. With increased runway



Mr. Suresh Prabhu Union Minister of Commerce & Industry and Civil Aviation during foundation stone laying for the upgradation of Jabalpur airport in presence of Mr. Jayant Sinha, Union Minister State for Civil Aviation and other dignitaries at Jabalpur Airport, Madhya Pradesh.

length of 2750 mtrs alongwith turning pad, the airport will be suitable for operations of A-320 type of aircraft.

BEML Flags Off Nation's First 205T Electric Dump Truck

BEML Ltd. has launched an indigenously designed & developed nation's first 205T Electric Drive Rear Dump Truck (Model BH205-E), with an objective of strengthening the 'Make in India' initiative of the Prime Minister. This will address the growing demand for higher capacity equipments in

the Mining Industry. At a function held at Mysore recently Mr. Deepak Kumar Hota, CMD, BEML and Mr. P. K. Sinha, CMD, Northern Coalfields Limited (NCL), flagged off the equipment, for its use in NCL Project. BH205E is an electric drive rear dump truck for large scale mining operations. Indigenously

designed and developed BH205E Dump Truck is powered by Tier-II emission compliant Modular Common Rail Electronic Engine with 2300 HP.

The AC drive system has been engineered to provide exceptional haul road performance with reduced maintenance.

Innovative Technologies Available for Commercialization



NRDC is engaged in the development, promotion and transfer of technologies emanating from various national R&D institutions/universities. The Corporation offers its IPRs and Technology Transfer services in wide ranging areas like: Agriculture, Chemical, Agro & Food processing, Life Sciences, Mechanical, Electrical & Electronics, Energy and Telecom. It acts as an effective catalyst in translating innovative research into marketable industrial products. NRDC has the largest repository of Indian technologies and licensed about 2,500 technologies to more than 4,900 entrepreneurs/start-ups/corporate in India and abroad. Some Innovative technologies are available with NRDC for commercialization having great potential in India and Abroad:

- Extraction of Azadirachtin from Neem Seeds Kernel and its Pesticide formulation
- Super absorbent Hydrogel
- Biopesticidal NemaGel
- Potassium Humate
- Krishi Sakti (10 HP Tractor)
- Updated Equine Influenza Vaccine
- A Rapid test for Rabies Virus Antibody Detection
- Slow or Controlled Release Mosquito Larvicidal Composition and Process of preparation thereof
- Low Cost Jute Based Sanitary Napkin
- Karnataka Rice Hybrid (KRH-4)
- Silver Nano Particle as Antidandruff Agents
- Live-attenuated Salmonella Typhimurium Vaccine
- Lyposomal Amphotericin-B
- Thrombinase-A Thrombolytic agent
- Environment Friendly Solvent Extraction
- Annona Seed Extract
- Pyriproxyfen
- Anaerobic Gas Lift Reactor (AGR)
- Thermostable ELISA Kits
- Novel Method for Simultaneous Detection and Discrimination of Bacterial, Fungal, Parasitic and Viral Infections of Eye and Central Nervous System
- Non-invasive Breath Analyzer for Diabetes Monitoring
- Ayush-82, Ayush-64, Ayush SG
- Bala Rasayana
- Anti-Arthritis and Anti Fungal Ointments
- Mobile Bridge Inspection Unit (MBIU)
- Domestic Arsenic Filter Unit
- TOCO (Toilet Care Unit)
- Brick Making Machine (Extrusion type)
- Mosquito larvicidal Formulation based on Bacillus Thuringiensis var. Israelensis
- DNA Markers for Assessing Seed Purity
- DNA Sequence for Root preferred Gene Expression in Plants
- Vijetha-A Silkworm Bed Disinfectant
- Azotobacter Biofertilizer for Mulberry
- Chawki Leaf Chopper
- Phosphate Rich Organic manure (PROM)
- Ksheer Scanner, Ksheer Tester



NATIONAL RESEARCH DEVELOPMENT CORPORATION

[An Enterprise of DSIR, Ministry of Science and Technology, Government of India]
20-22, Zamroodpur Community Centre, Kailash Colony Extension, New Delhi-110048
Tel: 011-29240401-07, Website: www.nrdcindia.com
For more information, please contact: lnarayan@nrdc.in, cmdnrdc@nrdc.in



