



$\label{lem:construction} \textbf{FIDIC Global Conditions of Contract for the Construction Industry, Valedictory Address}$

V. Suresh

Chairman and Managing Director, Housing and Urban Development Corporation, New Delhi Summarising the FIDIC contracts seminar held in New Delhi in January 2001

I am happy to address this august gathering at the valedictory session of the International Conference on FIDIC Global Conditions for the Construction Industry. At the outset, let me complement the Consulting Engineers Association of India and FIDIC for organising this important event in India and thank the organisers for granting me the kind opportunity to participate in this memorable occasion.

Construction Sector Overview:

Construction have been recognised as a sector rendering significant contributions to the economy in terms of enhancement of Gross Domestic Product (GDP), income generation and employment generation. Construction activity accounts for more than 50% of the development outlays in India.

There are over 2.5 crores of construction workers in the country classified into unskilled, semi-skilled and skilled levels constituting masons, carpenters, bar benders, plumbers, electricians, tile-layer, glass fitters, metal fabricators, concrete workforce etc. In addition to those directly involved in the construction process, the construction industry also accounts for a large proportion of secondary employment created due to the forward and backward linkages with ancillary industries such as urban infrastructure, construction materials industries, real-estate development etc.

Technological advances are fast making their inroads into construction as a result of the process of global sharing of experience and wider networking. The new world order has impressed upon us the need for a paradigm shift in approach in Construction management and the constituent processes.

Emerging Challenges and Interventions for the Construction Industry:

- Ambiguities at various phases: A major challenge for the Indian Construction industry is the resolution of ambiguities with regard to the roles of the various stakeholders in construction projects. Loosely framed contract conditions are the immediate cause such ambiguities leading to rampant disputes and stoppage of work. The resultant escalation in project cost due to time over-runs has left the country in disadvantageous position in provision of infrastructure and global competition. The time and cost over-runs have often led to abandoning of projects resulting in colossal national loss and legal disputes which are still waging. The need for model contract conditions has been felt in this context leading to sincere efforts from various quarters.
- Risks and Uncertainties: The Construction sector is increasingly prone to risks from uncertainties in market scenario, demand variations, price oscillations, labour unrests, policy environment, political interventions and judiciary dictums. Hence it is essential to identify the potential risks, assess the magnitude and impact and formulate appropriate strategies for tiding over the eventualities. The Construction Industry needs to adopt the SWOT analysis strategy prevalent in business organisations for identifying critical success factors for cashing in on strengths, overcoming weaknesses, making use of the right opportunities and effectively warding off threats.
- Dispute resolution and arbitrations: Disputes during construction represent a major source of time and cost over-runs in projects. Hence there is a need for Alternate Dispute Resolution Mechanisms and the necessary clauses incorporated in the contract documents to prevent the delays and suspension of projects and byepass the longwinding legal process.
- Intellectual Property Rights: In the perspective of compliance with and adherence to the GATT agreement and the directives of the World Trade Organisation, patenting and Intellectual Property Rights in construction sector is an area that has not received adequate attention. This poses a major risk for the developing nations since the global patent holders could demand royalty on the application of innovative technology options and tools in the planning and construction process, leading to increased construction costs and international disputes.





In the light of global experience, Dispute Review Boards (DRBs) or Dispute Adjudication Boards (DAB) for construction projects have been successful in amicably resolving 95 per cent of the disputes, grievances and allegations at their level, thus effecting considerable savings in time, cost and preventing strained relationships. The Dispute Adjudication Boards comprising of single or three member bodies, with a member each from the client and the contractor in addition to an independent expert agreeable to both the parties, are either appointed on permanent basis in Construction Contracts or on adhoc basis in the case of EPC Contracts.

The cases unable to be settled amicably at the DRB level, within 56 days of the issue of notice of dissatisfaction by either party, have to be referred for arbitration under the Rules of Arbitration of the International Chamber of Commerce. As rightly pointed out by Mr. Peter Booen, (Consultant, FIDIC) during the course of the deliberations, the legal remedy should be reserved as the last alternative for resolving the construction disputes. However, the efforts of the Government for legal reforms including the institution of fast-track courts is a welcome initiative and needs to be lauded. The advocates and legal advisors also have an important role to play in construction contracts in ensuring the validity of contract clauses and agreements as admissible evidences in the courts of law.

Further, even the access to traditional, conventional and appropriate materials and technology options could be hindered by the patent rights gained by unscrupulous elements. Hence there is a need for Indian entrepreneurs, construction professionals and activist associations to enter the arena of Intellectual Property Rights to identify the potential opportunities and threats and take remedial action.

Requirements imposed by the New Generation Infrastructure Projects: The new models of private sector participation in the post-liberalisation era are posing new challenges in framing appropriate contract conditions for award of projects. Infrastructure projects characterised by their heavy appetite, prolonged digestion time, partial or nil recourse nature of securities and longer gestation period for funds demands exploration of alternative resource avenues and financing mechanisms such as take-out financing, consortium financing, sub-ordinate debt, cash-flow financing and securitisation of urban infrastructure receivables. The implications on the various parties on account of the risk scenarios calling for Power Purchase Agreements, Escrow mechanisms and Least Present Value of Revenue arrangements, which require a new set of model agreements and specialised conditions also need to be evaluated appropriately.

