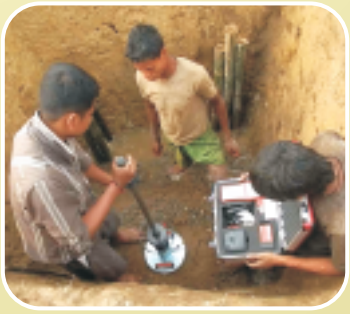
MARCH 2014

VIEW POINT

CONSULTING ENGINEER



NEWSLETTER OF CONSULTING ENGINEERS ASSOCIATION OF INDIA

Contents

President's Message

Dear fellow Consulting Engineers,

Greetings from your Association.

A change of guards is in the air vis-à-vis our Parliament. What form it takes is a question that only time will tell. Ethical governance has been made the platform by some. It is being talked about as a desirable aim to put India on the world map as a country to reckon with. By the same token, we engineers need to be ethical and responsible in our dealings. That's what I have been drawing attention to for the past so many months in the CEAI Newsletters. Such dealings are necessary and essential for the engineering fraternity to be able to ably fulfill the role of master builders to the nation and take the learnings abroad to help fellow human beings develop and uplift their countries.

Progress has been achieved with Ministry of Road Transport & Highways issuing circulars, in January and February 2014, clarifying the points to be covered in the RFP documents of Consultancy Assignments on National Highways & related Centrally Sponsored Works.

In the matter relating to the Council of Architecture, legal steps as mentioned in the last Viewpoint were initiated and are bearing fruit. However, the brain washing done by the Council of Architecture on some local bodies needs to be set right and those local bodies be educated on the folly of their ways. The clients and the public at large must realise that it is the engineers who are ultimately responsible being the creators, operators and maintainers of what is built. For this the lakhs of engineers in the country must expound and propound the intricacies of the services they render to make the projects see the light of day.

Good and proper consulting requires that the engineer be able to clearly conceptualise what is required, evaluate alternative concepts, define the form suiting the functional requirements and then analyse and design the same. This applies to all disciplines of engineering and all type of projects. In doing all this, safety, security, soundness and robustness of design need to be given paramount consideration. Building or constructing or fabricating and erecting is what the engineer does next to render the concept into reality. The onus of the consulting organisations is to deliver ethical services objectively that are 'fit for purpose'. This inter alia involves that the employee receive continual training in their sphere of profession, management skills, teamwork, soft skills, etc. Along with the organisation the individual professional also is responsible to imbibe knowledge, skills, etc. to continuously develop to remain as a registered engineer.

In the last Executive Committee Meeting of the Engineering Council of India, the issue of Engineers Bill came up as usual. It was felt that matters have been put on the side burner for too long by our Ministry and need to be speeded up. It was thought prudent to let the new government formation be done and thereafter pursue it with full vigour. Many countries already have such requirements - Japan, Malaysia, New Zealand, Pakistan, Quebec (Canada), Queens Land (Australia), Republic of South Africa, Singapore, South Korea, Tanzania and USA. In India itself Gujarat already has one - the Gujarat Professional Civil Engineers Act, 2006. In Maharashtra the Professional Engineers Act, is under consideration. Statewise regulation would defeat the purpose of a central act like the ones for other professions such as Medical, Legal, Architect, Chartered Accountants, Dentist, Company Secretary, etc. which given them legal status.

The engineers in India are being differentiated, neglected and taken for granted?
There is a dire need to set this right.

With best regards

A. P. Mull

India Needs Climate-Smart Consultants

By Pradeep Chaturvedi
Vice Chairman (Energy), World Federation of Engineering Organisations

Introduction

The knowledge and knowledge workers are the most valuable assets of contemporary business organisations. Yet the extent, to which relevant knowledge is applied to certain key activities and how knowledge workers are supported, can be critical determinants of the extent to which organisations can benefit from these assets. The paradigm shift in knowledge demands in the consultancy sector has moved at a rapid pace. Many organisations have a disbursed work force, and the management challenge may be to support people in different locations who need to collaborate and interact in the performance of particular tasks. In the current scenario it is global in nature. The professional societies and the communities of knowledge workers have to face this challenge in a positive manner. The professional organisations, including the Consulting Engineers Association of India, have responded to the global challenge at a slow pace. The result is that instead of larger number of members of CEAI becoming global players and carrying the national flag in other countries, many of the member organisations have reduced their business operations, which is a matter of great concern.

The challenge before us is to consider how to address the goal of ensuring that communities of knowledge workers and professionals who are the leading consultants remain 'current' and 'excel' especially in roles that impact upon customers and clients. Providing better support to communities of professional consultants, especially those in the front lines can be the key to transforming public services.

CEAI needs to ensure that the professional support to its members really help in re-energising the activities of the consulting organisations. CEAI also has an opportunity to enlarge its membership base to develop, support and keep up-to-date the knowledge workers employed by all and thereby help its member organisations to grow. Every consulting firm has the major challenge to attract, develop and qualify appropriate people, retain them as members, and enable them to remain employable and competent to practice throughout their carriers. CEAI has to be concerned with ensuring the highest standards of practice and ethical conduct and compliance with relevant guidelines and codes.

Leaving the professional development to business schools or the engineering institutions is not sufficient. Global studies have been conducted on how many of the approaches, tools and techniques used by communities of practitioners have emerged from business schools, engineering colleges and/or professional bodies as opposed to those developed by consulting and other professional firms or innovative companies. Studies have also been conducted to find out if the business school/engineering college academics investigate approaches, tools and techniques after the adoption. The outcome has not been very encouraging. Academics always consider that they are the last word and need no review. The shocking results were seen in the form of global economic crisis of 2008.

A continuing investigation is observed on relevance of business schools and engineering colleges in providing continuing and job-based education, training and support in terms of short-term courses for training which can be provided effectively only by professional bodies. Thus the professional bodies are gaining in relevance in terms of job-oriented facilities and CEAI should better take note of the same to remain in the leading position.

That brings us to the issue of where is the future development going to be and what is expected of the engineers.

Rio+20 Outcomes and Future Development

At the Rio+20 conference, member states of the United Nations (UN) expressed concern about the scale and gravity of the impacts of climate change. These impacts affect all countries and undermine their ability, particularly in developing countries, to achieve sustainable development and the Millennium Development Goals (MDGs). This concern was later reflected in reports and proposals which have contributed to debate about the post - 2015 development agenda. The Open Working Group (OWG), established by the Rio+20 conference and charged with formulating a proposal for the post - 2015 development goals, recognised during its seventh session that climate change can 'seriously jeopardize social and economic development gains in the years and decades to come.'

The urgency of action on climate change, acknowledged by members of the OWG, is supported by climate science. From current trends, we are heading for a global average temperature increase between 3°C and 5°C by the end of the century. Limiting climate change to 2°C warming, the current target of the United Nations Framework Convention on Climate Change (UNFCCC), will require substantial and sustained reductions of greenhouse gas emissions. Even in a world 2°C warmer, development gains will be undermined and attaining and maintaining the post - 2015 objectives will be made more difficult and costly.

While the grave threat to sustainable development and poverty eradication that climate change presents may be recognised by the OWG, how climate change will be included in the post - 2015 goal framework remains undecided. With the post - 2015 development agenda, financing for development discussions, negotiations towards a 2015 UNFCCC climate agreement and revision of the Hyogo Framework for Action all taking place concurrently, the challenge is how to reap benefits from aligning development and climate frameworks and how to effectively integrate climate action into development strategies. The coincidence of these global governance milestones in 2015 presents a critical and rare opportunity for global leaders to send the right signals to the wider world at precisely the time when strong signals need to be sent in order to avoid dangerous climate change. Future course of development opens challenging tasks for engineering consultants.

Options for Integrating Climate Change in the Post – 2015 Development Agenda

There are several ways that climate change may feature in the framework of global goals and targets for the post - 2015 development agenda. As was the case with the MDGs, there is likely to be a narrative for the post - 2015 development agenda and this will draw from previous international agreements, including particularly the Rio+20 outcome document and its references to climate change. This narrative should therefore recognise the inextricable links between climate and development and the importance of climate change to the achievement of development objectives. As was also the case with the MDGs it is likely to be the goals and targets in the new framework that most inform national development strategies and plans.

However because of the timing of the post – 2015 agreement, it is critical that a strong signal is sent to the private sector and civil society that climate change is a priority.

