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MANAGE India

GREEN CHAMPIONS IN CORPORATE INDIA

Dignitaries at the Gyan Lahiri 2012
Conference inauguration in Hyderabad

On the occasion of World Environment Day on 5 June, Manage India salutes
Indian companies that have made conservation a part of their business imperative

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Announcement: *Article of The Month*

Submit your articles for the July issue by 15 June 2012

If you have a flair for writing and a desire to share your ideas with the project management community, here is an opportunity. E-mail us your article and our editorial team will select the best article among the entries for publication in Manage India. Each issue of Manage India will carry a winning entry and the writer will earn Professional Development Units (PDUs).

Send us your article with your photograph to editor.manageindia@pmi-india.org

Please visit PMI India website (www.pmi.org.in) for eligibility criteria and submission guidelines

Letter from the
Managing Director, PMI India

Raj Kalady
Managing Director, PMI India

Dear Practitioners,

Over the past few months, PMI India has strengthened its practitioner engagement initiatives with a series of new programs. I'm delighted to see the enthusiastic response from the community to these new programs.

The latest is our collaborative effort with www.techgig.com, a portal dedicated to the technology community in India. We launched "Leadership in Project Management - a webinar series" in April with leaders from the PMI India community, such as Mr. V Srinivasa Rao, past president, PMI Pearl City Chapter and senior vice president, Mahindra Satyam; Mr. Ramam Atmakuri, member, Chapter Member Advisory Group, and vice president, Cognizant Technology Solutions; and Mr. Karthik Ramamurthy, president, PMI Chennai Chapter, and founder and principal consultant, KeyResultz Ventures, speaking on topics of current interest. We are presenting around 24 project management related webinars on techgig.com. I'm confident that the year-long webinar series with an impressive line-up of speakers from the community will provide a great opportunity for project practitioners to gain knowledge on diverse topics within the project management domain.

The PMI India Awards 2012 nominations are open. This year we have introduced a new category for SME. We will have Project of the Year award now in three sub-categories, depending on the length of the project duration. I encourage you to visit our conference microsite, http://www.pmi.org.in/conference2012/awards.asp, to submit nominations.

The second PMI India Research & Academic Conference will be held from 31 January to 2 February at the campus of the Indian Institute of Technology, Chennai. The theme of the conference is "Successful Project Management for "Advantage India" – Role of PM Education & Research". Block your dates for the conference.

I take this opportunity to convey my hearty congratulations to the founders, leaders, and members of the PMI Pearl City Chapter that recently celebrated its 10th anniversary. The chapter commemorated this occasion with a highly successful conference. The Special Recognition Awards that went out to the Indian School of Business, the GMR Group, and GVK Emergency Management Research Institute were richly deserved. We also had the fourth round of the "Project Management in Cloud Computing" series in Hyderabad on 13 April, which served as a curtain-raiser to the conference and attracted over 200 participants.

The Hindi version of *A Guide to the Project Management Body of Knowledge (PMBOK® Guide)* – Fourth Edition is now available for purchase. Please visit http://www.pmi.org.in/pmbok-hindi/ for more details.

Project management teaches us to be in touch with reality and adapt our skills to today's needs. A hot button issue in recent years has been the impact of development on the natural environment. As project managers, it is our responsibility to carry forward our organization's business objectives and honor our commitment towards our country and society. How do project managers strike this balance? We are observing World Environment Day, which falls on 5 June, with this issue of *Manage India* focused on our commitment to the environment. I hope you find this issue thought-provoking and useful.

Warm regards,

Raj Kalady
Managing Director, PMI India

Social Organization Gets Judicial Support to Protect Lakes

BY LEO F. SALDANHA, COORDINATOR/TRUSTEE, ENVIRONMENT SUPPORT GROUP

Our efforts towards the protection of Bangalore's lakes started eight years ago. We realized that similar efforts in the past had not failed for lack of ideas or foresight. The problem was elsewhere.

In 1988, the Karnataka Government accepted the report and recommendations of the Lakshman Rao Committee that strongly argued for the protection of about 120 lakes in the then built area of Bangalore on a war footing. The report said the city had no future without its lakes that provided water security. The government accepted the recommendations and directed that lakes should not be encroached or polluted henceforth, a decision supported by the High Court through an interim direction in 1995. Soon after, the Karnataka forest department was charged with the responsibility of rehabilitating several lakes in the city by desilting, removing encroachments, and improving their biodiversity value. In consequent years, several lakes were restored, thus reviving much hope in such initiatives.

What Ails Bangalore's Lakes?

However, over the past two decades, the city has erupted into an unprecedented growth binge. Skyrises have grown out of paddy fields and wetlands to meet an insatiable demand for housing and business spaces. Urban sprawl has scrawled all over with bizarrely planned neighborhoods devastating and polluting farms, watersheds, and forests.

This path of development is a sure recipe for social disorder. The limits to Bangalore's growth are not human enterprise, capital, or infrastructure, but access to good, safe, drinking water. Generations have built lakes knowing that no dense human settlement could survive in a semi-arid region without proximal and perennial rivers unless it conserved rainwater. This centuries-old tradition of tank building was abandoned in the 1970s by the Karnataka Government which instead placed heavy reliance on the Cauvery River to meet the city's water demands. This costs enormously in terms of capital investment, energy, and maintenance, as the water has to be pumped over an altitude of 500 meters and from 100 km away.