Indian Initiatives for the Construction Industry

Organisations such as Construction Industry Development Council (CIDC) and Indian Buildings Congress have attempted the framing of Model Contract Conditions relevant to the Indian scenario. The professional associations such as Institute of Architects, Institution of Engineers (I) and the Institute of Valuers have been engrossed in conducting studies, seminars and workshops for improving the efficiency of processes in the construction sector, besides improving the safety, quality, timely completion, project management and customer orientation.

In improving the quality of construction, enhancing the transparency of transactions and bringing in a customer orientation, the rating of projects, developers and contractors has been a significant initiative. CIDC, in consultation with the National Housing Bank and ICRA has taken up an important work of rating of construction sector. ICRA and CIDC have developed a separate set of ratings for Contractors as well as Consultants and are in the process of extending it to Project Owners and Projects.

The increasing emphasis on the facilitator role of the Government has led to increased emphasis on private sector stake in projects in the years following the structural and economic reforms. In the context of unbundling of infrastructure projects through Concessions, Leases, BOO, BOOT, BOLT etc, agencies like National Highways Authority of India, Indian Railways and State level Infrastructure Development Corporations have also taken efforts for preparation of Model Concession Documents for the new generation projects, with the help of professional expertise.

The role of financial institutions in promotion of construction sector deserves special mention. HUDCO, the premier techno-financing institution in the country for housing and urban infrastructure, has pioneered several innovative instruments for giving a boost to the construction industry. The project initialisation funds or project development

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funds for large infrastructure projects are aimed at assisting the agencies in the preparation of detailed and bankable project reports and feasibility studies.

FIDIC Model Contract Conditions

The FIDIC Contract Conditions has been globally popular among the employers, engineers and contractors engaged in international construction projects as the standard bible for contract formulations. FIDIC has put forth considerable efforts in thoroughly revising and expanding the range of the earlier documents published in the late eighties or mid nineties such as the Conditions of Contract for Works of Civil Engineering Construction popular as The Red Book; the Conditions of Contract for Electrical and Mechanical Works and Erection alias The Yellow Book; and The Orange Book viz. the Conditions of Contract for Design-Build and Turnkey Projects. The new global suite of four Standard Forms of Contract published in 1999 applicable to a majority of construction and plant installation projects comprises of:

- The Construction Contract: Conditions of Contract for Construction for Building and Engineering Works
 Designed by the Employer;
- The Plant and Design/BuildContract: Conditions of Contract for Plant and Design-Build for Electrical and Mechanical Plant and for Building and Engineering Works Designed by the Contractor;
- The EPC/Turnkey Contract: Conditions of Contract for EPC/Turnkey Projects;
- The Short Form: Short Form of Contract.

It has been recommended that the Short Form of Contract could be used as the model for conventional contracts of relatively small value, short construction period or involving simple or repetitive work, irrespective of whether the design is provided by the employer or the contractor.

For projects, especially in infrastructure and buildings, where the engineer as the owner's representative is responsible for administering the Contract, monitoring the construction work and certifying payment, with the employer kept fully informed and is authorised to make variations the Construction Contract is recommended. This book being an updation of the former Red Book and is ideal where the payment is done according to bills of quantities (BoQs) or lump-sums for work done.

In case of electrical and mechanical works, including erection on site as well as the recent design-build and turnkey type projects, where the Contractor does the majority of the design as per the outline or performance specifications prepared by the employer's engineer, the Plant and Design Build Contract, which is an update of the Yellow Book and the Orange Book could be used.

In the case of new generation projects with private participation such as BOT or similar models, where the Concessionaire takes up the total responsibility for the financing, construction and operation of the project, the EPC/Turnkey Contract document would be most appropriate. In the EPC (Engineering, Procurement, Construction) contracts and turnkey contracts, in which the Contractor is delegated the total responsibility for the design and construction with the assurance that the contract would be completed within the stipulated cost and execution period, EPC/Turnkey Contract document has been recommended as the ideal guide.

Deliberations of the Conference

This conference at New Delhi is being conducted with the aim of popularising the salient features of the new edition of FIDIC Contract Documents as well as inviting criticisms and suggestions from the practitioners for improving the effectiveness and acceptability.

The inaugural session presided by the President of FIDIC Mr. R. W. Bowes with the keynote address by Mr. Deepak Dasgupta, Chairman, NHAI stressed on the need for the standardisation of contract documents, professionalism in implementation and empowerment of independent engineers. He also touched upon the gradual shift emerging in the role of public agencies in construction sector, reflected in the interface between employer and the contractor and consequently in contract documents. The agencies in the Indian context are moving away from master-servant relationship, briefly taking on the scrutinising engineer role and finally settling for the facilitator role with the appointment of independent contract administrators. The Hon'ble Minister for Law, Justice, Company Affairs and

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Shipping, Mr. Arun Jaitley in his inaugural address, had complemented the Indian construction industry for adoption of international norms and assured all support from the Indian Government.