Climate change could feature in the framework at the level of a goal or at the level of targets, or both. Goals in the post - 2015 development framework will be easily communicable statements of a global ambition with respect to a specific sustainable development challenge (e.g. 'Achieve universal primary education'). Targets will be key specific, measurable and time - bound outcomes (results) that directly contribute to the achievement of a goal (e.g. 'Ensure that, by 2030, children everywhere, boys and girls alike, complete a full course of primary schooling ').

Climate Change is being Mainstreamed Through Targets – Creating a Climate-Smart Approach.

Climate change is a cross - cutting issue for the post - 2015 development agenda, affecting all sectors and all countries. It is recognised as being linked to 10 of the 19 'focus areas' identified by the OWG for consideration in the framework. Arguably all goals will need to be 'climate – smart' and include relevant targets that are designed to deliver climate compatible development – ending poverty, shifting to low - carbon development pathways, and enabling adaptation and resilience.

Climate - smart targets will be universal but implemented through national actions and differentiated by country context and in accordance with capabilities. They should be seen as relevant to high – income countries expected to make more ambitious emission reduction commitments under the UNFCCC in accordance with the principle of 'Common But Differentiated Responsibilities', and by addressing the drivers of climate change might provide impetus for more specific commitments. As well as targets that help address global warming, the framework will need to include targets relating to adaptation to climate change, disaster risk reduction and resilience.

A number of climate - smart targets have been suggested for the post – 2015 development framework. Though by no means comprehensive, these include the following targets, which could be included under several possible goals: (Since level of effort is to be decided by each country, therefore targets are represented by 'X%' in the following statement of goals):

- All countries have developed and implemented low-carbon development strategies or plans, by 2030.
- All countries have national planning processes and instruments in place by 2030, which build resilience to, and reduce the impacts of, climate - related disasters.
- Reduce the number of people killed due to climate - related disasters and climate change impacts year on year and overall by at least X% by 2030.
- Reduce the number of economic losses due to climate - related disasters and climate change impacts by at least X% by 2030.
- Increase the share of renewables in the global energy mix to X% by 2030.
- Increase the rate of improvement in energy efficiency globally to X% by 2030.
- Phase out fossil fuel subsidies by 2030.
- Increase the climate resilience and yields of smallholder agriculture by 2030.
- Increase the water - efficiency of agricultural production by X% by 2030.
- Reduce net deforestation by X % by 2030.
- Reduce the incidence of morbidity and mortality from emissions - related air pollution by X% by 2030.
- Reduce the incidence of morbidity and mortality from indoor air pollution by X% by 2030.

The Challenge and Potential of Engineering Contribution for Development

Global challenge of development is focused on growth in the developing world wherein 70% of the infrastructure will be created by 2030 and will serve the inclusive growth and development. At the same time, the infrastructure in developed world will have to be updated and strengthened. India is passing through a peculiar situation that it has to undertake both the activities of upgradation and creation of new infrastructure.

There has been a focus on employability of engineers, wherein the perception created is that employability of graduate engineers is low. It is nevertheless observed that graduate engineers are the most employable whether it is in administrative services, managerial services, or even legal services, besides the engineering sectors. Thus, employability of an engineering graduate opens vast avenues into different sectors of socio-economic fields which are not common with other disciplines of education.

It would suffice to mention the following examples of current issues and trends emphasised by experts that reflect 'challenges' and 'opportunities' that engineering and technology have to address:

i) the need to more fully embrace sustainability in the development process.

ii) an ever increasing global population with its continuous shift to urban areas.

iii) increasing demands for energy; drinking water; clean air; transportation; and reuse, recycling and safe disposal of waste.

iv) the globalization of engineering practice and the desire to attract the best and brightest to the profession.

v) the need to upgrade quality of engineering education and research and development.

vi) the need for more involvement of engineers in the political process and national policy making.

vii) the perception of occurrence of corruption in the global engineering industry and service sector.

viii) the poor condition or non-existence of the infrastructure.

ix) the need for creation of employment and income generation opportunities for the masses.

The preceding problems and opportunities will require intra-disciplinary, cross-disciplinary, and multi-disciplinary collaborations on projects and in research and development. Further advances in information technology promote a global professional community to focus on the above mentioned challenges.

The engineering profession has to increasingly recognize the reality of shrinking global resources, the desire for sustainable practices and design, and the need for global equity at large in the consumption of resources. Engineers have helped raise global expectations for sustainability and for environmental stewardship and they have to now deliver.

Responses at the local, national and international levels will generate incremental, structural and transformational change. Achieving these goals and targets for sustainable development requires further innovative responses at all levels, as replicating and up-scaling current policies for sustainability will not suffice. Scenario studies show that both 'short-term policy solutions' and 'long-term structural measures' are needed to meet the required targets. Consulting Engineers' Community has to play an important role and CEAI has to position its activities with proper strategies in line with wider global decisions. However, such development will need innovation.

Profile of a Professional Engineer in 2030.

As most of the targets are being suggested for 2030, it would be appropriate to consider the expected role of a professional engineer (which includes consulting engineers) in 2030)

Rapid technical progress is altering fundamentally the skills, knowledge, infrastructure and institutions needed for the efficient production and delivery of goods and services. So broad and far-reaching are current technological developments that we may see the emergence of another industrial revolution driven by a new technological "paradigm". This paradigm involves not only new technologies and skills in the traditional sense, but also different work methods, management techniques and organizational relations within firms.

The '*attributes*' of engineers in 2030 will consist of three elements as follows:

- '*knowledge'*
- '*skill*' and
- '*attitude'*

An understanding of the same is provided in the following paragraphs.

'Knowledge' is largely cognitive and consists of theories, principles, and fundamentals. This knowledge is gained through structured educational programmes followed by programmes of continuous professional development -which need to be pursued by professional engineers throughout their working life.

'Skill' refers to the ability to do tasks. Knowledge helps in developing skill in a much more effective manner. But, they are not inter-changeable. Skill development programme need to be emphasised not only for graduate engineers but also for different levels. This will also include continuous learning, problem solving, creative thinking, team work, communication and self-assessment. Formal education is the primary source of knowledge, whereas skills are developed via formal education, focused training and hands-on experience.

'Attitude' reflects an individual's personality and determines how he or she perceives, interprets and approaches the issues of development. Attitude conducive to effective professional practices include: commitment, curiosity, honesty, integrity, objectivity, optimism, sensitivity, thoroughness and tolerance.

Conclusion

The long - term success of the post - 2015 framework, however, will ultimately depend upon how climate - smart it is. The goals must be climate - smart; i.e. include targets that deliver a triple win of ending poverty, shifting to low/zero carbon development, and enabling adaptation, disaster risk management and resilience to environmental shocks and stresses. And the professional engineers who will ensure the expected transformation will need to attain the attributes mentioned above.

I have always maintained that CEAI should play a lead role in identifying future needs of consulting engineers and take action to prepare them for the same. The 'road map' has been described easily, but implementing this road map will need a strong, disciplined and decisive CEAI.

Having said that I would like to add that the CEAI has all the capabilities to make its members 'climate-smart'.

PUBLIC-PRIVATE-PARTNERSHIP PROGRAMME: SMALL HYDRO PROJECTS IN ECO-SENSITIVE REGIONS

By L.V. Kumar

Three eco-sensitive regions of the country, Uttarakhand, Arunachal and Western Ghats have attracted entrepreneurs to exploring opportunities for setting up small hydro projects of upto 25 MW capacity. These regions are important biospheres to the country and form carbon sinkholes for absorbing greenhouse-gas emissions. They also form a repository for biodiversity of flora and fauna. These areas have now been opened for implementing renewable energy projects as long as they are not in conflict with other attributes in conserving the environment.

The Uttarakhand and Arunachal states experience seismic activity of high severity.They have glaciated peaks and valleys, with rock types categorized as crystalline rocks, granites and sedimentary formations. Geotechnical soils inthe region range from moraine soils, frosted soil valleys, sands and silt. Aquatic life is rich. Water is of good quality, rich with high oxygen content, in the Ganga system in particular. Biomass in hilly terrains is equally rich. There is a potential for renewable energy generation, in the high ranges from hydro, biomass and solar. Several large and small hydro projects have been commissioned in the state. The recent disaster triggered by a cloud burst and movement of a snow avalanche in Mandakini river valley of Uttarakhand in June 2013, caused high damage to river channel, terrain, life and property. Some of the small hydro projects under construction also suffered heavy damages. A section of society feels that quick pace of construction of several small hydro projects concurrently, may have exacerbatedthe damage to biodiversity because the ecological damage was faster than the time required for regeneration of biomass.