Today, the greater Bangalore area has a population touching 10 million, and only half the people get Cauvery water, that too not in sufficient quantity. The other half digs deep borewells for water. As a result, ground water levels have fallen rapidly across Bangalore from an average tapping depth of 300 feet about a decade ago to over 700 feet in recent years. Even after all this effort, there is no guarantee that the underground water is potable, as studies reveal incredibly high hardness and toxicity. Water stress is now a major leveller across high-end neighborhoods and villages.

Our Approach Towards Conservation of Lakes

When we launched our campaign to save Bangalore's lakes, we gathered extensive evidence of the problems and the challenges ahead. The biggest challenge that we faced was to build opinion on the need to protect lakes and faith in our age-old systems, especially among administrators. The lack of an effective governance mechanism emerged as largely responsible for the situation we face today. There is steady erosion in the sense of ownership of lakes by local communities, a result of reckless acquisition of villages and farming lands for urban housing and infrastructure projects. We felt the need for a renewal of faith in our capacity to protect and conserve lakes. Such a strategy could also help revive lakes as biodiversity havens, especially for migratory waterfowl, while also providing a variety of livelihood opportunities such as fishing.

As these efforts were underway, a joint legislature committee headed by then MLA, Mr. A. T. Ramaswamy, and appointed by then Karnataka chief minister, Mr. H.D. Kumaraswamy, produced a series of reports. The first was released in 2006. A shocking revelation was that over 50,000 acres of public and common lands had been encroached in the Bangalore region—almost entirely by the rich and influential. Lake lands and their interstitial canal networks were prime targets of such corrupt forces. Reports produced by various academic and public agencies also revealed that the condition of lakes was deteriorating rapidly and polluted water was contaminating ground water aquifers. Efforts by state agencies to rectify the situation were feeble or counterproductive. For instance, the Lake Development Authority (LDA) handed over lakes that had been comprehensively rejuvenated at public expense to various hotels and builders for intense commercial use!

On the basis of such evidence, we had to now communicate the crisis to influencers, whether in the public, the government, media, corporates, or social organizations. We decided to do this through a series of public workshops across Bangalore. It elicited widespread interest and even resulted in massive public protests. To our surprise, we found re-

surgent public opposition to the privatization of lakes by LDA. The widespread media coverage of public protests helped dig out more evidence of the egregious nature of the lake privatization process. Even so, there was no comprehensive response from the local authorities or the state government on how to address the challenges of securing our lakes.

It was clear to us by now that the stage had come to seek the judiciary's intervention. In January 2008, the Environment Support Group approached the High Court of Karnataka with a Public Interest Litigation (PIL). The high court immediately responded to the concerns we had raised and extracted commitments from private lease holders to maintain status quo in the lakes privatization program. The high court also set up committees to assist the court to address some of the wider concerns.

To examine the consequences of lakes privatization, the court directed Dr. P. J. Dilip Kumar, Indian Forest Service officer who was then Karnataka's forest chief, to provide a report on four privatized lakes. Dr. Kumar produced an exhaustive report that comprehensively rejected the commercialization of lakes. A subsequent recommendatory report by Justice N. K. Patil held that such public private participation required constant supervision by the state to ensure that there was no deviation from the stated policy and norms and that the 'profit motive' did not become the norm. The High Court recently upheld the policy of privatization of lakes in Bangalore but subjected it to various conditions.

Our PIL also addressed the larger issue: that of bringing together various wings of the governance system and the public for the protection of lakes for posterity. Responding to this prayer, the High Court appointed under Justice N. K. Patil, a committee consisting of top officials from all departments involved with lake protection and management. The task was to formulate a scheme to protect lakes for posterity, and detail immediate steps required to extend water security for the urban population. I

assisted this committee through five months of hectic debates and negotiations.

The Justice Patil Committee submitted its report and the High Court accepted it in March 2011 directing that the ecologically wise and social-

The campaign to save Bangalore's lakes involved several site visits and dialogues with local communities

ly sensitive guidelines proposed in this report would be binding on all agencies and action should be immediately initiated to protect Bangalore's lakes. The report revealed that only 450 lakes remained in the city, though most were polluted, thus confirming that about 150 had been irretrievably encroached and destroyed in the past two decades. In response to these findings and the court's direction, the state government has now allocated Rs. 150 crore in this year's budget for the rejuvenation of Bangalore's lakes, drawing resources equally from the state's exchequer, the Bangalore Development Authority, and the Bruhat Bengaluru Mahanagara Palike (the city council).

How the Future Looks
These are unprecedented developments in the country: a voluntary organization initiating efforts to protect lakes, the judiciary backing the initiative, and directing public agencies to develop practical schemes towards it. On 11 April 2012, the High Court accepted our submission that the Justice Patil report guidelines should be extended to the entire state of Karnataka. As a result, approximately 35,000 lakes in the state will be protected. The Court has also directed that a Lake Protection Committee be set up in every district. These committees will meet bimonthly and report progress to the LDA, which in turn will comprehensively report compliance to the High Court.

The task now is to make this pragmatic approach work. The result could be a

fantastic state wide effort in protecting these waterbodies extending water and ecological security for present and future generations. It calls for resurgent community environmental action that could become a model all over the world.

It requires enormous capacity building across the state. The impact of the decision should be felt across communities. This would involve the development of a variety of community education material, and training of public officials and agencies to appreciate the value of lakes and their canal networks. School and college syllabi need to integrate the import of these decisions and develop programs for students to involve in lake rehabilitation. Corporates must step up to the challenge and donate resources without looking for commercial benefit, which will reflect genuine corporate social responsibility. And the public at large must remain alert against encroachment and pollution of lakes, and exercise pressure on District Lake Protection Committees for quick and remedial action. All this together would reflect a true democracy at work for a common cause.