BEL Order Book Crosses Rs. 50K cr Mark



Ms. Anandi Ramalingam, Director (Mktg), BEL, Mr. D. R. Kulkarni, ED (PSC), MDL, Mumbai, and Mr. Venkatesh Murthy, GM (Material), GRSE, Kolkata along with other officers after signing contracts on behalf of BEL, MDL and GRSE, for supply of LRSAM systems to be fitted onboard seven ships to be built by MDL and GRSE.

A Rs.9,200 cr. order for supply of seven Long Range Surface-to-Air Missile (LRSAM) systems has pushed the order book of Bharat Electronics Ltd (BEL) beyond Rs.50,000 cr. for the first time in history of BEL recently. The Company is confident that this is just a beginning and is looking at maintaining a healthy order inflow with business segments such as Radars & Weapon Systems, Electronic Warfare

Systems, Fire Control Systems, Communication Systems and C4I Systems driving its growth in the coming days.

Highest ever single value order

BEL has entered into contracts worth about Rs. 9,200 cr. with Mazagon Dock Shipbuilders Ltd. (MDL) and Garden Reach Shipbuilders and Engineers (GRSE) to supply LRSAM

systems to be fitted onboard seven ships to be built by these two shipbuilders. This is the highest-ever single value order bagged by BEL. Mrs Anandi Ramalingam, Director (Mktg), BEL, signed the contracts on behalf of BEL with MDL and GRSE. As the lead integrator of Akash Missile system, BEL has already proven its prowess in the realm of Turnkey Missile Systems. The Company is now geared up for futuristic programmes such as the Quick Response Surface to Air Missile (QRSAM) for the Army, Medium Range Surface to Air Missile (MRSAM) for the Indian Air Force and Long Range Surface to Air Missile (LRSAM) for the Indian Navy. BEL is the lead integrator of LRSAM systems for the Navy's P-17A stealth frigates.

BEL will continue its indigenisation efforts in line with the 'Make in India' initiative. Strategies and action plans are in place to face competition, maintain its technological edge and retain its leadership position in strategic electronics.

NTPC Supports UPPCL for Energy Efficiency

NTPC under its CSR initiative is providing financial support for installation of about 10000 Energy Efficient Pump System through UPPCL in the fields of farmers residing near NTPC stations located in five districts of Uttar Pradesh. An Agreement to this effect was signed by Mr. D. K. Patankar, General Manager-CSR, NTPC and Ms Varalika Dubey, Chief Engineer, UPPCL in Lucknow.



Mr. D. K. Patankar, General Manager-CSR, NTPC and Ms Varalika Dubey, Chief Engineer, UPPCL exchanging the agreement documents.

At the Heart of Our Business is a Nation's Progress



Our Passion to Energize Moves India Forward

Oil India Limited (OIL) is India's leading Navratna National Oil & Gas Company with strong Pan-India presence and a share of over 9% of the country's crude oil and natural gas production.

OIL's Mission is to be "The fastest growing energy company with global presence providing value to stakeholders."

OIL has been *Conquering Newer Horizons* with:

- Overseas E&P assets and business in Libya, Gabon, Nigeria, Yemen, Venezuela, USA, Mozambique, Myanmar, Bangladesh & Russia.
- Foray into Renewable Energy - Total installed capacity of 188.10 MW (comprising of 174.10 MW Wind and 14 MW Solar Energy Projects).
- International Credit Ratings- Moody's "Baa2" (stable) (higher than sovereign rating) and Fitch Rating "BBB-" (Stable) (equivalent to sovereign rating).