The Himalayan states experience frequent natural disasters; earthquakes, wind, torrential rainfall, cloud bursts, avalanches, floods, droughts, blizzards, landslides and other natural hazards. NASA satellite data and historical records indicate receding trend of Gangotri glaciers. The onset of some natural hazards can be predicted and therefore may be possible to issue advanced warnings. There is a State level Disaster Management Authority set up in each of the states;it is for the purpose of providing relief and rehabilitation during such emergencies. Water related disasters are also linked to wind storms during monsoon periods. Landslides cause soil movement and mass wasting, affecting river bed channel flows, rise in river bed levels. A national hazard map of India, prepared by National Atlas and Thematic Organization (NATMO) is available for reference. Detailed maps of hazards and disasters in Himalayas in general and Uttarakhand in particular, can be issued by National Disaster Management Authority for future reference. The data collected during the present disaster, on rainfall, its intensity, mass wasting, flood levels in river bed, etc. as available, can also be used to update the existing maps. The causalities, the severity, risks and damage potentials can be assessed for future warning at the planning stage. Hazard susceptibility indices can be given due weightage of risks. Vulnerability maps have also been issued by Ministry of Urban Development, India, for the country, as a whole. Prime Minister has constituted Missions on action plans for containing Global Emissions and impact of climate change, where the Himalayas play a prime role.

The competing demands for waters of Ganga river system within Uttarakhand; for energy generation, conserving environment and biodiversity, tourism (viz., white water rafting in the state), drinking water, employment generation through rural and industrial activity, meeting of urbanization needs in Terai region, now has a need for setting up of a Regulator, as in Maharashtra state. This institution can take judicious decisions on the priorities for water use allocations; for local consumption and for releases downstream. Ground waters and springs are important sources in the hills and valleys of Uttarakhand to sustain the flow regime or storage, for richness of biomass and biodiversity.

Trade amidst SAARC countries is growing. This includes power exchange. It is a recognised fact that a country, to balance the trade will export the commodity that uses intensely its relative abundant factor and will import the commodity that uses intensively its relatively scarce commodities. Trade, environment and development are linked in several ways. Three types of externalities in international trade include local or domestic, trans-boundaries or regional, and international. Power exchanges are common in Europe between neighbouring countries. Sustainability of trade also requires consideration of greenhouse effect, climate change, ozone depletion, atmospheric acidification, toxic pollution, biological specifies extinction, deforestation, land degradation and desertification, depletion of non-renewable resources like fossil fuels and minerals, urban air pollution and solid wastes. Even for internal industrialization of state, energy intensive industry gains in lower emissions of green gases, if hydro energy is used.

Geological and Geotechnical linkages

Abundance of water, rains, snowfalls, floods, along with vulnerability of natural hazards and disasters including seismic activity makes geological and geotechnical inputs, a primary input for development of large projects. India's scientists and talent have successfully demonstrated a capacity to find appropriate solutions in locating, tailoring or configuring components of the Hydro projects in the state which have relied on geological and geotechnical base data, during construction and later in withstanding the hazards and disasters. Hydro project configurations have been tailored to meet with topography, hydrology and other attributes at identified locations, to generate electricity at competitive cost and within normalized tariffs, for sale.

The interest shown by Private investors/developers in small hydro projects, under Public-Private-Participation (PPP) formats suffer from conflict of priorities between environment conservation and hydro-energy, or comparison between PPP risks for highways, thermal plants with coal, water, land linkages, urban water supplies, and therefore shows that there is risk in investment in hydro's invite litigation. The risks involve costs, consequential tariff derived, per unit of energy produced but also project itself being abandoned if the same is environmentally not approved at any time. This risk makes geological and geotechnical evaluation risks in Himalayas, important for success of Hydro Projects.

Green Gas Emissions from energy projects

Carbon dioxide emitted per kwh produced	gms carbon equv/kwh
Lignite	217.0
Coal	181.0
Heavy fuel oil	121.0
Natural gas	90.0
Biomass	8.4
Solar	8.2
Hydroelectric	4.4
Nuclear	2.6
Wind	2.2

There are a number of options to reduce emissions in coal fired stations, such as, sulphur dioxide removal by fuel gas desulphurisation, wet scrubber and others; Nitrogen oxide; use of low NOx burners; particulate emissions; electrostatic precipitators.

Ultra high efficiency coal based plants are now being adopted. Further, while efficiency is between 30% - 40% in most thermal processes, the hydro power plants enjoy an efficiency percentage of about 75%. The time is ripe for amending National Water Policy again to add energy, among prime objectives preceding the word 'industries'. This will help in recognizing the role a hydro energy can play in economy and life of waters of country. All Energy intensive industries stand to gain more credits for containing global emissions, if they use hydro energy. The state has enabled us to get access to a few glaciers and glaciated valleys. Geological and Geotechnical confidence in locating hydro projects there, offered an opportunity to go further north in search for hydropower sites there. We have mastered the tunneling and underground hydro power construction techniques, required to control landslides, and tackle ground stability issues and measures in Himalayas.

Public and private enterprises have retained their interest and capacity of continuing with the hydro business, demonstrating confidence in their professional strengths. These enterprises are willing to take investment risks, by relying on the trained geologists, familiar with terrain and geological sensitivity of Himalayas. The geologists, geotechnicians and hydro geologists are willing to pool their experience. In ecosensitive zones, blasting and construction activity and use of local materials may require to be carefully chosen to meet heterogeneity and river behavior during local conditions.

CEAI NEWS

NATIONAL WORKSHOP ON "ENVIRONMENTAL CLEARANCES – ISSUES, CONSTRAINTS, COMPLIANCES & SOLUTIONS"

CEAI successfully organized a National Workshop on "***Environmental Clearances – Issues, Constraints, Compliances and Solutions***" on 7th February 2014 at the PHD Chamber of Commerce, New Delhi. Mr. A S Brara, GC Member CEAI and Chairman & Managing Director, Mantec Consultants Pvt. Ltd., was the Chief Coordinator of the Workshop.

Mr. Paritosh Tyagi, former Chairman, Central Pollution Control Board and Eminent Environmentalist delivered the Key Note Address. Dr. P B Rastogi, Director, Ministry of Environment & Forest delivered a Special Address and briefed the delegates about the views of MoEF.

The following eminent speakers made presentations during the workshop:

1. Dr. M L Kansal, Professor Water Resource Development & Management, IIT Roorkee
2. Mr. R K Khanna, Former Chief Engineer, Central Water Commission
3. Dr. Asha Sharma, Sr Head, IREO
4. Mr. Sandeep Kumar Mishra, Member Secretary, Delhi Pollution Control Board
5. Dr. Hari Prakash, Jt Director NABET

Every presentation was followed by a Question & Answer session.

Recommendations of the workshop

1. **ToR approvals**: These should not be delayed by creating issues with regards to PFR when there is no relevance of the Environmental safeguards in relation to the ToR as per MOEF guidelines.

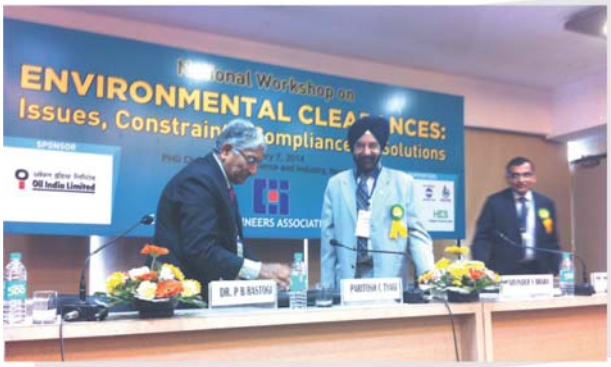
   ToRs should be cleared in the very first meeting unless there are definite, clear and substantive reasons of Environmental Concerns which are to be recorded in the minutes. ToRs should not be delayed due to minor aspects of presentation and issues not relevant to the Projects Environmental Impacts.

2. There are multiple public hearings viz. Environmental (conventional), as per Land Acquisition Act and as per Forest Rights Act. These should be combined into one to reduce time, labour and expenditure.

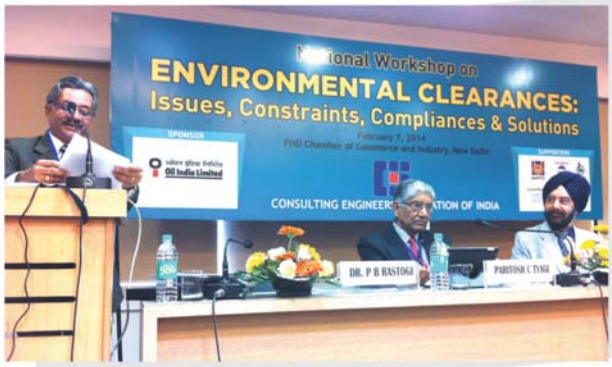
3. In case of river valley projects, three season's data is insisted upon in all cases. This requirement could be decided on a case to case basis, as in some cases (very small projects), one or two seasons data may be considered as being adequate, if it is supported by secondary data. This could be decided while approving the TOR.