(Mr. Leo F. Saldanha heads the Environment Support Group that was recognized for its legal initiatives to protect lakes for posterity with the 2012 "Water for Life" instituted by the United Nations and the 2011 Gold Award in the category of "Best Green Water Stewardship" instituted by the International Green Awards. Details at www.esgindia.org)

Green Champions in Corporate India

On the occasion of World Environment Day on 5 June, Manage India salutes Indian companies that have made conservation a part of their business imperative

BY ARADHANA PATI MOHAPATRA

Climate change and the cost of development on the environment are not topics of discussion in the social sector and the government alone. Over the past decade, several champions of the environment have emerged in the private sector. These organizations have come out strongly to incorporate a green approach in the way they do business. It could be in the way they manage their projects, the technology they use to reduce water and energy consumption in their offices, and the environment and health safety programs they follow for their employees.

This issue of *Manage India* is dedicated to organizations that have shown leadership in practising green project management. These organizations have adopted a green policy as a matter of good business practice and not just as a part of their social responsibility initiatives. Suzlon Energy Ltd. and Larsen & Toubro have received several awards for their green projects and practices. We present the Suzlon One Earth Campus in Pune and the Larsen & Toubro Powai Campus, Mumbai in Maharashtra as shining examples of green project management.

The Suzlon One Earth Campus

Suzlon Energy Ltd. is the fourth largest wind turbine manufacturer in the world. The company is known for its environment-friendly practices and its co-founder, Mr. Jitendra Tanti, for his leadership in green innovation. Mr. Tanti is managing director of Synefra Engineering & Construction Ltd., the holding company of the Suzlon Group. In 2009, the United Nations Environment Program honored Mr. Tanti with the "Champion of the Earth" title for his entrepreneurship and vision.

Suzlon's global headquarters, Suzlon One Earth, was inaugurated in 2010. The campus has won the Leadership in Energy and Environmental Design (LEED) Platinum rating awarded by the US Green Building Council and the Green Rating for Integrated Habitat Assessment (GRIHA) Five Star by The Energy Research Institute (TERI) and the Ministry of New and Renewable Energy, Government of India.

Project Scope:
  Land area – 443,473 sq ft (10.18 acre)
  Office space – 598,256 sq ft
  Terminus (basement) – 223,270 sq ft
  Open landscaped area – 185,578 sq ft

It was conceived and designed as an "urban village: a great place to work, sustainable, using up-to-date technology with flavors of local architecture and culture." The project brief simplified the vision and quite clearly re-defined the modern concept of an office space. It said:

Our office area should be a place:
• Where people can breathe fresh air
• Where people do not feel restricted in thought or movement
• Where people have a view beyond their monitor screens
• Where there are breakout spaces for people to interact and bond
• Where people do not miss seasons while they achieve their targets
• Where day light changes can be felt at workstations
• Where people experience and benefit from world-class technology

Synefra took five years to complete Mr. Tanti's dream project. The key challenges faced:
• Executing and establishing a large project from a simply worded brief.
• Methodically selecting a site and a team with a clear focus of all stakeholders.
• Delivering a structure in line with the Suzlon vision of "powering a greener tomorrow".

The Synefra team used "comprehensive project management – concept to commissioning" to tackle these challenges. The project strategy team had representation from architecture, construction, interior design, landscape design, communication design, and sustainability. A key members' task force was created to manage coordination among the agencies, and monitor and control any deviations from the project scope or strategy. Synefra appointed green project managers who were involved throughout the process to ensure the project achieves its green objectives.

The benefits of utilizing project management were many: the 8.2 lakh sq ft built up campus was commissioned in 36 months, no dilution of the original concept in spite of having more than 100 designers, consultants, contractors, vendors, and executing agencies, and completed with approximately 20 percent saving on the total project cost in spite of going in for LEED Platinum and GRIHA 5 Star ratings compliance.

We spoke to Mr. Jitendra Tanti, co-founder, Suzlon Energy and managing director, Synefra Engineering & Construction Ltd.:

What tips can you share with other industry leaders who want to create similar campuses?
Plan infrastructure with a firm focus on the principles of sustainability that include responsible solutions around energy, water, and waste management. Leaders must get involved in the planning stage and select the right stakeholders, be it project managers, architects, or designers. Leaders must create awareness and ask for solutions beyond the established norms. They cannot just focus on an inward looking vision of beautiful facade and manicured landscape. It goes much deeper than that. Sustainability must be a way of life for employees and impact their thinking beyond office hours. Green buildings should add value to the users' life. That is when leaders can make a difference.

What should be an organizations' green responsibility today? Is it a question of choice any more?
There is no choice any more. It is already late; now it is a question of our survival. Organizations have to think in terms of triple line reporting beyond top line and bottom line. If organizations want global respect, green responsibility is no longer a matter of choice.

How can the government play a role in promoting and supporting environment-friendly initiatives?
We should not keep expecting initiatives from the government to think and turn green. Even if we follow the laid down rules of environmental clearance and pollution norms, more than half the job is done. Let us take responsibility and help the government to make our surroundings more liveable and healthy. Once this collective action takes shape, the government will be compelled to act. Let us not wait for benefits and incentives, and simply act so that we leave behind a healthier planet for our children.

