9th National Quality Conclave

QCI

A QCI Publication

April-June 2014

quality
india

A Culture of Excellence through Collaborative Efforts

Quality for National Well-being

Editorial

B. Venkataram
Secretary General
Quality Council of India

It is indeed a pleasure to touch base with our stakeholders through this special issue of Quality India. There have been feedbacks that QCI has not been bringing out the in-house magazine regularly. I am glad to inform you that we are working on ways to bring out the magazine more regularly and this should happen very soon.

Meanwhile I am glad that we have been able to carry on with the flagship event of QCI - 'The National Quality Conclave' and this year we have a challenging theme - 'Build and sustain a Culture of Excellence through Collaborative Efforts'.

QCI has been a shining example of what could be achieved through collaboration and I would compliment the Board members of National Board for Quality Promotion who came up with this theme. In fact no significant achievement is possible without the involvement of stakeholders and this is indeed reflected in the quality principles enshrined in the ISO 9000 standards.

The outcomes of the Quality Conclaves had always provided us a direction to initiate new activities. The theme 'Quality for the National Well being' that QCI is now working on was a result of deliberations in one of the conclaves.

The theme for the 8th National Quality Conclave held last year was 'Value creation through Quality at Grassroots'. The best minds in the country had deliberated on the them. One of the fundamental ideas that was reinforced throughout the discussions was the need for collaboration.

Given the growing concerns of nations on issues health and environment and the impact of human activities on these key factors that affect the quality of life, it is absolutely necessary that collaborative efforts that cut across borders is the need of the hour.

We are fortunate to have the likes of Dr K. Kasturirangan, Member, Planning Commission, Dr Devi Shetty, Chairman, Narayana Hrudayalaya, Mr Analjit Singh, Chairman and Founder, Max India, share their thoughts with the audience during the conclave.

QCI has been recognising organisations for their efforts in quality through its QCI-DL Shah Quality award. This year too, there has been a sizable number of applications. I understand that the jury had a difficult time in selecting the winners. I do look forward to these organisations sharing their knowledge and expertise with others.

Some of the past case studies on quality improvement efforts / projects have been compiled as a book which would be released during the conclave. I do hope that the knowledge shared in the book by past winners of the QCI-DL Shah Quality Award would be an inspiration for others to put in similar efforts.

The theme session would be seeing a presentation on a significant initiative by a state government in providing timely service of the required quality and how this has succeeded. The valedictory session would have an interesting presentation from the now world famous 'Dabbawalas' of Mumbai.

I would like to sign off seeking the support of all our stakeholders - the government, the industry and all our clients for the various programs, It would be remiss of me if I don't acknowledge the very significant contributions that we have been receiving from the Chairs and members of various Boards of QCI as well as the QCI Council. This indeed is a clear demonstration of the power of collaborative efforts.

The relevance of QCI would depend on the value that it creates for the stakeholders. I look forward to those in the QCI Secretariat to continue to live upto the growing expectations of our stakeholders. And I look forward to the support of well wishers of QCI in taking QCI to further heights.

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*Courage
is rightly
esteemed the
first of human
qualities...
because it is
the quality
which
guarantees
all others.*

- Winston Churchill

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Message

**Mr. K.C. Mehra,
Chairman, NBQP**

The Quality Council of India is organising the 9th National Quality Conclave during April 15-16, 2015 at New Delhi. Like all previous years, the National Board for Quality Promotion is entrusted with the responsibility of organising the Conclave. I am therefore happy to write this message on the occasion of 9th National Quality Conclave.

As in previous years, and after deliberations by the Conclave Committee, we have adopted the theme of the Conclave as 'Build and Sustain a Culture of Excellence through Collaborative Efforts'. Through this theme we wish to discuss and present examples of how key stakeholders can work together to generate actionable solutions, leading to sustainable quality results. The focus will be to understand how to create and sustain the environment of excellence where quality becomes part of the culture of the organisation, community and finally the nation.

The Conclave, I am sure, will act as a platform for sharing new ideas and thoughts on promoting and achieving support from all stakeholders to improve quality.

I am also pleased to share with you that the National Board for Quality Promotion continued taking up projects and programmes for taking quality to various levels of our society. One such programme is transforming the Public Health Centres (PHC), Community Health Centres (CHC) and government hospitals through application of 5S and Kaizen tools. The programme is getting implemented in 26 district hospitals and associated PHCs and CHCs with the full support of Department of Health and Family Welfare, Government of Gujarat. These programmes are laying down the foundation for the government hospitals to go for NABH accreditation.

Every year organisations across the world celebrate World Quality Day which falls on second Thursday of November. The Quality Council of India, over the years was requesting its various stakeholders like accredited organisations, members etc to celebrate World Quality Day. Last year, the QCI for the first time decided to celebrate World Quality Day by itself. Accordingly the Board organised an intellectually stimulating seminar on 'Quality – A Collaborative Effort' on November 15, 2013 at New Delhi. A panel of distinguished speakers shared their ideas and thoughts on what should be done to establish a strong quality improvement structure through collaborative efforts of all stakeholders to address the various quality challenges faced by the country.

The Board is continuing its support to Ministry of Labour and Employment for the ambitious Rashtriya Swasthya Bima Yojana (RSBY) scheme of Government of India. As technical advisor to the Performance Management Division of Cabinet Secretariat, Govt. of India, the Board is continuing to provide monitoring support for successful implementation of ISO 9001 standard in 74 central ministries/departments. There is also a steady increase in the number of individuals and organisations who are members of QCI under the professional membership scheme of the QCI which is managed by the Board. Recently a Chapter has been formed in Bhubaneswar which will take up several promotional activities in Odisha and the eastern region. We are now looking at forming ten forums every year for the next five year across the country, thereby enabling us to spread the message of quality across this vast country. The Board also completed its evaluation of the projects that were submitted for the QCI – D.L. Shah Award. This year, we have received the largest number of projects till date indicating the increased popularity of the Award. We are now coming out with a publication containing the award winning case studies, which I think will be of great use to all quality professionals. With the support of all government, the Board will continue its effort towards achieving the mission of the QCI, namely 'Quality for National Well Being'.

I wish the Conclave great success and look forward to receiving details of the deliberations.

From a Board offering only accreditation of auditors and training courses, NABET has come a long way. Identifying the national needs in areas pertaining to environment and formal and non formal education, it has built capacity to meet the expectations of the stakeholders. A number of new initiatives over the years such as accreditation of EIA consultant organisations, Industrial Training Institutions, skill assessment bodies, capacity building for Micro, Small and Medium Enterprises, and now accreditation of Business Membership Organisations and many more have been well appreciated. Many of the schemes had no parallels and were created to support the national needs. These initiatives have now gained national and international acceptance in the respective areas.

Due to its consistent performance, the stakeholders have increasingly placed their trust in NABET looking upon it to support them in various upcoming initiatives. The E-governance model for accreditation of government and private ITI's with challenging benchmarks supports the government initiatives for the skill development in the country in a big way. Covering only the new upcoming institutes initially, the government is considering making accreditation mandatory for the existing institutes also. This is being complimented by the schools division which is contributing by working with the state government, strengthening the capacities of teachers to build a strong national foundation. The concept of 'Skills for work' for encouraging school children towards vocational skills is a unique concept which will help in laying a strong foundation for building India as the skill capital of the world. To enable the acceptance of our skilled manpower in international arena, accreditation services in line with ISO 29990 and ISO 17024 have been initiated.

NABET has been building and sustaining a culture of excellence through collaborative efforts with all its stakeholders. In the process, we have developed new benchmarks and are consistently striving to be at par with the international best practices through use of technology. I would like to compliment the distinguished NABET Board Members, Chairmen and members of the Technical and Accreditation Committees. Their consistent guidance and judicious decisions have helped in creating a strategy for growth and a professional image of NABET. The international linkages are a testimony to the confidence that not only national but international partners have in NABET processes.

NABET has been consistently posting a good positive growth in its revenues. All this could not have been achieved without the excellent teamwork. NABET has a mix of very senior professionals, young executives starting their careers, supported by panel of experts. Together, they have been able to create a competent, credible, creative and consistent structure. NABET is also grooming the youngsters through a structured growth process for important roles to ensure long term sustainability and institutionalisation of an inherent Quality Culture. My compliments to the CEO and the energetic team, and thanks to all the stakeholders for their support.

"I wish the conference all success"

**Mr. S Chandrasekhar,
Chairman, NABET**

Message

I am happy that QCI is organising the 9th National Quality Conclave on April 15-16 2014 on the theme of 'Build and Sustain a Culture of Excellence through Collaborative Efforts'. This is an apt theme as for the deliberations as quality and excellence can only be achieved through collaborative efforts.

QCI, as the apex quality facilitation body, and with a range of activities in its portfolio is uniquely placed to act as a nodal point in facilitating the collaborative efforts among stakeholders. It is already discharging this responsibility in certain areas but there is a need to intensify these efforts on other areas.

NABCB, which is vested with the mandate of accrediting inspection and certification bodies as per applicable international standards and the programs of NABCB certainly are the efforts of such collaborative efforts and a clear demonstration of what can be achieved if there is a synergy.

It has been recognised and mandated through the WTO Agreements that the governments have the responsibility of ensuring health and safety of their populace. Accordingly, all countries have regulations in various sectors such as safety equipment, drugs, food etc. Further there is a worldwide trend of using third party conformity assessment in regulation for efficient administration.

The need of the hour is the effective implementation of these regulations which again is possible only through collaborative efforts of everyone involved. NABCB has been playing a key role in supporting regulators such as PNGRB and FSSAI.

There are also a number of voluntary certifications - be it ISO 9001 or ISO 22000 or Ayush Mark or GlobalGAP - all of which rely on accreditation and offer product differentiation in the market. This helps the consumers in making a more informed choice.

I assure that NABCB will continue to contribute its mite to the cause of quality, excellence and demonstrate the power of collaboration.

I wish the Conclave all success.

**Mr. N Kumar,
Chairman, NABCB**

ndia is synonymous with Quantity but the Quality behemoth has awakened in almost all fields – manufacturing, IT, education amongst others. Healthcare quality and safety focus, though relatively recent, is making its presence felt with NABH getting firmly established as 'the Quality Seal' in Indian healthcare. It is matter of great pride that in the year 2013, just seven years after its establishment, NABH, whose standards were already approved, got the full seal of approval as an accreditation agency, from the International Society of Quality Accreditation (ISQUA) joining 14 countries whose accreditation bodies have this approval. A singular honour.

An increasing number of hospitals, diagnostic imaging centres, primary care centres, dental centres and AYUSH hospitals are applying for NABH and SHCO accreditation and increasingly health insurance providers and government bodies are incentivising those hospitals which are accredited. This is a welcome development and I sincerely hope all government and paragovernment healthcare reimbursements to hospitals, labs, diagnostic centres shall be made only if quality and safety standards set by NABH are met.

Many accredited Indian hospitals provide care of the highest quality in the world, it is my fervent wish that their numbers rise exponentially and India gets recognised even more at the international level as a provider of safe, good quality care.

I wish the conclave all sucess.

**Dr. Narottam Puri,
Chairman, NABH**

National Accreditation Board for Hospitals & Health Care Providers (NABH)

National Accreditation Board for Hospitals & Healthcare Providers (NABH) is a constituent board of Quality Council of India, set up to establish and operate accreditation programme for healthcare organisations. The board is structured to cater to much desired needs of the consumers and to set benchmarks for progress of health industry.

NABH works with the **Vision** to be apex national healthcare accreditation and quality improvement body, functioning at par with global benchmarks.

NABH **Mission** is to operate accreditation and allied programs in collaboration with stakeholders focusing on patient safety and quality of healthcare based upon national/international standards, through process of self and external evaluation.

Accreditation to a health care organisation stimulates continuous improvement. It enables the organisation in demonstrating commitment to quality care. It raises community confidence in the services provided by the health care organisation. It also provides opportunity to healthcare unit to benchmark with the best.

Accreditation benefits all stake holders. Patients are the biggest beneficiary. Accreditation results in high quality of care and patient safety. The patients get services by credential medical staff. Rights of patients are respected and protected. Patient satisfaction is regularly evaluated.

Accreditations

The board is responsible for accreditation activities related to hospitals and other healthcare providers based on

Standards developed by NABH. At present following accreditation programs are fully operational:

- Hospitals: This program is meant for bigger multispecialty and super specialty hospitals.
- Small Healthcare Organizations: for hospitals with bed strength upto 50 beds.
- Primary Health Centre and Community Health Centre
- Dental Facilities
- Blood Bank and Blood Storage centre
- Medical Imaging Services
- AYUSH Hospital
- Allopathic Clinic
- Wellness Centre

Status of NABH Healthcare Organisations

In addition to the above accreditation programs, NABH is also operating **certification programs for**

1. Medical laboratories using "Essential Standards for Medical Laboratories"
2. **NABH Safe-I™ certification program**

which has been designed to control and prevent hospital associated infections. This program is in association with BD India to control and prevent hospital associated infections in 2012 as HAIs are considered the most frequent adverse events that threaten patient safety around the world.

This certification program helps healthcare organisations implement best practices, polices and protocols thereby prevent and control HAI and improve quality of health care services. This program is envisaged as a stepping stone for the healthcare organisations embarking on the journey towards accreditation

Already nine hospitals across Punjab and Kerala have been certified by NABH with nearly 40 hospitals in different phase of certification across the country.

New Initiatives in last one year

As nursing services are an integral part of the clinical services of any health care organisation, NABH has developed **'Nursing Excellence Standards'**. The

Figure: Number of Hospitals by Year

Year	Applicant Hospitals & SHCO	Accreditated Hospital & SHCO
2006	31	2
2007	59	11
2008	101	23
2009	461	42
2010	582	66
2011	728	132
2012	855	183
2013	1026	235
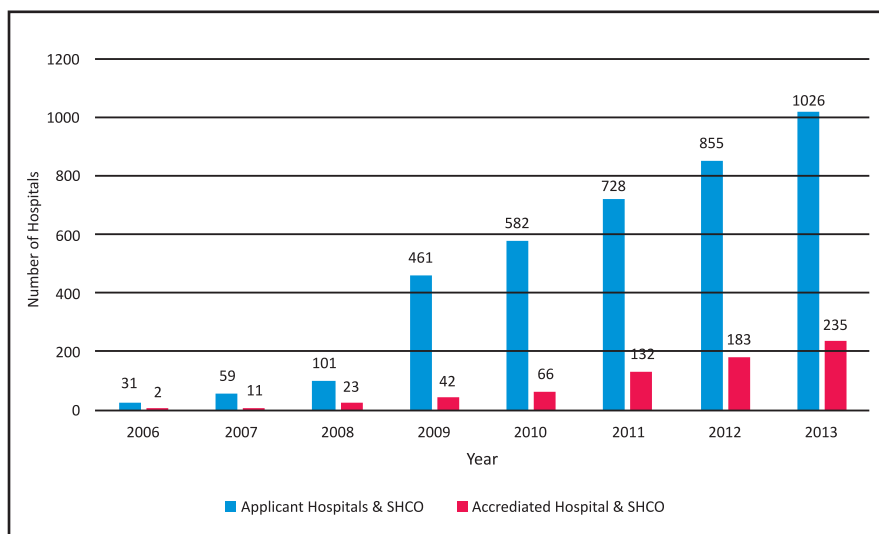
nursing professionals are the cornerstone of any quality related program in a health care organisation since most of the delivery and monitoring of health care is carried out by them. The nursing professionals are the frontline staff with whom the patients, their families and the visitors interact first hand. Their knowledge, skills, attitude, communication and other soft skills thus make all the difference in the ultimate delivery of health care to the patients.

NABH Pre Accreditation Entry and Progressive Level Certification standards for healthcare organisations were developed recently, keeping in view of large number of medium and small size hospitals in our country. These health care facilities mainly in small cities do not have required capacity and knowledge to attain full accreditation. To motivate and initiate them in to quality journey, pre - accreditation standards are very helpful.

NABH has also been approached by State Health Insurance Agencies to formulate minimum quality standard criteria for hospital empanelment. That was also one of the reasons that NABH technical committee in collaboration with state govt officials had worked and developed the criteria for Entry level Pre accreditation, Progressive level Pre accreditation and full accreditation.

Many **State Governments** have shown huge interest and are collaborating with NABH. The Quality Assurance Programs are presently initiated in the public hospitals in the state of Karnataka (Rajiv Gandhi University of Health Sciences for Medical and Dental College Hospitals) and Haryana. Maharashtra Government has

taken help of NABH to impart training to their doctors so as to implement Quality Health Standards.

Besides this, NABH is also doing compliance check, for hospitals for empanelment under Ex-Servicemen Contributory Health Scheme (**ECHS**). Till now, approx. 250 healthcare providing facilities are inspected and recommended for empanelment.

Promotional Activities for existing accreditation programs

A. **NABH awareness programs**
   Previously this was designed as one day awareness cum sensitisation program. Now, to make it more popular and result oriented, it is

B. **Program on Implementation (POI)**
   POI for Hospitals and SHCOs: This is three days program on implementation, popularly known as POI. NABH till date has trained more than 3500 personnel from Healthcare Industries. By the end of the financial year, NABH would have conducted 126 programs. This is primarily a training program for gaining knowledge for NABH standards.
   For Blood Bank accreditation program, Six such workshop were conducted till now.
   For MIS accreditation, Four such workshop were conducted till now.