4. Environmental clearance has been linked to "In Principle forest clearance". This possess some problems as some aspects like forest submergence are cleared only after environmental clearance is issued. So these may be delinked and the two may be processed in parallel, as was done earlier.

5. Environmental clearance has been linked to Basin wise cumulative impact studies. As cumulative impact study is a long process, it may be delinked from environmental clearance. However, additional safeguards and environmental management measures may be added later on, depending on the outcome of the cumulative impact study.

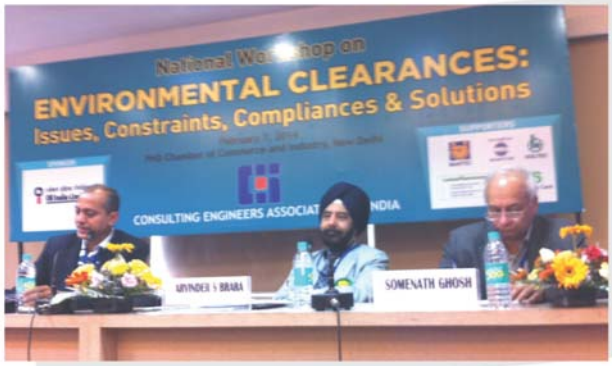


(L-R) Mr. ParitoshTyagi, Mr. A S Brara,
Mr. M M Verma



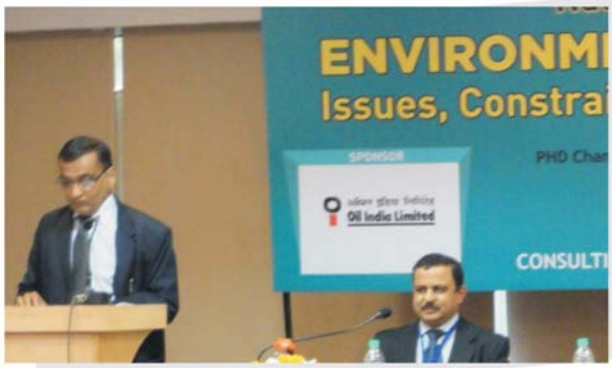
Dr. P B Rastogi, Director, MoEF
delivering the Special Address

A view of the audience



Q&A Session in Progress:
(L-R) Mr. S K Mishra, Mr. A S Brara, Mr. Somenath Ghosh

A view of the Speakers and Dignitaries
with Participants



Mr. M M Verma, Vice President, CEAI,
giving Vote of Thanks

6. Certain minimum environmental flows are insisted downstream of the dams, and rightly so. However, no one is clear about the amount of minimum flows. Consequently, ad hoc percentages/ amounts are prescribed which are sometime very high and unreasonable. A "Working Group on Minimum Flows" was constituted by the WQAA around 2004 and its report was submitted to WQAA in 2007. In the absence of any other guidelines, the report may be accepted and implemented for determining the minimum flows required to remove Arbitrariness and inconsistencies while prescribing minimum flows. This will help expedite hydro and river valley projects based on a more objective basis. The report is available on Water Quality Assessment Authority website (**http://wqaa.gov.in/**) and should be the basis of working out minimum flows.

SEMINAR ON "INTRODUCTION TO DESIGN OF BLAST RESISTANT BUILDINGS AND STRUCTURES"

A two day seminar on ***"Introduction to Design of Blast Resistant Buildings and Structures"*** was held in New Delhi on 7th& 8th March 2014 and in Mumbai on 10th& 11th March 2014. The seminar was organised Consulting Engineers Association of India (CEAI) and. Indian Association of Structural Engineers (IAStructE) in association with Baker Engineering and Risk Consultants, Inc. USA and Accord Engineering Services, India.

The following experts from Baker Risk discussed the key issues in designing of blast resistant buildings and structures:

Topic	Speaker
1) Introduction to BakerRisk	Mr. Khaled A. El-Domiaty, PE, Principal Engineer, Supervisor, Washington DC Operations
2) Introduction to Blast Resistant Design	
a) Types/Sources of Explosions	
b) How blast design differs from conventional design	
c) Specifying response/damage criteria	
d) Client/consultant roles and responsibilities	
e) Blast Design References	
- Industrial Accidental Explosions	
- Anti-Terrorism Applications	
3) Blast Loads and Effects	Mr. David D. Bogosian, PE, Senior Principal Engineer, Los Angeles Office Manager
a) Explosion Basics and Effects	
b) Ideal Explosions	
c) Non-Ideal Explosions	
4) Introduction to Dynamic Analytical Methods	
a) P-i curves	
b) SDOF Modelling	
c) Finite Element Analysis	
5) Blast Mitigation Techniques Overview	Mr. Khaled A. El-Domiaty
a) Structural Components	
b) Non-Structural Components	

The other speakers who presented some case studies were:

Topic	Speaker
6) Blast Resistant Design of Offshore Oil & Gas Platforms	Mr. Pankaj Mehta, MIEAust, PMP, Managing Consultant, Accord Engineering Services
a) Introduction & Response to Explosion	
b) Energy Principles	
c) Blast Wall Analysis	
d) Non-Linear Plastic Approach	
7) Evaluation of Structures for Beyond Design Basis Impact Loads	Dr. Rajiv Ranjan, Deputy Chief Engineer, Nuclear Power Corporation India Limited
8) Blast Resistant Design of Structures - Some Case Studies	Mr. Rajiv Iyer, Manager Civil, Tata Consulting Engineers Limited

This seminar was aimed at introducing the international best practices for the benefit of engineers in India and focused on the general procedures and practices used in the analysis, design and retrofit of structures subjected to blast loads from accidental, industrial and terrorist explosions.

The seminar was very well received and the participants welcomed the practical approach to explaining the concept and the methodologies.

Attention was also drawn to the fact, that there was migration of population from the rural to urban areas and it was increasing day by day thereby increasing the population density. As per the "*World Urban Areas Population And Density: A 2012 Update*" it was 30,900 persons/sq km for Mumbai, which is second after Dhaka (44,400 persons/sq.km). For Delhi it was 11,500 persons/sqkm whereas Kolkata was 11,900 persons/sqkm.

However, when you consider the footprint and a reasonable un-built space around it, for a high-rise building of 30 floors the population density would be anywhere between 25,00,000 persons/sqkm for a residential building to 75,00,000 persons/sqkm for an office one. The scenario that could result because of any failure could thus be catastrophic in terms of lives as well as its effect on the economy. They drew attention that with the possibility of such a scenario it becomes necessary, in fact imperative that such projects duly consider blast resistant design aspects in their layout and design.

In fact all infrastructure systems need to be also planned and designed to counter such threats. The structures and systems are becoming highly complex and are interdependent for proper functioning. The degree to which each may need to be planned and designed may vary but the ultimate aim would be that as a whole they be robust and resilient enough to withstand any perceived attack in terms of what would be acceptable economically and of course saving loss of lives and property. Therefore, it is essential to be able to define the possible threats and also quantify them so that human safety is provided for. Besides that the important functions need to continue to be operable after an explosion.

Apart from buildings, all the other infrastructure, especially in the urban areas also need to be made less vulnerable. These would inter alia include dams, water treatment plants, transmission pipe lines, storage reservoirs, waste water treatment plants, collection systems, power plants, sub-stations, communications and control centres, transport facilities - especially airports, bridges and tunnels for road, rail, water, waste water, etc. The list could be expanded to include electrical, mechanical, fire detection & suppression, plumbing, elevators, automation & control services as well. Mr. Ashok Basa reminded the audience that Indian engineers were knowledgeable, experienced and capable of delivering complex projects. Mr. Sharad Sabnis cited the

example of the bridge over the Thane Creek for which they had decided to include blast resistant deign as a requirement. He added that interest in such designs would be more frequent in the years to come.

They also brought out that in addition to the structural members, the non-structural elements such as walls, partitions, cladding, flooring, glazing, doors, etc. also need to be given due consideration so that loss and damage due to collapse or fragmentation on account of them is minimized, if not totally eliminated.