Corporate Office : Oil India Limited, Plot No. 19, Near Film City, Sector 16A, Noida, District - Gautam Budh Nagar,
 Uttar Pradesh-201301, India, Phone : +91-120-2419000, 2419200

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Reach us at : www.oil-india.com

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CIN : L11101AS1959G0001148



Barauni - Guwahati Natural Gas Pipeline work gathers pace: **Contract awarded for purchase of 108 km of line pipes**

In an important development, GAIL (India) Limited has awarded the first contract for purchase of 108 km 24

inch diameter line pipes under the Barauni – Guwahati segment of the Jagdishpur-Haldia & Bokaro-Dhamra Natural Gas

Pipeline (JHBDPL) project. The contract for purchase of line pipes of 108 km was awarded to M/s Ratnamani at a total cost of Rs 125 cr. Line pipe procurement activities for the rest of the 600 km trunkline upto Guwahati is at an advanced stage of tender process.

The Barauni – Guwahati pipeline section executed at a capital outlay of Rs 3,300 cr. is an integral part of the 3,405 km-long JHBDPL project, popularly known as ‘Pradhan Mantri Urja Ganga’, executed by GAIL, and envisages to connect eastern and north-eastern India to the existing natural gas grid. This project is planned to cover eastern Uttar Pradesh, Bihar, Jharkhand, West Bengal, Odisha and Assam.

JHBDPL project is progressing in full swing and the first phase is scheduled for completion by December 2018. The project will usher Industrial development in eastern part of India by supplying environmentally clean natural gas to fertilizer units, power plants, refineries, steel processing plants and other industries. It will also provide clean energy to households and transportation through the city gas distribution networks enroute the pipeline. City Gas distribution projects have been commissioned at Varanasi, Bhubaneswar and Cuttack while project activities are under progress at other cities of eastern India.

Minister, MoPNG, launches online portal for Common Carrier Capacity booking on GAIL's pipelines Platform to enhance consumer experience



In a first step to facilitate gas trading on Hub or exchange traded platforms in India, Minister for Petroleum and Natural Gas & Skill Development and Entrepreneurship Mr. Dharmendra Pradhan recently launched an online portal for enabling easy, efficient and transparent booking of Common Carrier capacity for natural gas transmission services under GAIL's pipelines.

Online portal is accessible on www.gailonline.com and was launched in the presence of PNGRB Chairperson Mr. D K Sarraf, GAIL CMD, Mr. B. C. Tripathi, GAIL Director (Marketing) Mr. Gajendra Singh, MoPNG Joint Secretary Mr. Ashish Chatterjee and other dignitaries from Ministry and Regulatory Board.

The portal operates within the regulatory framework and is the first of its kind portal in the natural gas sector of India, to provide gas consumers the facility to register pipeline capacity bookings online and endeavours to continue the practice of serving on first-come-first-served basis.

The answer to climate change, is change.



Change, from the way we now produce and consume energy, to a greener mix of oil and coal-powered energy coupled with the use of natural gas as an energy source. Natural gas emits an estimated 40-70% less carbon dioxide than other fuels, reducing the growing pressure on our ecosystem. Moreover, natural gas produces less sulphur dioxide, nitrogen oxides and particulate matter. Petronet LNG is leading the change for a better environment by meeting about 40% of India's total gas requirement and continuously striving to do things the greener way.

Petronet LNG Limited

World Trade Centre, 1st Floor, Babar road, Barakhamba Lane, New Delhi-110001 (INDIA)



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LIMITED

www.petronetlng.com



India Joins Select Club of Deck Landing of Fighter Aircraft



India has joined the select club of US, Europe, Russia and China having the capability of Deck Landing of fighter aircraft. The LCA Naval Prototype 2 (NP2), piloted by Capt Shivnath Dahiya safely executed the first contact of the arrestor hook system with Arresting wire at moderate taxi-in speeds on location at the Shore Based Test Facility, INS Hansa, Goa recently. The first successful Taxi-in engagement was monitored closely by the Landing Signal Officer Cmde J. A. Maolankar and Test director Gp Capt A. Kabadwal (Retd). This is the first of a series of engagement planned at proving the arrestor hook capability said Mr. T. Suvarna Raju, CMD, HAL.