C. **One day Educational Workshops:**
   NABH conducts one day educational workshops on healthcare quality topics. These are open program announced on NABH website and also as in-house program on demand of hospitals.
   Till now we have conducted 16th workshops on Clinical Audit, Eight Workshops on Medication Safety, Six Workshops on Tools and Techniques for

Continual Quality Improvements, Six Workshops on Legal Compliance and Eight Workshops on Surgical Safety.

D. As there was felt a need to increase assessors base, so **four assessors courses** were conducted in various parts of the country i.e. in Kolkata (March 2013), New Delhi (April 2013), Pune (June 2013), Mumbai (Oct 2013).

Now we have approximately 600 assessors (figure includes assessors from all programs), among them 100 are Principal Assessors.

NABH International Accreditations:

Four centres under Small Health Care Organisation (SHCO) were accredited in Metro Manila, Philippines. Few more are in the process of implementation.

NABH continues to be the institutional member of the International Society for Quality in Health Care (**ISQua**). ISQua is an international body which grants accreditation to Accreditation Bodies in the area of healthcare under its International Accreditation Program (IAP).

Hospital accreditation standards were accredited by International Society for Quality in Health Care (ISQua) in 2008. Now, ISQUA has granted re-accreditation to 3rd Edition for a period April 2012 to March 2016. NABH was declared successful in September 2012 as an accredited organisation. It is a benchmark for NABH to sustain and improve further to international standards. We were declared accredited from Sept 2012 to August 2016.

NABH is also one of the founder board members of newly **founded Asian Society for Quality in Healthcare (ASQua)**. This initiative is to strengthen the Asian representation at international level and improve the quality structure in healthcare.

Industry Collaborations

NABH is collaborating with industry through FICCI, CII and ASSOCHAM.

NABH is symbolic of quality healthcare in India since last 8 years. We hope to keep continuing good work towards achieving patient safety to cover maximum numbers of Indian population.

9th National Quality Conclave
April 15-16, 2014 at Hotel Le-Meridien, New Delhi

Programme Schedule

Day 1: April 15, 2014

0830 hrs onwards : Registration

1000 – 1100 hrs	**Inaugural Session**
1000 – 1005 hrs	Welcome Address and Theme Outline **Mr. K.C. Mehra**, Chairman, National Board for Quality Promotion.
1005 – 1020 hrs	Address by Keynote Speaker **Mr. Analjit Singh**, Chairman and Founder, Max India.
1020 – 1035 hrs	Address by Keynote Speaker **Dr. Devi Shetty**, Founder and Chairman, Narayana Hrudayalaya Group of Hospitals
1035 – 1045 hrs	Address by Keynote Speaker **Mr. Madhav Lal, IAS**, Secretary, Ministry of Micro, Small & Medium Enterprises, Govt. of India
1045 – 1100 hrs	Address by Guest of Honour **Mr. Arun Maira**, Member, Planning Commission
1100 – 1115 hrs	Address by Chief Guest **Dr. K. Kasturirangan**, Member, Planning Commission
1115 – 1120 hrs	Concluding remarks and Vote of Thanks by **Mr. B. Venkataram**, Secretary General, Quality Council of India
1120 – 1145 hrs	**Appreciating Quality Initiatives – Recognition Through Awards**
1120 – 1145 hrs	• Distribution of QCI-D.L. Shah Quality Awards • Release of Book on QCI – D.L. Shah Case Studies.

1145 – 1205 hrs	**Networking Break**

1205 – 1300 hrs	**Theme Session:** *Build and Sustain a Culture of Excellence through Collaborative Effort*
Session	*Chair-cum-Moderator*: **Dr. T. Venkatesh**, Principal Advisor, QCI
Speakers:	• **Dr. Shalini Rajneesh, IAS**, Mission Director, Sakala Mission, Karnataka - *'Ensure in Time Delivery of Government Services'*.
	• **Dr. Alexander Thomas**, CEO, Bangalore Baptist Hospital - *'Quality Initiatives for the Nation'*.

Concluding Remarks by Session Chair-cum-Moderator

1300 – 1400 hrs	**Lunch**

Concurrent Session on Quality in Healthcare

1400 – 1530 hrs	**Capacity Building in Healthcare**
Session	*Chair-cum-Moderator*: **Dr. Yash Paul Bhatia**, Managing Director, ASTRON Hospital & Healthcare Consultants Pvt Ltd.
Speakers	• **Dr. Zainab Zaidi**, Director - Assessment, Accreditation & Certification, Healthcare Sector Skill Council.
	• **Dr. Bhaskar J Sonowal**, Technical Advisor-Infection Control and Patient Safety, BD Medical.
	• **Ms. Suman Khandharker**, Hospital & Healthcare Projects, Project Development, International Collaborations, Education & Training.

1530 – 1600hrs	**Networking Break**

1600 – 1730 hrs	**Panel Discussion on Role of Insurance in Improving Healthcare Quality**
Panel Discussion	*Chair*: **Dr. Narottam Puri**, Chairman, NABH *Moderator*: **Dr. Somil Nagpal**, Senior Health Specialist, South Asia Region, The World Bank
Panelist	• **Ms. Asha Nair**, United Insurance Co.
	• **Mr. R. Jotkar**, Assistant Director – Health Services, Rajiv Gandhi Jeevandayee Arogya Yojana Society
	• **Dr. G.P. Shahi**, Additional Project Director, UP Health System Strengthening Project

Concurrent Session on Quality in Education/Skills

1400 – 1530 hrs	**National Collaborative Efforts for Supporting MSME's**
Session	*Chair-cum-Moderator*: **Mr. Amarendra Sinha**, Additional Secretary & Development Commissioner, Micro, Small & Medium Enterprises.
Or	**Mr. Ramesh Pandey**, Joint Development Commissioner, MSME.
Speakers	• **Mr. Amit Kumar**, **MSME Umbrella Program, Senior Technical Expert, GIZ** – 'Accreditation Scheme of BMO's for MSME's'.
	• **Mr. Anil Bhardwaj**, **Secretary General, FISME** - 'Collaboration of FISME with MSME'.
	• **Mr. I.V. Rao, Director, Maruti Center for Excellence** – 'Quality Improvements in MSME through Cluster Development by Maruti Center for Excellence'.
	1. **Launch of Scheme of Accreditation of BMO's.**
	2. **MoU Handing over Ceremony of Units under MSME Lean Competitiveness Scheme (NCP Scheme).**

1600 – 1730 hrs	**Excellence through E-Governance**
Session	*Chair-cum-Moderator*: **Mr. Alok Kumar**, Director General, Directorate General of Employment & Training (DGET), Ministry of Labour & Employment
Speakers	• **Mr. A.K. Jain**, Principal Advisor- E-Governance in Non-Formal Education Sector
	• **Dr. Arjun Badlani**, Advisor- E-Governance in Formal Education Sector
	• **Mr. A.K. Ghose**, Principal Advisor-E-Governance in Environmental Impact Assessment Sector
	• **Mr. Sanjay Ganjoo**, CEO, Bhaskar Foundation - Paradigm Shift in Affiliation Process of VTP
	• **Mr. Harmeet Singh Sachdev**, Principal, Sai Private ITI - Benefits from E-Governance in ITI Accreditation Process

Concurrent Session on Quality in Industry

1400– 1530 hrs	**Quality Initiatives in Manufacturing Sector**
Session	*Chair-cum-Moderator*: **Mr. Anil Jahuri**, CEO, National Accreditation Board for Certification Bodies (NABCB)
	• **Business Model of Quality Management for Enhancing Quality and Profitability** by Lt. Gen. H. Lal
	• **Creating a Sustainable Quality Culture**

by Mr. Anup Mondal/Mr. Mohan Sane, Reliance Infrastructure Ltd.

- **Interaction of Agriculture & livestock for sustainability** by Dr. Anup Kalra, CEO Ayurvet Ltd.
- **International equivalence of products through accreditation** by Mr. Anil Jauhri, CEO, NABCB

1530 – 1600 hrs	Networking Break

1600 – 1730 hrs Session	**Standards and Conformity Assessment**
	Chair-cum-Moderator: **Mr. B. Venkatram**, Secretary General, Quality Council of India
Speakers	• **Effective Laboratory Accreditation** by Mr. Anil Relia, Director, National Accreditation Board for Testing and Calibration Laboratories (NABL)
	• **ISO 31000 – Risk Management** by Mr. A. Venkataram, Managing Director, BSI India
	• **ISO 9001:2015 – An overview of the revision** by Mr. B. Venkatram, Secretary General, Quality Council of India
	• **New Age Compliance Requirements: Food Services / Social Audit** – Mr. Ashish Gaur, Head Audit & Certification and Mr. Ashit Kundra, Sales Head, Business Assurance, Intertek.

Day 2: April 16, 2014
Concurrent Session: 1000-1330 hrs
Quality in Healthcare

1000 – 1115 hrs Session	**Government Initiatives in Improving Healthcare Quality**
	Chair-cum-Moderator: **Maj. Gen (Dr.) Pawan Kapoor**, Board Member, National Accreditation Board for Hospitals and Healthcare Providers (NABH)
Speakers	• **Dr. Ashish Gupta**, Executive Director, Haryana State Health Resource Centre (HSHRC)
	• **Dr. J L Meena**, State Quality Assurance Officer, Govt. of Gujarat
	• **Dr. P. Ilango**, E.A (HE&HSR), Tamil Nadu Health Systems Project
	• **Dr. Ashish Mathur**, Head, Medical & Clinical – Avitum, B Braun Medical India

1115 – 1200 hrs	Networking Break

1145 – 1300 hrs	**Patient Safety – Human and Technology Perspective**
Session	*Chair-cum-Moderator*: **Dr. Arati Verma**, Sr. Vice President, Max Healthcare
Speakers	• **Dr. Niranjan D. Kambete**, Manager, Clinical Engg. Deenanath Mangeshkar Hospital & Research Centre, Pune
	• **Mr. Vijay S. Reddy B**, Sr. Manager, CEO, GS1 India, Ministry of Commerce, Govt. of India
	• **Dr. Badari Datta**, HOD, ENT & Head and Neck Surgery, Head of Quality, Baptist Hospital

1300 – 1400 hrs	Lunch

Concurrent Session: 1000–1300 hrs
Quality in Education / Skill

1000 – 1115 hrs Session	**Capacity Building through Collaborative Effort in Formal Education**
	Chair-cum-Moderator: **Dr. Amarjeet Singh**, Additional Secretary, Ministry of Human Resource Development (MHRD)

Launch of Accreditation Criteria for Teachers Training Institute

Speakers	• **Mr. U.N. Khaware**, Secretary, NIOS, NCERT
	• **Prof. B.L. Handoo**, Educational Innovator
	• **Dr. Kirti Kapur**, Associate Professor, NCERT
	• **Ms. Poonam Sodhi**, Deputy Secretary, Council for Indian School Certificate Examination

Handing over of School Accreditation Certificate

1145 – 1300 hrs Session	**Collaborative Efforts for Skill Building**
	Chair-cum-Moderator: **Mr. R.L. Singh**, Deputy Director General (Training) , Directorate General of Employment & Training (DGET), Ministry of Labour & Employment
Speakers	• **Mr. Amit Chatterjee**, Managing Director, ASQ
	• **Mr. Jurgen Mannicke**, Senior Consultant to iMOVE EDUCON- International Vocational Education Consultancy & Marketing
	• **Ms. Belinda Smith**, Team Leader ADB TA 8010 Skills for Inclusive Growth
	• **Mr. Leighton Ernsberger**, Assistant Director Skills, British Council

Concurrent Session: 1000 – 1300 hrs
Quality in Industry

1000 – 1115 hrs Session	**QCI - D.L. Shah Award Winning Case Studies**
	Chair-cum-Moderator: **Mr. Hari Taneja**, Trustee, D.L. Shah Trust
Presentation by	• **Large Manufacturing Sector** – Volvo India
	• **Small and Medium Enterprises Sector** - Spicer India
	• **Public Sector Organisation** – NTPC Ltd., Western Region, Raipur
	• **Printing and Publication Sector** – Bennett Coleman & Co.

1145 – 1300 hrs Session	**QCI - D.L. Shah Award Winning Case Studies**
	Chair-cum-Moderator: **Mr. Prashant Hoskote**, Senior Director - Quality and Service Excellence, Max India Group
Presentation by	• **Large IT/ITes/BPO Sector** – Wipro
	• **Large Financial Service** – HDFC Standard Life Insurance
	• **Research Sector** – Western Railway
	• **Education Sector** – Centre for Research & Industrial Staff Performance (CRISP)

1400 – 1515 hrs	**Plenary Session : Achieving Results through People Participation**
Session	*Chair-cum-Moderator*: **Mr. S. Chandrasekhar**, Chairman, National Board for Education & Training (NABET)
Speakers	• **Maj. Gen. N.K. Dhir**, Director, Alphabet Teletec (P) Ltd.
	• **Mr. Jayanth Murthy**, Founder Director Kaizen Institute

Concluding Remarks by Session Moderator

1515 – 1630 hrs	**Valedictory Session: Uniquely Excellent in Quality – the Indian Way**
Session	*Chair-cum-Moderator*: **Mr. K.C. Mehra**, Chairman, National Board for Quality Promotion, Quality Council of India
	Professional Thoughts on Quality Dissemination – **Dr. T. Venkatesh**, Principal Advisor, QCI
	Uniquely Excellent in Quality – the Indian Way – A Presentation by Dabbawalla Foundation

Conclave Closure Address by **Mr. B. Venkataram**, *Secretary General, Quality Council of India*

1630 hrs	High Tea

Vision for a Sustainable, Smart and Intelligent City

By | A.K. Jain

India is on the path of massive urbanisation. From 377 million urban population, living in 7936 cities and towns, it is projected that by the year 2030, 600 million people will live in urban areas and 68 cities in India will become metropolitan (million plus). Massive efforts and investments will be required for housing, slum rehabilitation and infrastructure development. It involves building equivalent to 250 cities of one million each in next 20 years. However, the decay and haphazard development continue to scar our cities. Although the cities generate 60 per cent of GDP and 70 per cent jobs, the state of housing and basic infrastructure services remains awfully poor, impeding

India's Urban Trajectory		
	2011	**2030**
Population	1210 million	1440 million
Urban population	377 million	600 million
Million + Cities	47	68
5 million + Cities	6	10
Housing Shortage	25 million units	40 million units
Slum Population	75 million (Pop.)	200 million (Pop.)
Source: Census of India, 2011 & McKinsey Report, 2010		

sustainability and economy.

After the independence, a new era of planning started in the country. It reflected the commitment to build a new India. With socialist visions of mass production, centralised governance and comprehensive planning, it laid emphasis on rural and regional

development and slum clearance. On one hand new industrial towns were developed in the hinterland, while on the other the plans for capital cities were prepared with the help of foreign experts, architects and planners. Foremost among them was the planning of Delhi, with the help of Ford Foundation and Chandigarh by Le Corbusier. The city was visualised as a great industrial and economic generator, with the ideals of slum clearance and mass housing. Delhi has been a forerunner and model for the Indian cities in term of urban planning.

Notwithstanding the fact that still many Indian cities are abysmally poor, they are the engines of productivity and wealth. The wealth created by urbanisation-mobility and innovations in housing, services, utilities and technology lead to improvements in people's lives. Big cities are the vanguards of this change, where incomes and resources are available. Although some of the India's biggest cities still appear poor by the world standards, many are now as rich as their counterparts in the developed world

were 50 years ago. It is projected that by the year 2031, 70 per cent of GDP and 70 per cent of new jobs will come from the cities. The government has initiated several programmes for urban turnaround such as JNNURM, SEZ, DMIC, etc.