The seminars at both the locations, New Delhi (around 80 persons) and Mumbai (around 65 persons) were very well attended right up to the very end and there was lively exchange during the Q&A sessions. The attendees were from government, defence and private sector and they all appreciated that such an important theme was being discussed.

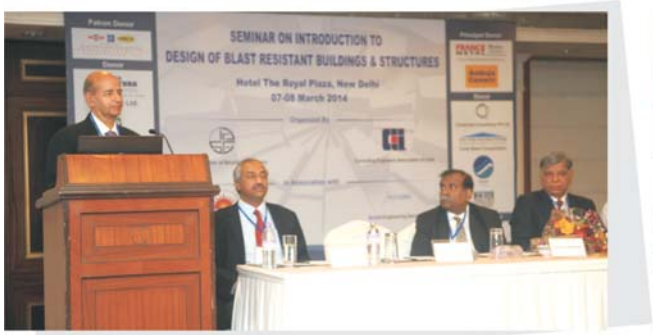
What emerged from the seminar was that when human safety and overall long term economic benefits are at stake, the increase in cost on account of planning and designing for blast resistance should be deemed as a must. There is a need to be able to model the various threat scenarios and the risks associated with them; the relevant Indian code (IS: 4991-1968; reaffirmed 2003) needs to be revisited and updated to incorporate the requirements of physical security design criteria for various facilities, anti-terrorism standards for buildings, design of buildings to resist progressive collapse, design for internal blasts, etc. This required a shift from the emphasis on the strength criteria to a performance based criteria. Guidelines for retrofitting and blast mitigation measures need also to be prepared. For petrochemical, chemical and industrial plants there was also the need to give reference to the guide lines for vapour cloud dispersion models, the associated hazard identification and risk analysis, planning and design for consequence modelling on account of a blast caused by vapour cloud dispersion.

With new high speed computational facilities now available and finite element modelling being the order of the day it was also felt that for important, major and complex structures CFD analysis be done to enable proper simulation and getting meaningful results.

Seminar on Introduction to Design of Blast Resistant Buildings and Structures, 7th and 8th March 2014 at New Delhi

Mr. Ashok Basa, President, Institution of Engineers (India) was the Chief Guest. The photo shows the dignitaries lighting the lamp

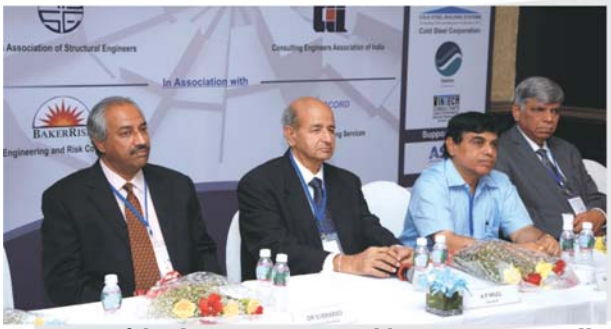
Mr. S C Mehrotra, President, IAStructE, delivering welcome address.



Mr. A P Mull, President, CEAI, addressing the audience

A view of the audience

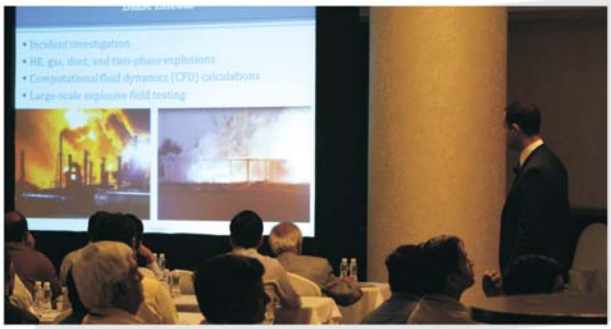
Seminar on Introduction to Design of Blast Resistant Buildings and Structures, 10th and 11th March 2014 at Mumbai



View of the dais - L-R Dr. H Subbarao, Mr. A P Mull, Mr. Sharad Sabnis, Mr. S C Mehrotra

A view of the audience.

A view of the audience



Mr. Khaled A. El-Domiaty explaining Blast effects

SEMINAR ON "CURRENT DEVELOPMENT SCENARIO – CHALLENGES AND STRATEGIES"

The Eastern and North Eastern Region of Consulting Engineers Association of India (CEAI) will be holding a seminar on "***CURRENT DEVELOPMENT SCENARIO – CHALLENGES AND STRATEGIES***" on 23rd and 24th May 2014 alongwith the Industry mouthpiece, Bengal Chamber of Commerce and Industry (BCCI). MAY 23-24, 2014 at Rotary Sadan, Kolkata. The topics that will be discussed are - Analysis of the Present Industry Situation, Long Term Prospects, the Way Forward (Need for Consultants and Constructors to Network, Aggressive Marketing in Emerging Countries, Innovative Solutions with Technology edge); Strategy (Identify and Develop Core Strength Areas, Collaboration with Organizations Abroad, Develop Appropriate Manpower Resource); and Action Plans (Strengthen Marketing Network, Promote Quality in Deliverables, Optimize Cost by Collective Approach).

For more details, please contact:
CEAI-Eastern and North Eastern Region Office
Email: ghoshbos@cal.vsnl.net.in or kolkata@stupmail.com
Phone: 033-22827152, Fax 033-22826538

FIDIC TRAINING PROGRAMME ON "PRACTICAL USE, MANAGEMENT AND ADMINISTRATION OF FIDIC CONDITIONS OF CONTRACT"

FIDIC Training Programme on ***"Practical use, Management and Administration of FIDIC Conditions of Contract"*** is proposed to be held for 2 days each in New Delhi and Mumbai in early August 2014. The programme will be conducted by a FIDIC Accredited Trainer and Case Studies will be discussed by Indian faculties.

The seats for the programme will be limited. Hence, those interested may please register their interest with the CEAI Secretariat and furnish their contact details. The training programme details will be sent to them once they are finalised.

Caution: In India it is only CEAI that is authorised to use the FIDIC logo and also to issue certificates for having attended a FIDIC Training Programme.
Anyone else using the FIDIC logo is liable to face legal consequences.

FIDIC NEWS

FIDIC INTERNATIONAL CONFERENCE 2014

FIDIC 2014 International Infrastructure Conference will be held during 28th September to 1st October 2014 at Royal Tulip, Rio de Janeiro, Rua Aquarela do Brasil, n° 75, São Conrado, 22610-010 - Rio de Janeiro – Brazil.

Registration Fee

Conference registration	FIDIC Members Until 10 August 2014*	Non-members
Participants	**EUR 950** EUR 1200 (incl. Gala Awards Dinner ticket)	**EUR 1200** EUR 1450 (incl. Gala Awards Dinner ticket)
Young Professionals *(40 years of age or less)*	**EUR 700** EUR 950 (incl. Gala Awards Dinner ticket)	**EUR 1100** EUR 1350 (incl. Gala Awards Dinner ticket)

*Discounts are available only to FIDIC members.
For more details about the Conference, please visit **www.fidic2014.org**

FIDIC AWARDS 2014

At the FIDIC Centenary Awards ceremony in Barcelona 2013, FIDIC was delighted to award trophies of excellence for projects and individuals having made a significant contribution over the last 100 years of its history.

The FIDIC Executive Committee has agreed to continue presenting FIDIC Awards on an annual basis to recognise outstanding projects that support and promote FIDIC principles and practices.

Award nominations are open to everyone, and to projects of all types and all sizes. The nominees should be firms or groups of firms that belong to FIDIC Member Associations & Associates, or Affiliates. All submissions should be endorsed by FIDIC Member Associations or Associates based in the country where the project is located.

Project nominations, where appropriate, should demonstrate:

- innovation, quality, and professional excellence
- the principles of transparency and integrity
- sustainability and respect for the environment

Nominated projects should have been in operation for at least one year and should have been completed in the last 10 years.

The completed nominations should reach FIDIC latest by 30th May 2014. The awards will be presented at the FIDIC Awards Ceremony and Gala Dinner on Tuesday, 30th September 2014 at the Copacabana Palace of Rio de Janeiro, Brazil.