The various technical sessions of the conference on 20th January had covered the Overview of the FIDIC Documents, The Indian Experience, The ICC Rules for Guarantees and Bonds and the aspects relating of Risk, Force Majeaure and Termination. Today's Deliberations focussed on Claims and Adjustments of Contract Price, Claims, Disputes, Adjudication and Arbitration and the Indian Experiences on the same. The deliberations and the Panel Discussion during the two days have effectively brought out the various perspectives of the Contract conditions, the special aspects and difficulties faced in the Indian context and the relevant inputs or interventions required for making the conditions comprehensive for the Indian scenario.

The first technical session on Introduction to FIDIC Documents chaired by Mr. Chris Hoban (Operations Advisor, World Bank) and co-chaired by Mr. Richard Kell (FIDIC) gave an overview of the FIDIC Documents. Dr. Marshall Gysi (FIDIC) introduced the Short form contract, the Construction Contract, the Plant& Design-Build Contract and the EPC Turnkey Contract in physical and electronic form and discussed briefly on their applications. He appraised the audience that the Guide to Contracts is under preparation and would be available in a weeks time.

Mr. Peter Booen (Consultant, FIDIC), in his detailed presentation, compared and contrasted the various clauses of the four contract documents. He highlighted the user-friendly nature of the new documents with clauses relating to general provisions, the employer's financial arrangements and claims, the engineer's role, the Contractor's obligations, the sub-contractors, the design aspects. He also dwelt at length on the time related stipulations, the measurement and evaluation, variations and adjustments, contract price and payment and termination by employer or the contractor.

The second session chaired by Mr. Ajit Gulabchand (HCC) and Mr. N. Raman (World Bank) discussed the Indian Experience on FIDIC Documents. The key speakers shared the experiences of RITES, Currie & Brown, CPWD, ICT, EIL etc. in the course of their Indian operations on contract conditions, with emphasis on FIDIC documents.

The third session chaired by Mr. D.C. Singhania and Ms. Bindu Saxena commenced with the presentation on ICC Rules for Guarantees and Bonds by Mr. Peter Booen followed by the clauses on Termination, Risk and Force Majeure by Mr. Gordon Jaynes.

The fourth technical session on Claims and adjustments of Contract Price was chaired by Dr. Somdatt (Somdatt Builders) and Mr. Hardeepak Singh (NHAI). Mr. Peter Booen highlighted the subclauses relating to entitlements of contractor and the employer to claims with regard to the eventualities and the implications as per the contract document.

The fifth session on Claims, Disputes and Arbitration introduced brief history of evolution of Dispute Adjudication Board (DAB) as the final authority for resolution of disputes prior to arbitration. In the session chaired by Mr. Andhyarujina (Executive Addtl. Solicitor General) and co-chaired by Mr. Krishnakumar (BHEL), Mr. Gordon Jaynes introduced the new provisions with regard to penalties for neglect of notice requirement, requirements regarding substantiation of claims and the sub-clause governing claims by the employer. He also described the new clauses relating to disputes and arbitration and hoped that the international development banks such as World Bank would expedite the recognition of the 1999 Edition of Contract Conditions.

The sixth technical session on Indian Experiences in Claims, Dispute Resolution and Arbitration was chaired by Mr. K.P. Singh (RITES) assisted by Mr. G. Viswanath (NOIDA Toll Bridge Corporation). The key speakers touched upon specific projects where the services of Dispute Review Board (DRB) were invoked to ensure the smooth execution of the project with the potential advantages in project bidding, implementation and management.

The Panel discussion has brought out the doubts, grievances, suggestions and aspirations about the new draft of the FIDIC Contract Conditions. It is expected that the extensive deliberations of this conference would lead to the necessary revisions and incorporation of clauses specific to the Indian context in the light of experiences. I have no

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doubt that the wider adoption of the FIDIC contract conditions for international projects in the country would lead to a trickle-down effect in the contemporary contracting scene with application of the relevant clauses with necessary adaptations.

Engineering Our Future

Borrowing the terminology with due courtesy to FIDIC, we are on the path for rewriting the equations of the employer-engineer-contractor interfaces in the construction industry. Process Re-engineering for Consultancy and Implementation of project is the apparent need of the hour at the dawn of the new millennium. There is a need for creation of a new breed of Project Managers and Construction Engineers who are well aware, sensitive and responsive to the safety aspects in construction. It is also felt that specialised training in Financial Engineering and Construction Contracting should be imparted at the institutional level, in addition to teaching the core subjects of architecture, engineering, planning and management. Hence there is a need for increased Industry-Academia interface in the Construction Sector. The professional associations should take a more active role in wider dissemination of the contract conditions and develop clauses appropriate to the Indian context to supplement the same.

We are thankful to FIDIC and the Consulting Engineers Association of India for organising this International Conference. The honourable speakers, the Chairpersons and Chief Guests require special praise for enlightening the participants on the various aspects of the Contract Conditions and its implications in the Indian context. We are also extremely grateful to the distinguished delegates, for their extremely valuable inputs, which would go a long way in finding wider coverage and increased acceptance for the FIDIC Contract Conditions in the Indian Construction arena.