Designing a Sustainable, Smart and Intelligent City

The projected population of Delhi is to be 230 lakh by the year 2021. It involves development of five sub-cities to accommodate a total population of 95 lakh (including about 33 lakh existing population). The total area under five sub cities is 66,657 Ha which includes regional park/forests/waterbodies, mandatory agricultural green belt (54 border villages measuring about 11,000 Ha), existing built-up areas/villages/unauthorised colonies, etc. (about 7681 Ha) and land reservations for power plants, services, utilities, solid waste, sewerage, etc. Out of

total urbanisable area of 42,334 Ha, an area of about 27,628 Ha is estimated to be available for new developments. Of this about 50 per cent (say 14000 Ha) is earmarked for new residential development, 15-20 per cent (about 5000 Ha) for greens, 10-12 per cent (about 2800 Ha) for transportation and 7 to 9 per cent (about 2000 Ha) for commercial and industrial uses. The plans of these cities are based on transit oriented development with facility corridors, as integrated transit corridors,
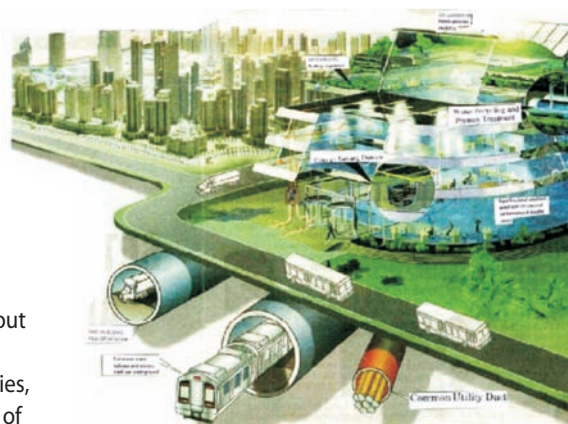
Concept of a Sub-city for Delhi-2021 by A.K. Jain

> **The wealth created by urbanisation–mobility and innovations in housing, services, utilities and technology lead to improvements in people's lives. Big cities are the vanguards of this change, where incomes and resources are available. Although some of India's biggest cities still appear poor by the world standards, many are now as rich as their counterparts were in the developed world 50 years ago.**

which will be flanked by commercial, public and semi public facilities, government and institutional uses. The zonal plans of all five zones/sub-cities have been approved and notified. Each sub-city shall focus upon innovative and sustainable development so as to reduce energy consumption, water use, wastes and emission footprints, while providing seamless, safe and efficient mobility to the people. Each sub-city will be embedded with intelligence via computing, and have mixed land use, high density and integrated grids of physical and social services. There will be clusters of tall buildings, designed to leave rest of the ground free for parks for the people. Each cluster will have work centres and basic services such as education, healthcare, cultural hubs,

parks, sports, etc. The high density model would greatly simplify transportation and utility networks, while at the same time reducing transmissions losses and demand. Sensors can serve many purposes from controlling services, buildings and mobility, energy and reducing carbon emissions which make a city smart. The concept of the sub-city for Delhi 2021 incorporates the following innovations:

Multi-modal Transportation: Metro trains, subways and primary roads run underground for easy bike and pedestrian traffic on the grade. Subterranean garages near commuter destinations reduce the need for ground parking. Digital parking meters tell mobile-phone when a space opens up, reducing traffic caused by drivers trolling for space. Integrated Transit Corridor (ITC) for BRT are linked with pedestrian and cycle lanes and public, semi-public, high density, high rise developments. Personalised rapid transit systems use pods that can carry people directly from point to point with no stop and no waiting at stations. Creating an

easier way to navigate a city promote interactions among its inhabitants and make a more livable and potentially more productive city. Bike racks, lanes and sharing: Ample bike lanes and racks encourage people to ride instead of driving, while promoting fitness. Taxi and pool of hybrid vehicles will reduce air pollution and green house gas emissions, while improving the mobility.

Sustainable Utilities and Common Utility Ducts carrying electricity, water, cable and broadband internet minimise damage from traffic, road construction, rains, etc. and make services, repairs and extensions easier. A series of low carbon zones across the city with co-located tri-generation energy systems (combing power, cooling and heating), dual piping for recycled water and automated waste collection/utilisation would lead to bundling 'green infrastructure' together. Low-flow appliances and water saving toilets (with recycled wastewater cistern) and showerheads will save millions of gallon annually. For park and lawns micro-irrigation system cuts water consumption

and pumping power. Wastewater recycling, with dual piping would reduce water demand. Vertical farms could reduce fertilizer and freshwater use, shorten transport and recycle gray water.

Public Toilets, Sanitation and Sewerage: In Delhi three million people live in slums, almost without hygienic sanitation-water facility and a clean place to urinate and defecate. The public and individual toilet facility, particularly for women and children, is a critical area of attention. Solid waste extracted from sewage at treatment plants is converted into bio-fuel and burned to make electricity. Three separate bins for trash, recyclables and compost optimise recycling. Collection charges drop as trash drops. Bio-technology, enzyme based STP, bio-remediation, sludge gas/energy recovery vermiculture, fossilisation and composting option should be explored.

Storm-water Management, Rainwater Harvesting and Drainage: Taxing property owners on the volume of storm-water that runs off their property

promotes retrofits that reduce wastewater volume. zero-run off, swales, porous paving, bio-drainage and storm-surge gates in river, drains and canals can be operated when storm surges are expected to protect low lying and subterranean infrastructure.

Solar Power and Green Buildings:

Rooftop PVC and solar water tanks provide heating cooking and hot water instead of fossil fuels. Solar panel generates electricity instead of power plants and also shade rooftops to lower a building's cooling needs. Solar panels are placed on the roof, and as the sun moves across the sky, they move with the sun. Photovoltaic sheets on south-facing building facades would generate electricity. Rooftops painted white reflect heat, lowering a building's cooling cost and a city's heat build-up. Rooftop vegetation insulates building against heat and cold and absorbs storm-water. Super-insulated windows quadruple the thermal performance of double panes and can be made from the glass in existing windows. A transparent photo-voltaic cell fits between two panes of a window. Smart glass technology saves on air-conditioning and high energy cost. Carbon Sequestering Concrete made locally with exhales by power plants could reduce greenhouse gas emissions. Basalt fiber is incredibly strong-twice the tensile strength of regular steel-but just a quarter of its weight, and is also corrosion resistant.

Green Neighbourhood:
As a link between sustainable and green buildings, the neighbourhoods will be planned to the highest standards in energy and environmental design that save energy, materials and emissions. These provide space for greenery and energy grid, public toilets, common services, waste and effluent treatment facility, rainwater harvesting, waste water recycling, solid waste treatment centres, common utility ducts, transport centres/node, parking and bike rakes, fire and security systems, services repair and maintenance facilities.

The Indian city today is at a critical juncture facing the challenges of inclusion, infrastructure, housing, climate change and carbon emissions. The triple bottom line of sustainability-social, environmental and economic sustenance needs to be integrated with the people at the bottom of the pyramid. This demands an indigenous, inclusive and integrated approach towards planning and urban design which synergises sustainability and inclusive growth.

National Accreditation Board for Certification Bodies (NABCB)

The National Accreditation Board for Certification Bodies (NABCB) provides accreditation to Certification Bodies for Quality Management Systems (ISO 9001), Environmental Management Systems (ISO 14001), Occupational Health & Safety Management Systems (OHSAS 18001), Food Safety Management Systems (ISO 22000), Information Security Management Systems (ISO 27001), Energy Management Systems (ISO 50001), Information Technology Service Management Systems (ISO 20000-1) and Medical Devices QMS (ISO 13485); Product Certification Bodies (ISO 17065) and Inspection Bodies (ISO 17020). The accreditation programmes provided by NABCB are in accordance with the internationally accepted standard, ISO 17011, as well as the requirements of international bodies such as International Accreditation Forum (IAF), and International Laboratory Accreditation Cooperation (ILAC), regional bodies such as Pacific Accreditation Cooperation (PAC) and Asia Pacific Laboratory Accreditation Cooperation (APLAC), of which NABCB is a member.

Accreditation bodies from almost all economies of the world are members of these international organisations who maintain an international framework of Multilateral Recognition Arrangement (MLA)/Mutual Recognition Arrangement (MRA) which ensures acceptance of each other's accreditations as being equivalent worldwide on successful peer evaluation of the accreditation programmes. This facilitates the overall objective Tested, Certified or Inspected Once is Accepted Everywhere'.

International Recognitions

NABCB had already signed the PAC and IAF MLAs for Quality Management Systems in August 2002 and September 2002 respectively. Subsequently, NABCB had signed the PAC and IAF MLAs for Environment Management Systems in July 2007 and Oct 2007 respectively. NABCB signed PAC MLA on 22 May 2013 and IAF MLA on 16 August 2013 for Accreditation of Product Certification Bodies as per ISO/Guide 65. NABCB signed the APLAC MRA on 11 Sept 2013 and ILAC MRA wef 16 Sept 2013 for Inspection Bodies' accreditation programme.

Consequent to signing the IAF MLA for Product Certification, NABCB also signed IAF-Global GAP MoU on 22 Aug 2013 enabling recognition to NABCB and its accredited Certification Bodies under the Global GAP system. NABCB is the 16th accreditation body worldwide to secure this recognition. It means that any farmer certified for Global GAP in India by a Certification Body accredited by NABCB for Global GAP scheme shall be acceptable under Global GAP system worldwide. This is a direct benefit of NABCB's accreditation right down to the level of farmer with lower costs of certification since accredited certificate would be available locally.

PAC peer evaluation for FSMS accreditation programme completed in Nov 2013 and is ready to sign MLA in this year.

Accreditation update

At the end of year 2013, NABCB has a total of 41 accreditations granted for QMS, 13 in EMS, 5 in OHSMS, 13 in FSMS, 3 in Product Certification, 18 in Inspection scheme and one each in EnMS and ISMS schemes. During the year, NABCB also granted accreditation to the Nepal Bureau of Standards and Metrology for QMS, this being the 2nd accreditation overseas following the Bangladesh Standards and Testing Institution which was accredited in 2012.

During the financial year 2013-14, NABCB launched the accreditation programmes for certification bodies for Energy Management Systems and Information Technology Service Management Systems as per the international standards ISO 50001 & ISO 20000-1 respectively. NABCB is also in the process of launching the schemes for GHG validation and verification bodies as per ISO 14065 and Personnel certification bodies as per ISO 17024.

NABCB granted the first accreditation for Energy Management Systems (EnMS) certification as per ISO 50001 to Indian Register of Shipping (Operating through Indian Register of Quality Systems), Mumbai in December 2013 and first accreditation for Information Security Management Systems (ISMS) certification as per ISO 27001 to TuV SUD South Asia Pvt. Ltd, Mumbai again in December 2013.

Support to Regulators

NABCB has been closely interacting with various Regulatory Bodies such as the Petroleum & Natural Gas Regulatory Board (PNGRB) and Food Safety & Standards Authority of India (FSSAI), to provide mechanisms for effective implementation of regulations using the conformity assessment infrastructure available in the country. PNGRB and FSSAI are two such regulators who have decided to use accredited inspection/certification bodies for checking compliance to their regulations.

IS0 9001 in Government

The Performance Management Division, Cabinet Secretariat, which has launched an initiative for implementation of ISO 9001 in Government has prescribed NABCB accreditation for ISO 9001 certification in government.

PMD also issued an advisory to the Ministries to refrain from tendering for consultancy and certification together being conflict of interest on the advice of NABCB.

Subsequently, NABCB published a document 'Guidelines for Tenders for ISO 9001 etc Certification' for the benefit of the organisations especially in govt sector/PSUs.

Skill Development

NABCB signed an MoU with NASSCOM IT ITeS SSC, the Sector Skills Council, for providing support in accreditation and

certification of courseware, training providers and personnel on 30 Sept 2013.

Capacity Building in SAARC

NABCB was assigned to conduct a training on standard ISO/IEC 17065 for Product Certification Bodies for all SAARC member countries, which was sponsored by Physikalisch-Technische Bundesanstalt (PTB), Germany and was conducted in May 2013. NABCB has been assigned to be knowledge partner for a series of trainings on food safety during the year 2014-15 for SAARC countries under the SAARC-PTB Cooperation.

NABCB conducted a three day training programme on ISO 17065 for the National Accreditation Focal Point of Bhutan in June, 2013 under the MoU signed with it for capacity building.

NABCB signed an MoU with the Nepal Bureau of Standards and Metrology for capacity building of their National Accreditation Focal Point (NAFP) on 22 Jan 2014 in Kathmandu in the presence of Mr. Krishna Gyawali, Secretary, Ministry of Industry, Government of Nepal. This follows a similar MoU signed with the Bhutan Standards Bureau in Sept, 2012.

World Accreditation Day

NABCB celebrated the 'World Accreditation Day' on 9 June 2013 jointly with NABL, the theme for which was 'Accreditation: Facilitating World Trade'. Dr. Thirumalachari Ramasami, Secretary, DST & Chairman- NABL, in his inaugural address, talked about the challenge of credibility of laboratory, certification and inspection services in India and how accreditation can be a tool to enhance credibility. He emphasised on strengthening the accreditation system for greater economic growth through greater international trade.

Peer Evaluators' Training

NABCB organised a PAC Peer Evaluators' Training programme on 27-28 Feb 2014 in Delhi in which six potential peer evaluators from India, three from Pakistan, two from Sri Lanka and one from South Korea besides two observers from India participated. The trainers for the programme were Mr. K. C. Phua from Singapore and Mr. Anil Jauhri, CEO, NABCB. Besides QMS/EMS, the peer evaluators are being trained for new schemes such as FSMS and GHG.

Assessor Training

In order to expand its assessor pool, NABCB conducted training on ISO 17021 for accreditation of management systems certification bodies in July 2013 and ISO 17020 for accreditation of inspection bodies in Feb, 2014 in which 11 and nine new assessors respectively participated.

Conclusion

NABCB expects to maintain its steady growth in the coming years and achieve its objective of providing credible and internationally recognised accreditation programmes to the Indian conformity assessment community. It also perceives itself to be contributing substantially to the work, cooperation and/or promotion relating to accreditation, both at international as well as regional level in the coming years.

National Accreditation Board for Education and Training (NABET)

National Accreditation Board for Education and Training is one of the constituent Board of Quality Council of India. The NABET mandate has been steadily increasing since past few years. Initiating from the accreditation of management systems trainings and auditor registrations, NABET has enlarged its scope in recent years. National Accreditation Board for Education and Training (NABET) is trying to match its progress with slogan of QCI i.e. 'Working for National Well Being'.

With the growing needs of competent personnel and credible vocational training courses in various industry sectors, NABET has been rapidly expanding its scope of services to cater to the needs of the industry. NABET has established mechanisms for accreditation of vocational training providers, ITI and for skill assessment bodies.

NABET is the first organisation in the world to offer accreditation of consulting organisations in various conformity assessment areas, Hospital Accreditation etc. Environment Impact Assessment (EIA) Consultant accreditation scheme has been developed which has been adapted as minimum requirement for consultants preparing EIA Reports by Ministry of Environment and Forest.

NABET has also launched accreditation program for Quality School Governance in the Country, with a view to provide framework for the effective management and delivery of the holistic education program aimed at overall development of students.

Recently Ministry of Labour and Employment have taken a decision to make NABET Accreditation mandatory for Industrial Training Institutes seeking NCVT affiliation.

Five distinct verticals in the following areas have been formulated to provide focused strategic direction to the activities of the Board. These relate to accreditation of:

a) Management Systems
b) Environment Impact Assessment
c) Schools
d) Skill Training
e) Skill Certification

EIA Division

Most of the developmental projects taken up in our country require environmental clearances either at the central or state levels. For such clearances, a specialised study needs to be carried out called 'Environment Impact Assessment' (EIA). In EIAs, the current environmental scenario in the proposed area of the project is monitored, possible impacts from the project on environmental, ecological and social aspects are assessed and suitable mitigation measures are suggested to minimize the adverse impacts including a monitoring plan for implementation of the same. EIAs thus, are multi-dimensional studies requiring inputs from various subject specialists such as air and water pollution, waste management, land use, hydrology, risk assessment, ecology, socio-economics etc.

In our country, EIAs were being prepared by all types of 'consultants' including individuals. The reports, more often than not, did not measure up to the desired quality. Some of the reasons were:

- Competence (the combination of relevant education, training and experience) of Consultants carrying out EIAs
- Quality of data used by Consultants for EIAs
- Tendency of Consultants to follow the 'cut and paste' method in preparing EIA reports
- EIA consultants work for and on behalf of the project proponents (Conflict of Interest)

It is important that EIAs reflect the true picture and also brings out the anticipated impacts so that suitable mitigation measures may be suggested to ensure that 'Development' and 'Environmental conservation' go hand in hand to the extent possible. It was; therefore, felt that a well-designed Accreditation Scheme which defines the requirements for a consultant organisation to prepare a good quality EIA report will contribute towards improving the quality of EIAs in our country.

Accordingly, after extensive discussions with the stakeholders across the country, an Accreditation Scheme was launched on voluntary basis in Aug 2007. Recognising the usefulness of the Scheme, the Ministry of Environment and Forests made it mandatory in Nov 2009 after an in-depth review of the Scheme.

Objectives of the Scheme

EIA preparation in our country has been very person specific. One or

Management Systems · Skills Certification · Schools · Skills Training · EIA

few persons in an organisation had the understanding of the complex process of EIA preparation. As long as they were there with the organisation it was fine. But if they chose to leave the organisation for any reason, all knowledge and expertise is lost for the organisation. Therefore, the objectives of the scheme are twofold –

a. To identify consultants with requisite expertise and facilities to prepare quality EIAs
b. To move from 'person specific' approach to 'system based' approach for EIA preparation in the country

The aspects covered in the assessment include –
a. Quality of personnel (ECs and FAEs)
b. Field investigations and laboratory work
c. Quality Management System
d. Quality of EIAs prepared
e. Organisational Commitment

Current status: As on date 166 Consultant Organisations are accredited under the Scheme and the list is posted on the QCI website which is updated on 5th of every month. Presently there are 11 applications which are under process.

Assessors Meet: with an aim to improve the assessment process continually, assessors meets are held from time to time where various issues and the latest developments in the EIA field are discussed and adopted as required.

An Assessors Meet in progress

Capacity building of Consultant Organisations

During assessment process it was seen that almost 33 per cent of candidates proposed do not get selected due to lack of knowledge. To help bridge this gap, a Capacity Building programme for the consultants has been developed comprising short term trainings (3-7 days) for ECs and FAEs. NABET proposes to invite reputed Training Providers to conduct such training programmes which will then be accredited by NABET to ensure uniformity of the trainings provided.

It is a unique Scheme of its kind in the world and involves assessment of capability of experts involved in preparing the multi-disciplinary Environment Impact Assessments for all developments activities in the country. The scheme has raised keen interest internationally and recently NABET was invited to an UN sponsored conference in Pakistan to explain the applicability

of the Scheme especially in the developing country scenario. Appreciating the effectiveness of the Scheme, the Ministry of Environment & Forests has decided to bring out an official Notification making it mandatory.