Nomination forms and other details about the Awards, please visit FIDIC Award website: http://fidic.org/FIDIC_Awards#sthash.xRzwDKO3.dpuf

REPORT ON FIDIC-ASPAC & TCDPAP BALI CONFERENCE 2014

Held between 2nd and 5th March 2014

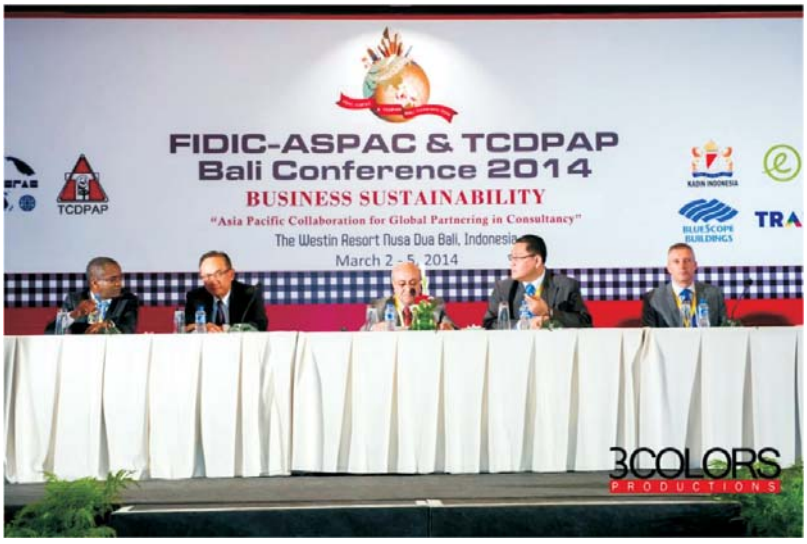
By

Amitabha Ghoshal
Member EC, ASPAC and Chairman Information Committee of ASPAC

FIDIC-ASPAC & TCDPAP joint conference, 2014 was held at Bali, Indonesia – one of the world's most exotic and attractive destinations, - in The Westin Resort Nusa Dua. Setting of the conference was remarkable with top class facilities and gorgeously decorated venues for Technical Sessions as also for Cultural events.

With the theme "Business Sustainability - Asia Pacific Collaboration for Global Partnering In Consulting Engineers", there were focused proceedings by invited speakers specially identified for tuning with the stated theme of each session. The Inaugural Session was graced by high-ranking officials of Indonesia including His Excellency Dr Muhammad Jusuf Kalla, former Vice President of the Republic of Indonesia, Honorable Made Mangku Pastika, Governor of Bali and FIDIC President Pablo Bueno. FIDIC was also represented by Mr. Jae-Wan Lee Vice President of FIDIC, Mr K K Kapila, GC Member.

After the Welcome cocktail Reception at Temple Garden on 2nd March 2014 –(Day-1), Day 2 was the Inaugural Session. The Welcome Address was delivered by INKINDO President, Ir. H Bachder Djohan and the inauguration was done by The Governor of Bali – Mr Made Mangku Pastika. The first Key Note Speech



Mr. K K Kapila Chairing the Plenary Session

was delivered by His Excellency Dr Muhammad Jusuf Kalla, former Vice President of the Republic of Indonesia and the Second Key Note Speech was delivered by The Indonesian State Minister for National Development Planning/Head of Bappenas Prof. Armida Alisjahbana. The economic upsurge of Indonesia and its positive impact on Infrastructure Development was highlighted by both speakers. This was followed by two business sessions on Day-2. Session-1 Asia Pacific Economic Outlook Panel, Session II ASPAC Sub-region : How to do Consulting Engineering Business. Day-3 accommodated Session III – Business Sustainability for Consulting Engineers and Session IV Panel Discussion on ASPAC Collaboration amongst Consulting Engineers for Business Sustainability followed by Closing Ceremony. The 4th day was reserved for visit to some engineering project sites in and around Bali.

ASPAC EC in progress

On the Day-3 there was a **Special Session** for the Young Professional Forum (YPF), which was extremely well attended and five young professionals made presentations on the theme.

At the end of the Day-2, **a meeting of the ASPAC EC** was held. Council Members as also delegates from Member Associations attended the same. A review was done on the performance of ASPAC since the last meeting in Barcelona. YPF Chairman was requested to make a presentation on the development of YPF activities and their future plans.

On the morning of Day-3 TCDPAP Annual Meeting was held, where the issue of merger of TCDPAP and ASPAC were raised tentatively. The DG of CDC Mr Depak Agarwal and Dr (Mrs) Jyoti S A Bhat, Advisor (Scientist-G), Government of India were present. It was emphasized by Indian that TCDPAP had been adopted by UN ESCAP initially but currently runs as a Non Profit Organisation. Government of India only funds CDC to run the TCDPAP Secretariat.

ASPAC EC in progress

Business meetings and Technical Sessions were of high quality. Representatives of Member Associations of different Countries highlighted the problems faced by consultancy fraternity and the lack of respect, the profession is facing at various levels. Consensus was reached that the consultancy profession led by FIDIC, has to formulate a coordinated strategy for reversing this unfortunate trends. This matter will be further discussed during the FIDIC Annual Conference at Rio-De-Janerio and also the next ASPAC Conference to be held at Tashkant in Uzbekistan in May 2015.

Following were the conclusions at the end of Bali Conference:

ASPAC Collaboration for Global Partnership in Consultancy – **The Bali Aspiration**

ASIA PACIFIC (ASPAC) ECONOMIC OUTLOOK

- Over half of the world population
- More than 1/3 of global GDP
- Nearly 40% of global energy demand
- About 1/3 of world exports
- Economics growth in developing Asia expected to pick 6.2 % in 2014 from 6.0 % in 2013 (Lackluster demand from advanced economies likely to hold growth developing Asia)
- Between 2010 and 2040 the region will have added another 1 billion city dwellers – Massive demand for urban infrastructure
- Asia growth is bigger than Developed Countries average
- ADB estimates infrastructure investment needs at about $ 750 billions a year for 2008 – 2020 period.
- Asia will be the world's fastest growing construction region between now and 2020
- The infrastructure sector in Asia is expected to be the fastest growing, most profitable and most open to foreign supplier over the near term, although the relative position of the residential sector has improved
- New spending and funding trend in the construction sector identified
- The market is slightly less optimistic regarding the future prospect for construction in Asia

BOUQUET OF ASPIRATIONS

- Capacity building and competency Enhancement including Engineers mobility, education and certification
- Collaboration (a/symmetric) and Regional Similarities Role in International Collaboration Dynamic
- Preparedness for Export Services and International Collaboration(s)
- Stakeholders respect, local wisdom and technology– Virtues for Sustainable Engineering Consultant Business
- Issues in Returning to Business Sustainability
- Social Responsibility while being Business – Wise Sustainable
- Strengthening young engineers for future leadership and inspiring women in engineering.
- Impact of climate change and other challenges such as Disaster Mitigation, Green Technology, etc
- (Re) Built Trust and Credibility

The overall consensus at the end of the Conference was that this had been the best organized ASPAC conference with very generous hospitality arrangements made by the organizers and INKINDO. ASPAC as an Organisation has found its firm feet as reflected by presence of delegates from twenty countries.

Cultural Function

The Gala dinner was held at a very interesting location for Indians – the site for an iconic project coming up in Bali, called 'GWK' - namely Garuda Wishnu Kanchana, under which they are constructing a 150 Mtr high statue of Wishnu, known to themas "the Hindu God of Sustenance" and Garuda – the mythical bird that Wishnu use as His transport. This monument will be visible from far away islands. This complex is being built with the idea that they will hold Global Religious and Peace Conferences in alternate years and accommodates about 8000 people. The project had been on 'hold' for sometime, but recently restarted by the present President and is now committed to be completed by 2016 with full infrastructure support.

Indonesia proudly recalls its inheritance of Indian mythology and culture. One can see the Chariot of Arjuna with Lord Krishna advising Arjuna on the eve of Mahabharatha war, just outside Denpasar Airport.

Overall the Bali Conference has been an extremely pleasant experience. CEAI was represented by Mr. KK Kapila, FIDIC GC Member; Maj. Jafri, CEAI GC Member; Mr A D S Virk, Vice President of Feedback India, apart from author.

Mr K K Kapila chaired the First Plenary Session and Amitabha Ghoshal made a presentation on 'How To Do Consultancy Engineering Business in South Asia'.

ASPAC is growing in strength with all Member Countries taking keen interest. It is important for CEAI to continue its involvement and take lead role in the development of ASPAC. This will bring benefit to the CEAI members commercially and allow Indian industry to position itself as a leader amongst Asia Pacific Countries.

OTHER NEWS, VIEWS & NOTES

PROCEEDINGS OF THE 19TH ANNUAL CONVENTION AND NATIONAL SEMINAR ON "INFORMATION TECHNOLOGY & CAD IN CONSTRUCTION INDUSTRY" ORGANISED BY INDIAN BUILDINGS CONGRESS ON 6-8 FEBRUARY 2014 AT DELHI

RECOMMENDATIONS

1. The City's development plans should be made available by Municipal Authorities on internet/ website to generate greater public interest and interaction between end users and the planners, thereby creating healthy partnership between them.