The HAL's design wing, Aircraft Research and Design Centre (ARDC) has designed and developed the Arrestor Hook System (AHS) for Ship Deck operations of LCA Naval version. The LCA Naval Prototype 2 (NP2), has been integrated with this AHS. Having verified in-air operation of Arrestor Hook System in

Bengaluru on July 23, 2018, the aircraft has been operating at INS Hansa Goa, since July 28, 2018.

HAL Chief Flies LCA-Tejas

Mr T. Suvarna Raju, CMD, HAL flew the indigenous Light Combat Aircraft-Tejas from HAL Airport, Bengaluru recently. The twin seat variant of LCA (PV5) was piloted by Group Captain KK Venugopal, VM (Retd) HAL's Chief Test Pilot.

In a thrilling set of manoeuvres, the aircraft climbed to 30,000 feet and accelerated to supersonic speed of 1.1 Mach. This was followed by a simulated launch of Beyond Visual Range missile on a target of opportunity, said Mr Raju after the sortie. It is a wonderful flying machine, capable of being the backbone of IAF combat power in the years to come, he added.

The pilot demonstrated the prowess of the aircraft to attack

targets on ground. An attack on the ground target was carried out by a simulated laser guided bomb. The demonstration of manoeuvring capability of the aircraft in close combat situations is an unique experience to even veteran pilots. The landing was carried out simulating low visibility conditions using the 'automatic approach' mode of the aircraft.

In order to ensure the speedy deliveries of LCAs, HAL has ramped up the production rate to meet the requirement of IAF in association with other industrial partners. HAL is in talks with IAF for production of 83 more LCAs with upgraded capabilities known as Tejas Mk 1A.

Mr Raju reiterated that as one of the biggest aircraft production houses in Asia, HAL is committed to constantly improve its products to meet the national security requirements.



Tejas Mk 1 A.

Beautiful LIFE

Illuminated by Our Power and Care



Enabling power to brighten lives and transform India

As a constructive partner in the community in which it operates, PFC has been taking concrete action to realize its social responsibility objectives, through financial assistance for the following:

- Support to employment-oriented Training & Skill Development Programmes for SC, ST, OBC, Women and EWS and physically-challenged persons
- Providing clean energy solutions such as solar lanterns, solar street lights, solar PV systems to Government schools, Anganwadi Centres, Primary Healthcare Centres, etc.
- Providing financial support to Home Lighting Systems at backward & remote areas
- Construction of toilets under 'Swachh Bharat Swachh Vidyalaya Abhiyaan' at schools and also at village households located in backward districts which do not have toilet facilities
- Upgradation of facilities at Adult Education Centres
- Support to States hit by natural calamities
- Promotion of education, arts, culture, music & dance, sports, etc. through sponsorship support



Health



Skills
Development



Sanitation
and Water



Education



Community
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Environment

POWER FINANCE CORPORATION LTD.

Regd. Office : "Ujjanidhi", 1, Barakhamba Lane, Connaught Place, New Delhi-110001; Ph: 23456000; Fax : 23412545; Website: www.pfcindia.com

POWERING LIVES. EMPOWERING INDIA



HCL Mine Expansion Plan: Aims to enhance its capacity 6 times

Hindustan Copper Limited is the only company in India engaged in mining of copper ore, beneficiation, smelting & refining and downstream products. HCL is listed on the BSE and NSE. HCL owns all the copper mines in the country. Presently HCL meets 4 percent of the country's requirement of copper. HCL aims at enhancing its capacity 6 times from its present production capacity to 20 million tonne per year. The capex requirement of the above mine expansion plan is Rs. 5500 cr. which is spread over next 6 years. Besides, Rs. 175 cr. will also be spent for exploration activities spread over three years.

This will lead to increase the availability of copper raw material from current 4 percent to 30 percent of the country's demand. Increasing the mining capacity of HCL is essential to reduce dependence on import by 25 percent of copper mineral by the country.

The proposed expansion plan would create employment opportunities for 9300 persons approximately. Expansion projects of HCL are located in the States of Madhya Pradesh, Rajasthan and Jharkhand. Cabinet Committee on Economic Affairs, meeting chaired by Prime Minister Mr. Narendra Modi recently has given its approval for issue of

fresh 13,87,82,700 equity shares to the extent of 15 percent of paid up equity capital of face value of Rs. 5/- each by HCL through the Qualified Institutions Placement (QIP) route as per SEBI and other applicable guidelines.