School Division

NABET Schools Division has been working with number of states and international partners. Under the UKIERI (UK India Education Research Initiative), it collaborated with Scottish Qualifications Authority to initiate the successful 'Skills for Work' project in Bihar, Puducherry and with NIOS. More than 130 Master Trainers were trained in the first phase of training which was observed by experts from Scotland.

In association with RMSA (Rashtriya Madhyamik Shiksha Abhiyan) of Assam, 320 teachers have been trained on quality concepts and accreditation standards. These teachers will cover 2600 schools for:

a. Evaluating the current status in accordance with Assam state government norms and guidelines and
b. Evaluate the current status of secondary schools in accordance with NABET standard.

Training of another 200 teachers is planned during the next quarter.

NABET has also been training Polytechnic teachers on quality tools to enable them to integrate the concepts with the subject knowledge. The Schools Division is working closely with MHRD and senior educationists to develop an accreditation criterion for Teachers Training Institutes. This standard will be launched during the National Quality Conclave.

The Schools Division will be initiating development work with number of other states in the next financial year.

Skill Division

A skill is the learned ability to carry out a task with pre-determined results often within a given amount of time, energy, or both. In other words the abilities that one possesses. Skills can often be divided into domain-general and domain-specific skills.

NABET Skill Division is closely working with Ministries such as Directorate General of Employment and Training (D.G.E &T), Ministry of Micro, Small and Medium Enterprises (MSME) for enhancing the skill set of ITI's and Polytechnics. As part of enhancing skill set of ITI's, NABET along with Directorate General of Employment and Training is involved in accreditation of New
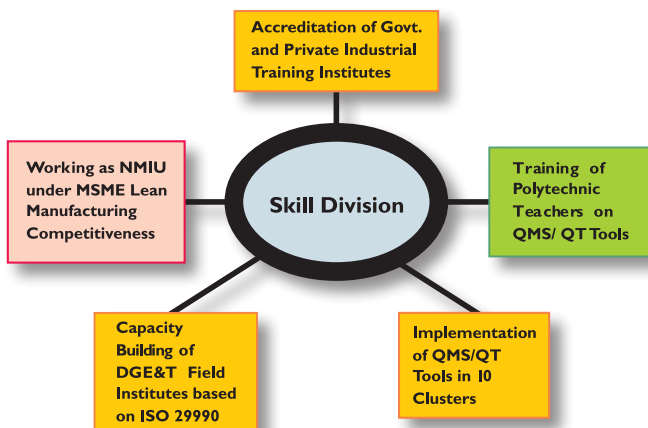
Govt. and Private Industrial Training Institutes. As per notification of Directorate General of Employment and Training (D.G.E.& T) all new Government and Private Industrial Training Institutes seeking NCVT affiliation will be required to have NABET, QCI accreditation.

The skill division has developed e- governance model with very challenging benchmarks to make the accreditation scheme very efficient and effective. The acceptance of this initiative has been demonstrated by the ITIs by their satisfaction score of 4.2 over a scale of 5. Ministry of Labour and Employment is working out mandatory accreditation of existing ITIs (10,000 Nos.) in a phased manner Apart from working on Accreditation of Industrial Training Institutes, NABET Skill Division is also working in the following areas:

a. Competitiveness Scheme
b. Capacity Building of DGET Field Institutes based on ISO 29990 Standard
c. Implementation of QMS/QT tools in 10 Clusters
d. Training of Polytechnic Teachers on QMS/ QT

Tools (till now approximately 430 Polytechnic teachers have been trained on QMS/QT Tools).

Collaboration with American Society for Quality (ASQ)

• NABET has signed an MoU with ASQ for technical collaborations in the quality arena.

• The scope of activities focus on enhancing capacities for deployment of quality based education across all levels of institutions including institutions of higher learning, professional institutions, vocational training institutes and schools. The activities also strive to deliver benefits to working professionals and organisations including SME's through continuing education and training at various levels related to application of the principles of system sciences based on validated management practices of leading global organisations for achieving both personal and organisational excellence .

• It is envisaged that ASQ India would leverage ASQ's large community of professional and organisational members and serve as the bridge between academia and industry to support alignment of education curriculum to match the needs of the industry. QCI-NABET and ASQ India would specifically focus on introducing curriculum for students to enhance the corporate

skills and thereby increasing their employment potential with industries.

Collaboration with Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

One of the focus intervention areas under the MSME umbrella programme for MSME Promotion is capacity development of Industry Associations or Business Membership Organisations (BMOs). Associations have important role in MSME development; specifically, they act as quality service providers to MSME, and can also play a key role in designing and implementing public support programmes, as envisaged by the government.

The MSME Umbrella Programme (MSME UP), implemented by DC MSME- SIDBI- GIZ is taking several initiatives to build the capacity of MSME associations; and developing a system combined with appropriate tool and mechanism for assessing the capability of associations. In this context, the GIZ and NABET have joined hands to develop a system for accreditation of associations.

Introducing a system of accreditation will ensure standards of quality and performance amongst the BMOs. The accreditation process will ensure BMOs meeting minimum standards in different areas of expertise (governance, finance, communications, technology and facilities etc.). The accreditation system will be crucial from the perspective of government (particularly the Ministry of MSME) as well as other MSME promotion agencies, banks, large service enterprises having interest in the sector, as it will help them in selecting most suited partners for support and cooperation. The accreditation system will define standards of BMO organisation, planning and performance and will helps to identify strengths and weaknesses of the BMOs. Establishment of the system will lead to:

• Greater transparency in the functioning of Industry Associations (or BMOs).

• Impartial capability assessment of associations allowing Ministry of MSME (and other government ministries/agencies)to choose appropriate implementation and dialogue partner. The process will help the Ministry of MSME to select better performing associations for incentivising, in a rational and unambiguous manner.

• Targeted capacity building efforts through appropriate training and advisory needs / measures by the government.

• Professional management of the associations as a result of their enhanced understanding about own strengths and weaknesses.
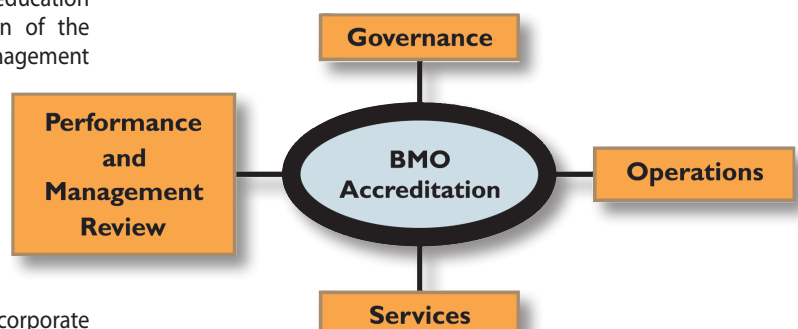
ISO 9001 for government department

By | Avik Mitra, Advisor, NBQP, QCI

The Prime Minister approved the outline of a 'Performance Monitoring and Evaluation System (PMES)' for government departments in September 2009. Under PMES, each department is required to prepare a Results-Framework Document (RFD). An RFD provides a summary of the most important results that a department/ministry expects to achieve during the financial year. This document has two main purposes: (a) move the focus of the department from process-orientation to result-orientation, and (b) provide an objective and fair basis to evaluate department's overall performance at the end of the year. In addition to success indicators' proposed by the department, there is a set of mandatory indicators proposed by the government that are common to all departments preparing RFDs.

The High Power Committee (HPC) on government performance, decided to include implementation of ISO 9001 as a mandatory success indicators of the government departments. Accordingly 74 departments decided to implement ISO 9001 standard. It was also decided that Quality Council of India will act as Technical Advisor to Performance Management Division of Cabinet Secretariat, Govt. of India in matters related to ISO 9001 implementation in government departments.

Challenges for implementation of ISO 9001 in government departments

The government departments, over the years, have been involved in many initiatives such as citizen's charter, grievance handling, Sevottam, IS 15700 etc which were aimed at improving the services of government department. Therefore there were several issues which needed to be addressed and explained to the departments about ISO 9001 implementation. The main ones were

- Is ISO 9001 suitable for government departments?
- What are the benefits?
- What is the relationship between RFD and ISO 9001?
- What is the difference between ISO 9001 and IS 15700?
- What is the relationship between ISO 9001 and Sevottam?
- Should the departments take the help of Consultant or not?
- Should the departments implement ISO 9001 in one go or in phases?
- If consultant is to be engaged, then how to select the consultant?
- How long will it take to get the standard?
- Can the departments carry out some preparatory work before engaging consultant?

To provide clarification on these issues, PMD conducted few workshops and requested QCI to prepare a document explaining all the above issues. Accordingly on behalf of PMD, QCI developed a document titled 'Guidelines for preparing an action plan for obtaining ISO 9001 certification' which was released in February 2012. This guideline, not only clarified the above issues, but also provided detailed steps of preparing an action plan for implementation. All the departments started their work on developing the action plan.

Structure of action plan

The action plan basically contains eight (8) actions that are to be taken by a department helping it to get ready for ISO 9001 certification. Once steps are taken as per the action plan, the departments are ready to initiate the actual process of implementation by engaging a consultant. The eight actions are:

Action 1: Constitute management committee
Action 2: Define scope for the initial phase
Action 3: Draw the organisational structure
Action 4: Review and finalise the vision and mission
Action 5: Identify processes alongwith designations
Action 6: Define sequence and interaction of processes
Action 7: Define duties of each designation
Action 8: Prepare the list of documents/records currently being used.

The departments made use of this document and prepared the action plans.

Appointment of consultants

Once the action plan was in place, the departments were ready to appoint consultant for facilitating the implementation process. Again at the request of Performance Management Division, QCI designed a standard template for Expression of Interest for selection of Consultant. The departments made use of this template and the process of selection started. A total of 34 departments have engaged consultants and the rest are in the process of selecting the consultant.

Role of QCI

Implementation of ISO 9001 is a challenge for all the government departments. There is not much experience existing within the country for implementing the standard within government departments. Hence to ensure that the requirements of the standards are effectively implemented by the departments, PMD requested QCI to extend their expertise as required. Accordingly QCI is providing inputs to the departments, which include the following:

- Briefing the departments about the guideline for implementation
- Linking the eight point action plan and the actual implementation of the standard.
- Establishing the need for detailed activity plan by breaking all tasks and fixing their completion dates which has to be adhered to by the consultant and the department.
- Helping the departments defining the core and the management system processes to make them as baseline for continual improvement.
- Aligning the office manual procedures to the quality management processes.

Implementation of ISO 9001 standard in government departments is a mammoth exercise. However, till date, the departments are willing to implement the standard knowing fully well that there are several hurdles for effective implementation. Once properly implemented, ISO 9001 standard is likely to make the departments more accountable, transparent, citizen friendly and help to establish a performance oriented culture within the department at all levels.

Glimpses of previous
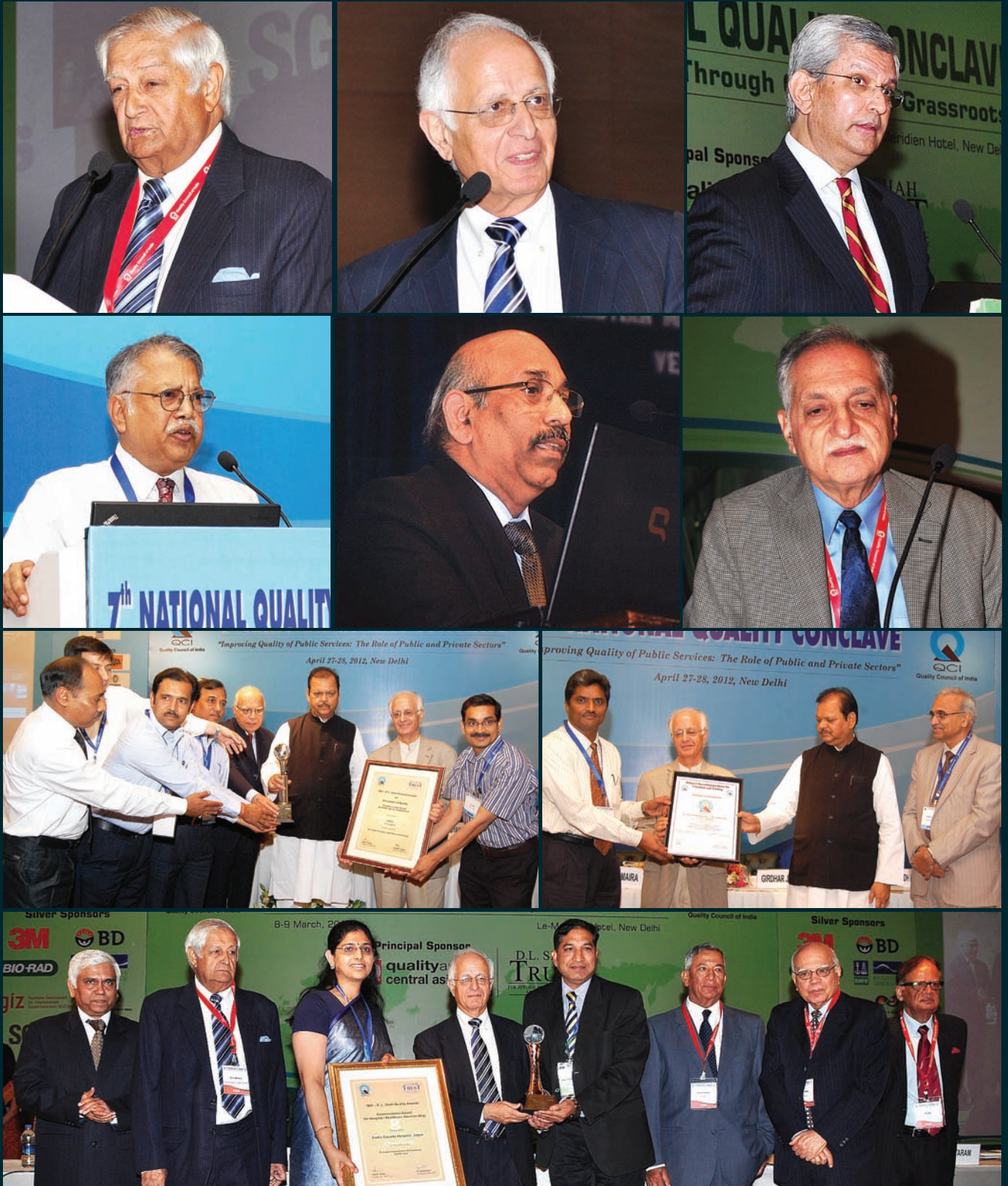
Conclaves

Green chic

There is greater awareness amongst hoteliers of the need to build ecologically responsible properties and practices. But it is not just a question of being politically correct. In the long term, green hotels are more profitable to run even if they cost more to build.

By | Imran Khan

Whether or not you are a frequent traveller or a high-flying hotelier, it is inevitable that you would have come across that printed card on your hotel bed or in the bathroom urging you to reuse linen and towels for another day. Hotels across board, anxious to be perceived as environmentally sensitive, have made it part of their standard practice almost to have these cards displayed in guest rooms, pointing out to consumers how they will be doing their bit for the environment by scrimping on the detergent and water used to wash linen that is not necessarily dirty. But this is hardly the only way in which 'green-chic' hotels today are being responsible.

With the focus increasingly in responsible tourism and green hotel practices, there is much more to being ecologically friendly than reusing sheets and towels. Houston-based Green Hotel Association (GHA) defines Green Hotels as 'environmentally-friendly properties whose managers are eager to institute programs that save water, save energy and reduce solid waste—while saving money' to help protect the earth. It is a fairly broad-based definition that focuses on a slew of measures – from preserving energy, to reducing solid waste and recycling – that hotels could incorporate in their systems to be not just eco friendly

and sustainable but to, in fact, turn any conservation efforts into more efficient operations that save costs and actually contribute to revenues. A report by GHA states that hotels can, in fact, save over $ 6.50 a day per occupied guest room while following conservation measures. Watching the bottomline in this manner is invaluable especially in the face of challenging economic situation around the world.

Long Term Benefits

One effect of the foray of international hotel chains into India is the enhanced focus on conservation activities. While global chains have the mandate to undertake such activities as part of their intrinsic operations, even Indian chains are becoming increasingly conscious of their corporate social responsibility (CSR) and the role this can play in the overall quality of operations, guest experience and even bottomline profitablity. Thus tags such as ECOTEL, LEED, CDMs, ISO14000 among others that certify how ecologically responsible hotels are are becoming much sought after by properties across board.

The Orchid in Mumbai, promoted by Vitthal Kamat, Chairman & Managing Director Kamat Hotels India Limited (KHIL), claims to be the first hotel in Asia to be certified an ECOTEL – an eco-friendly five-star rating— in 1997. Look into the measures that the hotel has undertaken and you will find that there is an entire green team to train employees and impart knowledge and promote green initiatives. Agreeing that the 'green concept in India' is here to stay, Vikram Kamat, Executive Director KHIL, says, "Today, all industries are looking at sustainable development for long-term benefits. It is important for hotels to go green as hotels can

Vikram Kamat

Param Kannampilly

consciously contribute to a sustainable future and ensure they use minimum resources."