2. To overcome the problem of inadequate Tax collection for implementation of their development schemes, Municipalities should make use of Building information Modeling for widening the tax base by correct numbering of properties, detecting minute changes of land use including unauthorized building development and thereafter levy of appropriate tax.

3. Web based Databases for materials, products, components, methods, processes, costs, productivity etc. from different regions and different organisations can go a long way in optimising building designs, choice of specifications and value engineering. Likewise Web based databases of completed projects would help in maintenance of facilities and in efficient planning and design of future projects.

4. Various softwares like ETABS, FORTAN77, eQUEST, SAAP, BIM, Struds, STAAD Pro etc could be used advantageously for computer aided designs of complex civil engineering structures.

5. Specific Softwares in the domain of Information Technology can address particular problems in many areas like geographical/spatial data handling in hydrology, water supply analysis, computer modeling of ground waterflows, network modeling in water distribution systems etc. for optimized solution of planning, design, maintenance and operation. Their use need be encouraged.

6. The traffic signal system at traffic junctions/crossings could be regulated by on-line technology by integrating and coordinating the signal system on a long stretch. Alternatively vehicle actuated system, which automatically assess traffic density and facilitates smooth flow of traffic, could be used.

7. In the building design, lot of stress needs to be given for the design of lighting, firefighting, vertical transportation including group control of elevators etc. I.T. provides readymade solutions to these problems with the help of simulation softwares which enables the designer to see the building performance in different conditions.

8. A building's heating, cooling and equipment system all interact with each other and also with building envelope and building site in complex ways. All these variables could be integrated with computer modeling and simulation tools to produce an intelligent building with suitable Building-Management System to ensure energy conservation.

9. Radar based motion detector and electronic article surveillance system could be installed for effective security depending upon the importance of the buildings which can help to catch any unauthorized person pilfering any material. The article can be taken out only after the electronic infra-red gun deactivates the micro electric tag of the article.

10. IT facilitates effective communication at the construction site at a very nominal cost for an effective Project Monitoring. The Construction Industry could make use of Information Transfer System through internet which provides integrated database for the storage of data to be used by various disciplines including the clients, designers, contractors, suppliers etc.

11. The small and medium construction firms could use cheaper computer Office-softwares such as MS Excel, MS Power Point, MS Access besides MS Word, to cut costs, remain in competition and to improve the quality and time schedule.

12. Construction of any infrastructure project requires the design inputs of Architects, Structural Engineers, Services Engineers, Project Engineers, Contractors, coupled with legal and financial experts. A complete integrated approach towards interaction among different professionals through Enterprise Resource Planning is the only answer to improve quality and efficiency.

13. Establishment of more multi-disciplinary firms consisting of Architects, Engineers and other building professionals would hasten the process of computer-integrated construction.

14. The use of IT to a larger extent could be planned for maintenance of our assets. The on-line complaint maintenance management system along with feedback from clients, improves quality and speed of maintenance activities. Timely maintenance reduces the overall maintenance cost with increase in life of the structure.

15. The applications of information technology through building information modeling results in better quality work, greater speed, and with improved cost effectiveness for the design, construction and operation of buildings throughout the building life cycle.

16. IT softwares like MSP, eDMS, Primavera Project Planner, SQMS, PDMS, PPMS, WAMS, CMIS, BuilderTREND, etc could be gainfully used for effective construction Management of project.

17. IT in the form of internet, GIS, Remote sensing satellite communication etc could be extensively used for Disaster Management by way of appropriate hazard assessment, emergency preparedness, selection of mitigation measures and response actions.

18. Information Technology has progressed tremendously during the last two decades, which has resulted in mushrooming of data/information exchange for products and processes. Bureau of Indian Standards could take up the job of preparation of standards in this field.

19. The concept of e-teaching and e-learning which is relatively new to the country could be adopted in a much larger scale especially in the field of professional education for achieving better quality, higher speed with economy in construction.

AWARD TO MR MAHENDRA RAJ

Mr Mahendra Raj, Governing Council Member of CEAI, received "Hi Aim 2014" award in recognition to the proven contribution to the Hospitality Industry – The Grand New Delhi on 26th March 2014.

SMT. SATYA GOEL MEMORIAL AWARD

Ms. Sangeeta Wij, Governing Council member of CEAI, received the Smt. Satya Goel Memorial Award instituted by the Indian Buildings Congress (IBC) in the memory of late Smt. Satya Goel, wife of Shri O P Goel, Founder President, IBC for her contribution to the building profession with a remarkable achievement.

CDBT CIRCULAR

The circular dated 13th January 2014 issued by CBDT is reproduced below for information.

Circular No. 1 /2014

F. No. 275/59/2012-IT(B)
Government of India
Ministry of Finance
Department of Revenue
Central Board of Direct Taxes

New Delhi, the 13th January'2014

Subject: TDS under *Chapter XVII-B* of the Income-tax Act, 1961 on service tax component comprised in the payments made to residents -clarification regarding

The Board had issued a Circular No.4/2008 dated 28-04-2008 wherein it was clarified that tax is to be deducted at source under Section 194-1 of the Income-tax Act, 1961 (hereafter referred to as 'the Act'), on the amount of rent paid/payable without including the service tax component. Representations/letters has been received seeking clarification whether such principle can be extended to other provisions of the Act also.

2. Attention of CBDT has also been drawn to the judgement of the Hon'ble Rajasthan High Court dated 01.07.2013, in the case of CIT(TDS) Jaipur vs Rajasthan Urban Infrastructure (Income- tax Appeal No.235, 222, 238 and 239/2011), holding that if as per the terms of the agreement between the payer and the payee, the amount of service tax is to be paid separately and was not included in the fees for professional services or technical services, no TDS is required to be made on the service tax component u/s 194J of the Act.

3. The matter has been examined afresh. In exercise of the powers conferred under section 119 of the Act, the Board has decided that wherever in terms of the agreement/contract between the payer and the payee, the service tax component comprised in the amount payable to a resident is indicated separately, tax shall be deducted at source under Chapter XVII-B of the Act on the amount paid/payable without including such service tax component.

4. This circular may be brought to the notice of all officers for compliance.

5. Hindi version shall follow.

(Sandeep Singh)
Under Secretary to Government of India

HIGH COURT ORDER IN BUREAU OF INDIAN STANDARDS (BIS) CASE

Impleadment Applications were submitted in two Writ Petitions in relation to the Bureau of Indian Standards (BIS) case as below:

a) W.P. (C) NO. 4451-52 OF 2006 V Union Of India And Others
Architecture For All And Anr

b) W.P. (C) NO. 1042 OF 2006 V Union Of India And others
Council Of Architecture

The High Court Order given on 06-01-2014 is reproduced below:

"H I G H C O U R T O R D E R - 06.01.2014

1. Both petitions impugn Part-2 especially Clause 12.9 therein and Annexure-A to Part-2 (Administration) of the National Building Code, 2005 as illegal and ultra vires the Architects Act, 1972 and the Bureau of Indian Standards Act, 1986 and seek to restrain the respondents, i.e., Union of India and the Bureau of Indian Standards from giving effect thereto.

2. We have heard the Sr. Counsel for the petitioner in W.P.(C) 1042/2006 and the counsel for the petitioner No.1 and the petitioner No.2 in person in W.P.(C) 4451-52/2006. It is inter alia their contention that Section 10 of the Bureau of Indian Standards Act, 1986 while delineating the functions of Bureau of Indian Standards, nowhere empowers it to formulate a code for the building activity as National Building Code of India, portions whereof are impugned in these petitions, purport to do. It is further their contention that even if the Bureau of Indian Standards is held to be authorized to prepare/draft such a Code, the impugned portions of the said Code are in violation of the Architects Act, 1972 and/or the functions of the Council of Architecture constituted under the said Act.

3. With respect to the first of the aforesaid contentions, it is further contended that the respondent Bureau of Indian Standards, in its counter affidavit in W.P.(C) 1042/2006 has admitted that the said Code is not a statutory document.