Consequently, GoI shareholding in HCL will come down from 76.05 percent to 66.13 percent. It will also help GoI to meet the statutory Minimum Public Shareholding guidelines. Further, the paid-up Share Capital of HCL will increase from the present Rs. 462.61 cr. to Rs. 532 cr. HCL will use the proceeds of QIP to meet its expansion/capex plan. There is no budgetary support for the expansion plan.

ITI Limited Partners with Startups to boost the Manufacturing of ICT, IoT and Defence Technology based Solutions at the First ICT-IoT Expo

ITI Limited recently signed agreements with leading startups and original equipment manufacturers (OEMs) covering the manufacturing of a wide range of ICT-IOT based solutions. These include civil and military advanced radar systems, advanced edge router systems, next generation 5G technology products, data storage and networking solutions, digital security solutions, advanced metering solutions, and wi-fi products and solutions. The agreements were signed recently, in the presence of Union Minister of State (Independent

Charge) for Communications and Minister of State for Railways, Mr. Manoj Sinha and Chairman, Telecom Commission & Secretary, Department of Telecommunications, Smt. Aruna Sundararajan on the sidelines of the first edition of ITI's two-day/ ICT & IoT Startup Tech Expo in Bengaluru. ITI Limited has also entered into an agreement with Telecommunication Engineering Center (TEC), New Delhi for establishment of state-of-the-art telecom testing labs at its Bengaluru plant, to facilitate mandatory testing of imported and indigenous telecom equipment in



India. The foundation stone for a set of telecom testing labs— comprising EMI/EMC lab, Specific Absorption Rate (SAR) lab, Safety lab and Security lab – was laid recently by the Minister.

राष्ट्रीय इस्पात निगम लिमिटेड
विशाखपट्टणम इस्पात संयंत्र
RASHTRIYA ISPAT NIGAM LIMITED
VISAKHAPATNAM STEEL PLANT



जीवंत **इस्पात** उत्पादक... स्वच्छ व हरित इस्पात निर्माता
भारत के बृहदतम सरिया विनिर्माताओं में से एक
Vibrant **Steel** maker... Forging **clean & green** steel
One of the largest manufacturers of Re-bars in India

The only plant to adopt **Quenching and Self Tempering (QST) Technology** for production of Re-bars from design stage
सरिया के उत्पादन में डिजाइन स्तर से ही क्वेंचिंग व सेल्फ टेंपेरिंग (क्यू एस टी) प्रौद्योगिकी को अपनानेवाला एकमात्र संयंत्र

एफ ई (FE) 500 & एफ ई (FE) 500 डी D

- अत्यधिक मजबूती व अत्यधिक तन्यता का संयोजन ● बेहतर मुड़ाव व उपयोग की सुगमता
- Combination of high strength and high ductility ● Excellent bendability and workability

देश के उद्योगों व व्यापार की विभिन्न श्रेणियों के अनेक ग्राहकों को सहयोग
SUPPORTING NUMEROUS CUSTOMERS ACROSS INDUSTRY AND BUSINESS SEGMENTS - ACROSS THE NATION



जयपुर मेट्रो रेल Jaipur Metro Rail



अलकनंदा वल्लुट्टो पावर Alakananda Hydro Power



ईस्टर्न फ्रीट कॉरिडोर Eastern Freight Corridor



राजपुरा थर्मल पावर प्लांट Rajapur Thermal Power Plant

www.vizagsteel.com



वाइजाग टीएमटी-एचएससीआरएम-डी - 'निर्माण हेतु उपयुक्त सरिया' **VIZAG TMT-HSCRM-D** - "The Right Re-bars for Construction"

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वाइजाग टीएमटी सरिया "VIZAG TMT" Re-bars



चैनल Channels



एंगिल Angles



वायर रोड कोइल Wire Rod Coils



गंडे Rounds



वाइजाग उक्कु स्ट्रक्चरल "VIZAG UKKU" Structurals



Personalia



Mr. Anil Kumar Chaudhary
takes charge as Chairman,
SAIL.