Set up in 1962, Sun N Sand, Mumbai's first beach-front five-star property, is a relatively new entrant into the eco-hotel space. Recent eco-friendly initiatives here include the installation of sewage and waste treatment plants. Beside this, the hotel has also deployed a mechanism for rainwater harvesting. According to Gulshan Arora, Senior Vice President, Sun N Sand Hotels, "We have taken several measures across our hotels in Mumbai, Pune, Nagpur and Shirdi to cut down on carbon emission and recycle wherever possible. These measures have helped us to a large extent to cut costs and improve overall hotel profitability."

Khozema Chitalwala

Meanwhile, India's first governmental effort to introduce an 'ecomark' scheme was set up in 1991 by the Central Pollution Controls. It has, in its 20 year history, not issued even one ecolabel, however. Moreover, the criteria for ecolabelling here was only related to pollution abatement and control in the manufacturing context. The ecolabel never evolved beyond this limited scope to cover many vital aspects of certifying environmental preferences of products and most glaringly did not expand to cover the services industry – including an ecolabel for the Indian hospitality industry. The failure of the 'ecomark' has led to private industries in India acquiring

ecolabels from other countries for their products and services.

Managed by HVS Sustainability, ECOTEL was developed in 1994 and so far has certified hotels such as The Orchid - Mumbai, Rodas - Mumbai, Meluha - Mumbai, The Uppal's Orchid - Delhi, Beaumonde The fern - Kochi, The Fern - Ahmedabad, The Fern – Hyderabad and The Fern – Jaipur.

The Leadership in Energy and Environmental Design (LEED) ratings are one of the most respected and in-demand eco certifications globally. ITC Hotels have acquired LEED ratings for 90 properties located in 70 destinations making this the 'greenest luxury hotel chain in the world'. Nakul Anand, Executive Director, ITC Ltd, points out, "the LEED Platinum rating by US Green Building Council exemplifies the credo of responsible luxury adopted by ITC's hotels division, delivering globally benchmarked quality, services and luxury in the greenest possible manner."

Then there is Green Signal – India's first eco-label so far. The CGH Earth Group of Hotels has acquired this. The list of hotels with this certification is growing with other small and mid-size hotels following suite. Param Kannampilly, Chairman & Managing Director, Concept Hospitality, says that responsibility for the environment ought to be a fundamental belief for all businesses, including hotels that need to include these practices in their day-to-day operations. "We have made it part of our successful business philosophy and positioning at Fern Hotels & Resorts brand."

Why do hotels go in for such certifications? "Our reasons to go in for ecolabelling include the fact that this is a measurement of our environment sensitivity, which along with local community inclusion and adoption of local ethos, constitutes our core values. These are thus fundamental to our premium offering," points out Jose Dominic, Managing Director & Founder - CGH Earth Group of Hotels.

Designing a hotel in an eco-friendly way is a much bigger task. An architect needs to ensure that that the design does not have any negative impact on the surroundings and at the same time gives maximum comfort to guests.

Mathew Joseph

Vivek Gilani

Khozema Chitalwala of Designers Group Architect and Interior Designers, a company engaged in designing hotels, stresses, "Green hotels or so called eco-hotels are not for the benefit of an individual but for the benefit of the entire environment. Hence, as consultants, we take the initiative to explain to the client the benefits of becoming eco-friendly. Very few hotel developers understand the importance and the process of building an eco-friendly hotel. "

Internationally, there are defined norms for green architecture. In India, these are not there plus a designer faces challenges such as a more limited use of materials available in the market to give that touch of luxury. Yet, with awareness growing, the demand for incorporating eco-chic design into hotels right at the inception is growing.

Opportunities and challenges

Establishing a hotel in India is of course quite challenging in the present scenario, as industry insiders point out. While 100 per cent Foreign Direct Investment is allowed, getting approvals is constant changes in policies is nightmarish. Establishing a green hotel can be even more challenging with few incentives coming forth from the government and delays in project implementation adding to costs.

The government needs to come out and ease the process. "Clearances for eco projects have to be faster so that costs can be reduced," says Mathew Joseph, Director, Le Green Hotels & Resorts. "At present there are less than 10 per cent of total properties in India who practice green guidelines. Awareness among hoteliers on the importance of going green is still catching up," he points out.

Installing eco friendly systems costs more in the beginning and hence many hotel owners are hesitant to spend that kind of money even though it may save them a lot of money later. The government thus needs to encourage these investors with subsidies and other privileges so that there will be more such owners promoting eco hotels.

"An environmentally sensitive hotel completely compliant with our norms has a maximum 15 per cent higher project cost. With efficient management and operations, this is recovered within three years while the benefits continue for many, many years," says Kannampilly. A better benchmark to see the advantages of building an eco hotel are operating costs, which are lower and thus directly increase profitability. Thus going green is a win-win arrangement for all hoteliers in the long-term.

Vivek Gilani, Director - Strategy, Research & ERP Services, cBalance Solutions Hub, Co-Founder, no2co2.in and Member Secretary, The Green Signal says, "The biggest challenge for the sector is that it is fragmented with the exception of a few big players. Smaller hotels are unable to visualize the larger impact of their activities. With limited knowledge and capability to invest in technological interventions it is absolutely necessary for them to accurately calculate their baseline, the cost and GHG savings of the various interventions so as to maximize savings and other benefits. It is also equally important to be able to accurately calculate and convey the savings and benefits to potential customers in a quantitative and qualitative and comparative manner to enable them to make informed decisions. With a vision of enabling all: small & medium to large chain hotels across the country to undertake a wholesome approach to sustainability in a cost effective manner there are several initiatives available in the market today.

Delhi Government in June this year set a deadline for classified hotels in the city to implement strong environment-friendly measures for their day-to-day operations by signing a memorandum of understanding with over 32 hotels. Let us just hope the trend goes viral to other cities and towns and similar tie-ups are announced to upgrade the hospitality industry.

Good Manufacturing Practices:
Awareness and Training are keys to Compliance

Everyday more news about giant companies failing to comply with cGMP regulations and thus facing legal actions are brought into focus. There has been a general increase in warning letters issued by the US Food and Drug Administration (USFDA) to companies globally, for violation of good manufacturing practice standards.

By | **Syed S Abbas**

Recently, FDA prohibited Ranbaxy's Toansa facility from manufacturing and distributing active pharmaceutical ingredients (APIs) for the US market. The FDA's inspection identified cGMP violations such as the staff retesting raw materials, intermediate drug products and finished API after those items failed to get positive test results and subsequently not reporting or investigating these failures. Following the USFDA findings of GMP violations, the Indian Drug Regulator, Drug Controller General of India (DCGI), also felt the need for more vigilance to confirm the safety. Wockhardt, a Mumbai based pharmaceutical major, also had received a withdrawal of GMP certification for its plant in Chikalthana facility, Aurangabad in Maharashtra and in Kadaiya, Nani Daman in Gujarat by Medicines and Healthcare Products Regulatory Agency (MHRA), the UK health regulator. After the withdrawal of the facility in Maharashtra, the company recalled five over-the-counter (OTC) products from the UK market.

Good Manufacturing Practices widely known as GMP is a term that targets to cover all areas and sections of any manufacturing/production unit which ultimately affects the quality of final product. Quality means the ability to consistently produce the same product

to meet the same specifications time after time. GMP is a state of controlled operation to develop competence and to build customer confidence by demonstrating that the firm producing the products has confirmed set rules and regulations formulated and executed by the

authoritative regulatory agencies worldwide.

Good quality must be built in during all the stages of the manufacturing process as it cannot be tested through quality control of the finished product afterwards. Making poor quality and substandard products does not save money but leads to loss for both the public and the manufacturer. In the long run, it is more expensive finding mistakes after they have been made than preventing them in the first place. Implementation of GMP at all stages of the product lifecycle is an investment in itself. Thus, the overall aim of GMP regulations is to provide assurance of identity, quality, purity and strength of products and to assure that correct procedures have been followed.
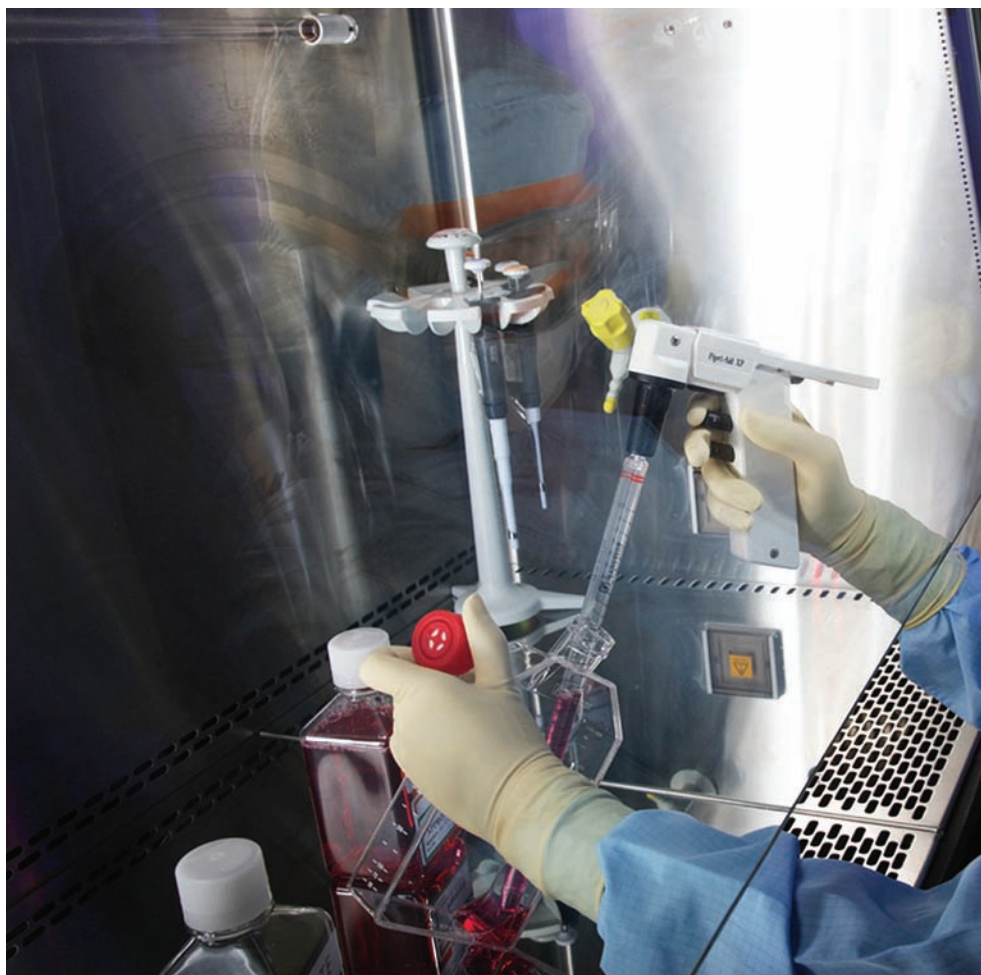
GMP regulations require that manufacturers, processors and packagers take necessary steps to minimise or reduce occurrences of contamination and errors. This will thus enable the consumer to purchase products which are safe, pure and effective. Failure of firms to comply with GMP regulations can result in very serious commercial consequences including product recall, seizure or penalty. The GMP regulations have an authority on various aspects of the pharmaceutical industry such as suppliers of API's and recipients, packaging materials, manufacturing facilities and testing equipment which are used for the production, processing, packaging and/or storage of drugs. Detailed and written documented procedures are to be followed for each step that could affect the quality of the finished product. The correct procedures must be consistently followed every time a product is made. GMP regulations throughout the product lifecycle cover all aspects right from the starting materials, recordkeeping, premises, equipment, process validation and complaint handling to the training, qualifications and personal hygiene of staff. Most GMP requirements are very general and flexible allowing the manufacturer to decide individually how to best interpret these requirements for particular business.

In India, the import, manufacture, distribution and sale of drugs are regulated under Drugs and Cosmetics Act 1940, Drugs and Cosmetics Rules 1945 and Schedule M of this Act provides Good Manufacturing Practices guidelines to be followed and incorporated by the manufacturers in order to produce a quality product. For export of the drugs manufactured in India, WHO-GMP certificate is generally accepted in which the importing country assures that the product has been manufactured in accordance with internationally accepted GMP guidelines. The World Health Organisation (WHO) certification scheme is for the quality of pharmaceutical products moving in international business.

The Pharmaceutical Inspection Convention and Pharmaceutical Inspection Co-operation Scheme (jointly referred to as PIC/S) is an active and constructive co-operation scheme between countries and pharmaceutical inspection authorities in the field of GMP. The main aim of PIC/S is to facilitate the networking between participating authorities, harmonising inspection procedures worldwide by developing common standards in the field of GMP and related areas and by providing training opportunities to inspectors. GMP regulations also apply to the active pharmaceutical ingredients (APIs) and the development and manufacture of the API should follow the principles described in the ICH (International Conference on Harmonisation) Q7A and Q11 guidance documents. In addition to these, it is suggested to adhere to ICH Q8, Q9 and Q10 guidelines which describe the principles related to quality by design, quality risk management and quality systems in the pharmaceutical industry.

GMP and its relevance is not restricted to manufacture of solely pharmaceutical drugs but extends to variety of other consumer products such as food and beverages, food supplements, animal drugs and other pet

products, cosmetics, medical devices, health supplements and alternate healthcare products such as medicinal oils, ointments, massage tools and equipment and many more adds to this list. For all the product categories listed above the product's quality is the core concern to ensure safety of the consumer. The role of GMP in these is varied as it regulates raw material processing, production, packaging, holding, transportation, marketing and even post marketing phases of consumer essential products.

GMP is also sometimes referred to as 'cGMP' where the 'c' stands for 'current'. This means that the manufacturers must utilise technologies, equipments and methods which are up-to-date in order to comply with the regulations. Like product manufacturing norms and processes change with the changing needs, GMPs guiding the process also get modified to suit the changes. This makes GMP a dynamic and ever changing face of manufacturing industry. Therefore, there is an urgent need for the up-gradation to meet the cGMP requirements for the companies to help maintain their product quality. Training in current good manufacturing practices must be conducted to assure that employees remain familiar with cGMP requirements applicable to them.

The compliance with relevant GMP regulations is constantly examined and observed by inspectors of pharmaceutical and healthcare regulatory authorities to safeguard product quality. Recently, USFDA issued warning letter to Gadre Marine Export after inspection of the seafood processing facility located at Chorwad, Gujarat last year. During this inspection it was found that there were violations of the seafood Hazard Analysis and Critical Control Point (HACCP) regulation, Title 21, Code of Federal Regulations, Part 123 (21 CFR 123). This resulted in a Form 483 listing the inspection observations. Another warning letter was issued to Avella of Deer Valley, Inc. in Phoenix recently. The inspection was conducted last year and it was observed that there were serious deficiencies in practices regarding production of sterile drug products such as performing aseptic operations wearing non-sterile gowns and with skin exposed. Yet another warning letter was issued to Oskri Corporation, after USFDA inspected their snack food manufacturing facility located at Lake Mills, Wisconsin. Serious violations of the Current Good Manufacturing Practice (cGMP) regulations were noted during this inspection which caused the food products to be adulterated and that they have been manufactured, packed and stored in insanitary conditions which could be injurious to health.

Thus, in the current scenario, GMP training and awareness are required not only at higher managerial levels in the pharmaceutical companies but also for junior level personnel who are actually engaged in production processes. It is highly advantageous for the companies to undertake a comprehensive assessment of their manufacturing, processing and packaging methods including raw materials, equipments, facilities, personnel and systems to ensure standards are GMP compliant. Identifying and investigating possible quality gaps at right time and implementing the suitable changes are necessary for the companies. It is strongly recommended that self-inspection and/or quality audits for GMP compliance by a team of in-house or external experts be conducted to review the execution of cGMP principles. This eventually will lead to production of high quality products which will be beneficial to the companies from the cost perspective as well as it adds credibility.

(Syed S. Abbas is Director at Institute of Good Manufacturing Practices India (IGMPI), New Delhi)

QCI celebrates World Quality Day 2013

By | Avik Mitra, Advisor, NBQP, QCI

The World Quality Day was initiated by the Quality Organisations of Europe (European Organisation for Quality), USA (American Society for Quality) and Japan (Japan Union for Scientists and Engineers) in 1989. World Quality Day was introduced by the United Nations in 1990 to increase worldwide awareness of the important contribution that Quality make towards a nation's and an organisation's growth and prosperity.

In a global economy where success depends on quality, innovation and sustainability, World Quality Day is an opportunity to reinforce these as the foundation of an organisation. World Quality Day is now celebrated across the world on second Thursday on November every year.

This day provides an opportunity to every organisation:

• To place quality at the top of the board room agenda

• To instil quality at the heart of the organisation

• To demonstrate commitment to quality

• To improve the way things are done

• To survive in an increasingly competitive market place.

Quality Council of India (QCI) over the last few years was requesting its various stakeholders such as accredited organisations, members to celebrate World Quality Day through quiz, competition, essay competition, CEO talk etc. However, in the month of September 2013, National Board for Quality Promotion (NBQP) took the decision of QCI itself celebrating the World Quality Day 2013. Accordingly, Chairman of NBQP, Mr. K.C. Mehra decided to hold an intellectual seminar on the theme 'Quality – A Collaborative Effort'.