Sustainable approaches at Suzlon One Earth:
- Energy – renewable resources from construction to operations with optimization of the needs at the source
- Water – conservation from design to operations
- Waste – minimization at the source and responsible disposal methods
- Material – use of environment-friendly and certified material through efficient sourcing

Larsen and Toubro (L&T) Powai West Campus

L&T is a technology, engineering, construction, and manufacturing company. With over seven decades of operation, L&T is a respected corporate house in India with a strong legacy of following environment-friendly practices. The company believes energy-efficient alternatives and practices not only result in environmental conservation, but also yield cost optimization.

According to the L&T Sustainability Report, the company has successfully implemented clean technologies such as clean fuel projects, green buildings, super critical power plants, energy-efficient projects and solar power projects. The company has won many awards for its eco-friendly projects, including the most recent, The Financial Express – EVI Green Business Leadership Award for 2010-11.

L&T Powai West Campus in Maharashtra is a successful water conservation initiative. The facility's water conservation project has received the Zero Waste Water Discharge status. The campus reuses waste water for gardening, lavatory facilities, fire hydrant, and cooling tower applications, thereby not wasting any water.

Key project challenges:
To execute the project, the project management team needed to create a system that would:
- Manage the fluctuations in the wastewater inflow and the supply of treated wastewater outflow
- Manage the uniform degradation of organic matter
- Keep the reuse of wastewater at a continuous pace even during the monsoon season

The L&T team used project management best practices to overcome these challenges. The design and engineering challenges were overcome by choosing the right people for the task and ensuring that the larger project objective of water conservation was the ultimate driving factor. The team buffered the sewage treatment plants with a two-stage equalization tank to tackle the fluctuations in water flow and added membrane-based air filters and surface diffusers to handle the organic waste. The output was uniform treatment of the waste water. The team also designed conservation tactics to reduce water consumption.

Project highlights:

Now the L&T Powai West campus treats all its waste water and reuses it for non-potable applications with the use of state-of-the-art biological treatment technology. In addition to receiving the Zero Waste Water Discharge label, the campus has over the past three years reduced its water consumption by 10 percent.

Other notable green achievements at L&T:

Green Building:
- There are more than six certified green buildings within various L&T campuses with a total measurement of 1.2 million sq ft.
- L&T has constructed more than 10.2 million sq ft of certified green space for clients, which it says is the largest by any engineering and construction company in India.

Renewable Energy:
- At L&T Powai West campus, 40 percent of the electricity is through wind energy.

- L&T set up 8.7 MW captive wind farm in south India in 2010.
- Key L&T campuses have rooftop solar photo voltaic installations, aggregating to captive generation of 1 MW of solar energy.
- Overall, renewable energy constitutes to about 12 percent of total energy consumption at L&T.

Green House Gases (GHG) Reduction:
- Over the past four years, L&T has reduced direct and indirect GHG emission intensity per employee by 26.2 percent and 37.2 percent, respectively.

Making Construction Sites Environment Safe

Dr. Krishna Nirmalya Sen, deputy general manager, and Mr. Deepak S. Mattikalli, assistant manager, Health Safety and Environment, Larsen & Toubro Limited offer some practical tips

Projects pose several environmental challenges, particularly at the execution stage, and get intertwined with social, cultural, socio-economic, and other concerns. The resources projects require sometimes affect the unique habitat in that area forever. It is important to review the utilization of these resources with a pragmatic approach, ensuring less usage of these resources by adopting green technology, building with local and plentiful (i.e. sustainable and renewable) materials, and generating less waste.

Construction has now become more complex with the advent of new technology, chemicals, and processes. Nowadays a number of materials used in construction are hazardous and needs safe handling, usage, storage, and disposal.

Ground water: A precious resource for any construction activity. It may lead to serious implications if not done judiciously.

Waste management: Waste at construction sites can be hazardous, non-hazardous, biodegradable, or non-biodegradable. A well-managed projects site collects waste in a systematic manner, each type separately, and then gathered at a central waste storage yard. Segregation should be carried out on the basis of reusability, recyclability, and treatability. Records of waste generated must be maintained on a daily basis. Disposal must be done through an authorized vender or recycler.

Reuse of treated water: Sewage generated at workers' enclaves and on site should be treated and reused for various construction activities.

Prevention of land pollution: Accidental spilling during painting, shot-blasting, or transfer of oil could pollute the land. An impermeable layer with polythene sheets in oil storage area, the collection of split oil for recycling or disposal, and diesel generator sets with drip tray are some useful measures.

Topsoil management: At construction projects, top soil should be preserved and brought back once the construction activity is over. During the project duration, topsoil can be stacked elsewhere and put back after construction is over.

Prevention of noise pollution: Provide acoustic enclosures for diesel generator sets and personal noise protective equipment to workers exposed to high noise levels. Also regularly monitor noise emission levels of various equipments used.

Controlling dust generation: Spray recycled water on the roads leading to the construction site at regular intervals. Prior to construction operations like demolition, crushing, and chipping spray water to control dust. Cover dumpers carrying excavated soils with tarpaulin sheets.

Emission control: Enormous amount of energy is required for construction, mostly in the form of electricity and sometimes from a diesel generator, leading to significant emission. Maintain emission permissible norms at all times. Heavy vehicles used should regularly undergo pollution tests.

Workers' accommodation: Ensure that worker habitats comply with national and international standards, as may be applicable. The guidance note by International Finance Corporation and European Bank for Reconstruction and Development are good reference points.