Mr. R. Madhavan
takes over as CMD, HAL.



Mr. Pradosh Kumar Rath
assumes charge as CMD,
RINL.



Mr. Rajiv R Mishra
CMD, WCL takes additional
charge as CMD, MCL.



**Mr. Partha Sarthi Sen
Sharma, IAS**
Jt. Secretary (PS), DoF,
Ministry of Chemicals &
Fertilizers takes additional
charge as CMD, PDIL.



Mr. Karnam Sekar
assumes charge as MD & CEO,
Dena Bank.



Ms. Anshula Kant
takes charge as MD, SBI.



Mr. N. P. Diwakar
assumes charge as Director
(Technical), BDL.



Mr. R. K. Chauhan
takes charge as Director
(Projects), PowerGrid.



Mr. Virendra Nath Datt
is appointed as as Director
(Marketing), NFL.



Mr. P. K. Singh
is appointed as Director
(Commercial), PFC.



Mr. Kamendra Kumar
takes charge of Director
(Technical), TCIL.

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Mines Secretary, Govt of India Lays Foundation Stone of NALCO's Alloy Wire Rod unit

Project completion by end of 2019; Power Transmission sector to get benefitted



To address the increasing demand of aluminium in power sectors particularly in power transmission, aluminium major National Aluminium Company Limited (NALCO), has unveiled its plan to set up an Alloy Wire Rod manufacturing facility at its existing Smelter Plant at Angul, Odisha. Mr. Anil Mukim, IAS, Secretary (Mines) formally laid the Foundation Stone (through video conferencing) for the proposed Alloy Wire Rod manufacturing facility at a function held recently at the NALCO Corporate Office, Bhubaneswar in presence of Dr. Tapan Kumar Chand, CMD, NALCO. The upcoming Alloy Wire Rod manufacturing facility to be set up at a cost of about Rs.131 cr. and will have

an installed capacity of 40000 TPY (Alloy Grade) /60000 TPY (EC Grade).

Congratulating NALCO collectively for its stupendous performance of the company in the

first quarter declared recently, MR. Mukim, said, NALCO has become the pride of India in non-ferrous sector and the cost focus of management has made NALCO recognised as the lowest cost producer of alumina in the world. He also added that, he is quite impressed with the result orientation and value creation by NALCO management. Speaking on the occasion Dr. Tapan Kumar Chand, CMD, NALCO said that the Per capita aluminium consumption in India is only 2.2kg against world average of 7 kg and 20 kg in China. Our country as fastest growing economy in the world is set to witness a quantum jump in aluminium consumption in next 2 to 3 years.



Mr. Anil Mukim, IAS, Secretary, Ministry of Mines, Govt. of India and Dr. T. K. Chand, CMD, NALCO during the Foundation Stone Laying Ceremony of NALCO's Alloy Wire Rod Mill Project.

NBCC Bags Rs 400 cr Contract in Dubai

NBCC (India) Ltd has bagged a Rs 400 cr. project awarded to it by the Department of Commerce, Ministry of Commerce and Industry, Government of India, to construct India Pavilion at the Dubai World Expo 2020. The Memorandum of Understanding (MoU) has been signed between Mr. Yogesh Sharma, Executive Director NBCC and Mr. Manoj Dwivedi, Joint Secretary, Department of Commerce, in the presence of Dr. Anup Wadhawan, Commerce Secretary. The scope of work of the project includes Conceptualization, Design and Construction of 4,614 square meters India Pavilion and other utilities. The India Pavilion



MoU documents being exchanged between Mr. Yogesh Sharma, Executive Director NBCC and Mr. Manoj Dwivedi, Joint Secretary, Department of Commerce, in the presence of Dr. Anup Wadhawan, Commerce Secretary.

sub-themed as 'OPPORTUNITY', will be a fine blend of modern outlook and billion dreams and millions of opportunities with a

focus on building a happy world. The immense cultural diversity of India will also be on display at the pavilion.