The theme focussed on the importance of working together with all stakeholders, external and internal, to ensure success. The seminar was held on November 15, 2014 at India Habitat Centre, New Delhi. Mr. Arun Maira, the then Chairman of Quality Council of India and Member, Planning Commission was the moderator of the seminar and he mentioned that through this theme QCI wanted to discuss about what should be done to establish a strong quality improvement support structure through collaborative efforts of all stakeholders to address the various quality challenges faced by the country. He then invited the various speakers to share their thoughts and ideas on the theme of the seminar.

The speakers included Dr. T. Ramasami, Secretary, Department of Science & Technology, Mr. Pankaj Agrawala, Secretary,

Department of Consumer Affairs, Mr. Ajay Shankar, Former Chairman, QCI and Member Secretary, National Manufacturing Competitiveness Council, Dr. R.K. Pachauri, Director General, TERI, and Dr. William Denney, Vice Chair (Global), American Society for Quality. The key message that emerged from this seminar was the need to embed quality management principles in collaborative efforts which not only ensures survival during uncertain times but also provides the competitive advantage that leads to unrivalled success. The deliberation of the seminar was highly appreciated by 200 delegates who attended the seminar. Looking at the positive response, Chairman, NBQP Mr. K.C. Mehra requested the National Board for Quality Promotion to celebrate World Quality Day every year.

What can you do to celebrate World Quality Day?

It doesn't cost at all to celebrate quality. There are several ways to celebrate quality.

Some tips

• Hold an internal workshop/seminar on quality

• Organise CEO talk on quality

• Conduct a quality quiz and hold a prize giving ceremony

• Involve your local community and have an essay competition followed by a prize giving ceremony

• Organise a 'Walk for Quality' involving your local community

• Showcase Video on Quality

• Conduct best practice tours

The World Quality 2014 will be celebrated on November 13, 2014. If you have any ideas/suggestions on how to celebrate, please share the same with the National Quality for Quality Promotion at nbqp@qcin.org.

An insight into quality, environment and liveAbility

Quality and environmental protection have always had a high priority, and continues to do so even now in many companies and the Integrated Management Systems (IMS), which includes Quality, Environmental and Safety and Occupational Health (ISO 9001, 14001 and 18001), is a sign of environmentally and socially responsible corporation.

By | Dr. Yogendra K Saxena

The International Standards Organisation (ISO) launched its first quality standard, ISO 9000 in 1987, focusing on the management of quality in business. Later, in 1996, it came up with its family of environmental quality standards, starting with ISO 14001. And most recently we have ISO 26000, released in 2010 and designed to bring social responsibility into the fold.

Environmental quality is defined as a set of properties and characteristics of the environment, either generalised or local, as they impinge on human beings and other organisms. It is a measure of the condition of an environment relative to the requirements of one or more species and or to any human need or purpose. It is a general term which can refer to varied characteristics that relate to the natural environment as well as the built environment, such as air and water purity or pollution, noise and the potential effects which such characteristics may have on physical and mental health caused by human activities.

Most of the Corporate are now fully committed to delivering quality products and being a responsible corporate citizen. These strive to meet or exceed customer requirements through continuous improved activities and proactive environmental management to hold quality and environmental certifications. For the long-term success of the company, first operating priority is the satisfaction of customers i.e. Quality. However, quality and environmental protection have always had a high priority, and continues to do so even now in many companies and the Integrated Management Systems (IMS), which includes Quality, Environmental and Safety and Occupational Health (ISO 9001, 14001 and 18001), is a sign of environmentally and socially responsible corporation.

Protecting against environmental factors that may adversely affect human health is a concern now for Indian regulatory institutions. Air pollution, both indoors and outdoors, is a major

> *Today, we have to think beyond sustainability and i.e. liveAbility. The quality of the natural environment is an important component of the ongoing liveAbility of any city or region due to growing pollution problems and the threat of Climate Change.*

environmental health problem affecting everyone in developed and developing countries including India. The 2005 *WHO Air quality guidelines* (AQGs) are designed to offer global guidance on reducing the health impacts of air pollution. The new (2005) guidelines apply worldwide and are based on expert evaluation of current scientific evidence. They recommend revised limits for the concentration of selected air pollutants, commonly known as Criteria pollutants such as particulate matter (PM), ozone (O_3), nitrogen dioxide (NO_2) and sulfur dioxide (SO_2), applicable across all WHO regions.

In addition to guideline values, the AQGs give interim targets related to outdoor air pollution, for each air pollutant, aimed at promoting a gradual shift from high

to lower concentrations. If these targets were to be achieved, significant reductions in risks for acute and chronic health effects from air pollution can be expected and quality of environmental parameters will have a main role in this direction.

Our current and future commitment to protect the environment, providing the highest commitment to environmental quality, and care for employees' health and safety is now laid down by the Corporates in their Sustainability Policy. The importance of Global Sustainability and the Triple Bottom Line (TBL) performance is visible from sustainabilty reports. However, the big question remians "Is sustainability the new total quality management or the answer to total quality"? In fact, sustainability is the Next Total Quality Management (TQM) and sustainability will replace TQM in near future.

The articles by Ram Nidumolu, the late CK Prahalad, and Rangaswami in the Harvard Business Review declared sustainability to be the 'key driver of innovation'. Their research of 30 large corporations was summarised in one key statement:

"Our research shows that sustainability is a mother lode of organisational and technological innovations that yield both bottom-line and top-line returns. Becoming environment-friendly lowers costs because companies end up reducing the inputs they use. In addition, the process generates additional revenues from better products or enables companies to create new businesses. In fact, because those are the goals of corporate innovation, we find that smart companies now treat sustainability as innovation's new frontier."

Sustainable development is development that preserves natural resources for future generations. Along with environmental quality, there is an increasing focus on the issue of sustainability. Today, we have to think beyond sustainability and i.e. liveAbility. The quality of the natural environment is an important component of the ongoing liveAbility of any city or region due to growing pollution problems and the threat of Climate Change. Many measures of liveAbility incorporate environmental quality and services in some way. The natural

environment is usually included through a measure of the city or region's climate, but can also be incorporated through measuring parkland, water and air quality.

In addition to the main measures of liveability, a number of more targeted measures include environmental factors in their measures. A degraded environment can detract from the state's liveability and competitiveness. The travel and tourism competitiveness rank many countries on the state of their natural environment as a tourist destination. However, in India some of the environmental factors are beyond the control of policy makers (such as climate change) and other factors, such as air and water pollution, are not able to influence the tourists due to lack of quality of environment and willingness of the policy makers.

Time has come to Act Now for LiveAbility and this should include quality, environment, safety and occupational health and the triple bottom line performance i.e. Economic, Environmental and Social. In fact, in my simple words LiveAbility is not a skill but an attitude and Individual Social Responsibility will play as important role in LiveAbility.

(*Dr. Yogendra K Saxena is Chief Sustainability Officer of Tata Power and is a member of many business advisory panels*).

Quality – It isn't what you throw at a problem

By | Prashant Hoskote

During my career, I have seen many organisations and business leaders frustrated by a lack of real success and impact with their quality programs. Great enthusiasm surrounding initial implementations eventually turns to disappointment two or three years later, when leaders wonder what was the result of their investment. How has the business improved? Why haven't the big dials moved?

All too often quality is viewed as Lean, Six Sigma, ISO or a myriad of other concepts or programs that make their way into organisations with great splash and much fizzle. But these are primarily improvement methods, important and required but if implemented as a standalone initiative, not a systemic approach to *'organisational excellence'*. To start with the solution, without thoroughly understanding the broader needs of the organisation, is the tail wagging the dog. No Quality method is a silver bullet. No Quality method, on its own, addresses the organisation as a system and the need to drive systemic quality and service excellence.

So what should an organisation do, and where should it start? Leaders must first see the organisation, and Quality's role, as a systems approach. Quality isn't something you throw at a problem. It's a combination of several techniques mentioned above that best suits the business culture of the company. More importantly, it is a carefully executed plan that helps the entire organisation function successfully. i.e. what initiative applies where and how does it address the company's strategic plan!

Five Recommendations to Make Quality and Organisational Excellence Pay For You

In my view, there are five key elements to successfully implement Quality and Organisational Excellence in a systemic way.

1. There should be an overarching approach to Quality…a plan. Where and how will the theory and tools of quality be applied? How will they be used to drive excellence? Every organisation should have a quality system that makes sense to them. At the cost of sounding cliché, one size does not fit all. The structure will be unique to each organisation, but whatever they are, the elements of the quality system must be intentionally developed, implemented and measured. To look at a graphic of a quality system should tell us how Quality is implemented in that business and how it drives excellence and customer service. This can be further complex if it's a conglomerate of companies with separate Management Teams, but there needs to be consistency across the group. At the Max Group we call it the *Max Quality System*.
2. The Chief Quality Officer (CQO) / Quality Leader (QL) should

Prashant Hoskote, Senior Director - Quality and Service Excellence, Max India Group

be at the planning table and report to the CEO. This is a clear commitment to the importance of Quality in the organisation and makes it possible for the quality team to understand business strategy and appropriately support it. In turn, to support strategy, Quality must supply both strategic and tactical approaches. This may involve a strategic (top down) organisational excellence program like Baldrige (what we call Max Performance Excellence Framework, the Tatas call it Tata Business Excellence Model) or EFQM Frameworks, in conjunction with a tactical (bottom up) business improvement methodology like Lean Six Sigma, Kaizen etc. In a sense, force change down from a strategic perspective, but also push change up. This way, everyone has an opportunity to participate in organisational transformation.

3. To be effective, Quality Leaders must understand and speak the 'language of business' – Money, as well as the language of 'managing change'. Too many Quality leaders are practitioners - tactical thinkers who are more absorbed with method than business needs and organisational outcomes. The CQO must first be a 'Business Manager' before he/she is a Quality Manager. In addition, successful implementation of Quality requires broad consensus. Quality must be required, but it cannot be dictated.

So, the CQO must bring together divergent groups within the business (in a Quality Council) to discuss organisational pain points, explain strategic needs and reach agreement on what's important and how to address it. Quality leaders must be seen as relationship builders, whose focus in on helping, not hindering, the work of the business.

4. Everyone in the organisation must have an unrelenting, passionate focus on customers and service. All the quality drivers (the quality system, quality strategy, excellence model, Lean, Six Sigma, ISO, etc.) are all there for only one reason – to reach out to customers in the most economical way, to provide what they want when they want it. If this approach is not taken, the business will lose credibility, customers and money.

5. Finally, Quality must prove its value. It is the responsibility of Quality to both measure itself and the impact of its strategy and tactics. There must be a balanced set of Measures of Success (MOS), a scorecard if you like, for the business that shows where improvement is or isn't being made. If Quality doesn't demonstrate impact on cost, revenue, customer satisfaction, turnaround times, capacity creation, employee engagement, and passion, then stop doing it till you seek the right quality leaders and redesign your quality system.

Elements of the Max Quality System

Organisations may find various ways to link concepts for their own quality system. We at Max Group chose these elements for its Quality System because they represent accepted approaches to manage Quality and Service Excellence in a Group as large and diverse as ours:

Each of the elements of the MQS is represented in a graphic of interlocked puzzle pieces – to indicate how the separate concepts are integrated.

How the Max Quality System (MQS) works

1. **(MPEF) MAX Performance Excellence Framework (Excellence Driver)**
   Annual assessments cycles of improvement
   Each year, internal MPEF assessors follow a common approach of assessing our business' health. Gaps are identified and each business prioritises action plans to drive improvements before the next assessment.

2. **Lean Six Sigma / MAXimize Quality (Cost and Culture Drivers)**
   This represents a top-down and bottom-up approach to drive out costs, improve consistency of execution, increase capacity through process improvement and change culture

   a. Lean Six Sigma requires leadership-sponsored projects. Objective –cost saves, revenue improvements - high business and strategic impact.

   b. MAXimise Quality (and a companion program in the healthcare system – MAXimize Healthcare) requires training in basic quality methods to any employee interested in improving their own work area. Minimal information about root-cause-analysis, as well as pareto and trend charts, allow groups of employees to tackle small projects that make their job easier, reduce cost and process TAT. Objective - encourage continuous improvement and build a Quality culture.

3. **Standard Metrics (MQS scorecard)**
   What gets measured… sure gets done! The MQS scorecard rolls

Max Quality System

MAX

Quality and Service Excellence Council
Guidance & Direction

Max Performance Excellence Framework

Lean Six Sigma / MAXimize Quality
Standardized Methodology For Continuous Improvement

Standardized Best Practices
Leadership, Planning, Customers, Measures, Employees. Processes

Service Excellence
To Be One Of India's Most Admired Corporates For Service Excellence

Reward & Recognition
Quality And Service Delivery Linked To Career Progression

Standard Metrics
MQS SCORECARD Customer, People, Process, Finance

Annual Assessments
Cycles of Improvement

Communications

up key metrics in four categories – Finance, Customer, People and Process from all businesses. The Group Managing Director, the CEO Council and the Quality Council use the scorecard to determine if we are driving important change and improvement across the froup. It also answers two critical questions CEOs typically have, "What's the return I am getting from what I spend on Quality?" and "I don't want to see multiple metrics to see if my company is moving in the right direction. Can I get a single metric view?". Measures included in the scorecard are: Cost saves, Revenue improvements, Customer Experience Index (Top Box Score), Quality DNA and MPEF Score (arrived at from the annual assessment of each Business).

4. **Standardised Best Practices (Synergy Driver)**
   Best Practices are shared in two ways.

   a. Through the annual assessment process, teams identify significant practices that they think would benefit all businesses. These are rolled up to a CEO Council, which picks up to five that will be implemented over each year.

   b. Tactical best practices are shared by businesses through a common platform called maXters, a 'facebook-like' knowledge management platform, accessible to all employees across the group.

   Impact of practices used will be measured and reported.

5. **Service Excellence (The Big Dial)**
   A common service definition, protocols, standards and measures will be in place across the Group to institutionalise a consistent internal and external service culture. In a sense all initiatives drive to this end to measure progress toward the vision, 'To be one of India's most admired corporates for Service Excellence'.

6. **Communications (Culture Driver)**
   The corporate Quality and Service Excellence function coordinates these communications. The intent is to encourage an improvement culture, through recognition of process improvements and by providing examples of the impact positive change can have on our employees.

7. **Reward and Recognition (Culture Driver)**
   Public recognition of involvement in driving organisation performance occurs at multiple levels across the Group and during the Max Excellence Day.

8. **Quality and Service Excellence Council (Leadership Driver)**
   The Council is made up of Quality Leaders from all Group businesses. The Council reviews the annual Quality Plan, MPEF assessment cycle, scorecard measures, best practices and other quality and service issues, and make recommendations to the CEO Council and Managing Director of the Group.

The Long in The Short

In summary, what we call 'Quality' can only have a real impact if it is viewed as strategic as well as tactical business solution. If we only see Quality as a tool, we will miss the huge strategic impact Quality can have in transforming all areas of a business. *Quality must be systematic in its approach and systemic to our businesses.*

(Prashant Hoskote is Senior Director - Quality and Service Excellence at the Max India Group. He is responsible for the development and implementation of an enterprise-wide quality management approach for Max India's Group companies. Prashant has 26 years of experience in the Quality function and has worked with reputed organisations in India and Overseas - such as Taj Group of Hotels, Standard Chartered Bank, Qimpro Consultants and Mashreq Bank (UAE).)

Benchmarking basic research investigations in Govt Institutes/Hospitals

By | Akshay Anand

Neuroscience Research Lab is an integral part of Department of Neurology, Post Graduate Institute of Medical Education and Research, Chandigarh. The mission of the lab is to pioneer therapies for retinal degeneration and dementia, acquire leadership in using invitro and invivo approaches for preclinical evaluation of drugs and biotherapeutics, expand biomarker discovery program for neurological disorders and train graduate students in latest cellular, molecular, electrophysiological and behavioural techniques.

'Good Laboratory Practices (GLP)' enshrined under the OECD guidelines have been adopted in the above research facility to enhance quality standards, increase credibility, efficiency and transparency of research and diagnostic facilities. This is the first time any public research facility in the country has implemented quality principles voluntarily. This innovation has led to a system dependent technical and managerial procedures facilitating research audit and document control, improving purchase and accounting procedures as well as human resource management besides delivery of patient care diagnostic services.

The conventional system of

running research labs in India is based on no established or uniform method of management relying on individual preferences and experiences. Unfortunately, even the individual medical institutes do not define modules of running research facilities unless mandated by GMP requirements defined by regulatory authorities. This happens in the case of clinical trials where patient's safety and care is involved. These trials have been presumably stopped due to questionable data and lack of back traceability of information. The ability to bring clinical level safety at the pre-clinical (basic research investigation) level makes this innovation unique transparent and credible for credible clinical

translation.

The current quality systems in Neuroscience Research Lab encourages goal driven, self proposed monthly master schedule of activities in consultation with the study director, using the combination of Standard Operating Procedures (SOPs), Data Recording Sheets (DRSs) and master schedules. The Quality Assurance (QA) conducts periodical audit of the progress, compliance and reproducibility of experiments giving a new lease to research output. The data generated is filed in a defined format using a mandatory raw book, master code, calibrated instruments (with IQ, OQ, PQ), log sheets with continuously regulated infrastructure and room environment providing back up for each facility (including power outrage). This data and samples (if any) are archived in defined shelves or freezers as the case may be so that research productivity and quality is enhanced. The electronic repository of entire data is maintained in dedicated servers secured by physical installation of firewalls.

