

# “CIDC Is Working Towards The Introduction Of... Artificial Intelligence In The Indian Construction Sector”



*Dr. P R Swarup shares his views with Civil Engineering and Construction Review, on the growth and future of the Indian construction sector, along with CIDC's initiatives and efforts towards it.*

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## Dr. P R Swarup

Director General

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Construction Industry Development Council

[www.cidc.in](http://www.cidc.in)

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**C**ivil Engineering & Construction Review: Since its inception in 1996, Construction Industry Development Council (CIDC) has been working towards making the Indian construction industry more professional and competitive. What benchmarks has CIDC established?

**P R Swarup:** As the apex body for construction in India, various wings and associates of Construction Industry Development Council (CIDC) have established several benchmarks. The milestones achieved include:

- Recognition of the construction sector as an industry.
- Setting up the first Arbitration and Dispute Resolution Centre for Construction Contracts.
- Development and application of systems for construction financing, banking and taxation.
- Development and implementation of grading system.
- Networking with national and international construction bodies.
- Establishing a construction equipment bank.
- Development of insurance cover/investments for construction sector projects.
- Development of RBI approved Harmonized Eligibility Criteria for lending to construction entities.
- Recipient of Golden Peacock National Training Award (2007-08) for the initiative “Holistic Human Resource Development (HHRD) for the Marginalized Segment of Indian Society”.
- Initiating and organizing setting up of institutions to meet the challenges and opportunities thrown up in the era of Globalization and WTO. Initiatives for mutual recognition under Washington Accord are a case in point.

- Inclusion of a prequalification condition in NHAI's tender documents, stating a minimum of 5% of trained and certified workers to be employed to be eligible for any of the bid invited by NHAI.
- Contract clause introduced by Military Engineering Services for the mandatory employment of 25% trained and certified workforce in all contracts.
- CPWD, Delhi PWD, DMRC, Engineering Projects (I) Ltd., ONGC and various other PSUs introduced contract clause 19K, making it mandatory for the contractor to deploy not less than 20% of total skilled/semi-skilled workers in each trade, at any stage of work.
- Govt. of Andhra Pradesh (vide G.O.Ms.No.61 dated 11-04-2000 issued by Transport, Road & Buildings (R.III) Department) has introduced a voluntary cess of 0.25% to be deducted from the bill of all the civil contractors; this amount is deducted for training and certification activities of construction workers.
- Ministry of Labour (vide Office Order Ref No. DGET-17/1/5/2001-PCT(Pt) dated 08/05/2003) has authorized CIDC as the nodal agency for certification of construction workers under their scheme of “Certification of skills of workers in the Informal Sector” during the 10<sup>th</sup> Five Year Plan.

Further, to eliminate the time and cost overrun in execution of construction projects, the Contracts

Management Systems developed by CIDC were well-adopted by Ministry of Statistics, Planning and Programme Implementation, and issued a set of guidelines on Contract Management System and harmonized bidding condition for domestic construction contracts on November 7, 2001. Since then, CIDC is helping project authorities to revamp their Contract Management Systems.

**CE&CR: How do you see the current construction scenario in India? And in the next five years, how do you see the growth and development of the Indian Construction Industry?**

**P R Swarup:** Like the rest of the economy, the construction sector in India is facing a challenging time with huge amount of funds stuck in disputes and with the banks unwilling to lend due to NPA issues, bold decisions need to be taken to bring about a virtuous cycle. CIDC is in touch with various authorities to help in this effort.

The challenges of the near future lie in the state-of-the-art systems in construction industry. With 4 lac crore worth of assets requiring major repairs and retrofitting, CIDC has taken an initiative with BIS, various State Government and the industry, who redress the issue through advance systems and methodologies, including the use of drones. CIDC is also working towards the introduction of digital technologies including artificial intelligence in the Indian construction sector.