REC Inks 200 Million Euro Deal with German Bank KfW



Dr. P. V. Ramesh, CMD, REC with Mr. Roland Siller, Member of the Management Committee – Europe and Asia, KfW.

REC Ltd. signed a 200 million Euro loan with the German bank KfW in Frankfurt recently. This is REC's fourth line of credit under Indo-German development cooperation which REC will utilize to finance renewable energy projects in India. "This is yet another step towards promoting renewable energy in India after having more than tripled our financing in renewable sector last year. The partnership reflects the commitment of both the institutions towards sustainable development", said Dr. P.V. Ramesh, CMD, REC.

Dr. P.V. Ramesh, CMD, REC and Mr. Roland Siller, Member of the Management Committee – Europe and Asia, KfW signed the pact in the presence of Dr. A.K. Verma, Joint Secretary, Ministry of Power and the Consul General of India Ms. Pratibha Parkar.



MDL Flags off First Block of Project 17A at Nahava Yard

The flagging off of the First Block of Project 17A by Commodore Rakesh Anand, IN(Retd), CMD, Mazagon Dock Shipbuilders Limited, from the Nhava Yard marked a new beginning of shipbuilding activities at the yard.

The occasion of flag off was attended by the CMD, Directors and other officials of MDL along with Warship Production Superintendent (WPS), Mumbai and his team. Director (Shipbuilding) RAdm Anil Saxena, IN (Retd), speaking on the occasion stated that P17A added yet another feature of "Build anywhere and assemble at MDL" in construction philosophy of these



Cmde Rakesh Anand, Retd, Chairman & Managing Director, MDL; Mr.Sanjiv Sharma, Director (Finance), RAdm Anil Saxena, Retd, Director (Shipbuilding) and Cmde K E Mathew, WPS(Mb) along with senior officers from MDL and Navy at the flagging off of First Block of Project 17A at Nhava Yard, Mazagon Dock Shipbuilders Limited.

State of the Art Frigates which is the first time in the Indigenous using Integrated Construction for Warship Construction.

BEML Flags off Nation's First 150T Electric Dump Truck



BEML Ltd. has launched an indigenously developed nation's first 150T Electric Drive Rear Dump Truck, with an objective of strengthening the 'Make in India' initiative of the Prime Minister, that will address the growing demand for

higher capacity equipment in the Mining Industry. Mr. Deepak Kumar Hota, CMD BEML, at a function held at Mysore recently flagged off the 150T Dump Truck for its use in the coal fields of CIL's subsidiary M/s. South Eastern Coal Fields Ltd., for the Gevra Project.

This new innovative product not only showcases the technical prowess of BEML but also is qualitatively comparable to any global brands of its kind. The product has significant features like high power performance, enhanced productivity, increased reliability, excellent serviceability, exceptional maneuverability, superior

operating comfort and improved safety. "The launch of this higher capacity dump truck will surely put BEML in a select band of companies globally. It helps not only in saving foreign exchange as an import substitution, but also the lead time in delivery of the equipment at site and life cycle service support would improve considerably" said Mr. Hota.



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- ❖ An initiative of Ministry of Steel, Government of India, M3 is an effort of Central Govt towards convergence of 'DIGITAL INDIA', 'MAKE IN INDIA' and 'EASE OF DOING BUSINESS'
- ❖ Products of primary producers like RINL, SAIL, ESSAR, JSPL etc. are also available on M3
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- ❖ Save operation costs towards advertising / branding / promotional publicity
- ❖ 'MSTC Metal Mandi' platform supports 'pull' type supply management, where a business process starts, when an order comes from a customer and uses 'Just-In-Time' manufacturing process. Thus it increases the productivity of the organization
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C) Advantages to Buyer

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- ❖ Get detailed information on product, quantity and price at a simple click of the mouse using both the buying options i.e. 'Fixed Price' and 'Enquiry Based System'
- ❖ Hassle-free shopping experience saving time and cost
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- ❖ Operate at any time, from anywhere to buy any product or to submit the enquiry
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For further clarifications, please contact the following officials:

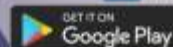
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