The entire system in the research facility operates under a moral obligation for biannual external audit by senior quality assurance experts which includes proficiency testing. This innovation encompasses periodic training of research personnel and staff to not only engage in academic activities but also bio waste management, sanitation, fire extinguisher safety, first aid, animal handling, and development of IQ (Intelligence quotient), SQ (Spiritual quotient), EQ (Emotional quotient) through periodic orientation programs which are essential for mentoring of independent neuroscience research leaders for tomorrow. This system does not exist in any research or medical institute funded by the government of India.

This innovation aims to enhance the reproducibility and error reporting of research data and sustain quality system in research practices, thereby facilitating a higher sincerity of purpose for research in medical institutes in India. It also seeks to bridge the credibility chasm that exists between data generated from India and

that from the West, because of which the best research from India is rarely taken seriously. The frequency and quality of research papers from our research facility provide that innovation has improved the credibility of research generated from this research facility. This is expected to boost discovery and innovation thereby accelerating translational research.

Implementation of this concept has led to benchmarking of research projects which are usually considered a soft activity in medical institutes of India, thereby enabling reliable translation of bench to clinic. This innovation has led to a system dependent technical and managerial procedures facilitating research data reproducibility, audit control, document control, improving human resource management besides high quality delivery of patient care and diagnostic services.

(Akshay Anand is an Associate Professor at Neuroscience Research Lab, Department of Neurology, Post Graduate Institute of Medical Education and Research, Chandigarh)

An insight into Bio-Medical Waste Management

By | Dr (Col) Shankar V Ramany

Any modern hospital is necessarily a complex multidisciplinary system which expends thousands of items and stores of medical or non-medical origin in any one day, everyday. All these products are consumed towards the safe and efficient delivery of healthcare to the patients who avail its services - whether in the confines of the hospital or outside it. This process results in the creation of unusable remnants of the delivery, which for the context of the hospital, a waste. This is in short hospital waste or Biomedical Waste. In addition, recent years have witnessed rapid mushrooming of multitudinous hospitals in both the public and private sectors, spurred by the ever growing needs of the growing population. To compound this picture, the use and wide spread acceptance of plastic 'disposables' in medical practice, has made the generation and the disposal of hospital waste a significant factor in the matter of healthcare delivery.

Hospitals are known as the place for the treatment of sick or ailing. But most of the patients or the visiting relatives may not be as aware of the potential adverse effects of the garbage and refuse generated by these very patients on the health of the surrounding community and the environment. So much so, the generated hospital waste is a potent health hazard even to the health care workers who keep dispensing healthcare to them and at times, even to the flora and fauna of the surrounding community.

Hospital acquired infections, blood or sera transfusion transmitted diseases, rising incidences of Hepatitis B and HIV,

Dr (Col) Shankar V Ramany

increasing degrees of land and water pollution – these are all alarming factors leading to danger of diseases to many in the community. Even irresponsible burning of these wastes cause air pollution due to emission of hazardous gases such as Furans, Dioxins and Hydrochloric acid etc. All this has compelled the municipal/

QCI

governmental authorities to make provisions for measures to dispose off hospital and medical waste. The Central Government has formulated laws & guidelines for enforcing handling and disposal of hospital and medical waste all across the country. A legal Act was passed in July 1996 and Bio-medical Waste (Handling and Management) Rules were implemented in 1998, with other allied Acts coming into being in the years ensuing.

Environmental Law Development in India

British India had only very few Environmental Laws. However, the British Indian community followed reasonably secure hygienic practices for waste management. Nightsoil from the dry system of latrines existent at that time, was buried in trenches - by rotation. Large "open grass farms" outside the cities purified the sewage through land application naturally. Municipal Garbage in the earlier times, was mostly organic, without much pollution. Farmers carted it to their fields for use as manure in a bid to return the nutrients and micro-nutrients to their soils, thus completing the organic cycle as we know it today. Consequently, there was no need for specific treatment for disposal of organic wastes, a situation which largely exists today. The character of the cities & the

garbage they generated also changed with economic development. Thus in the later years, independent India initiated environmental legislations thereafter, to counter the developing trends, as follows:

1981 Air Act
1986 Environment Protection Act
1991 Coastal Regulation Zones
1989 Hazardous Waste Rules
1998 Biomedical Waste Management Rules
1999 Rules for Recycled Plastics,
1999 Fly Ash Notification
2000 Municipal Solid Waste Rules
2000 BMW Management & Handling (Second Amendment) Rules
2001 Battery Management & Handling Rules
2001 Eco-Fragile Zones for Hill Stations

1998 Biomedical Waste Management Rules

They are applicable to all persons who generate, collect, receive, store, transport, treat, dispose or handle biomedical wastes. This includes hospitals, nursing homes, clinics, dispensaries, veterinary institutions, animal houses, pathological laboratories and blood banks. A typical 200-bed hospital generates around:
70% general waste (can disposed off with other Municipal Solid Waste)
20% recyclable waste (to be chopped and disinfected)
10% incinerable waste (by a burner system).
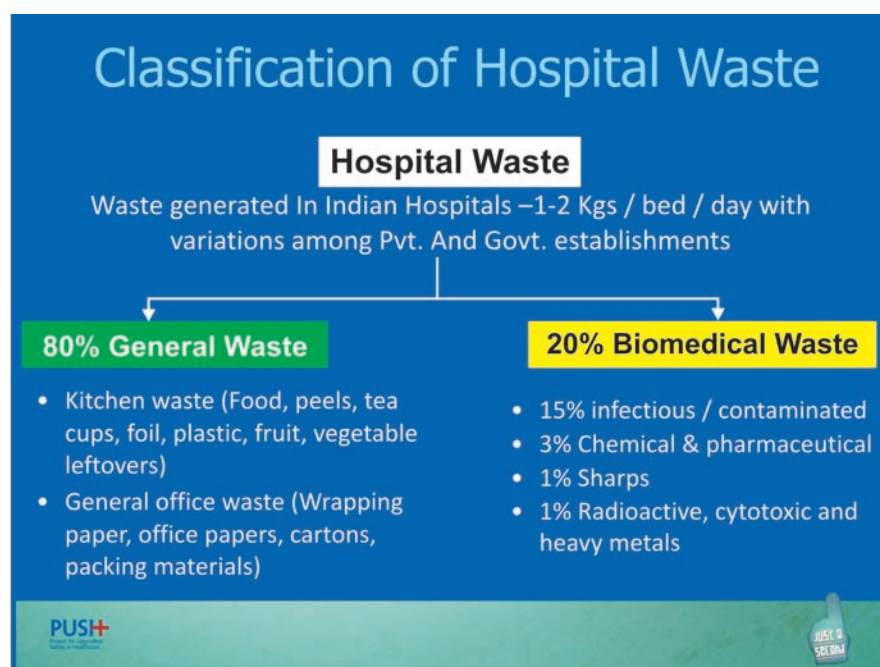Biomed segregation practices

are infrequently followed and laxly enforced, because of official apathy at top managerial levels or lack of training and knowledge of the rules. After the onset of disposables and plastics – BMW has become unusable by farmers to routinely operate into the organic cycle. This because, in the fields it prevents germination and absorption of rain by the soil. If left uncollected in cities, it blocks drains, causes flooding and traumatises cows that eat the plastic garbage. If dumped outside city limits, the waste becomes a curse for villagers, bringing smoke, flies and disease in its wake.

Consequent to the landmark WP 888/96 judgment of the Supreme Court a Committee was appointed which resulted in framing of 'referendums' on waste management. Supreme Court forced the Ministry of Environment and Forests to notify Municipal Solid Waste Rules which were drafted by the Central Pollution Control Board. The rules require source separation of waste - 'wet' food waste with 'dry' recyclables. Daily doorstep collection of 'wet' wastes for eventual composting and return to soil. The disposal of 'dry' waste was left to the informal sector. No land-filling of biodegradable waste was permitted. For landfills - only compost rejects and inert material debris was permitted.

In Sep 2000, the Waste Disposal Rules were further modified with the aim of streamlining the process even further. Justice Ranganath Mishra Commission Committee was formed to revise the 1999 Rules for Recycled Plastics.

The concern for bio-medical waste management has been felt all over with the rise in infectious diseases and indiscriminate disposal of waste. The lack of training and appropriate skills by the generators and handlers is compounding the problem. Added to this is insufficient resource allocation and lack of adequate equipment for BMW management.

The waste generated by any hospital or health care facility consists of general waste like packaging material, eatables, waste paper etc. Hazardous and infectious waste like outdated medicines, cytotoxic drugs, soiled dressings, swabs, cotton with blood and body fluid, dissected body organs and tissues, disposable

Classification of Hospital Waste

Hospital Waste
Waste generated In Indian Hospitals –1-2 Kgs / bed / day with variations among Pvt. And Govt. establishments

80% General Waste
• Kitchen waste (Food, peels, tea cups, foil, plastic, fruit, vegetable leftovers)
• General office waste (Wrapping paper, office papers, cartons, packing materials)

20% Biomedical Waste
• 15% infectious / contaminated
• 3% Chemical & pharmaceutical
• 1% Sharps
• 1% Radioactive, cytotoxic and heavy metals

PUSH+

syringes, used intravenous fluid bottles, catheters, gloves, injection vials, needles, blades, scalpels etc.

Poor bio-medical waste management exposes hospital or health care facility workers, waste handlers and community to infection, toxic effects and injuries. Quantity wise around 70-80 per cent is general waste and 20-30 per cent is hazardous and infectious waste. This is the one that poses a risk to human health and the environment.

These two basic category of wastes (hazardous and infectious) should be segregated right from the outset. Else, as we all know, the entire waste will become infectious. And the affected people are – doctors, nurses, paramedical staff, sanitary staff, hospital maintenance personnel, patients receiving treatment, visitors to the hospital, support service personnel, workers in waste disposal facilities, scavengers and even the general public. Thus substantial risk is posed to all those who generate, collect, segregate, handle, package, store, transport, treat and dispose BMW waste. It is an

occupational hazard to all of us.

Realities & Dangers of Improper Management of Bio-Medical Waste

We all know that in many parts of the country bio-medical waste from small clinics & hospitals is neither segregated nor disinfected. It is being indiscriminately dumped into municipal bins, along the roadsides, into water bodies or is being burnt in the open air. All this is leading to rapid proliferation and spreading of infectious, dangerous and fatal communicable diseases. The improper handling and mismanagement of this bio- medical waste is posing serious health problems. The infectious waste which is only 20-25 per cent of the entire waste from hospitals is not segregated and is mixed with general waste - the whole of the waste may turn up to become infectious waste. The improper disposal of sharps will lead to needle stick injuries, cuts, and infections among hospital staff, municipal workers, rag pickers and the general public. This will lead to transmission of diseases like Hepatitis B, C, E and HIV etc. The needles and syringes which are not mutilated or destroyed may be circulated back through unscrupulous traders who employ the poor and the destitute to collect such waste for repackaging and selling in the market. Chances of disease vectors are high - like cats, rats, mosquitoes, flies and stray dogs. They get infected or becoming carriers which also spread diseases among the public.

Overall risks due to Bio-Medical Waste Mismanagement

Serious situations are very likely

to happen when biomedical waste is dumped on uncontrolled sites where it can be easily accessed by public. The Risks are:

- Inappropriate treatment and disposal - contributes to environmental pollution.
- Uncontrolled incineration - causes air pollution.
- Dumping in drains, tanks and along the river bed -causes water pollution.
- Unscientific land filling - causes soil pollution.

What are biodegradable and non biodegradable wastes?

Biodegradable waste means any waste that is capable of undergoing anaerobic or aerobic decomposition, such as food and garden waste, and paper and paperboard. It also includes waste from households, which because of its nature and composition is similar to biodegradable waste from households. Non biodegradable wastes are the wastes that cannot be decomposed by bacteria e.g plastics, bottles and tins.

What is the quantum of waste that is generated by a hospital?

The quantum of waste that is generated in India is estimated to be 1-2 kg per bed per day in a hospital and 600 gm per day per bed in a general practicner's clinic. eg a 100 bed hospital will generate 100–200 kgs of hospital waste/day. It is estimated that only

5 – 10 pe cent this comprises of hazardous/infectious waste (5–10kgs/day)

What are the hazards associated with poor health care waste management?

Proper disposal of biomedical waste is of paramount importance because of its infectious and hazardous characteristics. Improper disposal can result in the following:

- Organic portion ferments and attracts fly breeding.
- njuries from sharps to all categories of health care personnel and waste handlers.
- Increase risk of infections to medical, nursing and other hospital staff.
- Injuries from sharps to health workers and waste handlers.
- Poor infection control can lead to nosocomial infections in patients particularly HIV, Hepatitis B and C.
- Increase in risk associated with hazardous chemicals and drugs being handled by persons handling wastes.
- Poor waste management encourages

unscrupulous persons to recycle disposables and disposed drugs for repacking and reselling.
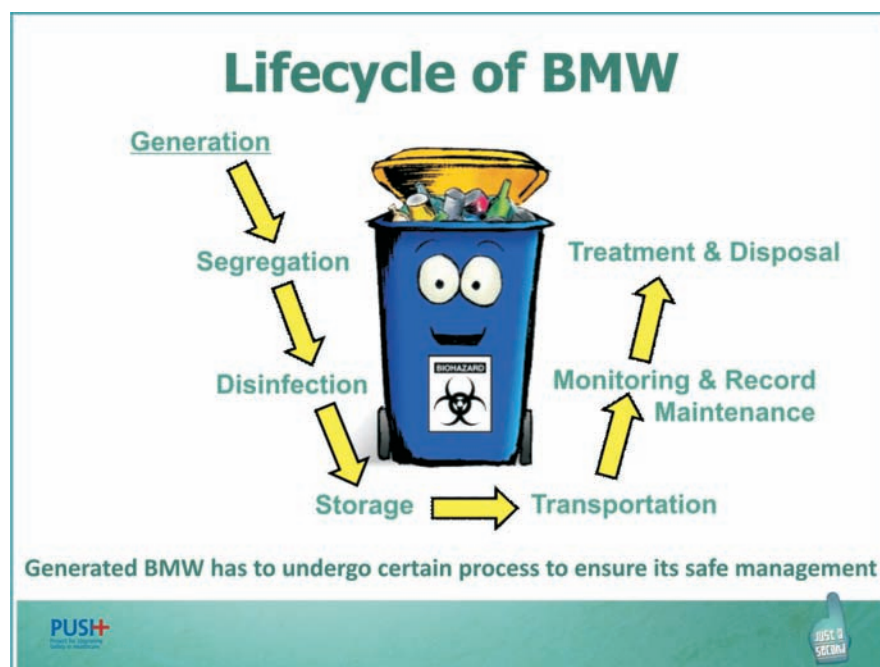- Development of resistant strains of microorganisms.

What are the responsibilities of health care institutions regarding biomedical waste management?

It is mandatory for such institutions to:
- Set up biomedical waste treatment facilities like incinerators, autoclave and microwave systems for treatment of the wastes.
- Make an application to the concerned authorities for grant of authorization.
- Submit a report regarding information about the categories and quantities of biomedical wastes handled during the preceding year by 31 Jan every year.
- Maintain records about the generation, collection, reception, storage, transportation, treatment, disposal and/or any form of handling bio medical waste.
- Report immediately any accident to the prescribed authority.

Lifecycle of BMW

Generation — Segregation — Disinfection — Storage — Transportation — Monitoring & Record Maintenance — Treatment & Disposal

Generated BMW has to undergo certain process to ensure its safe management

Mumbai gets a swanky new ₹5,500 cr Airport Terminal

By | Imran Khan

Mumbai International Airport Pvt Ltd (MIAL), a joint venture between the GVK led consortium (74 per cent) and Airports Authority of India (26 per cent), which was awarded the mandate of modernising and upgrading Mumbai's Chhatrapati Shivaji International Airport (CSIA) in February 2006, has finally completed its yearlong task, as the much awaited Terminal 2 at Mumbai International Airport was finally inaugurated by Hon'ble Prime Minister Dr Manmohan Singh, Government of India (GoI). The state-of-the-art four level integrated terminal spanning across 4,39,000 sq mt includes new taxiways and apron areas for aircraft parking to cater 40 million passengers annually and

integrating all other operations such as international, domestic, cargo, ground handling, retail etc.

Meanwhile, the newly inaugurated Terminal which has received LEED Gold Certification for its environmental stewardship and claimed to house world's largest art programme called 'Jaya He' has started the operations on February 12, 2014 for the international passengers. While the overall cost of the project which includes modernising and upgrading the domestic and international airport, setting up new Air-Traffic Control Tower etc. was ₹12, 500 crore, the cost incurred by GVK in building T2 itself is ₹5, 500 crore, which is the lowest if compared to other similar airports in India or abroad. The new terminal have 188 check-in counters, 60 immigration counters for departing passengers, and 76 immigration counters for incoming fliers. The airport also has over two lakh square foot of retail area.

"Mumbai airport's Terminal 2 is expected to establish new global bench-marks of functional efficiency and operational safety for airports. It also exemplifies our ability as a nation to build world-class infrastructure. It is now the third Best Global Airport in the 25 to 40 million Passenger Capacity category. I am sure that with the commissioning of its Terminal 2, the airport will improve even further and will be counted among the very best in the world. As we all know, India's infrastructure needs are enormous. The infrastructure deficit in the country is considered as a serious constraint limiting our rapid economic growth. And, therefore, we need to work doubly hard to bridge this deficit. The Government alone cannot make the very large investment required

to build world-class infrastructure in the country, and, therefore, we have been encouraging partnerships with the private sector," said the PM.