**CE&CR: What steps is CIDC taking to achieve sustainable construction efforts?**

**P R Swarup:** CIDC is relentlessly working towards achieving the target of sustainable construction. Keeping in view the National Schemes like 'Make in India', 'Skill India', 'Swachh Bharat', etc., CIDC is approaching various State Government, Departments and PSUs for the following:

1. Construction of Toilets in rural hinterland.
2. Training and Human Resource Development programs for Senior Administrative and Technical Officers.
3. Manpower planning studies/Strategy formulation including business process reviews/Detailed Design and project preparation.
4. Testing, Certification and Training of Unskilled Workers engaged in construction activities.
5. Procurement Process Review and streamlining — Preparation of standard contract clauses/Works Manuals—amendment to existing chapters and documents.
6. Development of Construction cost indices/Schedule of rates/ preparation and provision for its revision.
7. Independent Quality Assurance of Construction.

8. Project Management Consultancy.
9. System for monitoring, quality checking and evaluation of the work done.
10. Organizing Seminars/Workshop for all stakeholders.

**CE&CR: CIDC organized a mega skills camp at CPWD Training Institution, Ghaziabad in fulfilment of clause 19K. In addition to this, what efforts is CIDC making to achieve skill development in the field of construction? Also, has the body agreed to any new partnership deals?**

**P R Swarup:** CIDC has signed a Memorandum of Cooperation with Central Public Works Department (CPWD), which has a current workload of Rs. 2,00,000 crores across the country, in the context of Skill India initiative and the provisions of clause 19K of CPWD, GCC. Under this MoC, CIDC shall provide capacity and institution building support to the existing business process of CPWD, along with supporting CPWD in this Pan India initiative.

In addition, CIDC is working relentlessly to achieve skill development in the field of construction, including following-

- i. Since the last five years, **CIDC** and **Vikas Institute of Engineering & Technology (VIET)**, Gorakhpur jointly organize a '**Talent Search Competition**' for the students of around 200 schools and colleges of 10 major districts of eastern UP. The main objective of this yearly event is to gauge the engineering and scientific aptitude of the higher secondary students, and to appreciate and encourage their talent. The competition is conducted in two levels: junior level for class 10 students and senior level for class 12 students.
- ii. To propagate and promote the good practices of work in the field of concrete construction, CIDC has signed a Memorandum of Understanding (MoU) with American Concrete Institute (ACI).
- iii. Launched new program 'Building Construction & Real Estate Management Program (BCREMP)' in association with Blueshift Education and Training Private Limited, Mumbai (CIDC partner institute). This is a modular programme consisting of 6 modules (duration of 2-2.5 months per module), which the candidate can pursue by completing course modules at his/her convenience.
- iv. To streamline developmental needs of the construction industry and to implement its development and Holistic Human Resource Development (HHRD) agenda, CIDC entered into a MoU with 15 engineering colleges of Andhra Pradesh. These MoUs were facilitated by the Andhra Pradesh Real Estate Regulatory Authority. This initiative has opened new

employment opportunities for young engineering graduates. All these colleges are now working as CIDC affiliated training centres for different employment oriented skills related to the construction industry.

- v. CIDC is working with University of Texas of Arlington (UTA) for educational cooperative programs. This initiative shall assist various partner institutions of CIDC, in providing world class education to their students. It will also assist the students of CIDC programs to benefit from this initiative. The details are as follows:
  - Cooperation on Establishing Vocational University
  - Assistance to UTA for admissions from Indian Engineering Colleges
  - Joint educational program proposals
  - Distance Education program proposals
  - Joint Research programs funded by NSF/other granting organizations from the US
  - Honoris Causa PhD/Titles from UTA to identified senior people
- Adjunct Faculty nominations
- Joint Events at UTA
- vi. CIDC signed a memorandum of understanding with the Power Sector Skill Council (PSSC). The main aim of this MoU is to promote the cause of skill development of existing and prospective workmen in the power sector and creating gainful employment opportunities for them. The programme will benefit the regular, outsourced employees as well as those employed by contractors of power companies.
- vii. CIDC also signed a MoU with Kirorimal College, University of Delhi, to conduct different training programmes for the trainers and students in the area of entrepreneurship skills and education in the construction sector. The primary objective of this MOU is to enable CIDC and KMC to identify mutual collaboration opportunities bringing together the strength of both towards sustained development of construction skills and education, aimed at enhancement of self-employment opportunities. ■