Project Management in Cloud Computing

PMI India organized a curtain-raiser to the PMI Pearl City Chapter (PMIPCC) conference to commemorate the chapter's 10th anniversary in April 2012. The special event on "Convergence of Cloud Computing and Project Management" was held on 13 April.

The event focused on global trends in cloud computing, and its effect and outcome in the future. Delegates got insights into cloud computing from a project manager's perspective. It provided a platform to examine the emergence of new projects due to cloud computing and their impact on the global delivery model. Experts provided their insights on what is required to deliver projects of a diverse nature and India's potential to become a global leader in cloud computing.

The eminent speakers were Mr. David C. D'Lima, AIS service line leader, IBM GBS Globally Integrated Delivery; Mr. Subramaniyan Venkataraman, vice president, software engineering, CA Technologies; Mr. Amar Naresh, delivery head - IT infrastructure solutions, TCS; Mr. Virender Kaushik, senior consultant - technology & program management, National e-Governance Division, Department of IT, Government of India; Prof. Janakiram, professor, department of computer science, IIT Madras; Mr. Sebastian Joseph, president - technology & FM, DDB Mudra Group; Mr. Vimal Wakhlu, chairman & managing director, TCIL India; and Mr. V. Srinivasa Rao, senior vice president, Mahindra Satyam.

Mastek Organizes PM Month

Mr. Suyash Apte won the PMI award for best technical paper

Mastek Ltd. organized a project management focused learning event in which PMI India was the knowledge partner. Mastek runs a quarterly theme-based learning program called GLOW (Gain Learn Outperform Win). The fifth GLOW event on project management was held across Mastek offices in India. The event focused on how managers could enhance their capabilities with project management training. PMI India collaborated with the Mastek learning and development team and project managers to plan and execute the session.

The program included presentations, webinars, and competitions such as crossword puzzles and technical paper presentations. There were sessions by industry leaders on

Industry leaders taking part in a panel discussion during the curtain-raiser to the Hyderabad conference

project management techniques, leadership qualities, and project quality.

Workshop for Auto Industry

CII and PMI India jointly organized a workshop on project management principles for new product introduction in the automobile industry. The workshop was held on 25-26 April at the CII Naoroji Godrej Centre of Excellence in Mumbai.

New product development is often executed in a dynamic environment that involves several departments, divisions, and component suppliers. Project management best practices can help manage the dynamics better and enable product innovation. The workshop gave participants an understanding of the basic framework of project management with nine knowledge areas and five processes.

PMI and Thomson Reuters Event

PMI India and Thomson Reuters, along with International Institute for Learning, Inc. (IIL), organized an event on project management in the Thomas Reuters office in Bangalore on 22 February. It drew over 100 attendees.

Ms. Ritu Singh, head, Cross Content Projects, welcomed the audience and Ms. Adele Craze, council member, PMO, presented an introductory video. Three presentations were on the agenda: Mr. Ravi Vanukuru, corporate trainer & subject matter expert on project management, IIL on "The Current Context, Challenges & Diversity of Global Project Management;" Ms. Valerie Gray, intercultural professional, Behavioural Architect, BNI, on "Why Should Project Managers Network?"; and Mr. Hiren Doshi, trainer, Practice Agile, on "Building a Culture for Agile Delivery."

A Project Manager's Responsibility in Environmentally-Sensitive Projects

BY AVINASH KHARE, PMP

A project might help in the economic development of a region, but leave a negative impact on the immediate environment. Multipurpose river valley projects, hydroelectric projects, and large construction projects fall in this category. As a project manager, you can take appropriate steps to forestall the damage and soften the impact.

Multipurpose river valley projects lead to the displacement of people. These projects increase the risk of damage due to earthquakes, submerge forest land, increase the spread of insect-borne diseases, and threaten the fragile ecosystem by reducing the flow of water from the river into the sea. The devastation to human lives and the biodiversity is often immeasurable in such cases.

Hydroelectric power stations make the flow of water downstream sluggish, leading to changes in sedimentation and increasing the instances of flooding. Dams can breach its capacity, resulting in huge loss of property and life.

Large construction projects can have an impact on the environment by polluting the air and water, producing waste, and precipitating water shortage. Ground water that is extracted for use in construction sites can push the water table down over a period of time. Similarly, in energy plant projects, greenhouse emissions can pose a threat to the air around the plant.

The project manager must explore risk mitigation measures before taking a decision on the future of the project. For multipurpose river valley projects, the flow rate of the river has to be maintained to preserve the river ecosystem. Vegetation can be regenerated by large-scale planting of trees. Water levels in the river can be maintained by bulding weirs. Fish ways that enable the fish to pass around the barriers without getting trapped should be installed on or around artificial barriers such as dams to facilitate the natural migration of fish, thus preventing fish mortality.

In hydroelectric power projects, flood tunnels can be made to reduce sedimentation around the reservoir. Water levels can be maintained to preserve wetlands and aeration must be implemented to improve water quality.

For construction projects, waste management is a big problem and the project manager must devise systems for waste collection, transportation, and disposal. Special care must be taken to handle and dispose hazardous waste, which if left unattended can pose a serious threat to the environment. Colossal construction projects involve deforestation which in turn increases the concentration of greenhouse gases that lead to global warming. Geo-engineering techniques for carbon-dioxide removal to reduce greenhouse gases emission must be adopted.

A project manager needs to conduct an environmental impact assessment of a proposed project, besides studying aspects like the project's social and economic viability. This assessment will help the project manager and the project stakeholders take an objective view on whether to proceed with the project or not.