"The construction of the new terminal is yet another example of successful execution of large infrastructure projects under the Public Private Partnership (PPP) model which our Government has encouraged. I am happy that the PPP model has worked particularly well in the civil aviation sector, with five PPP airports now handling about 57 per cent of the passenger traffic and about 70 per cent of the cargo in India. The success of Terminal 2 should give a boost to other PPP projects in the country, which are under implementation or at the planning stage. We have attempted to improve airport infrastructure through private participation in Greenfield airports and Public Private Partnership in select airports currently being operated by the Airports Authority of India (AAI). We plan to develop and operationalise 50 more airports across the country, in tier II and tier III cities. I must say that the last ten years have seen outstanding development of civil aviation infrastructure in the country. I would also like to mention here that we have finally resolved all pending issues with regard to the Navi Mumbai Airport. The Government of Maharashtra, in collaboration with the Central Government, is now moving ahead on the work for this airport," he stated.

"Airports have truly become hub of large human activity. They give the best first impression to the arriving passengers. And keeping this in mind, a number of airports across the country have been modernised with the state-of-the-art facilities," said Ajit Singh, Union Civil Aviation Minister, GoI.

"Providing quality aviation infrastructure commensurate with expected passenger traffic growth is high on priority of my Ministry. To provide the continuity in these efforts, the Ministry along with Airports Authority is in the process of inviting participation for operation, management and future development of six airports, namely, Chennai, Kolkata, Ahmedabad, Guwahati, Lucknow and Jaipur. It is my stated belief that the next boom in Civil Aviation shall come through promotion of 'Regional Connectivity' by development of low-cost, no-frill airports across the country," Singh added.

"It's a culmination of a journey to see how far we have come," expressed GVK Reddy, Founder Chairman & Managing Director, GVK India Pvt Ltd and Executive Chairman, MIAL. "GVK's initiatives include setting up India's first independent power plant to first six-lane expressway and now first brownfield airport under PPP model. We have raised our own benchmarks with every successive endeavour. With the commissioning of Terminal 2, the CSIA has become code F compliant and is now ready to handle A-380 type aircraft operations," Reddy cited.

The other delegates present at the event were, K Shankarnarayanan, Governor, Government of Maharashtra (GoM), Prithviraj Chavan, Chief Minister, GoM, Sharad Pawar, Union Minister for Agriculture & Food, GoI, Jaipal Reddy, Union Minister of Science & Technology and Earth Sciences, GoI, Praful Patel, Union Minister of Heavy Industries Public Enterprises, GoI, K C Venugopal, Union Minister of State for Civil Aviation, GoI along with G V Sanjay Reddy, Managing Director, GVK – MIAL beside other dignitaries.

Managing the people side of value creation

Understanding the link to value:

When considering how value is created in today's business environment, the role of people policies has moved closer to centre stage driven by two sets of inter-connected forces:

As the economic base of most developed economies has shifted away from mass manufacturing towards high value goods and services, the emphasis on tangible assets such as plant and machinery has broadened to include less tangible assets linked to brand and reputation and to intellectual and human capital. Moreover, a considerable proportion of this value is embedded in people since employees are key revenue generators, especially in knowledge-based businesses, as well as being important influences on the perception of the brand.

The perceived conflict between the perspectives of value held by shareholders (investors) and other stakeholders, including employees, have weakened. In the case of employees, for example, they are increasingly seen as key business stakeholders whose perceptions, attitudes and behaviours can significantly affect businesse's performance. This has been driven, in part, by the more widespread use of employee share ownership schemes. As a result, the alignment of the interests of shareholders and stakeholders' over the longer-term is becoming more apparent and widely accepted.

Importance of people in an organisation is evident from the very definition of an organisation – 'Person or group of people that has its own functions with responsibilities, authorities and relationships to achieve its objectives'. Achievement of an organisation's objectives is directly linked to the value it creates for its various stakeholders and understandably, its people play an important role in managing the value creation process. Organisations have evolved from the early days of human civilization, when a few hunting men organised in a clan, to the modern, very complex, multi-national, multi-cultural, multi lingual, technology driven organisations. During this journey, internal and external issues became more complex, and continually evolving needs and expectation of stakeholders pressurise organisations like never before. Advent of free market based economy posed further challenges to organisation value creation process and there emerged a tendency to treat people as mere resources, a pair of hands without brains – more so as technology advanced.

It is in this backdrop, that the concept of a 'shared value' creation, first introduced by Michael E Porter, a leading authority on competitive strategy, Harvard Business School, and Mark R. Kramer, Kennedy School at Harvard University, find its relevance. The central premise behind creating shared value is that the competitiveness of an organisation and the health of the communities around it are interdependent. Recognising and capitalising on these connections between societal and economic progress has the power to unleash the next wave of global growth and to redefine market economy.

This cannot be achieved by any organisation without active engagement of its people. Level of people engagement is a direct relationship of how people relate to their leaders and colleagues; a person's perception of their job's importance, how clearly they understand their roles and responsibilities and linkage of their activities in achieving their personal as well as organisational objectives. When people are more engaged in organisation's activities, they experience more personal fulfilment and the organisation consequently conducts its activities more effectively. This engagement is automatic when people share the vision and values of the organisation.

The need for learning is one of the basic human needs. It has turned human beings into learning machines over the ages. Hence, people engagement is best achieved in a learning organisation that satisfies this basic need. Here people willingly accept mistakes, find solutions to their problems and integrate solutions into the system.

Operational learning focuses mainly on increasing organisational efficiency, and policy learning focuses on increasing organisational effectiveness. Operational learning cycle ensures learning from within internal environment of the organisation and policy learning ensures learning from the external environment of the organisation. The two opposing forces are then balanced by strategic learning - assessing risks and giving direction through ensuring a forum for critical review and debate – the 'parliament' of the business.

These three learning cycles can be integrated within the DNA of an organisation through a systemic approach of a strategic process and a tactical process for people involvement and competence acquisition.

At strategic level, inputs are taken from organisation's values, strategies and business plans and a process are set up to ensure achievement of organisation's results as an outcome. Continual improvement is achieved through review by the leadership and appropriate principle based decisions and actions, considering effects of such decisions on people. Here, people participate in strategy formulation and influence decisions and actions which affect their jobs. This process ensures that organisation has people involvement and competence acquisition process that meets the needs of the business.

There are a number of human factors that can affect effectiveness of the strategic process, such as - attitude and motivation, awareness, communication, creativity and innovation, education and learning, empowerment, engagement, leadership, networking, recognition and rewards, recruitment, responsibility and authority, team work and collaboration.

Supporting the strategic process, the tactical process starts with an analysis phase, where data are collected and analysed in relation to the organization's short and long term objectives for people involvement and competence. This is followed by planning phase, where procedures are established and maintained to plan the people involvement and competence acquisition process at an organization, group and individual level. The plans and associated actions are then implemented in order to achieve the objective of people involvement and competence. Plans, actions and outcomes are reviewed and evaluated for continual improvement.

Conclusion:

The evidence from various studies show that smart people policies do add value for business. There is, however, no magic formula that defines the key success factors. What we can say with confidence is that those businesses in which the people strategy is aligned with the business strategy perform better.

These days a much wider group of stakeholders can have an impact (directly or indirectly) on business performance. This means that business needs to manage all its stakeholders and their varying needs although this will inevitably be fraught with important challenges. Our experience shows that those organisations that really make the effort to understand their stakeholders and what is important to them are better able to develop people strategies that address stakeholders' interests and generate sustainable value.

Given that people add significantly to value, business needs to start accounting fully for its people. If it does this, the interests of shareholders will converge further over time with those of stakeholder interests as businesses become more transparent. These steps apply to all levels of the organisation, group and individual and help create an environment where people's love for the job is palpable. This is critical to sustained success of any organisation.

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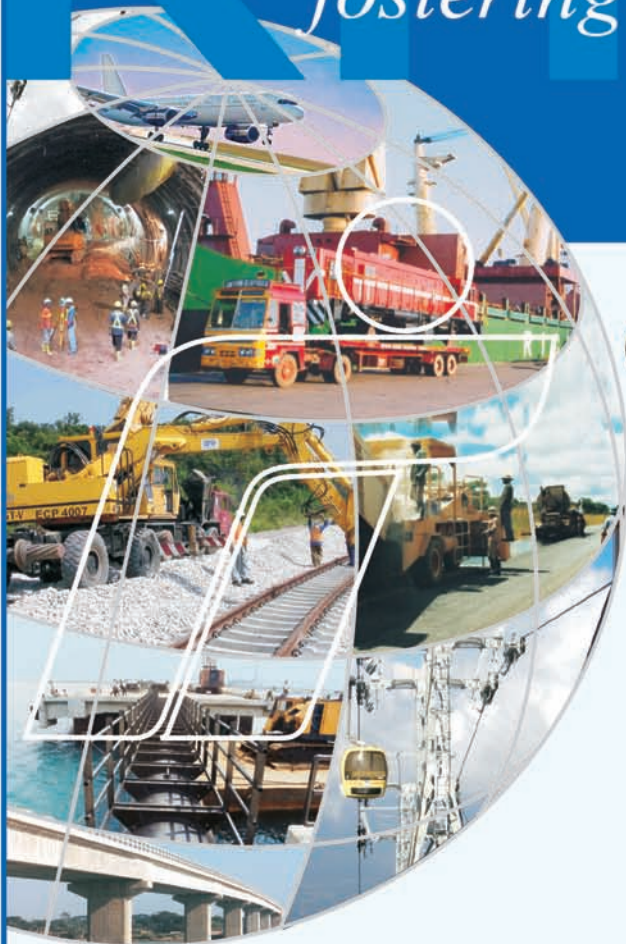   Senior Assessor
   Lloyd's Register Quality Assurance Limited

List of D.L. Shah Award Winning Organisations 2014

Government: Category (A)

Company	Name of Project	Award recommended
Sakala Mission Bangalore	To Ensure In Time Delivery of Government Services	National Award
Central South Railway Guntakal	5 S Workplace Management System	Commendation Award
Ministry Of Urban Development New Delhi	Project Management Information Sysem (PMIS)	Appreciation Award

Public Sector Enterprises: Category (B)

Company	Name of Project	Award recommended
NTPC Ltd. Western Region II - Raipur	Achieving Operational Excellence in Power Generation through integration of Quality & IT Tools	National Award
Electronics Corporation of India Limited, Hyderabad	Indigenously Developed Interface Unit	Commendation Award
Bharat Heavy Electrical Ltd, Bhopal	Enhancing Quality and Productivity by reducing engagement of EOT crane in OFAF cooler testing	Commendation Award
NTPC Limited – Sipat	A Case Study On Reduction In Thermal Losses In Unit No. 4 Boiler	Appreciation Award

Large Scale Manufacturing Sector: Category (C1)

Company	Name of Project	Award recommended
Volvo India P Ltd Bangalore	Project on Delivery Precision improvement	National Award
Reliance Industries Ltd – Hazira Manufacturing Division	Reduction Of Chilled Water Consumption By 10%	Commendation Award
Essar Steel India Ltd Surat	To Eliminate Diversions Due To Hump Marks	Commendation Award
Dalmia Cement (Bharat) Ltd - Ariyalur	Reduction In Cement Mill Diesel Consumption	Commendation Award
Rashtriya Chemicals & Fertilizers Ltd - Mumbai	PAC Suction strainer DP control in Ammonia – 1 Plant, RCF Ltd	Appreciation Award
SRF LTD, Gwalior	Reduction in fatigue of take up operation in Plant II	Appreciation Award

Small & Medium Scale Units (Manufacturing): Category (C2)

Company	Name of Project	Award recommended
Spicer India Ltd – Jodalli	A SME A Journey To Create Win-Win Relationship With Supplier's	National Award
Cordoba Engineering P Ltd Jamshedpur	Kaizen of Combine Die For Panel Inner Post	Commendation Award

Hospital / Healthcare Services (Big): Category (D1)

Company	Name of Project	Award recommended
Bangalore Baptist Hospital – Bangalore	Quality Initiatives for the Nation	National Award
Fortis Escorts Hospital - Jaipur	Strengthen the Patient Care by reducing Hospital Acquired Pressure Ulcers	Commendation Award

Hospital / Healthcare Services (Small): Category (D2)

Company	Name of Project	Award recommended
Kidney Hospital & Lifeline Medical Institutions - Jalandhar	Quality Imitative To Control And Prevent Hospital Associated Infection In The Hospital To Ensure Patient Safety And Health Care Workers Safety	National Award
Nasa Brain And Spine Centre – Jalandhar	Affordable quality care for all: Closer to reality	Commendation Award

Drugs & Pharmaceuticals: Category (E)

Company	Name of Project	Award recommended
Lupin Limited Mumbai	Yield improvement of Bulk drug product	National Award
HLL Lifecare Limited - Kerala	Six Sigma Approach Towards Zero Failures In Edge Rolling Operations	Commendation Award

IT/ITes/BPO: Category (G)

Company	Name of Project	Award recommended
Wipro Pune	Unlocking cancelled orders Potential	National Award
Aditya Birla Minacs Bangalore	Training Quality Improvement Project	Commendation Award
Max Life Insurance company Ltd - Gurgaon	Project : CARS	Commendation Award
Aviva Gurgaon	To Increase Insurance Agent Throughput%	Appreciation Award

Financial Services: Category (H)

Company	Name of Project	Award recommended
HDFC Standard Life Insurance Company Limited Mumbai	Grass Root Improvement Opportunities : A Service Industry Perspective	National Award
Deutsche Bank Mumbai	Project Arianrhod 2013	Commendation Award
Reliance General Insurance Company- Mumbai	educing time taken for R processing RSBY(Health) claims	Commendation Award
Reliance Life Insurance Company Ltd, Mumbai	Strengthened Policy Document Delivery Model	Commendation Award

Education: Category (I)

Company	Name of Project	Award recommended
Center for Research & Industrial Staff Performance - Bhopal	Imparting demand driven employability training to BPL youth in indentified districts of Madhya Pradesh	National Award
Infosys Ltd - Chandigarh	Campus Connect Program Overview	Commendation Award

Special Category: SERVICES

Company	Name of Project	Award recommended
Vasudha Facility Solutions Pvt. Ltd. Bhopal	Difficulty To Perform Duty At All Security Points By Guards and Finding Answer of the Same by Better Training and Multi- Skilling	National Award

Infrastructure

Company	Name of Project	Award recommended
BSES Rajdhani Power Limited New Delhi	Application for excellence in quality in reduction of failures of high tension switchgears installed In Power distribution network	National Award
BSES Yamuna Power Limited New Delhi	Application for Excellence in Quality Modular Integrated Distribution Automation System (MIDAS) For Online Monitoring of Distribution Transformers	Commendation Award
BSES Rajdhani Power Ltd New Delhi	Application For Excellence In Quality In Case Study On Effective & Efficient Power Distribution Network Operations Through SCADA	Appreciation Award

Printing & Publication

Company	Name of Project	Award recommended
Bennett, Coleman and Company Limited, Mumbai	Optimisation Of Printing Consumables And Impact On Green Printing	National Award
Bennett, Coleman and Company Limited, Sahibabad (UP)	Adopting Innovation in Newspaper	Commendation Award
Bennett, Coleman and Company Limited, Bangalore	360° Improvement Through Process Optimization	Commendation Award

Research

Company	Name of Project	Award recommended
Neuroscience Research Lab, PGIMER, Chandigarh	Redefining Quality standards in basic research investigations by broadening the purview of Good Laboratory Practices (GLP)	National Award
Western Railway Hospital Vadodara	Use of autologous fat derived stem cell in treatment of diabetic wounds	Commendation Award

Quality in LIFE

Ravi Sharma,
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Manufacturing, in India, started in the early part of last century. Tools and techniques developed in the 70's, and eventually, 'quality' became very important and many industries wanted to achieve it. With time, these tools and techniques became vital in other sectors also, and soon fields such as education and healthcare wanted to adopt this concept of quality.

The term quality was introduced in America first and then spread to other countries. The term 'quality' can now be applied in any sector of our economy. So do you work in a quality atmosphere? Do you posses quality appliances at home? What is the quality of the education your child is getting? What quality in healthcare do you seek? Questions we ask ourselves every day. Quality today is a way of life and none of us are ready to compromise on it.

Many of us are often heard complaining about the "quality" of our lives, which, as they say, is the main cause of our happiness, as well as our suffering. Quality lies in everything that we do. It exists in our relationship with our parents, our partners, etc. Quality plays an important role in how and how much we sleep (which has got nothing to do with the quality of our mattress or bed) and more. However, for Indians, the term 'quality' is relatively new and was introduced not long ago, when manufacturing started taking a serious stand.

Quality of life is a central and evolving issue in many environments, from the workplace, to schools, to life in general. During the last decade, more and more companies, institutions, politicians and people have started to investigate how the quality of life of employees, clients and more generally citizens can be improved. Can an improved environment in hospitals affect patient recovery rates? Can employee incentives increase performance?

These topics and the importance of quality of life as a driver of individual and collective progress remain to be explored.