4. We have invited the attention of the petitioners to the dicta of the Supreme Court in Kusum Ingots and Alloys Ltd. Vs. Union of India (2004) 6SCC 254 laying down that mere passing of a legislation does not give rise to a cause of action to challenge the constitutionality thereof unless the provisions thereof give rise to civil or evil consequences to the petitioner and that a Writ Court would not determine the constitutional question in vacuum. To the same effect are the judgments in Sanjeev Coke Manufacturing Company Vs. M/s Bharat Coking Coal Limited (1983) 1 SCC147, State of Haryana Vs. State of Punjab (2004) 12 SCC 673 and if we may go so far, of the Full Bench of Nagpur High Court in Shivshankar Vs. State Govt. of Madhya Pradesh, MANU/MH/0154/1951 penned very succinctly by Hidayatullah, J. and in Chandrashekher Pandey Vs. State Govt. of Uttar Pradesh, MANU/U/1049/1992 penned by Justice V.N. Khare.

5. We have, thus, inquired from the Sr. Counsel that if even a statute cannot be challenged without showing any injury, how the petitioner can challenge the Code without showing any injury there from and what is the cause of the action of the petitioners to maintain these petitions. The counsels as well as the petitioner in person fairly admit that there is no cause of action per se. Their grievance however is that some of the smaller municipalities outside Delhi, treating the said National Building Code as The Bible have adopted the same verbatim in their statutes and which statutes are violative of the rights of the architects. They, however fairly admit that those statutes are not challenged in these petitions and those municipalities are not before this Court.

6. The Sr. Counsel for the petitioner in W.P.(C) 1042/2006 under instruction and the counsel for the petitioner No.1 and the petitionerNo.2 in person in W.P.(C) 4451-52/2006, thus, seek to withdraw these writ petitions in the light of the admission in the counter affidavit of the Bureau of Indian Standards that

the said National Building Code, 2005 is without any statutory basis and with liberty to challenge the same as and when the cause of action arises.

7. Of course, the Sr. Counsel for the Bureau of Indian Standards and the counsels for some of the intervening parties controvert the contentions aforesaid, but when constitutionality of even a statute cannot be examined without showing any imminent injury and without there being a case or actual controversy before the Court, the question of entertaining a hypothetical challenge to the National Building Code in vacuum does not arise.

8. We therefore on the statements aforesaid, allow these petitions to be withdrawn with liberty aforesaid, leaving the parties to bear their own costs.

HON'BLE CHIEF JUSTICE
HON'BLE JUSTICE -RAJIV SAHAI ENDLAW
JANUARY 06, 2014"

FIDIC PUBLICATIONS AVAILABLE FROM CEAI SECRETARIAT

1	**FIDIC Contracts Guide** (1st Ed. 2000) (Construction, Plant & Design- Build and EPC/Turnkey Contracts)
2	**Short form of Contract** (1st. Ed.1999) Agreement, General Conditions, Rules for Adjudication and Notes for Guidance
3	**Dredgers Contract (1st Ed 2006)**
4	**Design- Build- Operate (DBO) Contract** (1st Ed 2008)
5	**Guide to Design-Build-Operate Contract** (1st Ed. 2011)
6	**EIC Contractors Guide to the FIDIC DBO Contract**
7	**Plant & Design-Build Contract** (1st Ed:1999).Conditions of Contract for Plant & Design-Build for Electrical & Mech. Plant & for Building & Engg. Works Designed by the Contractor. Gen. Conds; Guidance for the Preparation of Conditions of Particular Application; Forms of Tender.
8	**EIC Contractors Guide to the FIDIC Plant Contract**
9	**EPC/Turnkey Contract** (1st Ed. 1999) Conditions of Contract for EPC Turnkey Projects. General Conditions; Guidance for the Preparation of Conditions of Particular Application; Forms of Tender and Agreement etc.
10	**EIC Contractors Guide to the FIDIC EPC/Turnkey Contract**
11	**Understanding and Negotiating Turnkey and EPC Contracts, 2nd Ed, 2002 by J. A. Huse**
12	**Construction Contract (1st Ed.1999)** Conditions of Contract for Construction for Building and Engineering Works designed by the Employer. General Conditions; Guidance for Preparation of Particular Conditions; Forms of Tender, etc.
13	**Construction Contract MDB Harmonised Ed, June 2010 Version :One-vol. Ref Format**
14	**Construction Subcontract, 1st Ed 2011. For Building and Engineering work designed by the Employer**

15	**EIC Contractors Guide to the FIDIC Construction Contract**
16	**EIC Contractors Guide to the MDB Harmonized Edition of the FIDIC Construction Contract**
17	**Understanding the New FIDIC Red Book,** (2006)
18	**Design-Build and Turnkey (Orange Book) 1st Ed 1995. Reprinted 2011.**
19	**Design-Build and Turnkey (Orange Book) Guide (1st Ed.1996)**
20	**Operation, Maintenance and Training (OMT) - FIDIC Guidelines for the provision of OMT services**
21	**Works of Civil Engineering Construction (Red Book) Part I & II and Supplement (4th Ed. 1987 Reprinted 2011)**
22	**Works of Civil Engineering Construction 4th Ed. (Red Book) Supplement :**
23	**Use of the Red Book (1s Ed 1996) -** A survey on users about contract policy and the Red Book.
24	**Works of Civil Engineering (Red Book) Subcontract 1st Ed Introduction.** Introduction to the FIDIC Conditions of Subcontract for Works of Civil Engineering Construction (1st Ed 1995)
25	**RED Book GUIDE**
26	**FIDIC Form of Contract (3rd Ed. 2005) by N G Bunni.** A guide to the Red Book
27	**Risk & Insurance in Construction, 2nd Ed 2003,** by N G Bunni
28	**Electrical and Mechanical Works 3rd Ed.(Yellow Book):** Conditions of Contract for Electrical and Mechanical Works (3rd Edition 1987; Reprinted 1988)
29	**Electrical and Mechanical Works (Yellow Book): Supplement 1st Ed. :** Supplement to the 3rd Ed. 1987 of Conditions of Contract for Electrical Mechanical Works (1st Ed. 1997)
30	**Electrical and Mechanical Works (Yellow Book) Guide 3rd Ed.** Guide to the use of the FIDIC Contract for Electrical and Mechanical Works (1988), includes Yellow Book conditions
31	**Client - Consultant Agreement (White Book) 4th Ed. 2006.**
32	**Client-Consultant Agreement (White Book) Guide 2nd Ed.**
33	**Model Representative Agreement (1st Ed 2013)**
34	**Joint Venture (Consortium) Agreement, (1st Ed. 1992)**
35	**Guide to the Joint Venture and Sub-consultancy Agreement 1st Ed.**
36	**Sub-Consultancy Agreement (1st Ed, 1992)**
37	**Consulting Engineers and the Environment (1st Ed. 1994) – Guide for Action**
38	**FIDIC Consultant Selection Guidelines 1st Ed 2003**

39	**Sustainable Development in the Consulting Engineering Industry -** FIDIC Sustainable Development World Summit 2002 Agenda 21 report, 2002
40	**Industry as a Partner for Sustainable Development –** FIDIC's UNEP WSSD Sector Report: Consulting Engineering, 2002
41	**EMS Kit :Environmental Management System 2nd Ed**. A Resource Training Kit (2nd Edition, 2001). With overheads
42	**EMS Guide to ISO 14001 Certification / Registration Test.Ed 1998. UNEP/ ICC/** FIDIC Guide to ISO 14001 Certification / Registration: A compliment to the UNEP-ICC-FIDIC Resource Training EMS Kit.
43	**Insurance of Large Civil Engineering Projects** (2004)
44	**Quality Management Guide** : Guide to Quality Management in the Consulting Engineering Industry (2nd Edition. 2001)
45	**ISO 9001:2000 Quality Management Interpretive Guide** (1st Ed. 2001): A Guide to the interpretation & application of the ISO 9001: 2000 Standard for the Consulting Engineering industry
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53	**Standard Prequalification Form** 3rd Ed 2008.
54	**FIDIC Tendering Procedure 2nd Ed**.
55	**FIDICIntegrity Management Guidelines (1st Ed. 2011)**
56	**Quality Based Selection 2011**
57	**FIDIC Procurement Procedures Guide 1st Ed 2011**
58	**Technology Transfer**: Improving Transfer of Technology: Guide for Action
59	**Capacity Building** – Building the capacity of the industry (2001) with five inserts
60	**Engineering Our Future**: Report of the FIDIC Strategic Review Task Force 21 (2004)

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Members are requested to send their subscriptions before May 30, 2014.

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INPUT FROM MEMBERS

Members are requested to send the material for incorporating in the forthcoming issue of View Point before 15th June 2014. The material could inter alia comprise:

- Awards received by an individual/ organization.
- Technical articles

Photographs of current or completed projects (completed in last one year)









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