Environmental impact assessment studies need a significant amount of primary and secondary environmental data. Primary data is collected on the field to define the status of the environment such as air quality and water quality data. Secondary data is collected over the years and can be used to understand the existing enviornmental scenario of the study area. Next, the project manager must identify the risks that the project poses on the environment. The environmental impact study should be an ongoing exercise during the lifecycle of the project. The project manager must also take into account organizational guidelines or government guidelines during execution. A lessons learned repository is a helpful tool for such projects. Having a contingency plan in case of any environmental disaster would be an added advantage and should be kept accessible.

There must be clear policies and guidelines in the organization to protect, analyze, and monitor the environment while planning, designing, and executing a project. Some common environmental issues that an organization must guard against are: water and air pollution, waste disposal, and resource depletion, which are leading to climate change. Organizations must undertake environmental audit as a good practice in project management. Considering the increasing impact of projects on the environment, particularly in India that is stepping up infrastructure building, an environmental project manager is the need of the hour and will be the right resource for complex projects that are likely to impact the environment.

(Mr. Avinash Khare, PMP, works with a leading telecom ISP with more than five years of experience in handling datacenter projects for varied customers.)

Western Carolina UNIVERSITY

Master of
PROJECT
MANAGEMENT

The Master of Project Management Degree Program at Western Carolina University was the first masters degree in the United States at a nationally accredited institution. The program received its accreditation from the Project Management Institute (PMI) in 1983. WCU was also the first to be accepted by PMI as a Global Accreditiation Center for Project Management. Western Carolina University's online master's program in project management has earned the No. 1 national ranking in quality and affordability from the distance education information clearinghouse GetEducated.com

"The WCU MPM program provides the educational opportunity where one can apply the learning immediately and really grow as a project management professional … the program exudes excellence and is a best kept secret of great value."

—Jamie Willie
Customer Service & Support Planner
IBM - Software Group

Program Description

PM 650 - Fundamentals of Project Management
An overview of the project management discipline, project phases, and knowledge areas; the strategic context of projects. Introduction to project management tools and techniques.

PM 652 - Project Selection and Initiation
Strategic context for selection. Issues involved in project initiation. Selection of appropriate contracts for managing identical risks; principles of negotiations for procurement and contracting.

PM 654 - Project Planning
Preparation of a team project plan by defining the WBS, interdependencies, allocating resources, estimating costs; planning risk, quality and integrated change control and Critical Chain.

PM 656 - Project Plan and Implementation
Project baseline and approval of the master plan. Legal aspects of planning. Introduction to project control systems; earned value, change management, quality management and control.

PM 658 - Project Execution and Closeout
Interpersonal and group skills for project execution. Leadership and management roles and project team development. Project audit and quality assurance. Project closeout and lesson learned.

PM 660 - Advanced Project Management Practices
Design, development and the role of the Project Management; portfolio management and project management maturity. Scholarly pursuit of research on advanced topics of PM.

Anytime, Anywhere!
We've designed Western Carolina University's online Master of Project Management (MPM) degree program with you, the busy project management professional, in mind. We bring you the benefits of modern technology and high quality, graduate instruction in a form relevant to our real world experience in managing projects.

Three Levels of Accreditation
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MPM Program

PMI PEARL CITY CHAPTER

Ten Years on, Still Going Strong

PMI Pearl City Chapter (PMIPCC) commemorated its 10-year journey this April. On 13 and 14 April, a mega conference, Gyan Lahiri 2012, marked the decade-long commitment of PMIPCC to the project management community. Under the theme, "Project Management – A Catalyst in Economic Growth," the conference brought in 400 practitioners from various industries to share their experiences and learn from their peers. Speakers from various sectors and diversified areas of project management gathered to represent project management within A, B & C (academia, business and civic society).

PMI officials and chapter leaders at the PMIPCC conference

A skit, "10 on 10", presented by Mr. Suresh Chandra, president, PMIPCC, and Mr. V Srinivasa Rao, past president, PMIPCC, was warmly received by the audience as a unique and novel way of illustrating the chapter's milestones and achievements over the past decade.

Mr. P K Nair, CEO, GMR Airports Holdings Ltd., inaugurated the conference with a presentation on the efficacy of the public private partnership model of execution. By way of illustration, he highlighted the success story of the state-of-the-art Rajiv Gandhi International Airport, Hyderabad. Ms. Deanna Landers, vice chair, PMI Board of Directors, followed with an insightful presentation on how organizations can utilize project and program management practices to select projects that are in line with their vision.

Mr. Raj Kalady, managing director, PMI India, said, "We take pride in announcing the considerable growth that PMIPCC has witnessed over these 10 dynamic years." On the conference, he said its purpose has been to emphasize how project management can be a tool to help improve the socio-economic status of the country.

Ms. Landers presented Special Recognition Awards to three organizations: Indian School of Business, GMR Hyderabad Airport Project, and GVK Emergency Management Research Institute. These organizations have had a positive, global impact on the A, B & C sectors in the past 10 years and have served as examples of excellent project management practices in Hyderabad.

The conference had speakers with extensive experience in projects. Mr. Samir Dhir, head of India operations - Global Delivery, Virtusa, delivered the keynote address. He spoke about evolving client expectations and shifting complexities in the global versus local context. Mr. D. Murali, president - Projects, Reliance Industries, who has nearly 50 years of experience in executing large projects, stressed the importance of innovation, backward integration, and capturing and learning from experience. Mr. Periasamy Ramamoorthy, vice president, Mahindra Satyam, talked of turning around challenging projects. Dr. Atul Sen, director, Defence Research Development Laboratory Hyderabad, stressed the importance of framework and methodology. Mr. Ajay Parasrampuria, founder & CEO, i2m & PM Academy, offered insights into the future of the project management office, its purpose, and effectiveness in organizations.

The conference featured two panel discussions. The first panel was on "Project Management as a Tool to Improve Socio-Economic Status of our Country." The panelists were Dr. Subash Rastogi, head, EAS Academy, HCL Technology, and member, Com-

Mr. Suresh Chandra speaking at the conference

munity Engagement Committee, PMIEF; Mr. Suthirtha Bhattacharya, IAS, principal secretary, Infrastructure & Investment, Government of Andhra Pradesh; Mr. Piyush Gupta, senior general manager, National Institute for Smart Government; and Dr. Balaji Utla, CEO, Health & Medical Research Institute, and president, Corporate Sustainability, Piramal Healthcare Ltd. The second panel was on "Challenges in Execution of Large Projects." Mr. V Srinivasa Rao moderated the panel which included Mr. D Murali, president, Projects, Reliance Industries; Mr. M P Naidu, executive vice president & project director, L&T Metro Rail (Hyderabad) Ltd.; Mr. Meher Nori, Broadridge Financial Solutions; and Mr. Vivek Sonar, head, program management office, Asia Motor Works.

Volunteers who had contributed to the success of the conference received recognition from PMI. Ms. Landers gave away mementos to over 50 volunteers. The conference ended with a valedictory note on the way forward by Mr. A.V.Ramam, past president, PMIPCC.

BANGALORE CHAPTER
Industry Leaders at PM Footprints

During March and April 2012, PMI Bangalore Chapter hosted seven sessions of the experience and knowledge sharing forum, PM Footprints. Two of the sessions were Signature PM Footprints and were headed by top executives of large organizations.

Mr. Ramhorst at a PM Footprints session

Mr. Gopinathan speaking at a PM Footprints session

Mr. Gopinathan Padmanabhan, executive vice president & head, Global Delivery, MphasiS, addressed a gathering of nearly 90 project managers on 15 March. The theme of his presentation, "Emerging Trends in Global IT Outsourcing and Associated Challenges for Project Managers," was derived from his experiences in the industry. His presentation covered areas such as, threat from other emerging competitors and what Indian project managers can learn and do differently to sustain India's current status as a leader in global IT outsourcing.

On 12 April, Mr. Dirk Ramhorst, vice president, Business Solutions, BASF The Chemical Company, made a presentation on "Project Management as a Change Management Enabler in Large Organizations." More than 45 project managers attended the session.

The remaining five sessions of PM Footprints consisted of various presentations: "PMOs Post Acquisition Challenges," by Ms. Sreedevi Juturu, integration project manager, Life Technologies, on 1 March; "Dipstick for Projects in IT Service Company," by Ms. Ritu Chakrabarti, project management consultant, Wipro Technologies, on 8 March; "Risk Identification & Analysis in Chemical, Oil & Gas Projects (An Introduction)," by Mr. Parthasarathy Nanduri, independent project consultant on 29 March; "Going Agile with Distributed Teams," by Mr. Zia Mujawar, project manager, First Advantage Offshore Services, on 5 April; "Managing IT Projects in Public Sector Bank — A Case Study," by Mr. Chandra Shekhar, senior manager, Syndicate Bank, on 26 April.

PMI WEST BENGAL CHAPTER
Agile Workshop

PMI West Bengal Chapter hosted a day-long workshop on agile methodology, scrum, and project management on 17 March. Mr. Hiren Doshi, ACP, CSP, SSGB, PMP, a recognized expert in the practical application of agile project management processes and engineering principles, was the workshop coach. The workshop attracted 32 project management professionals from the city.

It was a very interactive session with participating practitioners exchanging ideas on challenges and solutions. While it was just a warm-up session to revisit basic nuances of the agile way of execution in the IT world, participants received a fair understanding of the fundamental principles of scrum as well. The workshop was held also with the objective to help aspirants of the PMI-Agile Certified Practitioner (PMI-ACP)^{SM} certification in the region.

Chapter members participating in the interactive session on agile project management

NORTH INDIA CHAPTER

Spreading a Wealth of Knowledge

PMI North India Chapter had a power packed March and April with a major informational event and several educational sessions.

Mr. Manoj Gupta welcoming, Mr. Rakesh Verma

On 25 March, the chapter held "Project Management: Infrastructure and IT Projects" in Jaipur, Rajasthan. In an effort to conduct fruitful discussions on infrastructure projects, the chapter invited senior officials of the Rajasthan government. Mr. Vinod Garg, managing director, PROMAC, commenced the event, followed by an address by Mr. Manoj Gupta, president, PMI North India Chapter. Mr. Rakesh Verma, IAS, principle secretary, Planning Department, Rajasthan Government, was the chief guest and Mr. Atmaram Gupta, chairman, Federation of Rajasthan Trade and Industries, was the guest of honor.

Highly experienced project professionals participated in a panel discussion on "The Importance of Standard Practices for Efficient and Effective Completion of Infrastructure Projects." The panelists were Mr. Mukund Joshi, chief engineer, Central Public Works Department – North Zone - III; Brig. Balbir Singh, additional command chief engineer, Headquarters, South Western Command – Indian Army; Mr. Puneet Mittal, managing director and CEO, Pratham Software; Mr. Alok Ranjan, chairman, Indian Institute of Architects, Jaipur Chapter; Mr. Tushar Sogani, secretary, Indian Institute of Architects, Jaipur Chapter; and Dr. Vanita Ahuja, assistant professor, Gautam Buddha University, Greater Noida.

In April, the chapter held a two-and-a-half-day PMI Agile Certification Program (ACP) training course. The training, conducted by Mr. Hiren Doshi, trainer, Practice Agile, served as a primer for those involved in teams adopting agile techniques or those planning to take the PMI Agile Certified Practitioner (ACP) examination. On 28 April, the chapter conducted a refresher session on *A Guide to the Project Management Body of Knowledge* (PMBOK® *Guide*) for employees of PSU Power Grid Corporation of India Limited who had previously undergone Project Management Professional (PMP)® training.

PUNE-DECCAN CHAPTER

Innovation and Operational Excellence Forum

The PMI Pune-Deccan Chapter held a session on its initiative, Innovation and Operational Excellence Forum (IOEF), at the Institute of Industrial and Computer Management and Research campus in Nigdi, Pune on 21 April. The forum was designed by the chapter to provide a cross-country learning platform for professionals who utilize different tools and approaches to practice and nurture innovation and operational excellence.

Some of the popular topics discussed at IOEF sessions in the past have been "Green Persistence Movement", "Social Networking", and the "Theory of Constraints (TOC). In April, the chapter organized another discussion on TOC after a positive response to a previous session on it. TOC has revolutionized the way many companies work across the world. Mr. Harish Honwad, general manager, Persistent Systems, presented concepts such as, techniques in conflict resolution including desirable and undesirable effects, current reality tree, future reality tree, change management, and resistance to change. A Q&A session followed the presentation.

On 14 April, the 91st monthly seminar of the Pune-Deccan Chapter took place. Mr. Ashish Belagali, founder & director, Acism Software, presented on Communications Tracker, a software tool designed to simplify the retrieval

Members at a monthly seminar organized by the chapter

of information and task management procedures for managers and executives. Mr. Girish Kelkar, past president, PMI Pune-Deccan Chapter, spoke on transitioning from an individual contributor to a management position, drawing from his 38 years of experience in management. Ms. Bhavana Kulkarni, volunteer and core team member, Door Step School, discussed the initiative her NGO has started, "Every Child Counts." The initiative aims to take education to the poor and marginalized sections of society.

NLP Adds Value to Your Career

BY THOMAS R W BAIN, DEAN, INTERNATIONAL SCHOOL OF PROJECT MANAGEMENT

In the past nine years that I have worked in India, I have often met people with Project Management Professional (PMP)® certification in various forums. Many of them have studied science at a higher secondary level and have completed their bachelor's or master's degree in technology. They have relied on PMP® training to acquire the management skills needed to move from a purely technical position into a management one. Yet they have had little exposure to the humanities, arts, and social sciences that touch on communications.

Communications training could emerge as a way of gaining credibility in management. In this respect, neuro-linguistic programming (NLP) that is widely regarded in the academic world as a "pseudo-science" provides a project manager the training on necessary skills.

Views of two of India's foremost NLP specialists regarding the approaches help explain why this is so. Mr. Ashok Subramanian of the Shinota Group has a personal way of developing awareness in different contexts, whether from an everyday or leadership perspective. He argues that the NLP technique known as 'modelling' enables people to understand how to improve their strategies to cope and excel in a variety of situations. Mr. Sushil Mehrotra of the Wisdom Tree Group views NLP as a corrective science, enabling managers to improve strategies with the help of tools and techniques. His teaching focuses more on learning an array of techniques for an improved grasp of many different situations. Both the approaches are reflected in internationally recognized certificates, such as those of NLP Practitioner, NLP Master Practitioner, NLP Trainer and NLP Master Trainer.

Indeed, NLP is an experience rather than a science. Here, is a short example of how a depressed person ('participant') meets an NLP trainer:

Participant: "I feel depressed."

Trainer: "How do you feel when you are not depressed?"
Participant: "I feel great" (Cartesian logic, or in other words

logical analysis, has been used to bring the person into a happy state).

Trainer: "Why do you feel great?"

Participant: "I feel recognized."

Trainer (putting two hands forward): "If the left hand is the family, and the right the office, where is the pain?" (Participant chooses the right hand. The trainer now knows that there is a recognition problem in the office).

Trainer: "Why do you work?"

Participant: "To earn money for my family."

Trainer: "Does the company employ you to pay a salary?" (Participant begins to understand that his aims are not the same as the company's).

The trainer then uses goal-setting techniques either to help the participant sort out his professional aims and align them with corporate ones, or to choose a more suitable job or career that motivates him differently.

NLP has been developed in a variety of ways in the US and the UK, and is also in tune with Indian culture. In many respects, its development is similar to that of Ayurveda, the practice of traditional Indian medicine. Eschewing intellectual theories, NLP is a science that has developed through practice. It is learnt not from textbooks but by means of practice with other people in the same class, which accounts to over half of the course time. Similarly, Ayurveda has been developed from the observation and experience of 5,000 years ago. Its mental energies, the 'gunas', are compatible with NLP. This explains why its association with Indian culture is so harmonious.

In terms of career development, therefore, I view the PMP® certification as complementary to NLP, and would greatly help project managers in evolving into well-rounded professionals.

PMI
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